Journal of Human Sexuality

The Journal of Human Sexuality is an academic, peer-reviewed journal, an official publication of the National Association for Research and Therapy of Homosexuality (NARTH).

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Editor's Comments

The National Association for Research and Therapy of Homosexuality (NARTH) is a professional and scientific organization founded in 1992. Its mission is to promote and ensure a fair reading and responsible reporting of scientific research about the factors that contribute to and/or co-occur with homosexuality and that allow psychological care to be effective for those with unwanted homosexuality. NARTH upholds the rights of individuals with unwanted homosexual attractions to receive competent professional mental health care and the rights of professionals to offer that care.

In 2009, NARTH launched the *Journal of Human Sexuality (JHS)* in service of its mission and as a way of presenting, encouraging, and producing quality clinical and scientific scholarship on these topics. (A summary of volume 1 may be viewed online at http://www.narth.com/docs/journalsummary.html.) The second volume of *JHS* (http://narth.com/2011/02/volume-2-of-human-sexuality/) adopted a more traditional journal format and included peer-reviewed papers from a variety of authors as well as several book reviews. Like volume 2, the third volume of the *Journal of Human Sexuality* includes peer-reviewed articles and book reviews.

In addition, volume 3 contains a new section, "Official Statements of NARTH." This section documents attempts by NARTH to respond to initiatives regarding the right to receive and to offer professional care for unwanted same-sex attractions. These initiatives include those from state (California Association for Marriage and Family Therapists) and national (American Psychological Association) mental healthcare professional associations and from the British Medical Association.

Authors interested in submitting papers for future volumes should contact the editor at 1-888-364-4744 or via e-mail at info@narth.com.

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Editor, *Journal of Human Sexuality*

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Homosexual Couples and Parenting:

What Science Can and Cannot Say

by A. Dean Byrd, PhD, MBA, MPH[7]

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Abstract

Relatively little empirical research has been done on homosexual parenting. Although there is a dearth of methodologically sound studies, the literature provides evidence of significant differences between heterosexual and homosexual parenting. While more research is needed in this area, current literature identifies differences in child-rearing, relationship dynamics, mental health, relationship stability, and physical health between heterosexual and homosexual parents, differences that support the position that living in a homosexual family structure may not be in the best interest of a child.

Homosexual Couples and Parenting: What Science Can and Cannot Say

Introduction

"All family forms are not equally as helpful or healthful for children. More than two decades of research demonstrate that children do better in a home with a married mother and father" (Byrd, 2010, p. 106). At the same time, the intended adoption of children by homosexual couples has forced to center stage the issue of homosexual couples and child-rearing. Recently, advocacy groups have touted the idea that children reared in homes of homosexual couples not only face no challenges but actually may be better overall than if they were reared in homes with dual-gender parents (Biblarz & Stacey, 2010). Though such advocacy seems illogical and at odds with the abundance of peer-reviewed research, the civil rights of homosexual couples—with an activist backdrop of politically correct words like *tolerance, diversity,* and *nondiscrimination*—nevertheless seems more important than what is in the best interest of the child.

It is important to note that there is a dearth of rigorous research on children raised by homosexual couples. Even the research studies on lesbians and child-rearing are basically restricted to children who were conceived in a heterosexual relationship and whose mothers later divorced and self-identified as lesbian. But what of the research on children reared by lesbian couples, even with these caveats? Are there differences in outcomes? Are there risk factors for harm? What about children reared by gay men? What can science really say about homosexual couples and parenting?

Homosexual Couples and Child-rearing

Close scrutiny of many of the studies on homosexual couples and child-rearing provides some interesting data, more appropriately described as problems with the research. In their excellent review of the research, Lerner and Nagai (2000) concluded:

> The claim has been made that homosexual parents raise children as effectively as married biological parents. A detailed analysis of the methodologies of the 49 studies, which are put forward to support this claim, shows that they suffer from severe methodological flaws. In addition to their methodological flaws, none of the studies deals adequately with the problem of affirming the null hypothesis, of adequate sample size, and of spurious non-correlation. (p. 1)

The critique of the research on homosexual parenting completed by Williams (2000) arrives at essentially the same conclusion and goes a step further. In his review of the Golombok, Spencer, and Rutter (1983) and the Golombok and Tasker (l996) studies, both of which followed children of lesbian and heterosexual parents into adulthood, Williams noted that the latter study found that children of lesbian parents were significantly more likely to have both considered and actually engaged in homosexual relationships. This finding did not seem particularly interesting to the researchers.

Williams found that other omissions were made by researchers who conducted research in these studies as well. Huggins (1989) found a difference in the variability of self-esteem between children of homosexual and heterosexual parents. While Huggins did not test for significance, Williams reanalyzed the data and found the differences to be significant. Williams noted that Patterson (1995) found similar differences and left them unreported. Likewise, Williams noted that Lewis (1992) found social and emotional difficulties in the lives of children of homosexual parents, but such data did not seem to find its way into her conclusions (Williams, 2002).

Perhaps the most significant study to be published within the last few years came from Judith Stacey and Timothy Biblarz (2001). Stacey, the former Streisand Chair of Gender Studies at USC and currently at NYU, conducted a meta-analysis that contradicted nearly twenty years of studies indicating that there were no differences between children reared by heterosexual couples versus those reared by homosexual couples. The findings of these authors included the following (Stacey & Biblarz, 2001):

- Based on sex-typed cultural norms, daughters of lesbian mothers more frequently dress, play, and behave in gender-nonconforming ways when compared with daughters of heterosexual mothers.
- Sons of lesbian mothers behave in less traditionally masculine ways in terms of aggression and play. They are also more apt to be more nurturing and affectionate than their counterparts in heterosexual families.
- One of the studies indicated that a significantly greater proportion of young adult children raised by lesbians had engaged in homosexual behavior (six of twenty-five) when compared to those raised by heterosexual mothers (none of the twenty).
- Children reared by lesbian mothers were more likely to consider a homosexual relationship.
- Teenage and young adult girls reared by lesbian mothers were more sexually adventurous and less chaste than girls reared by heterosexual mothers. Sons reared by lesbian mothers were less sexually adventurous and more chaste than boys reared by heterosexual mothers.

Stacey and Biblarz (2001) reported that "the adolescent and young adult girls raised by lesbian mothers appear to have been more sexually adventurous and less chaste . . . in other words, once again, children (especially girls) raised by lesbians appear to depart from traditional gender-based norms while children raised by heterosexual mothers appear to conform to them" (p. 171).

This "gender flexibility" on the part of lesbian parents finds support in a number of other research studies. Patterson, Sutfin, and Fulcher (2004) found that lesbian parents were less traditional in the gender role expectations for their children. Sutfin, Fulcher, Bowles, and Patterson (2008) concluded that lesbian mothers were significantly more likely to value and hold less traditional gender role attitudes than their heterosexual

counterparts. Further, these researchers found that parental attitudes predicted children's gender role attitudes. Hoeffer (1981) studied maternal toy preferences for sons and daughters and found that heterosexual mothers preferred more masculine toys for their sons and more feminine toys for their daughters when compared to lesbian mothers. And Green, Mandel, Hotvedt, Gray, and Smith (1986) found that lesbian mothers were more likely than heterosexual mothers to encourage their daughters to play with trucks (60% versus 29%) and less likely to encourage their sons to play with trucks (30% versus 73%). The research can be summarized as follows: Lesbian mothers tend to have a feminizing effect on their sons and a masculinizing effect on their daughters.

These differences between homosexual and heterosexual parents need to be further analyzed as to how they may impact a child's quality of life. At present, *gender nonconformity* is the factor that the literature agrees best predicts the development of future homosexuality. For example, Rekers (1995) states, "Gender nonconformity in childhood may be the single common observable factor associated with homosexuality" (p. 19). And Hamer and Copeland (1994) conclude:

> Most gay men were sissies as children. Despite the provocative and politically incorrect nature of finding in that statement, it fits the evidence. In fact, it may be the most consistent, well-documented and significant [in] the entire field of sexual-orientation research and perhaps in all of human psychology. (p. 166)

The findings that there are significant differences in gender nonconformity between children of heterosexual and homosexual parents is a significant point absent from the current scholarly debate. One possible conclusion based on the available evidence is that children reared by homosexual parents may be more likely to develop a homosexual identity. While such a concern is not irrelevant to a child's future health and functioning, this issue admittedly is "politically incorrect" for much of the current

social and behavioral science research establishment. Overall, more rigorous research and methodologically sound evidence are needed in order to clarify the reliability and meaning of the findings cited above,

Homosexual Relationships Differ from Heterosexual Relationships

The notion that there are no differences between homosexual and heterosexual relationships finds little support in the literature. And those differences must be considered when the best interest of the child standard is applied to the placement of children.

In fact, the data support the conclusion that homosexual relationships differ in significant ways from heterosexual relationships. Promiscuity is not a myth among gay men. Rotello (1997), a gay author, noted, "Gay liberation was founded . . . on the sexual brotherhood of promiscuity and any abandonment of that promiscuity would amount to a communal betrayal of gargantuan proportions" (p. 112).

Rotello's perception finds support in the literature. Bell and Weinberg (1978) found that 75% of white gay men had sex with more than 100 different males during their lifetime; 15% claimed to have had sex with 100–249 partners; 17% claimed to have had sex with 250–499 partners; 15% claimed to have had sex with 500–999 partners; and 29% claimed to have had more than 1000 male sex partners. Subsequent to AIDS, the average of six different partners per month decreased to four partners per month (McKusick, 1985). More recently, the Centers for Disease Control (CDC) (1999) reports that from 1994 to1997, the percentage of gay men reporting multiple partners and unprotected sex increased from 13.6% to 33.35%, with the largest increase among men under the age of twenty-five.

Monogamy is usually defined as sexual fidelity. Perhaps the most extensive study on sexual fidelity ever done was conducted by Robert Michael et al. in 1994. These researchers found that the vast majority of heterosexual couples were monogamous while the marriage

was intact. Ninety-four percent of married heterosexual couples and 75% of cohabiting couples had only one partner in the previous twelve months (Michael et al., 1994).

In stark contrast, an extensive study on homosexual relationships was conducted by McWhirter and Mattison in 1984. *The Male Couple* reported on an in-depth study designed to evaluate the quality and stability of long-term homosexual couplings. The study was actually undertaken to disprove the reputation that gay relationships were not so dissimilar to heterosexual relationships. The authors themselves are a homosexual couple, one a psychiatrist and the other a psychologist. After much searching, they were able to locate 156 couples who had been in relationships from one to thirty-seven years. Two-thirds of the respondents had entered the relationship with either the implicit or the explicit expectation of sexual fidelity. But the results demonstrated that of the 156 couples, only seven had been able to maintain sexual fidelity. Furthermore, of the seven couples who had maintained sexual fidelity, none had been together for more than five years. In other words, the researchers were unable to find a single male couple that was able to maintain sexual fidelity for more than five years (McWhirter & Mattison, 1984).

McWhirter and Mattison (1984) admitted that sexual activity outside the relationship often raised issues of trust, self-esteem, and dependency. However, they concluded that the "single most important factor that keeps couples together past the 10 year mark is the lack of possessiveness they feel. Many couples learn very early in their relationship that ownership of each other can become the greatest internal threat to their staying together" (p. 256).

Referring to the McWhirter and Mattison study, Peplau et al. (2004) noted that these authors found that

> 73% of their male couples began their relationship with an understanding, sometimes explicit, sometimes implicit, that the relationship would be sexually exclusive. Yet, 100% of those couples who had been together 5 years or longer

> had engaged in extradyadic sexual relations. Thus, it appears that even those gay men who start a relationship with the intentions of being monogamous either change their intentions or fail to live up to this standard. (p. 357)

Similarly, Hoff et al. (2009) investigated agreements that gay male couples make about sex with outside partners in relationship to serostatus differences. These researchers report, "Monogamous agreements were reported by 56% of the participants in concordant-negative, 47% in concordant-positive and 36% in discordant relationships" (p. 25). According to these researchers, the remaining participants in this study agreed to allow sex with outside individuals in some form. The expectation and likelihood of sexual behaviors with persons in addition to one's partner in a committed relationship hardly offer an adopted—or even biological—child the stability he or she needs for optimal development (Byrd, 2010).

Hoff and Beougher (2010) further studied sexual agreements among gay male couples. From qualitative interviews, the researchers reported a wide range of agreements that were reflected along a continuum accompanied by rules regarding the conditions and frequency and with whom outside sex was permitted. Interestingly enough, HIV prevention was not a primary factor for any couple.

A soon-to-be-released study reported by Scott James (2010) in the *New York Times* noted that of 556 male couples who had been together for three years, about 50% had engaged in sex outside their relationship. Study author Collen Hoff says, "With straight people, it's called affairs or cheating … but with gay people it does not have such negative connotations" (paragraph 7). Such relationships are often referred to as "fidelity without monogamy"—in other words, there is a belief among gay people that outside sexual relationships can be helpful if they occur with consent, and these outside sexual relationships still allow for a definition of "fidelity" to be applied to the primary relationship.

Referring to the nonmonogamous nature of many gay male relationships, Stacey (2005) notes, "Although the greater capacity and license that many gay men enjoy to separate physical from emotional intimacy has obvious costs, it also facilitates creative departures from the heteronormative regime of conjugal monogamy" (p. 1927). Stacey seems to be saying that the gay culture may change marriage into an institution other than the "heteronormative regime of conjugal monogamy."

A more recent study conducted by Dr. Maria Xiridou and her colleagues at the Amsterdam Municipal Health Service and published in the journal *AIDS* (2003) found that gay relationships last 1.5 years on the average. The study also found that gay relationships involve an average of eight partners per year outside those relationships.

While promiscuity among lesbians is less extreme, a recent Australian study revealed that lesbians were 4.5 times more likely to have had more than fifty lifetime partners than were heterosexual women, demonstrating not only the lack of stability in lesbian relationships but the bisexually behaving nature of those relationships (Price, 1996). Other research has been supportive, indicating that as many as 93% of lesbians report a history of having sex with men (Ferris, 1996).

In fact, a significant portion of the gay community questions whether adapting to marriage is a betrayal of those who fought at Stonewall. In an article in the *New York Times* (July 30, 2006), gay activists such as Bill Dobbs question whether monogamy is normal and wonder why gay men and lesbians are buying into an institution (marriage) they see as rooted in oppression. Significant questions emerge from such data, such as the impact of nonmonogamous relationships on children. Does the promiscuity that exists particularly in gay male relationships impact or impair parenting skills? And in what way would such family environments, arguably and predictably less stable because of such promiscuity, prove a good enough, let alone ideal, home for children—especially when the gold standard for children is being raised by their own, committed, married mother and father (Byrd, 2010)?

Mental Health, Physical Health, and Longevity of Homosexual Men and Women and the Stability of Homosexual Relationships

Reasonably and arguably, every adoptive parent ought to have the minimum level of medical and physical health required to be able to satisfactorily care for and raise any adopted children to the age of majority. Unfortunately, historical and current research provides significant concerns about the mental health, physical health, and longevity of homosexual individuals, as well as stability of homosexual relationships. The data cannot be applied to all homosexual individuals, but the findings are so significant that they cannot be ignored when considering the placement of children.

Mental Health

The mental health data raise concerns. In the *Archives of General Psychiatry,* Herrel et al. (1999) concluded, "Same-gender sexual orientation is significantly associated with each of the suicidality measures. ..... the substantial increased lifetime risk of suicidal behaviors in homosexual men is unlikely to be due to substance abuse or other psychiatric co-morbidity" (p. 867).

Fergusson et al. (1999) concluded, "Gay, lesbian and bisexual young people were at increased risks of major depression . . . generalized anxiety disorder ..... conduct disorder . . . nicotine dependence . . . multiple disorders . . . suicidal ideation .....suicide attempts" (876). The researchers further noted that these "findings support recent evidence suggesting that gay, lesbian and bisexual young people are at an increased risk for mental health problems, with these associations being particularly evident for measures of suicidal behavior and multiple disorder" (p. 876).

Commentaries on this research were offered by some of the most prominent investigators in the field. J. Michael Bailey (1999) noted:

> These studies contain arguably the best published data on the association between homosexuality and psychopathology, and both converge on the same unhappy

> conclusion: homosexual people are at a substantially higher risk for some forms of emotional problems, including suicidality, major depression and anxiety disorder. Preliminary results from a large equally well-conducted Dutch study generally corroborate these findings. (p. 883)

Bailey offered the following possible explanations:

- "… increased depression and suicidality among homosexual people are caused by societal oppression."
- "Homosexuality represents a deviation from normal development and is associated with other such deviations that may lead to mental illness." Since evolution naturally selects for heterosexuality, Bailey indicates that homosexuality may represent a "developmental error," noting that some research links homosexuality to "developmental instability."
- "Increased psychopathology among homosexual people is a consequence of lifestyle differences associated with sexual orientation . . . such as behavioral risk factors associated with male homosexuality such as receptive anal sex and promiscuity" (p. 884).

Bailey concluded, "it would be a shame if sociopolitical concerns prevented researchers from conscientious consideration of any reasonable hypothesis" (p. 884). And in his own commentary on the Fergusson et al. (1999) and Herrel et al. (1999) studies, Gary Remafedi (1999) noted, "There can be little doubt about the conclusion that homosexual orientation is associated with suicidality, at least among young men" (p. 886).

In another commentary, Richard Friedman (1999) noted, "There is clearly a need for additional investigation of associations between sexual orientation, suicidality and psychopathology. Collaborative research between developmentally oriented clinicians,

descriptive psychiatrists and epidemiologists might help distinguish between causes and consequences of these associations" (p. 888).

These studies were corroborated by another study conducted by Sandfort et al. (2001). The researchers concluded that "homosexual men had a much larger chance of having had a 12-month and lifetime bipolar disorders, and a higher chance of having had lifetime major depression..... the greatest differences were found in obsessive-compulsive disorder and agoraphobia. The 12-month prevalences of agoraphobia, simple phobia and obsessive-compulsive disorder were higher in homosexual men than in heterosexual men" (p. 87).

Lesbians reported a substantially higher rate of substance abuse disorders during their lifetime than did heterosexual women, and "on a life time basis, homosexual women had a significantly higher prevalence of general mood disorders" (p. 87).

This Sandfort et al. (2001) study was significant from several perspectives. First, it was a large study of 7,000 individuals and avoided convenience samples with their potential for bias. Of the individuals surveyed, 2.8% of the men and 1.4% of the women were classified as homosexuals. The authors noted, for example, that the lifetime prevalence for two or more psychiatric disorders for men who engaged in homosexual behaviors was 37.85% versus 14.4% for men who did not engage in homosexual behaviors. For women engaging in homosexual behaviors, the rate for two or more psychiatric disorders was 39.5% versus 21.3% for women not engaging in homosexual behaviors (Sandfort et al., 2001).

Another important consideration of this study is that the hypothesis that society's oppression of homosexual people is the cause of their increased incidence of psychiatric disorders is not supported . This study was conducted in the Netherlands, which is arguably one of the most gay-affirming and gay-tolerant countries in the world.

Higher suicide rates among homosexual individuals have been further substantiated in the research literature. In a study reported in *The Washington Advocate,*

Lisa Lindley (2002) recruited 927 lesbian, gay, bisexual, and transgendered students for her study. She found that 62.1% of lesbians had considered suicide compared to 58.2% of gay men. In addition, 29.2% of lesbians had actually attempted suicide and 28.8% of gay men had attempted suicide (Lindley, 2002). After reviewing the research,Whitehead (2010) concluded that homosexual men on average were six times as likely to be suicidal as heterosexual men (even after controlling for the effect of increased prevalence of mood disorders and other comorbidity), while lesbian women were twice as likely, a difference accounted for by their increased risk for depression (p. 139, 156–158).

Recently, Mathey et al. (2009) examined the association between relationship markers of sexual orientation and suicide in Denmark. They concluded that the "risk for suicide mortality was associated with this proxy indicator of sexual orientation, but only significantly among men. The estimated age-adjusted suicide mortality risk for RDP men [registered domestic partnerships] was nearly 8 times greater than for men with positive histories of heterosexual marriages and nearly twice as high for men who never married."

Cochran et al. (2003) investigated the prevalence of mental disorders, psychological distress, and mental health services use among lesbian, gay, and bisexual adults in the United States. These researchers concluded that gay and bisexual men had a higher prevalence of depression, panic attacks, and psychological distress than heterosexual men. And lesbian-bisexual women had a greater prevalence of generalized anxiety disorder than did heterosexual women. These findings provide good evidence for the existence of sexual orientation differences in patterns of morbidity (Cochran et al., 2003). Again, as mentioned above, the significantly increased experience of serious mental and emotional difficulties—including suicidality and mood disorders—among homosexual men and women, compared with heterosexual men and women, raises reasonable doubts about their general and particular suitability for adopting and raising children, whose best interests presumably are most important.

Past Sexual Molestation

Studies on sexual molestation and its relationship to homosexuality suggest that homosexual men and women report having experienced sexual molestation and abuse significantly more often than heterosexual men and women. Shrier and Johnson (1988) found that homosexually assaulted males identified themselves as subsequently homosexual seven times as often as those who had not been assaulted.

Tomeo et al. (2001) used a nonclinical sample of 942 adults to compare rates of childhood molestation between heterosexuals and nonheterosexuals. The researchers found that 46% of the homosexual men in contrast to 7% of the heterosexual men reported homosexual molestation. Twenty-two percent of the lesbians in contrast to 1% of the heterosexual women reported homosexual molestation in childhood.

And in a prospective, thirty-year follow-up study, Wilson and Widom (2010) found that men with histories of childhood sexual abuse were more likely than controls to have had same-sex sexual partners. The authors conclude that "men with histories of childhood sexual abuse were significantly more likely than controls to report same-sex sexual partners" (p. 70) with an odds ratio of 6.75.

Higher rates of mental illness and past emotional trauma may have a negative impact on any parent's ability to care for a child, as well as a negative impact on the well-being of the child. The fact that homosexual men and women on average experience such difficulties much more often than do heterosexual men and women suggests that the former, on average, also may be expected to have greater difficulty providing the minimum sufficient level of care that adoptive children need.

Violence in Gay and Lesbian Relationships

Violence in gay and lesbian relationships has been another area of considerable investigation and is an obvious area of concern when considering homosexuals as suitable adoptive parents. Waldner-Haugrud et al. (1997) explored the gender

differences in victimization and perpetration experiences of gays and lesbians in intimate relationships. The results from a sample of 283 gays and lesbians revealed that 47.5% of lesbians and 29.7% of gays had been victimized by a homosexual partner. Lesbians reported an overall perpetration rate of 38% compared to 21.8% for gay men (Waldner-Haugrud et al., 1997).

Other researchers also report high rates of violence in lesbian and gay male relationships. In a study in the *Journal of Interpersonal Violence,* Lockhart (1994) found that 90% of lesbians surveyed had been recipients of one or more acts of verbal aggression from their partners during the 12 months prior to the study. In this same study, 31% of the participants reported one or more incidents of physical abuse. In the *Journal of Social Service Research,* Lie and Gentlewarrior (1991) found that more than half of the lesbians had been abused by a partner. In *Men Who Beat the Men Who Love Them,* authors Island and Letellier (1991) noted that the incidence of domestic violence among gay men was almost double that of the heterosexual population.

In a national survey of lesbians published in the *Journal of Consulting and Clinical Psychology,* Bradford and Rothblum (1994) found that 75% of almost 2,000 respondents had received psychological care, many for long-term depression: "Among the sample as a whole, there was a distressing high prevalence of life events and behaviors related to mental health problems. 37% had been physically abused and 32% had been raped or sexually attacked. 19% had been involved in incestuous relationships while growing up. Almost one-third used tobacco on a daily basis and about 30% drank alcohol more than once a week; 6% drank daily. One in five smoked marijuana more than once a month. 21% had actually tried to kill themselves..... more than half had felt too nervous to accomplish ordinary activities at some time during the past year and over one-third had been depressed" (p. 228).

Physical Health

An entire issue of *The American Journal of Public Health* (June 2003) focused on the medical risks associated with homosexual practices. The magazine's cover contained the following caption: "I gave my lover everything including HIV. I didn't mean to. We made a mistake. Maybe deep down we felt it would be better if we both had it……" The journal contents read like a litany of bad news, one article following another.

Editor-in-chief Mary E. Northbridge (2003) writes, "Having struggled to come to terms with the catastrophic HIV epidemic among MSM [MSM is the new politically correct term for homosexual men—Men who have Sex with Men] in the 1980s by addressing the pointed issues of sexuality and heterosexism, are we set to backslide a mere 20 years later as HIV incidence rates move steadily upward, especially among MSM?" (p. 860).

An editorial in the journal by Michael Gross (2003b), "When Plagues Don't End," focused on the resurgence of HIV/AIDS among homosexual men in the United States. The highest rates of HIV transmission are among African-American and Hispanic men who self-identify as gay. Gross noted, "To prevent HIV transmission, we have little more today than we had two decades ago, when it became clear that the virus causing AIDS is sexually transmitted: behavioral interventions" (p. 861).

In the same journal, "Black Men Who Have Sex with Men and the HIV Epidemic: Next Steps for Public Health" addressed risk assessment and risk reduction. Author David J. Malebranche (2003) referenced a recent six-site study of U.S. metropolitan areas in which 93% of African-American men who were HIV-infected felt they were at low risk for HIV and did not know they had contracted the virus. Malebranche's study contradicts the view that disclosing one's homosexuality is associated with improved mental health, responsible behavior, and lower rates of HIV infection. To the contrary, African-American men who disclosed their homosexuality had a higher rate of HIV prevalence than those who did not choose to do so (24% versus 14%). Those who disclosed their

homosexuality also engaged in more unprotected anal sex (41% versus 32%) than those who did not disclose (Malebranche, 2003).

A second article in the same journal by Michael Gross (2003a) contained in its title an ominous warning: "The Second Wave Will Drown Us" (p. 872). Gross cites the CDC statistic of a 14% increase in HIV/AIDS among homosexual men in the United States between 1999 and 2001. He also noted unprecedented outbreaks of syphilis, alarming rates of rectal gonorrhea, and an emerging visible subculture of barebacking (the practice of men having anal sex without condoms). Gross concluded that "behavioral interventions to promote condom use—the only strategy currently available to stem the MSM epidemic—are failing" (p. 874).

Gross (2003a) offered an interesting comparison:

> On the same day that seven astronauts and fragments of the vehicle that failed them plummeted to the fields and woods of East Texas, six times that many U.S. MSM became infected [with HIV]. Maybe the number was higher, since it occurred on a weekend; perhaps lower if the news of the catastrophe interrupted libidinous pursuits..... on the basis of CDC estimates of the lifetime expenditures for treating a single case of HIV infection, MSM infections acquired that single day will cost $6.5 million. The cost in human potential need not enter the calculus even for a voodoo economist, unless so muddled by moral outrage that he thinks sex between men is indeed something to die for. (p. 874)

A study by Ciccarone (2003) and his colleagues—"Sex Without Disclosure of Positive HIV Serostatus in a U.S. Probability Sample of Persons Receiving Medical Care for HIV Infection"—noted that "risky sex without disclosure of serostatus is not uncommon among people with HIV" (p. 949). They conclude:

> The results of this study indicate that sex without disclosure of HIV status is relatively common among persons living with HIV. The rates of sex without disclosure found in our sample of HIV-positive individuals translate into 45,300 gay or bisexual men, 8,000 heterosexual men and 7,500 women—all HIV infected—engaging in sex without disclosure in our reference population of individuals who were in care for HIV. . . " (p. 952). These numbers, suggest the authors, "should be considered a lower-bound estimate. (p. 952)

Perhaps the most alarming study in this issue of the *American Journal of Public Health* was the one reported by Koblin et al. (2003), "High-Risk Behaviors Among Men Who Have Sex With Men in Six U.S. Cities: Baseline Data from the EXPLORE Study." The authors described the prevalence of risk behaviors among MSM who participated in a randomized behavioral intervention study conducted in six U.S. cities—Boston, Chicago, Denver, New York, San Francisco, and Seattle. The data involved homosexual men who were HIV-negative and who reported engaging in anal sex with one or more partners during the previous year. The results were staggering: Among the 4,295 homosexual men, "48.0% and 54.9% respectively reported unprotected, receptive and insertive anal sex in the previous six months. Unprotected sex was significantly more likely with one primary partner or multiple partners than with one non-primary partner. Drug and alcohol use were significantly associated with unprotected anal sex" (p. 926).

Extensive medical evidence supports greater rates of physical disease among homosexuals (Diggs, 2002). Diseases that are extraordinarily frequent among gay men include chlamydia trachomatis, cryptosporidium, giardia lamblia, herpes simplex virus, human immunodeficiency virus, human papilloma virus, isopora belli, microsporidia, gonorrhea, viral hepatitis types B and C, and syphilis. Some of these diseases are so rare among heterosexuals as to be virtually unknown. Other diseases, such as syphilis, were found among heterosexuals but were not nearly as prevalent as among the gay population.

The rate of anal cancer infection among homosexual males is 10 times the rate among heterosexual males (Diggs, 2002). The CDC reported that 85% of syphilis cases in King County, Washington, were among gay men. In 2001, cases of syphilis reached epidemic proportions among gay men (Heredia, 2001).

Although the study of medical conditions associated with female homosexuality is relatively new, bacterial vaginosis, hepatitis B, hepatitis C, alcohol abuse, and IV drug use have been found to be significantly higher among lesbians than among heterosexual women (Fethers & Caron, 2000). In one study of lesbian women, 30% had bacterial vaginosis, an infection that is associated with high risk for pelvic inflammatory disease and other sexually transmitted infections (Berger et al., 1995). Higher rates of such physical illnesses, as well as the relationship instability implied by their existence, may be expected to have a negative impact on the gay man or lesbian woman's ability to parent.

Relationship Stability and Longevity

Redding (2008) concluded that lesbian, gay, and bisexual relationships are as stable over time as are heterosexual relationships. While his conclusion may have some merit, a thorough review of research on the stability of lesbian, gay, and bisexual relationships *with children* demonstrates that the available research is "quite slim" (Goldberg, 2010).

Peplau and Fingerhut (2007) concluded, "We currently know little about the longevity of of same-sex relationships" (p. 412). Bos, Gartrell, Peyser, and van Balen (2008) compared the relationship stability of lesbian parents with that of heterosexual parents. They found that 48% (34 of 71) of the lesbian parents broke up over a ten-year period compared to 30% (22 of 74) of the heterosexual couples.Using data based on their longitudinal study conducted in England, Tasker and Golombok (1997) offered the following conclusion: "In the present study, the majority of lesbian mothers were no longer with the same partner they had been with at the time of the first investigation 14

years earlier" (p. 57). In the same study, only 25% of the young adult children surveyed remembered their mothers having one long-term, monogamous relationship.

The research on relationship dissolution can inform the discussion of relationship stability. When demographic controls were used, Kurdek (1998) concluded: "… my statistical analyses indicated that, with controls for demographic variables (age, education, income and years of cohabitation), both gay and lesbian couples were more likely to dissolve their relationships than were heterosexual couples" (p. 565).

Using data from Norway and Sweden, Andersson et al. (2006) found that "the rate of dissolution within five years of entering a legal union is higher among same-sex partnerships than among heterosexual marriages, with lesbians having the highest rates of dissolution" (p. 93). Specifically, Andersson concluded that "the divorce risk for partnerships of men is 50% higher than the corresponding risk for heterosexual marriages and . . . the divorce risk for partnerships of women [is] almost double (2.67) that for men (1.50) " (p. 93).

In "Comparative Relationship Stability of Lesbian Mother and Heterosexual Mother Families: A Review of Evidence," Schumm (2010b) includes the most comprehensive response on the stability of lesbian relationships to date. He concludes that the "no difference hypothesis" finds little support in the current research. In fact, in a recently published paper, Schumm (2010a) addresses the statistical requirements for adequately investigating the null hypothesis and specifically calls attention to the recent violations of such standards in the family science literature where gay, lesbian, bisexual, and transgender families are compared with heterosexual families.

Evidence to date provides much less information about the stability of the relationships of gay couples with children than lesbians with children. From studies done in the United States, we know almost nothing about the stability of relationships between gay fathers. We know little about the effects of relationship instability on children of

lesbian, gay, and bisexual parents. In fact, for gay fathers in particular, there are few studies available (APA, 2008). Again, there is a need for further methodologically sound research in this area.

Regardless of the limited availability of such data, there already exists a preponderance of data about the negative consequences for children who experience transitions in family structure and the clearly documented fact that, overall, children do best when raised in a home with their own married mother and father. Byrd (2010) summarizes the research as follows:

> The research is clear: Mothers and fathers are essential for optimal child-rearing. … The gender complementarity that results from dual gender parents affords children the opportunity to thrive in the best possible environment. Other family forms are not equally as helpful or healthful for children, and substantial research demonstrates the negative effects of physical and psychological father absence. … Regarding gender complementarity and child-rearing, *tradition and science agree: Both mothers and fathers provide optimal development for children*. *Children's needs must be placed first*. The deliberate placement of children in settings that are motherless or fatherless begins a slippery slope, one filled with risks that neither children, their families, nor society can afford to take. (Byrd, 2010,119–120; emphasis in original)

Conclusion

Homosexual couples and parenting: What can science say? And what can't science say?

Despite a much-touted notion that there are no differences between homosexual and heterosexual couples and parenting, a closer review of the currently available

research would suggest otherwise. Schumm (2008) reevaluated the no-difference hypothesis. He reviewed a number of dissertations on the topic and concluded:

> Differences were observed including some evidence in more recent dissertations, suggesting that parental sexual orientation might be associated with children's later sexual orientation and adult attachment style, among other outcomes. Odds ratios associated with some of the apparent effects were substantial in magnitude as well as statistically significant. Also, more recent research on gay and lesbian parenting continues to be flawed by many of the same limitations as previous research in this area of study, including suppressor effects (p. 275).

What *is* clear is that there is little support in the scientific literature for the "scholarly consensus" that lesbian, gay, and bisexual families with children are just as stable as heterosexual families with children. The evidence itself on the stability of lesbian, gay, and bisexual parents compared to heterosexual parents is scarce. Further research is needed that controls for parental sexual orientation, parental gender, presence of children, and stepfamily status simultaneously with respect to predicting adult sexual relationship instability.

The ways in which homosexual relationships differ in terms of monogamy, mental health, physical health, the stability of homosexual men and women, and the longevity of homosexual relationships must be considered in terms of potential impact on children. Given the prevailing legal and psychological standard—the best interest of the child—one can reasonably conclude that, based on this standard, the optimal health, well-being, and best interest of a child may not be best served by homosexual family structures. The current available research does not demonstrate cause-and-effect relationships, but risk factors are beginning to emerge, such as those highlighted by Stacey and Biblarz (2001) and other researchers cited in this paper. Those studies strongly contradict nearly twenty

years of prior studies indicating there were no differences between children reared by heterosexual versus homosexual couples. Such risk factors must be fully investigated because the health and well-being of children—their best interest—remains the gold standard (Byrd, 2010).

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Child Outcomes Associated with Lesbian Parenting:

Comments on Biblarz and Stacey's 2010 Report

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Abstract

Biblarz and Stacey (2010a), as well as Biblarz and Savci (2010), recently reviewed the literature on lesbian parenting and concluded that lesbian parents were probably more effective parents than heterosexual parents. They went so far as to question the need for fathers as parents. That literature has been reexamined in this paper.

It appears that parental role modeling is important for children of lesbian as well as heterosexual parents. It appears that lesbian parents do tend to divide household labor more equally than do heterosexual parents, which appears to carry over to encouraging their children to adopt less traditional gender roles compared to heterosexual parents.

Furthermore, it appears that sons of lesbians tend to be more feminine than sons of heterosexual parents, while daughters of lesbian mothers tend to be more masculine than daughters of heterosexual parents. Thus, parental influence seems important for gender modeling, though complete role reversal is rare.

Likewise, lesbian parents appear to be more open to their children at the very least expressing a nontraditional sexual orientation when compared to heterosexual parents. Again, parental influence seems to be an influence, since increasing evidence suggests that children of lesbian mothers, perhaps especially their daughters, are more likely to adopt a nonheterosexual sexual orientation. Some research also suggests that children of lesbian parents are more likely to adopt sexually permissive attitudes, even if they have a heterosexual orientation. Since the children of lesbian parents appear to have much higher exposure to nonheterosexual role models in terms of adult contacts other than their parents, there may be additional modeling from those other adults with respect to nontraditional gender roles and nontraditional sexual orientations, if not sexual permissiveness.

It remains challenging to sort out the effects of sexual orientation on a child's psychological adjustment. First, virtually all studies and outcomes that have yielded adverse results for lesbians' children have been marginalized in the literature; published

research has shown that outcomes favorable toward gay or lesbian parenting are more likely to be cited academically than those that are unfavorable, in spite of greater methodological limitations. Second, any significant effects of gay or lesbian parenting most likely operate over long periods of time through intervening variables such as parental goals for their children. In addition, such effects would most likely be tied to gender role or sexual orientation/sexual permissiveness outcomes rather than other variables. The extent to which parents model and encourage delayed gratification choices—especially those involving sex—may be important intervening variables for understanding children's psychological outcomes as a function of parental gender and sexual orientation.

Consequently, it appears that recent conclusions about the consequences of lesbian parenting (Biblarz & Savci, 2010; Biblarz & Stacey, 2010a, 2010b) are far from scientifically correct. Parental modeling does appear to play an important role in child socialization for both lesbian and heterosexual parents. However, what is modeled does appear to differ substantially between lesbian and heterosexual parents, with significant consequences for children in terms of a variety of outcomes, most often keyed to gender role orientations or expressions of sexuality. Recent claims that lesbians make better parents than heterosexuals are not warranted scientifically.

Introduction

Biblarz and Stacey (2010a) desired "to revive conversation among scholars about research on gender differences in parenting and child development," even at the risk of inviting charges of "Lunacy 201" (p. 4). This author wishes to continue that conversation. It is common to claim that "scholars have achieved a rare degree of consensus that unmarried lesbian parents are raising children who develop at least as well as their counterparts with married heterosexual parents" (p. 5). As Biblarz and Stacey (2010b) reiterated, "social science research does not and cannot support the claim that

children need both a mother and a father parenting together" (p. 42). Moreover, as Peggy Drexler and Linden Gross (2005) quoted Dr. Michael Lamb, "It's become clear that the absence of a male figure is really not important" (p. 20), reflecting an apparent scholarly consensus (Gartrell & Bos, 2010) that fathers are no longer necessary for average, much less optimum, child development.

Mallon (2000, p. 4) clearly stated that research was unequivocal in concluding that not a single study had found even one disadvantage for children of lesbian or gay parents. Articles on lesbian/gay/bisexual/transgendered (LGBT) families from the recent decade state that lesbian mothers "tended to equal or surpass heterosexual married couples on time spent with children, parenting skill, and warmth and affection" (Biblarz & Savci, 2010, p. 482). History has proven, however, that scholarly consensus has sometimes been incorrect. This author hopes to demonstrate that the achieved consensus may be more political than factual and that quite possibly the "overwhelming public consensus" (p. 6) that children need a father and a mother may be more valid than would appear from recent reviews (Biblarz & Savci, 2010; Biblarz & Stacey, 2010a).

Furthermore, as noted by Hoenig and Heisey (2001), "In matters of public health and regulation, it is often more important to be protected against erroneously concluding no difference exists when one does" (p. 23). If we conclude that fathers are not important per se and we turn out to be wrong, we may be granting permission to even more fathers to abandon their parenting responsibilities—they might well feel "entitled" to do so on the basis of "best evidence" science, such as that presented by Biblarz and Stacey (2010a, 2010b) and, more recently, by Gartrell and Bos (2010) and Biblarz and Savci (2010).

The focus here will be on research articles discussed by Biblarz and Stacey, but other research that complements those articles will also be considered. Others (Goldberg, 2010b; Strohschein, 2010; Tasker, 2010) have already commented on Biblarz and Stacey (2010a), so their concerns will not be a focus of this report. The intention is not necessarily to prove their findings to be incorrect, but rather to present evidence that might bear in a different direction and to encourage more in-depth discussion of the issues.

There is always the risk that others may *distort* research findings to the *unfair* disadvantage of gay and lesbian parents (Goldberg, 2010b), but allowing incomplete or erroneous research to stand without comment would be a distortion of *science* itself (Schumm, 2010e). The distortion of science is a serious concern because, among other reasons, there is clear evidence that when it comes to gay or lesbian parenting, favorable research outcomes are more frequently cited in the literature than unfavorable outcomes, even when the latter are based on methodologically superior research (Schumm, 2008, 2010d).

A related concern is the infrequent discussion of effect sizes, generally the difference in two mean scores divided by an average of the standard deviations of the two groups being compared. Here Cohen's *d* will be used to assess effect size (*ES*), with effect sizes being considered as small (*ES* = .20), medium (*ES* = .50), or large (*ES* = .80)(Cohen, 1992). Just because an effect size may be small, however, does not mean that it is unimportant. Cohen (1988) has noted, "Many effects sought in personality, social, and clinical-psychological research are likely to be small effects as here defined, both because of the attenuation in validity of the measures employed and the subtlety of the issues frequently involved" (p. 13). Effect sizes will be reported here to allow readers to understand the relative magnitudes of apparent effects.

Parental Division of Labor

One of the strongest overall results noted by Biblarz and Stacey (2010a) and by Goldberg (2010a) is that lesbian and gay couples tend to share household labor and child care more equally than heterosexual parents. For example, Brewaeys, Ponjaert, Van Hall, and Golombok (1997) found an effect size (*ES*) of 2.56 in terms of partner's help with child care. However, 58% of the lesbian biological mothers had full-time jobs compared to 24% or fewer of the heterosexual mothers (p. 1354, $p < .001$). In their research with both gay and lesbian parents, Johnson and O'Connor (2002) found relatively egalitarian divisions of household tasks and of child care. Rothblum, Balsam,

Solomon, and Factor (2005) found similar results in their research with gay and lesbian couples.

While the evidence appears strong that division of labor is more equitable within lesbian families, the implications should be considered carefully. The other side of the coin, figuratively, is that heterosexual parents accept greater differential risks (Schumm, 2004a, 2005) by accepting complementary divisions of labor and may put their own relationships at risk by doing so. That is, by entering into a mixed-gender relationship, heterosexual couples may assume a much higher risk of experiencing conflict over division of labor and difficulty in establishing genuine equity, both of which may increase their risk of relationship dissatisfaction.

Time Spent with Children

Even though parental division of labor may be equally divided, there remains some question about how much time is spent by gay/lesbian/bisexual (GLB) parents with their children. Although Biblarz and Stacey (2010a) claimed that "we do not yet have research that compares the children of married same-sex couples and different-sex couples" (p. 5), Henehan, Rothblum, Solomon, and Balsam (2007) surveyed gay and lesbian couples who had obtained civil unions in Vermont. They also surveyed referred gay and lesbian friends not in civil unions and married heterosexual siblings of the gay couples who had obtained civil unions. They found that only 18% of the children of gay male couples (78% of whom were in a civil union) lived with their parents full time compared to 62% of the children of heterosexual parents. In fact, 39% of the children of gay male parents never visited them compared to only 11% of the children of heterosexual parents.

Likewise, only 39% of the children of lesbian parents (59% of whom were in a civil union) lived with their parents full time compared to 71% of the children of heterosexual parents. In addition, 41% of the children of lesbian parents never or only occasionally visited compared to 26% of the children of heterosexual parents.

Such results warn us of the risk of comparing parents on sexual orientation without taking into account part-time versus full-time parenting status, a factor seldom considered as a control variable.

Parents' Preference for Childrens' Gender Roles

Bos and Sandfort (2010) recently reported that among children from 63 lesbian and 68 heterosexual families, children of heterosexual parents reported significantly greater parental pressure to conform to stereotypical gender roles (ES = 0.39, $p < .05$). Patterson, Sutfin, and Fulcher (2004) compared 33 lesbian couples with 33 heterosexual couples; they found that the lesbian parents held less traditional gender role expectations for their children (ES = 0.92, 0.97). Sutfin, Fulcher, Bowles, and Patterson (2008) found that lesbian mothers held significantly less traditional gender role attitudes than heterosexual parents (ES = 0.75) and that parental attitudes predicted children's gender role attitudes.

Fulcher, Sutfin, and Patterson (2008) found similar results, with lesbian parents reporting less traditional gender role attitudes (*ES* = 0.80 and 0.94 for parents of daughters; *ES* = 0.58 and 1.08 for parents of sons). They found that parental attitudes also predicted children's gender role attitudes.

Hoeffer (1981) studied heterosexual mothers and lesbian mothers to see which group would prefer more traditional gender roles for children's play with toys. She found that heterosexual mothers preferred more masculine toys for sons (*ES* = 1.78, $p < .05$) and more feminine toys for daughters (*ES* = 1.69, $p < .05$). However, effects were smaller (*ES* = .70 and .58, respectively) and not significant statistically for lesbian mothers. While Harris and Turner (1985/86) found that gay fathers were more likely to encourage their children to play with gender-typed toys than were lesbian mothers ($p < .05$), they found no significant differences with reported gender-typed toy play and parental sexual orientation. Green, Mandel, Hotvedt, Gray, and Smith (1986) found that lesbian mothers were more likely (60% versus 29%, $p < .001$) to encourage truck play by daughters than

were heterosexual mothers; the reverse was true for boys (30% of lesbian mothers versus 73% of heterosexual mothers, $p < .01$).

Thus, there is some evidence that lesbian mothers prefer less traditional gender role-play for their children. In context, could this mean that lesbian mothers are simply more "progressive," or could there be more to it? At least two studies have found that lesbian mothers often hold indifferent to negative attitudes towards men in general, a background factor that might explain some of their gender role preferences. Miller, Mucklow, Jacobsen, and Bigner (1980) reported in a comparison of 34 lesbians and 31 heterosexual women that the lesbians tended to hold "negative, to the point of being repulsive" (p. 1130) feelings about men compared to predominately positive feelings about men among the heterosexual women. It is reasonable to assume that the hate that some lesbians—and other women—have for men may lead them also to dislike boys or men displaying male gender roles, particularly their own male children engaging in such roles. (The converse also may be expected for lesbians and other women when it comes to female gender roles and their daughters).

Summarizing all these studies, it appears that lesbian mothers tend to encourage less traditional gender roles for their children, with medium to large effect sizes.

Parental Preference for Childrens' Sexual Orientation

As far as preference is concerned, Golombok, Spencer, and Rutter (1983) found that only 27% of lesbian mothers in their study preferred that their children grow up to be heterosexual. Flaks (1993, p. 136) noted that of the 30 lesbian mothers in his study, 67% said they had no preference for the sexual orientation of their child, while 33% said they would prefer their child to be heterosexual. Among the 30 heterosexual parents in the study, only 27% said they had no preference, while 73% said they would prefer their child to be heterosexual (two-sided Fisher's Exact Test, $p < .005$). Gartrell, Banks, Reed, Hamilton, Rodas, and Deck (2000) reported that only 21% of lesbian mothers in their study hoped their five-year-old child would become heterosexual.

Looking at prediction instead of preference, Gartrell, Deck, Rodas, Peyser, and Banks (2005) found that 10% of the lesbian mothers in their study thought that their 10-year-old child would become nonheterosexual. In the same study, only 37% of the lesbian mothers expected their child to become heterosexual.

Examining the issue from the childrens' point of view, Tasker and Golombok (1997, p.124) assessed young adults' perceptions of their mother's preferred sexual orientation for them. They found that 43% of children of lesbian mothers versus none of the children of heterosexual mothers ($p < .0001$) thought their parent would prefer them to be gay or lesbian, an effect that was stronger for daughters of lesbians (56%, $p < .001$) than for sons of lesbians (14%). Javaid (1993) found that lesbian mothers were more likely to accept their children becoming gay or lesbian than were heterosexual mothers (54% versus none, $p < .05$). Thus, it appears that lesbian mothers are far more inclined to accept, if not encourage, nonheterosexual orientation among their children, especially their daughters.

Children's Exposure to GLB, Opposite-Gender, and Nonkin Adults

Golombok, Spencer, and Rutter (1983) reported that of lesbian mothers' friends with whom children had contact, 79% were either mainly lesbian or a mix of lesbians and heterosexuals. Patterson, Hurt, and Mason (1998) found that 33% to 42% of adult contacts with children of lesbians were GLB, suggesting a high concentration of GLB role models for such children relative to children of heterosexual parents.

Harris and Turner (1985/86, p. 110) conducted a small study of predominately single parents. They found that heterosexual single parents appeared to make more of an effort to provide for their children a role model of the opposite gender than did gay or lesbian parents ($p < .01$). Drexler (1998) found that heterosexual parents were more likely than lesbian parents to report that their sons had adult male role models ($ES = 1.40$, $p < .05$), even though the latter reported that they actively recruited male role models for their sons (Schumm, 2008). Of 46 adult children of gay and lesbian parents in one study, 15%

specifically mentioned not having adequate role models of heterosexual interaction while growing up (Goldberg, 2007).

Fulcher, Chan, Raboy, and Patterson (2002) found that children of lesbians were more likely to have female nonkin as adult contacts than children of heterosexuals (nearly 50% versus 25% of all adult monthly contacts, $ES = 0.65$, $p < .01$). They also reported having more nonkin contacts in general (65% versus 43% of all adult monthly contacts, $ES = 0.48$, $p < .05$). Although the results were not significant, children of heterosexuals had more contact with men ($ES = 0.20$), relatives ($ES = 0.38$), male relatives ($ES = 0.27$), and female relatives ($ES = 0.31$), but less contact with women ($ES = 0.25$).

The meaning of such differences is not clear, but methodologically, using Bonferroni procedures, Fulcher et al. overlooked one result that was statistically significant ($t_{49.88} = 2.02$ is significant) as well as a number of small to medium effect sizes in their results. Thus, it appears that children of lesbian parents (compared to children of heterosexual parents) receive greater exposure to lesbian and gay role models, less exposure to heterosexual male role models, and relatively more exposure to parental friends compared to parental relatives.

Children's Gender Nonconformity/Flexibility

Biblarz and Stacey note that MacCallum and Golombok (2004) found that 12-year-old boys in mother-only families scored "over a standard deviation higher on femininity scales" (2010a, p. 14), which they interpreted as evidence of gender flexibility. In fact, that effect size was 1.40, much higher than the conventional 0.80 (Cohen, 1992) to indicate a large effect. In other words, the difference in femininity was very large.

Brewaeys et al. (1997) found that sons of lesbians had lower masculine gender role scores than sons of heterosexuals ($ES = 0.78$), while the daughters of lesbians had slightly lower feminine gender role scores than the daughters of heterosexual parents (*ES*

= 0.21). Sutfin et al. (2008) found that both daughters (*ES* = 0.57) and sons (*ES* = 0.66) of heterosexual parents reported more traditional gender role attitudes than did the children of lesbian parents; notably, the gender role attitudes of sons of lesbians were identical on average to those of daughters of heterosexuals.

Hoeffer (1981) found that sons and daughters of both lesbian and heterosexual mothers preferred toys usually deemed appropriate to their own gender but effect sizes of those preferences were slightly larger for heterosexuals' children (4.57 and 4.50) than for lesbians' children (3.91 and 4.34).

Green et al. (1986) found that daughters of lesbians cross-dressed more often than daughters of heterosexual mothers ($p < .05$) and were also more likely (52% versus 21%, $p < .05$) to express a preference for traditionally masculine jobs. Daughters of heterosexuals were more likely to never play with trucks (36% versus 7%, $p < .001$) or guns (68% versus 37%, $p < .01$) than were daughters of lesbian mothers.

On a test of gender identity, the children of heterosexual mothers had scores slightly more traditional for their gender than did children of lesbian mothers, but the differences were not statistically significant. Golombok et al. (1983, p. 563) compared gender roles of boys and girls from lesbian and heterosexual families as reported by the mother and the child; with respect to daughters, both mothers (*ES* = 0.39) and daughters (*ES* = 0.48) reported higher levels of masculinity in lesbian families, though scores were in the feminine range. With respect to sons, sons reported more masculine scores in lesbian families (*ES* = 0.21) while mothers reported more feminine scores for sons in lesbian families (*ES* = 0.26), though scores were in the masculine range.

Sarantakos (1996) studied 58 children of heterosexual cohabiting couples, 58 children of heterosexual married couples, and 58 children from 47 lesbian and 11 gay couples in Australia. Although he did not report statistics on children's gender role orientations, he indicated that the children's teachers had commented on such, saying that "Girls of gay fathers were reported to demonstrate more 'boyish' attitudes and behavior

than girls of heterosexual parents. Most young boys of lesbian mothers were reported to be more effeminate in their behavior and mannerisms than boys of heterosexual parents," and that children of homosexual couples were described as "more confused about their gender" than children of heterosexual couples (p. 26).

Fulcher et al. (2008) found that children of heterosexual parents were more upset with gender role transgressions (0.45, n.s. < *ES* < 0.59, $p < .05$) than were children of lesbian parents. Presumably, a child's upset about gender role "violations" was an indication of an internalized desire within the child to conform to more traditional gender roles.

Overall, it appears that while children's gender roles are robust with respect to parental sexual orientation, the children of lesbian parents tend to adopt gender roles or attitudes that are more masculine (daughters) or feminine (sons) than are developed by their heterosexually parented peers.

Children's Sexuality

Many have continued to argue that there has been very little, if any, evidence of intergenerational transmission of sexual orientation (Baetens & Brewaeys, 2001; Ball, 2003; Fisher, Easterly, & Lazear, 2008; Goldberg, 2010a; Mallon, 2000; Millbank, 2003; Murray, 2004; Rimalower & Caty, 2009). However, others have been less sure, leaving the issue "open to debate" (Peplau & Beals, 2004, p. 243) or one in which "the data do not allow unambiguous interpretation" (Patterson, 2004, p. 409).

Citing a variety of studies, Cameron (2006) argued for a hypothesis that sexual orientation would be transmitted from parent to child. Biblarz and Stacey (2010a) cited Bos et al.'s (2006) finding that "daughters of lesbian mothers scored 0.75 *SD* lower on heterosexual identity [identity was defined as orientation] than daughters of heterosexual couples" (p. 15). Biblarz and Stacey interpreted these findings as supporting evidence of greater fluidity in female sexual desires, as observed in longitudinal studies of lesbian and bisexual women (Diamond, 2006, 2008a, 2008b; Diamond & Butterworth, 2008). They

overlooked research by a number of authors (Kunin, 1998; Paul, 1986; Sirota, 1997)—summarized by Schumm (2008) and later Cameron (2009)—in which children of gay or lesbian parents were much more likely to identify, behave, or be attracted to the same gender. For example, Sirota found that 34% of the daughters of gay fathers were lesbian or bisexual compared to 3% of the daughters of heterosexual fathers ($p < .001$).

This author analyzed research from Tasker and Golombok (1995) and Golombok and Tasker (1996) to show that at least 20% of the children from lesbian families had considered the possibility of becoming involved in same-sex relationships, even though they had never experienced same-sex sexual attractions (Schumm, 2004b). Furthermore, of those who had experienced same-sex attractions, 67% of the children of lesbian mothers reported actual experience with same-sex relationships compared to none of the children of heterosexual mothers ($p < .05$, one-sided Fisher's Exact Test).

Although Golombok and Tasker (1996) reported that Adult Kinsey ratings of sexual orientation did not differ for the lesbian- and heterosexual-parented adult children, Schumm (2005, p. 443) found that the difference between the two groups of children was, in fact, significant ($p < .05$). Golombok and Tasker (1996) found that 16% of the children of lesbian mothers compared to none of the children of heterosexual mothers scored 2 or higher on the Kinsey Scale ($p < .08$, one-sided Fisher's Exact Test). Golombok and Tasker (1996) also found that the children of lesbian mothers were more likely to express same-sex sexual interest when their mother had been more open to her children becoming homosexual ($r = .38$, $p < .05$, one-tailed), had engaged in a higher number of lesbian relationships during the child's early school years ($r = .60$, $p < .01$), and had been more open in showing physical affection to her female partners ($r = .74$, $p < .001$).

Javaid (1993) found that daughters of lesbians were more likely to admit to homosexual thoughts or fantasies than daughters of heterosexual mothers (73% versus 47%, n.s.). Lewis (1992) interviewed 10 males and 11 females from 8 lesbian families from the Boston area; she reported that "several girls [of 11] thought they might turn to

women if they did not have a satisfying relationship with a man. One added, 'That's what my mother did.' She said, in regard to her dating, if she complained to her mother about boys, 'she would tell me to try girls'" (p. 89). That remark was similar to one made by a lesbian mother in the Tasker and Golombok (1997a) study: "Why don't you try and see if you get on better with women?" (p. 124).

Several of the 17 British adolescents and adults interviewed by Saffron (1998) reported their own perceived greater acceptance of same-sex attractions and behavior. One bisexual daughter said, "I have experimented sexually, and my parents have created a supportive environment for that" (p. 40). Goldberg's (2007) study of 46 adult children of GLB parents found 17% to have adopted nonheterosexual identities, with 28% saying they have developed "fluid" ideas about human sexuality.

In Javaid's (1993) study, daughters of lesbian mothers were significantly ($p <$ .05) more likely than daughters of heterosexual mothers to be unsure about or reject heterosexual marriage and children as part of their future. Crowl, Ahn, and Baker (2008) reported an average effect size of 0.20 (not significant) from five studies they reviewed, finding that children of lesbians are more likely to identify with a homosexual orientation. Gartrell, Bos, and Goldberg (2010) reported that in their 17-year longitudinal study of children of lesbian mothers, more than 48% of the daughters and nearly 22% of the sons were not exclusively heterosexual. Schumm (2010b) found that data from qualitative, quantitative, and anthropological sources confirmed the influence of the environment, including the family, on child outcomes in terms of sexual orientation.

Gartrell, Bos, and Goldberg (2010) found that daughters of lesbians were more than three times as likely ($p<.01$) as were daughters of heterosexuals from a national sample to have engaged in sex with other girls by age 17.

Based on the findings of all these studies, what emerges may appear to be contradictory, but it really is not. On the one hand, a majority of the children of lesbian parents will eventually identify as heterosexual, though they represent a smaller

percentage than those from heterosexual parents. On the other hand, a significantly larger percentage of the children of lesbian mothers, compared to those of heterosexual parents, will report same-sex attractions or same-sex sexual behavior, at least in an experimental way. At the very least, among the children of lesbian parents there appears to be a more frequent willingness to consider the legitimate possibility of having same-sex sexual attractions or to experiment with same-sex sexual behavior, even perhaps in the absence of strong same-sex sexual attraction. If both same-sex sexual attractions and behavior are more often considered "legitimate" in lesbian families, it should not be too surprising that a significantly higher percentage of the children of lesbian families—especially daughters—would also experiment with or ultimately embrace a same-sex sexual lifestyle.

Tasker and Golombok (1997a) also studied children's sexual relationships aside from sexual orientation. They found that 88% of daughters of lesbians versus 56% of daughters of heterosexual mothers had more than one sexual partner after puberty, an effect size of 0.78 ($p < .05$, p. 127). Likewise, they found that 71% of lesbians' daughters versus 22% of heterosexual mothers' daughters had unstable or multiple cohabitations with sexual partners (p. 131, $p < .05$). Daughters of lesbians were also more likely (71%) than daughters of heterosexual mothers (17%) to cohabit with a sexual partner after knowing the partner for fewer than six months ($p < .05$, p. 131). This and other evidence suggests that children of lesbian mothers adopt more permissive sexual attitudes and behaviors, regardless of sexual orientation.

Teasing and Bullying of Children

Most children appear to experience teasing or bullying at some point, but scholars have disagreed about whether children of lesbians suffer more because of their parents' sexual orientation or more in general. However, some research indicates that children of same-sex parents are victimized less than children of two-parent heterosexual families (*ES* = 0.28, Rivers, Poteat, & Noret, 2008; *ES* = 0.09, MacCallum & Golombok, 2004).

Tasker and Golombok (1997a) reported that approximately 75% of the children of both lesbian and heterosexual mothers had been teased or bullied as youth, with about 40% of both groups having encountered prolonged teasing or bullying. The children of lesbian mothers were more likely to have been teased about their own sexuality ($p < .05$), an effect that was stronger for sons, but only children from working-class families were more likely to have been teased about their mother's sexuality ($p < .05$).

Bos and Gartrell (2010) reported that 41% of the children of lesbian mothers had *ever* been discriminated against as a result of their parent's sexual orientation, a *lower* percentage than the *same* children had reported (43%) at age 10 (Gartrell, Deck, Rodas, Peyser, & Banks, 2005). After controlling for family compatibility and other variables, Bos and Gartrell (2010) found that reported discrimination had no significant effect on either internalizing problem behavior, externalizing problem behavior, or total problem behavior. Research needs to separate the role of parental sexual orientation, child sexual orientation, and antisocial behaviors (drug use, delinquency, etc.) that might merit social disapproval regardless of sexual orientation before we draw firm conclusions in this area.

Gay Fathering Outcomes

Most of the research reviewed by Biblarz and Stacey (2010a) and Biblarz and Savci (2010) involved lesbian mothers rather than gay fathers. Tasker (2010, p. 39) agreed with Biblarz and Stacey that research on gay fathers was scarce. First, it must be noted that finding lesbian-mother families is itself no easy task. Golombok, Perry, Burston, Murray, Mooney-Somers, Stevens, and Golding (2003) found only 18 lesbian mothers (0.22%) among approximately 8,200 mothers in their survey of mothers with 7-year-old children in Britain. Julien, Jouvin, Jodoin, L'Archeveque, and Chartrand (2008) used data from a random survey of Quebec residents; of the 9,812 sexually active women (of 11,034 total women), they found only 108 lesbians—and of those, only 51 were

lesbian mothers. In the same survey they found 112 bisexual women, but only as a result of including women whose behavior was predominately heterosexual.

Even so, the challenge of finding gay-father families is substantially more difficult. At least three important attempts to address gay fathering have not succeeded as hoped because gay fathers were such a small percentage of all of the same-sex parents surveyed (Fulcher, Sutfin, & Patterson, 2008, 3/36, 8%; Rivers, Poteat, & Noret, 2008, 3/21, 14%; Wainright & Patterson, 2008, 6/50, 12%). A fourth attempt (Henehan, Rothblum, Solomon, & Balsam, 2007) found only 40 (21%) gay fathers out of 190 same-sex parents surveyed. The scarcity of research on gay fathers has been identified previously: "A comparison on gender development between boys and girls who are growing up in a gay-father family and boys and girls who are growing up in a heterosexual family could be a major step toward unraveling this complex process" (Bos & Sandfort, 2010; Bos, van Balen, Sandfort, & van den Boom, 2006, p. 17).

It seems clear that Biblarz and Stacey (2010a) value secure attachment as an important child outcome for children of both gay- and lesbian-parent families. Biblarz and Stacey cite several studies (Brewaeys, Ponjaert, Van Hall, & Golombok, 1997; Golombok, Tasker, & Murray, 1997; Vanfraussen, Ponjaert-Kristoffersen, & Brewaeys, 2002) in which parenting outcomes, including the security of attachment, were allegedly better among children of lesbians. But Biblarz and Stacey neglected to discuss two important studies—one on child attachment for children of gay fathers and another on child attachment for children of lesbian mothers. The only link between those studies was that researchers found less secure levels of attachment among the children of same-sex parents.

With respect to gay fathers, Biblarz and Stacey overlooked a study by Sirota (1997, 2009; Schumm, 2010a) that compared 68 daughters of gay fathers and 68 daughters of heterosexual fathers on adult attachment styles. Sirota found that 78% of the daughters of gay fathers versus 44% of those of heterosexual fathers ($p < .001$)

reported insecure attachment, while 42% versus 12% were uncomfortable with close relationships ($p < .001$)—results that probably could *not* be explained entirely by the higher divorce history of the gay fathers (Schumm, 2008, 2010a). Effect sizes associated with comparisons of the three attachment dimensions ranged between 0.75 and 1.14 ($p < .001$) in favor of daughters of heterosexual parents (Schumm, 2010a).

But Biblarz and Stacey (2010a) also overlooked Puryear's (1983) research on the children of lesbian mothers, cited in reviews by Crowl, Ahn, and Baker (2008) and Patterson (2005), in which children of lesbians were much less likely to draw pictures of cohesive, cooperating family members than were children of heterosexuals. For example, Puryear found that only 20% of lesbians' children drew pictures of their mother cooperating with them compared to 67% of heterosexuals' children ($p < .01$). Puryear also found a medium effect size of 0.64 favoring the self-esteem of sons of heterosexual mothers.

It is worth noting that such attachment problems may have occurred not only between parents and children but also between lesbian mothers and their own fathers. As Miller, Mucklow, Jacobsen, and Bigner (1980) reported, 38% of lesbians versus 3% of heterosexual women did not respect their own fathers ($p < .001$), a result that is consistent with other studies of lesbians that suggest that poor attachment was present in lesbians' families of origin.

With respect to Biblarz and Stacey's (2010a) claim that there has been only one study of gay fathers and child outcomes, it is clear that Sirota's (2009) statistically significant and substantive research was overlooked in both Biblarz and Stacey's (2010a) and Biblarz and Savci's (2010) reviews, as well as some earlier research by other scholars on attachment outcomes for lesbian families. It is not clear if such oversights were due merely to an incomplete literature review or to hesitance to report adverse results associated with gay or lesbian parenting.

General Children's Adjustment

Brewaeys et al. (1997) found that sons of lesbians had lower behavioral/emotional adjustment than sons of heterosexuals (*ES* = 0.48). Daughters of lesbians also had lower behavioral/emotional adjustment, but the effect size was much smaller. In many cases, mothers' reports yield higher perceived adjustment of children for lesbians but teachers' reports yield opposite results. Vanfraussen, Ponjaert-Kristoffersen, and Brewaeys (2002) found that teachers rated the adjustment of lesbians' children lower (*ES* = 0.52, $p < .03$), even though lesbian mothers and their children themselves rated their adjustment slightly higher (n.s.).

Huggins (1989) found that daughters of lesbian mothers had lower self-esteem than did daughters of heterosexual mothers, regardless of whether the mothers were single (ES = 0.67) or were coupled (*ES* = 0.96). Sons of lesbian mothers had higher self-esteem if the mothers were single (*ES* = 1.12) but not if they were coupled (*ES* = 0.03). That finding is notable because it suggests that lesbian mothers may not make better parents for either sons or daughters just because they are coupled. Their report also demonstrates how relatively large effects may not be significant statistically given a small enough sample (N = 36).

If we are to find a relationship between parental sexual orientation and psychological adjustment, it will probably be found operating through intervening variables rather than directly. Nevertheless, it is instructive to closely examine the research cited by Biblarz and Stacey (2010a) in which they claim that sexual orientation makes a positive difference in psychological outcomes for children. MacCallum and Golombok (2004) did report three significant differences between child outcomes for two-parent heterosexual families and the combination of single-parent heterosexual and lesbian families, but the differences between the children of single-parent heterosexual families and the children of lesbian single parents were not significant. Surprisingly, the children of single-parent heterosexual mothers reported

better scores than the children of two-parent heterosexual families in terms of shared activities with mother (ES = 0.90), mother's availability (ES = 0.46), and mother's dependability (ES = 0.58), while the single-parent mothers rated their parenting better than did the two-parent-family mothers on five of the eight maternal measures (two of the three remaining measures were virtual ties).

Why would single-parent heterosexual families appear to be scoring better on parenting than two-parent heterosexual families? One possibility is family demographics—the single-parent mothers were younger than the two-parent mothers (ES = 0.61) and had fewer children (ES = 1.91, a *huge* effect size). The meaning of the results are ultimately suspect because there were no controls for per-capita family socioeconomic status. In other words, if the comparison group of two-parent heterosexual families has less income, less education, more children to support, and poorer health or stamina (due to older age), perhaps any comparison group of parents—even single parents (regardless of sexual orientation)—might compare favorably on selected parenting outcomes.

Golombok et al. (1997a) did find significant differences on attachment, maternal warmth, and positive mother-child interaction between children from two-parent heterosexual families and the combination of single-parent heterosexuals' and lesbians' children, but only one outcome was significant comparing the children of lesbians and single-parent heterosexuals. In fact, the children of single-parent heterosexual families scored better on secure attachment than did children from the other types of families. If we accept the logic of the results of those two studies, we would conclude that single parents provide better families for children than do two parents; however, few will argue that we need to reset national policy to encourage single parenting over dual parenting. Perhaps the child attaches more securely to a single mother (lesbian or heterosexual) because she is all the child has for a parent in the home on a regular basis; another possible reason is that two-parent families often have more children and fewer resources per capita, dividing the mother's and father's attentions. Biblarz and Stacey (2010a) cited

Golombok et al. (2003), saying that lesbian mothers provide greater secure attachment for children, but the study did not find any such significant difference.

A study by Vanfraussen et al. (2002) is cited by Biblarz and Stacey (2010a) as evidence that children of lesbians have fewer behavioral problems than children of heterosexuals, but this author could find no statistical results indicating such a difference. Vanfraussen et al. (2002) are also cited for evidence that the children of heterosexuals were more aggressive (*ES* = 0.72), but their result was based on self-report of the youth; in contrast, the teachers rated the children of lesbians as more aggressive (*ES* = 0.19). The statistical power of Vanfraussen et al. (2002) was low because even an effect size of 0.72 was barely significant ($p = 0.05$).

Biblarz and Stacey (2010a) also cited Brewaeys et al. (1997) as evidence that the children of lesbian mothers have fewer behavioral problems than the children of heterosexuals; what was found was that naturally conceived sons and daughters of heterosexual parents had fewer problems than sons and daughters of lesbian parents (*ES* = 0.48, both sons and daughters; ES = 0.48, sons; ES = 0.07, daughters). The differences that were favorable for lesbian mothers versus heterosexual parents occurred for those children conceived by donor insemination (ES = 0.47, both sons and daughters; ES = 0.09, sons; ES = 0.76, daughters). The results may say more about conception by donor insemination or about the presence of a biological father in the family than about parental sexual orientation per se. Only the families with naturally conceived children included biological fathers.

While results appear to be mixed rather than consistently strong in any one direction, it is probably unrealistic to expect distal outcomes such as psychological adjustment to be directly related to sexual orientation. For example, Bos, van Balen, Sandfort, and van den Boom (2006) found that daughters of lesbians were more likely to aspire to masculine occupations (*ES* = 0.53, $p < .05$) and have a nonheterosexual sexual orientation (*ES* = 0.74, $p < .01$), both of which predicted lower social competence for

daughters. However, parental sexual orientation did not have a statistically significant direct association with social competence, in spite of the apparent indirect effects. Most recently, Gartrell and Bos (2010) have reported higher levels of adjustment among children of lesbian mothers compared to heterosexual parents; however, they did not control for preexisting group differences such as maternal education, geographical location, number of siblings, family per-capita income, or race/ethnicity (Schumm, 2010g). Furthermore, because the lesbian mothers were probably more aware of the purposes of the research than the heterosexual mothers when rating children's adjustment, it is quite possible that demand effects of the research or social desirability bias may have accounted for group differences that were reported above and beyond any effects of the significant demographic differences between the two groups.

Adoptive Parenting

Redding (2008, p. 142) recently claimed that "there are no studies specifically of adoptive [gay or lesbian] parents," while Biblarz and Stacey cited only one study (Kindle & Erich, 2005) in which homosexual adopters reported lower family support than heterosexual adopters ($ES = 0.60$, $p < .02$). Neither reported research by Erich, Leung, and Kindle (2005), who, comparing homosexual and heterosexual adoptive parents, found a small effect size (0.13) in favor of heterosexual parents in terms of family functioning. As part of a regression model, heterosexual sexual orientation predicted family functioning with $\beta = .17$ ($p < .05$, one-tailed *t*-test). However, education was not entered into that regression model when there was a moderate effect size (0.53) in favor of the gay/lesbian parents (48% with a graduate degree versus 33% of heterosexuals); education could have acted as a suppressor effect. It is remarkable that the homosexual adopted families reported lower functioning even when 59% earned more than $70,000 a year compared to only 34% of the heterosexual adoptive parents ($p < .05$).

Adoption is not a legal right. Since the state creates this form of parenthood, one might suppose that the state would want to select parents who had the goal of raising children who would become citizens with "qualities that are valued as important in our society" (Bos, 2004, p. 52; Bos, van Balen, & van den Boom, 2004, p. 758; 2007, p. 40). Those "important qualities" were reflected on the 23-item scale those researchers used in the Netherlands as one measure of child-rearing goals in a sample of 100 lesbian and 100 heterosexual families. One of the 23 items they used as an example was "self-control." Although the families were compared on a number of issues, the largest and most significant differences ($ES = 0.55$, $p < .001$ for biological mothers; $ES = 0.40$, $p < .01$ for fathers and social mothers) of the eleven outcomes assessed occurred for that scale of child-rearing goals.

To this author's knowledge, there have not been any studies showing that if parents do not value "self-control" in their children, the children will develop lower levels of self-control—but such a connection is plausible based on the notion that "if you don't aim for it, you will probably miss it." Support for this hypothesis may be found in a recent study by Moffitt, Arseneault, Belsky, et al. (2011) that reported that better self-control in childhood predicted positive outcomes in adulthood in terms of fewer criminal convictions, fewer financial problems, less chance of becoming a single parent, better physical health, and less substance abuse.

If poor parental self-control is associated with the development of poor self-control in adulthood, as well as childhood, it is worth noting that Trocki, Drabble, and Midanik (2009)—although they did not control for presence of children—found that same-sex sexual orientation was associated with greater impulsivity (lack of self-control) and substance abuse among adults. While the perfect set of studies doesn't yet exist, a plausible hypothesis is that sexual orientation in parents might be related to poor parental self-control or impulsivity (Trocki et al., 2009), which might predict lower expectations for children in terms of self-control (Bos, 2004)—which would also predict lower levels

of self-control in young children and would ultimately predict lower levels of self-control in adulthood and greater adult difficulties (Moffitt et al., 2011).

The Dutch heterosexual parents were also significantly higher on structure and limit-setting in the 2007 report (biological mothers, $ES = 0.46$, $p < .05$; social mothers versus heterosexual fathers, $ES = 0.37$, $p < .001$). Biblarz and Stacey (2010a) also cited MacCallum and Golombok (2004) for providing evidence on "disciplinary control"; however, that study found that heterosexual mothers in two-parent families exercised less disciplinary "aggression" than did lesbian mothers ($ES = 0.23$) and that children rated the quality of heterosexual maternal discipline higher ($ES = 0.64$). Thus, some research seems to indicate that heterosexual parents may be doing better than lesbian mothers in areas that may be critical for socializing children to become better citizens as adults.

Adoption and Parental Monogamous Values/Behavior

One concern traditionalists may have with gay adoption is the fact—supported by research—that gay men are less monogamous and sexually exclusive than heterosexuals or lesbians (Byrd, 2010). Up to 40% of gay men in civil unions have agreements to permit nonmonogamy, and more than 50% have had sex outside their civil union within three years (Rothblum et al., 2005). It appears that "nonmonogamy is an accepted part of gay male culture" (Rothblum et al., p. 80), part of the "norms of the gay male community," with as many as 82% of gay males having engaged in extradyadic sex (Peplau & Fingerhut, 2007, pp. 409–410). Peplau, Fingerhut, and Beals (2004) have stated that a "distinctive feature of contemporary gay men's relationships is the tendency to form sexually open (nonmonogamous) relationships," that "sexual exclusivity is by no means the norm among contemporary gay couples" (p. 356), and that "sexual openness is the norm for most gay male relationships" (p. 366).

It appears rare for gay couples to maintain a long-term sexually exclusive relationship, as Peplau et al. noted when discussing research on this issue, since "100%

of those couples who had been together 5 years or longer had engaged in extradyadic sexual relations" (p. 357). Blasband and Peplau (1982) found only 10% of their gay male participants had remained sexually monogamous, and all of those had been together fewer than three years. Kurdek (1991) and Bettinger (2006) have highlighted the nonmonogamy or polyamory of gay male couples as well, while Redding (2008) concludes that "there seems to be little dispute in the research literature that the rates of nonmonogamy in gay and lesbian relationships are higher than in heterosexual unmarried partnerships" and "that gay men have on average a substantially greater number of sexual partners over their lifetime than do heterosexuals" (p. 163). Kurdek (1991) concluded: "Perhaps the most salient difference between homosexual and heterosexual couples revealed by previous studies is that homosexual men—especially gay partners—often engage in sex outside of the relationship with each other's knowledge" (p. 187).

Shernoff (2006, p. 408) cites Johnson and Keren (1996) as stating that "monogamy seems to be hardwired into spoken and culturally sanctioned norms for heterosexual relationships. The gay community's normative acceptance of casual sex, anonymous sex and nonmonogamy in couple relationships represents a dramatic departure of heterocentric norms and values" (pp. 238–239).

Gartrell, Rodas, Deck, Peyser, and Banks (2006) indicated that among the nearly half of their lesbian mothers who had separated, some children had been exposed to as many as six of their mother's new sexual partners in fewer than ten years. Patterson et al. (1998) noted that their lesbian mothers' children's social networks included "a sizeable number of women who were described as former romantic partners of the children's mothers. This finding is consistent with many anecdotal reports and commentaries suggesting that, long after the break-up of a romantic relationship, members of lesbian couples may remain close" (p. 397).

Solomon, Rothblum, and Balsam (2004) observed that significantly more lesbian and gay couples in their study reported having former sexual lovers as friends than did

the heterosexual women and men. Tasker and Golombok (1997a) appeared to find that 24% of the lesbian mothers had five or more sexual partners over the 15 years of their longitudinal study. Furthermore, the increased number of a mother's sexual partners was strongly related ($r = -.66$, $p < .001$) to lower acceptance of the family's lesbian identity when the children were adolescents ($r = -.00$, n.s., for acceptance when the children were adults) (Tasker & Golombok, 1997b). Of course, not all see problems here; Shernoff (2006) concludes that "therapists need to challenge their cultural biases regarding nonmonogamy" (p. 407). However, despite Shernoff's fears, I suspect that most parents and courts would consider nonmonogamy a poor moral example for adopted children or one's own biological children, for that matter.

Flawed Comparisons of Same-Sex and Heterosexual Parents

Biblarz and Stacey (2010a) found that heterosexual two-parent families reported more frequent conflict than did lesbian families, citing Golombok et al. (1997). However, the heterosexual and lesbian families in Golombok et al. (1997) differed significantly on mother's age ($p < .05$), social class ($p < .001$), and family size ($p < .0001$), suggesting that the heterosexual families had to support more household members with fewer resources—a condition that might well lead to more conflict. Indeed, what may seem remarkable is that compared to lesbian families, the heterosexual families—starting off with fewer resources, more members, and younger mothers, with accompanying lower levels of child peer acceptance, higher levels of maternal stress, lower levels of child's secure attachment, less maternal warmth, and higher levels of maternal depression—nevertheless produced children who described themselves as having significantly greater cognitive competence ($ES = 0.94$, $p < .001$) and physical competence ($ES = 0.55$, $p < .01$). A similar result occurred elsewhere (Golombok, Perry, Burston, Murray, Mooney-Somers, Stevens, & Golding, 2003) with children from two-parent heterosexual families reporting greater cognitive competence ($ES = 0.14$) and physical competence ($ES = 0.38$)

than children from two-parent lesbian families in spite of the two-parent lesbian families having higher socioeconomic status, greater maternal acceptance, lower stress, fewer children, and less frequent corporal punishment. Golombok et al. (2003) did not control for significant differences between parents in terms of parental occupation, education, or family size (Schumm, 2008), nor did Gartrell and Bos (2010) more recently.

Patterson, Sutfin, and Fulcher (2004) found that lesbian and heterosexual first parents differed on number of children (*ES* = 0.36), income (*ES* = 0.79, $p < .001$), occupational prestige (*ES* = 0.60, $p < .05$), and education (*ES* = 0.35), with the lesbian parents better off in terms of resources per capita. Numerous studies have featured similar advantages for lesbian and gay families (Black, Gates, Sanders, & Taylor, 2000; Schumm, 2005). As Tasker (2010) acknowledged, lesbians "may be relatively affluent and well resourced" (p. 36).

Some studies have found that lesbian mothers tend to have more education than mothers and fathers in heterosexual families (Fulcher, Sutfin, Chan, Scheib, & Patterson, 2006, p. 285; Rothblum & Factor, 2001, p. 64). Sometimes there have been attempts to control for these differences, sometimes not. For example, Gartrell and Bos (2010) provided evidence that lesbian mothers rated their children's psychological adjustment more favorably than did heterosexual parents; however, statistically significant preexisting differences between the two groups of parents with respect to education (*ES* = 0.84), geographic location (*ES* = 1.22), age of children (*ES* = 0.54), and race/ethnicity (*ES* = 0.79) were not controlled (Schumm, 2010g).

On occasion, it has been stated that socioeconomic differences were not significant statistically when, in fact, they were (Schumm, 2008). However, without controlling for such family differences, especially in terms of per capita family resources or social desirability response sets, one cannot truly test for the direct and unique contributions of parental gender or sexual orientation to child adjustment outcomes. Results under such conditions may primarily reflect the role of parental resources rather than any influence

of parental gender or sexual orientation. Without controls for socioeconomic differences, especially education and per-capita household income, assertions about the effects of parental gender or sexual orientation may be seriously misplaced.

Flawed Approaches for Testing Null Hypotheses

Space precludes a full treatment of this issue, which has been detailed elsewhere (Schumm, 2010f). Numerous studies have claimed to have proven the null hypothesis with respect to comparing same-sex parenting and heterosexual parenting. However, Cohen (1988) argues that such a "conclusion is always strictly invalid, and is functionally invalid as well unless power is high" (p. 16). Without a large sample (greater than 100), it is very unlikely that any study will find statistical significance for small effects, possibly even some medium effects.

The most common approach in research comparisons of different types of parents or their children is to run multiple tests among variables that are correlated among themselves, a situation problematic in its own right (Schumm & Crow, 2010). Another common approach in comparisons of LGBT and heterosexual families is to predict an outcome variable from a host of independent variables, as if there were no scientific theory available to sort out independent and intervening variables from each other; this approach subtly removes visibility of any effects that may be operating indirectly on parenting outcomes. Even so, many studies of LGBT parenting do not control for social desirability, parental education, family size, or per-capita household income even though it is clear that such variables might account for different parental self-reported outcomes for children.

Potential suppressor variables are seldom considered—that is, variables, which if controlled statistically, might change observed results from support for the null hypothesis to rejection of the null hypothesis. Effect sizes have seldom been reported in the literature on lesbigay parenting (Schumm, 2010f). Often the statistical methods

used to evaluate null hypotheses are outdated and lack the statistical power of readily available but improved statistical tests; for example, equivalence testing is seldom used (Schumm, 2010f).

Extremely large numbers of independent variables are sometimes used (Rosenfeld, 2010), increasing the chances of "washing out" any statistically significant results. Because there is some evidence that same-sex parents are less stable in terms of relationship longevity than married heterosexual parents (Schumm, 2010c), researchers must be particularly careful to avoid selection effects. For example, Rosenfeld (2010) limited his sample to parents who had lived in the same residence for five consecutive years; however, this restriction selected "out" more same-sex parents than it did married heterosexual parents. Presumably, many of those selected out included those who had unstable couple relationships.

Rosenfeld found that single parents had less favorable outcomes for their children, but his methodological screening "cherry-picked" the most stable of the same-sex parents. If one wanted to see the overall outcomes for same-sex parents versus heterosexual parents, one would start at one time and follow the children to a later point in time and then assess their progress without selecting out those parents who had separated. These methods miss a critical outcome: if parental instability is problematic for children and same-sex parents have less stable relationships, then same-sex parenting will, over time, harm children more than heterosexual parenting, even if comparisons of the child outcomes among those with the most stable parents in both groups yielded few significant differences. Moreover, interpretations of the body of scientific literature in the area of same-sex parenting are challenging, because findings contrary to the politically correct answer—no differences between same-sex and heterosexual parenting—are routinely overlooked or dismissed in reviews of the literature (Schumm, 2008, 2010a, 2010c, 2010d). As a result, such reviews are less helpful at best, or misleading at their worst.

Theoretical Limitations

Traditionally, a standard sociological model would have independent or exogenous variables—often relatively fixed variables such as gender or race, along with intervening variables and dependent or outcome variables. Such a model would have both proximal and distal outcomes where one would not expect to see other than small effects for most distal relationships.

But studying the possible effects of parental sexual orientation presents important challenges. First, the key independent variable is not fixed but fluid, since some parents may not have become either aware or "out" about their sexual orientation until later in life. Additionally, some parents may change back to a bisexual or heterosexual identity (Baumeister, 2000; Diamond, 2006, 2008a, 2008b; Diamond & Butterworth, 2008; Dickson, Paul, & Herbison, 2003; Kinnish, Strassberg, & Turner, 2005).

Second, some child outcomes, such as the child's sexual orientation or their own relationship stability, may not be measurable until decades after they are born. In other words, some outcomes are very distal, and effect sizes might be expected to be small merely because of the distance in time as well as the host of other factors influencing a child's development.

Third, any distal outcomes are probably mediated by intervening factors—if not, as noted previously, by interactions or moderating effects. Some researchers (Davis & Friel, 2001; Demuth & Brown, 2004) conclude that if they predict an outcome C from family form A with significant results and then control for process B, A is unimportant if it becomes nonsignificant after controlling for B. Actually, all they have done is provide evidence that the direct or distal effect of A on C is small. It still might be that A has an indirect effect on C through B, B being an intervening or mediating variable in the model. This is somewhat like saying that handguns are not harmful if you control for the effect of their bullets—technically true, but misleading if the conclusion is that handguns involve no risk. For example, Kweskin and Cook (1982) found that lesbian

mothers were significantly more likely to be masculine or androgynous in sex-role orientation themselves (81% versus 53%, $p<.05$) and that among mothers with either feminine, androgynous, or masculine sex-roles, 75% held that same sex-role as ideal for their child. However, the direct effect of sexual orientation on ideal sex-role was small, $r = .12$. Had the researchers reported all their results, it is not unlikely that there would have been a strong indirect effect of sexual orientation on the mothers' ideal child sex-role. A similar phenomenon may have occurred with the study by Fulcher et al. (2008) with a finding that lesbian mothers were more likely to divide paid and unpaid labor more equitably, resulting in children with less traditional occupational aspirations. Because of small direct effects, the authors concluded that parental sexual orientation was "generally unrelated" to children's gender development (p. 330). However, what is most likely is that division of labor was an intervening variable between parental sexual orientation and child outcomes.

Recently, Bos and Sandfort (2010) published much of the material cited by Biblarz and Stacey (2010a) in Bos, van Balen, Sandfort, and van den Boom (2006). Bos and Sandfort reported a significant ($p < .05$) relationship between parental sexual orientation and sexual questioning, which they had labeled "heterosexual identity" in Bos et al. (2006), with $ES = 0.33$. Bos and Sandfort also reported significant relationships between sexual questioning and both global self-worth ($\beta = -.19$, $p < .05$) and social competence ($\beta = -.24$, $p < .01$). There were no significant direct relationships between family type and self-worth or social competence, but there appeared to be an indirect influence through sexual questioning as an intervening or mediating variable.

The presence of *indirect effects* does not mean there are *no effects*, as in "generally unrelated." Until we routinely test more elaborate models that allow for a variety of independent and intervening variables over both shorter and longer time periods, we will not well understand the role of sexual orientation or gender in parenting.

Other Concerns

A separate review is needed—and has been provided (Byrd, 2010)—to detail the higher rates of mental health concerns of gay males, bisexuals, and lesbians (King, Semlyen, Tai, Killaspy, Osborn, Popelyuk, & Nazareth, 2008), but the results of one recent study that attempted to obtain a representative sample of both lesbian, bisexual, and heterosexual women highlight the concerns of traditionalists (Wilsnack, Hughes, Johnson, Bostwick, Szalacha, Benson, . . . Kinnison, 2008). Among bisexual and lesbian women, alcohol-dependence rates were as high as nearly 80% (versus 29% for heterosexual women), intoxication in the past year as high as nearly 72% (versus 31%), having experienced child sexual abuse as high as nearly 74% (versus 29%), having started drinking alcohol before age 15 as high as nearly 41% (versus 7%), as well as depression within the past 12 months as high as 87% (versus 27%) (Wilsnack et al.).

The concerns are not only about behavior but with the social norms within much of the gay and lesbian community that promote high-risk behaviors and lifestyles—behaviors and lifestyles that may not represent good role modeling even for biological children, but especially for adoptive youth, who may be at higher risk due to their circumstances even with good role models. Furthermore, the high rates of reported past child sexual abuse along with the risk of repeating a cycle of abuse lend concern to limited results with foster parents that suggest that sexual abuse of foster children is more common than expected on a same-gender basis (Schumm, 2005).

A third concern is that neuroticism—which Kurdek (2009) defines as "a predisposition to experience negative affect" (p. 119)—has been shown to predict lower levels of relationship commitment. Given that homosexuals have been shown to have higher levels of mental health concerns, it is likely that those issues would tend to predict—or perhaps cause—lower levels of commitment, resulting in greater parental relationship instability (Schumm, 2010c).

One area that has not been studied, to this author's knowledge, is the role of learning delayed gratification by children in different family types. Such a factor might prove especially important for adopted children.

Conclusions

The children of lesbian parents appear to be exposed to different kinds of role models through both their parents and through their parents' associates. Such differential role modeling does appear to have effects on children's development.

It appears that lesbian parents do tend to divide household labor more equally than do heterosexual parents. That modeling appears to carry over to encouraging their children to adopt less traditional gender roles compared to heterosexual parents. Furthermore, it appears that sons of lesbians tend to be more feminine than sons of heterosexual parents, while daughters of lesbian mothers tend to be more masculine than daughters of heterosexual parents; thus, parental influence seems important for gender modeling, though complete role reversal is rare. Likewise, lesbian parents appear to be more open, at the very least, to their children expressing a nontraditional sexual orientation as compared to heterosexual parents. Evidence is increasing that children of lesbian mothers, perhaps especially their daughters, are more likely to adopt a nonheterosexual sexual orientation.

Some research suggests that children of lesbian parents are more likely to adopt sexually permissive attitudes, even when they are heterosexual in sexual orientation—a possible further indication of the relative importance of parental socialization compared to genetics. Since the children of lesbian parents appear to have much higher exposure to nonheterosexual role models in terms of adult contacts other than their parents, there may be additional modeling from those other adults with respect to nontraditional gender roles and nontraditional sexual orientation, if not sexual permissiveness.

Evidence on teasing of children of lesbian parents is mixed; most children are teased to some extent if they seem different. Teasing may reflect a reaction to the differential outcomes of lesbian parental and friends' role modeling. The challenge for future research is to "tease out" which sorts of apparent difference are most critical to teasing at different stages of children's development.

It remains challenging to sort out the effects of sexual orientation on children's psychological adjustment. Virtually all studies that have yielded adverse results for lesbians' children have been marginalized in the literature. If there are significant effects, they most likely operate through intervening variables such as parental goals for their children (such as time preference or delayed gratification in general) over long periods of time. In addition, such effects would most likely be tied to gender role or sexual orientation/permissiveness outcomes rather than other variables. The extent to which parents model and encourage delayed gratification choices—especially delayed gratification choices of a sexual nature—may be important intervening variables. If lesbian mothers or gay fathers or their associates model polyamory or high levels of relationship turnover for their children, one might wonder how that would incline children to adopt consistent practices of delaying sexual gratification before marriage relative to heterosexual parents, who model sexual restraint before marriage and sexual fidelity after marriage. Notably, Luntz reported that "two-thirds (66 percent) of nonreligious Americans agree with the statement 'If it feels good, do it,' despite its selfish, dangerous undertones. By comparison, fully 71% of religious Americans disagree with the concept of instant gratification. What we have here is a chasm between the value systems of these two American camps." (p. 261). With N = 200, such percentage differences would yield an odds ratio of 4.75 (95% *CI,* 2.61 to 8.64; $r = .37$; effect size, Cohen's $d = 0.79$), a substantial as well as a statistically significant ($p < .001$) difference.

Consequently, it appears in this author's opinion that Biblarz and Stacey's (2010a, 2010b) and Biblarz and Savci's (2010) conclusions about the consequences of lesbian

parenting are not scientifically correct, which highlights the importance of continuing the conversation. Parental modeling does appear to play an important role in child socialization for both lesbian and heterosexual parents. However, what is modeled does appear to differ substantially between lesbian and heterosexual parents, with significant consequences for children in terms of a variety of outcomes most often keyed to gender role orientations or expressions of sexuality. While some effect sizes of the outcomes were greater, some were small; nevertheless, even small effect sizes should not be dismissed as unimportant (Cohen, 1988). Thus, the conclusion that lesbians make better parents than heterosexuals is not warranted from the literature despite that claim by recent reviews (Biblarz & Savci, 2010; Biblarz & Stacey, 2010a).

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Neither Genes nor Choice:

Same-Sex Attraction Is Mostly a Unique Reaction to Environmental Factors

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Abstract

This paper uses the seven largest twin registry studies to emphasize that same-sex attraction (SSA) is mostly caused neither by genetics (weak to modest influence) nor direct shared environment (very weak), but by many nonshared individualistic events and reactions, none of which is more than a small minority of total influences, and may well be differing reactions to shared environment. Twin studies sum up all influences (known and yet to be found) and their interactions, so this conclusion about the importance of nonshared factors is unlikely to change with future research into biological or social causes. The mean genetic percentages of shared genetic and environmental factors combined for men and women are 22 and 33% respectively and are not significantly different statistically. They are almost certainly maxima, likely to halve with further research. Recent findings of nonshared environmental epigenetic causes (genetic expression influenced by the environment) lead again to a conclusion that the genetic influence has possibly been overstated. Nor is deliberate choice of orientation significant; even for adult sexual choice (e.g., heterosexual mate selection), chance predominates. For the development of sexual orientation (ten being the mean age of first attraction), deliberate choice must be a very unusual event.

Introduction

Over the last fifty years, prolonged debate has raged over the question of where same-sex attraction (SSA) originates—is it in prenatal factors, such as genes, or postnatal factors, such as the style of family upbringing? The two groups of protagonists were mainly biologists (who believed in genetic causes) and psychologists (who believed in environmental causes). The purpose of the present paper is to present the evidence that idiosyncratic factors overshadow both the prenatal and parental (environmental) factors. This paper posits that SSA is mostly neither innate nor directly a matter of upbringing or social factors, but rather results from unique reactions to personal experiences. This conclusion is not likely to change with future research.

A study of most social factors possibly connected with SSA found that only a small percentage of overall SSA was accounted for by any specific influence, though all influences on adolescents taken together seemed highly significant (Bell, Weinberg, & Hammersmith, 1981). A later study confirmed those findings (Van Wyk & Geist, 1984). Thus, although social/family factors as a whole were quite significant, they were not significant individually. Research showed that there were many paths to SSA, and any given factor affected only a small minority of individuals. Obviously, some individual factors—such as sexual abuse—were very important to the individuals involved. Bell, Weinberg, and Hammersmith (1981) then totally erroneously stated that SSA was fixed and permanent in a person from childhood on—in other words, there was "tracking" from childhood SSA to adolescent SSA and on to adulthood. Hence, they concluded that their finding of significant social effects as a whole was only a statistical artifact.

The most significant single influence they found was childhood gender nonconformity. It used much weaker criteria than full Gender Identity Disorder as understood today, but even as the "most significant" single influence, it directly led to adult SSA in only 12% of cases—a weak effect.

The literature has subsequently stated erroneously that the work by Bell, Weinberg, and Hammersmith (1981) disproved that social factors had any general bearing

on SSA. Rather, Bell et al. could not demonstrate much importance for *individual* factors. This will be discussed in more depth in a forthcoming paper (in preparation).

Reacting to their modest result for individual social influences, Bell, Weinberg, and Hammersmith (1981)—without actual evidence—thought biological factors might be predominant. They did not discuss a possible role for chance, which from their data alone could have been a predominant part of the variance. The present paper, however, finds using twin studies, that chance (nonshared environmental factors) is indeed predominant, and shows that biological factors—like genetic factors—are likely to contribute less than 20% of the variance in the development of SSA.

The argument in this paper tries to reconcile some other contradictory findings—weak social factors for production of SSA being shown in sociological studies, but strong factors being found in individual clinical studies—by suggesting that erratic (unique) individualistic reactions to shared social factors are important as causes of SSA.

Many nontwin studies of various possible correlative biological factors contributing to SSA followed the 1981 paper (Blanchard, 2008; Kraemer, Noll, Delsignore, Milos, Schnyder, & Hepp, 2006). But none of the subsequent studies found a universal biological factor that might account for most SSA. The large number of such biologically oriented papers (about two dozen a year in PubMed alone) makes it superficially appear that biological factors must sum to a strong influence. However, since there can be overlap, synergistic, or competing influences, a summary measure is highly preferable—such as from twin studies. This paper demonstrates that twin study calculations show all biological factors—including those yet to be found—sum to only a weak to modest effect.

In this paper, identical twins will be identified as mz (monozygotic), and fraternal twins will be identified as dz (dizygotic).

Twin Studies as a Measure of the Various Contributions to SSA Influences

A central concept in twin studies is explaining the variation of something in the population—such as SSA—by calculating the relative contribution of genetics, shared postnatal environment, and nonshared postnatal environment (unique experiences or unique reactions to shared experiences).

The early post-World War II SSA studies by Kallmann (Kallmann, 1952a; Kallmann, 1952b) were performed on identical twins who were also mental patients. These studies found an overall 92% concordance for SSA (rather than the 100% sometimes quoted). These findings were never repeated in subsequent samples, possibly partly due to very lax and anecdotal SSA diagnostic criteria. Mz concordance is a simplified form of twin studies and compares shared and nonshared factors only. If the concordance was as high as Kallmann claimed, it would have meant shared factors (genetic and/or family factors) were very strongly influencing SSA development. Subsequent studies have not supported that finding.

Later studies followed the classical twin research design of comparing concordance in both mz and dz twins. Concordance in mz twins shows the influence of genetics, and concordance in dz twins allows for shared nongenetic influences. The greater the difference between the concordance of mz and dz twins, the greater the genetic influence. SSA research used samples drawn from the gay/lesbian/bisexual (GLB) community by a volunteer or "snowball" system, but at the beginning of the new millennium such studies were shown to have been subject to the known general problem that similar mz twins tend to volunteer for studies on a publicized topic and dissimilar mz twins do not (Kendler & Eaves, 1989). The results ultimately proved to be a great deal more biased than researchers had thought possible. The genetic influence fraction in those early studies, about 50%, is now generally believed to be significantly inflated—but, unfortunately, it is still quoted. This paper—which follows twin studies mainly since the year 2000—will suggest the true answer is likely to be below 20%. In other words, we've known for at least a decade that genetic influences on SSA are very little.

SSA studies based on twin registers, in which twins are enrolled on a voluntary basis simply because they are twins, probably produce much less bias than the "snowball" system. However, concordant twins (particularly mz twins) from such a register may still be disproportionately represented: participation in surveys that use twin registry members is not compulsory for any twins, and concordant twins tend to over-volunteer. The extent of this bias is not well-known, but is probably minimal, as seen by comparison of the results for SSA in Kendler, Thornton, Gilman, and Kessler (2000) and Bailey, Dunne, and Martin (2000). The results for SSA in these studies were very similar, though the first was a unique unbiased national survey and the second was drawn from a twin registry. Population studies, such as those from the highly documented health systems of the Scandinavian countries, will capture all twins with no bias, but do not register sexual orientation *per se*. Even these studies still need special surveys with participants' consent, which may again introduce bias through over-volunteering.

Modern Twin Registry Studies of SSA

Early twin registry studies contained such small numbers of twins that this paper concentrates instead on the major registry studies that have the largest samples. These large studies and their countries of origin include Buhrich, Bailey, and Martin (1991), Australia; Hershberger (1997), United States; Bailey, Dunne, and Martin (2000), Australia; Kendler, Thornton, Gilman, and Kessler (2000), United States; Bearman and Brueckner (2002), United States; Santtila, Sandnabba, Harlaar, Varjonen, Alanko, and von der Pahlen (2008), Finland; Langstrom, Rahman, Carlstrom, and Lichtenstein (2010), Sweden; and Alanko, Santtila, Harlaar, Witting, Varjonen, Jern, Johansson, von der Pahlen, and Sandnabba (2010), Finland. It is now common to find studies of a few thousand pairs of twins, and the last six referenced studies were generally individually larger than all the pre-2000 studies combined.

Varying measures of SSA have been used. However, we now know that the errors are so large that it makes no difference whether a criterion of attraction, fantasy, or

behavior was used to establish SSA. As a result, no differentiation was attempted in the present paper.

This paper emphasizes what has been implicit for some time: SSA follows the same general pattern seen in many other traits (Turkheimer, 2000) in which genetic factors are significant but modest; postnatal factors affecting both twins (such as upbringing) are apparently less important (quite often close to zero influence); and nonshared factors (usually described as nonshared environmental factors) are usually more important than either and usually more than 50% of total variance (=influences, approximately), meaning nonshared factors generally have a moderate to strong effect.

Psychologists reacted with frank disbelief and hostility to assertions in general twin studies that family influence was usually found to be so small, because their clinical experience with individuals unequivocally showed the opposite. Individuals they met were deeply affected by various unusual events in their histories. The conflict arose because the samples studied by each group were very different. Highly self-selected individuals in clinics have characteristics of those at one extreme end of a continuum, but prevalence of those characteristics often bears little relation to that of a carefully selected population-based sociological sample. Both conclusions, though conflicting, are therefore correct for their two samples, which consist of either the whole population or individuals (Whitehead, 1996). As described in that paper, clinical studies give unprecedented detail about individual psychological mechanisms that certainly occurred in the small sample described. On the other hand, surveys give a grand mean; the mechanisms revealed are often rather uninteresting and hide a wealth of significant detail. To some extent twin studies have fallen into the latter trap.

However, another important resolution of the conflict was the discovery that children reacted to shared family factors in differing ways rather than in similar ways (Plomin & Daniels, 1987). Overwhelmingly, there is individualized reaction, so the observations of the clinicians are valid for those they are studying. But this also means that *responses* to shared experiences (in a family, for example) are mostly not shared. In

other words, sometimes two children in the same family respond differently to the same environment. Individual perceptions of experiences and subsequent responses to those experiences seem to be the key factor in the development of same-sex attractions.

Results

This paper does not use the rigorously random twin study by Kendler, Thornton, Gilman, and Kessler (2000), which—though the result is much like the others—had to combine results from men and women. Nor does it use the survey of adolescents by Bearman and Brueckner (2002), because among the adolescents there was a major SSA measurement problem and enormous variability from year to year (Igartua, Thombs, Burgos, & Montoro, 2009; Savin-Williams & Ream, 2007).

The Santtila, Sandnabba, Harlaar, Varjonen, Alanko, and von der Pahlen (2008) survey was the largest, involving 2,334 pairs of twins. Like the second-largest survey by Langstrom, Rahman, Carlstro¦m, and Lichtenstein (2010), it used the Scandinavian health records, ensuring a relatively unbiased sample.

Results: Calculated Genetic Fractions

The mean in figure 1 for men is (22± 20)% where the error is the standard deviation. It made no statistical difference whether this was recalculated restricting the results to attraction or behavior. All surveys were therefore pooled.

The errors are very large. The standard error (a measure of how far the result is from zero) is 4%, so the result is far from zero and is real, but a 22% genetic fraction is considered weak. Conventionally in the twin literature, 25, 50, and 75% are considered weak, moderate, and strong, respectively, based on the inherent mathematical relationship, since 0 is no relationship and 100% is a relationship totally dominated by the genetics. A result between 25 and 50% is considered modest.

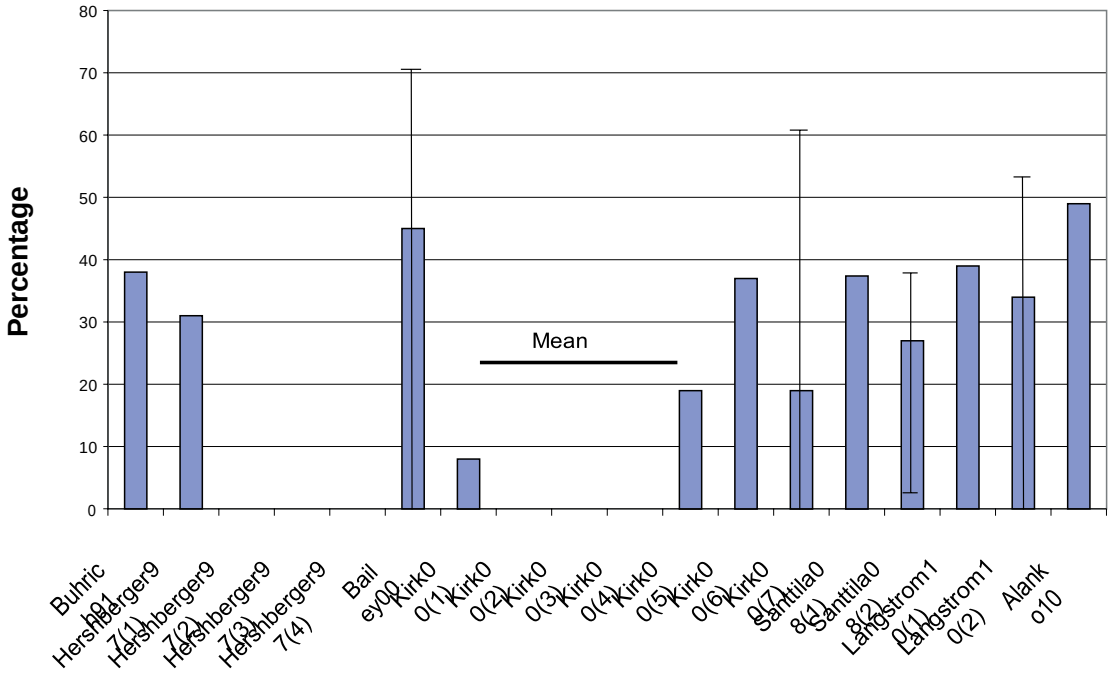

Figure 1. Estimates of genetic contribution to male SSA by various measures. Typical 95% error bars for selected studies are given. Absence of a histogram bar means the numerical result was zero. References and measurement basis: Buhrich, Bailey, and Martin (1991)—Attraction+fantasy+contacts. Hershberger (1997)(1)—Attractions when older than 25 years; (2)—SSA partners when older than 25 years; (3)—Sexual orientation (gay, bisexual, straight); (4)—Same, but modeling included siblings. Bailey, Dunne, and Martin (2000)—Sexual orientation: Kirk, Bailey, Dunne, and Martin (2000)(1)—Same sex (SS) feelings now; (2)—SS partners in last 12 months; (3)—Fantasy; (4)—Sexual orientation; (5)—Attracted once or more over life to date; (6)—Fantasy now (excitement or disgust at idea of SS contact); (7)—SS partners over life to date; Santtila, Sandnabba, Harlaar, Varjonen, Alanko, and von der Pahlen (2008)(1)—Potential to be SS-involved (fantasy); (2)—SS partners in last 12 months; Langstrom, Rahman, Carlstro¦m, and Lichtenstein, (2010)(1)—Any lifetime SS partners; (2)—SS partners over life to date; Alanko, Santtila, Harlaar, Witting, Varjonen, Jern, Johansson, von der Pahlen, and Sandnabba (2010)—Attraction+partners normalized to degree of libido.

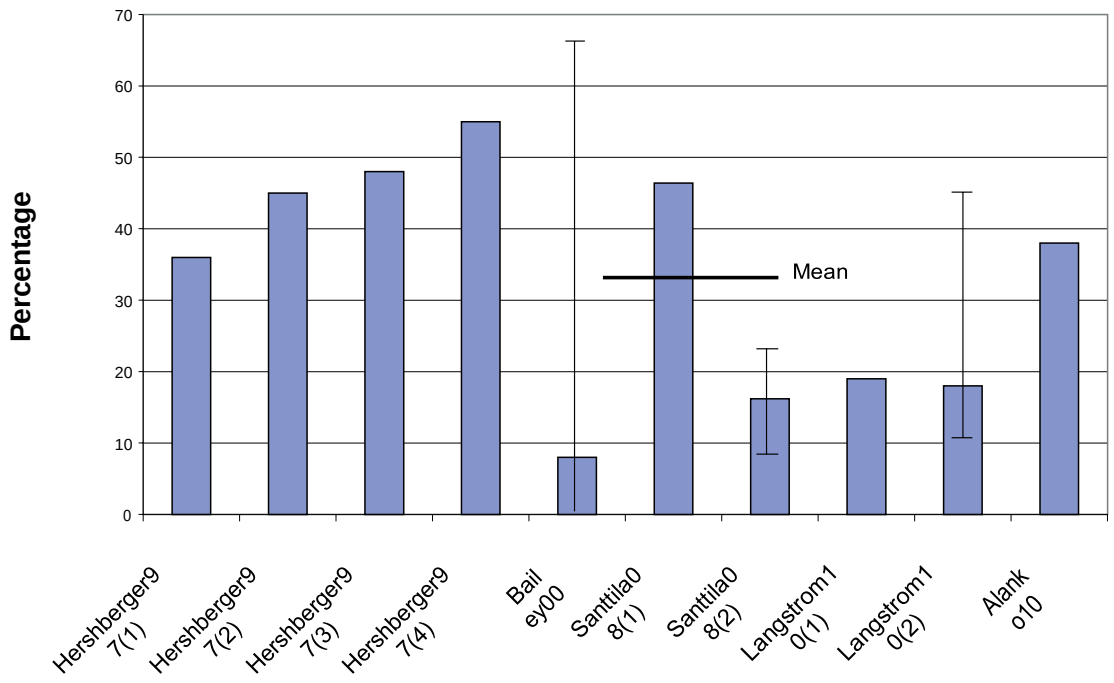

Figure 2. Estimates of the genetic contribution to female SSA. References as for figure 1, plus Kirk, Martin, and Bailey (2000).

The mean in figure 2 is (33 ±16)%, with a standard error of 5%. So a rough estimate of genetic contribution to female SSA is 33%. The result is far away from zero and is real, but its strength is only modest.

The results from the different sets of investigators are generally about the same within error. But when compared with classical twin studies on other traits, the errors are alarmingly large—a result that arises from the form of the statistical distribution of SSA in the population.

Even with so many SSA studies, the statistical errors are still so large that there is no statistically significant difference between the two percentages for men and women. The mean figures for the genetic content for men and women—22% and 33%, respectively—are still subject to the problems described later in the technical appendix, which will point out they are maxima and almost certain to reduce with further research.

Shared environmental factors in the studies cannot be distinguished from zero and are not graphed here. This is probably an illusion, as implied previously; in twin studies they often contribute to nonshared environmental effects.

Results: Nonshared Environmental Effects

In contrast, the errors on nonshared environmental fractions are much smaller. Figures 3 and 4 show the nonshared environmental fraction of SSA.

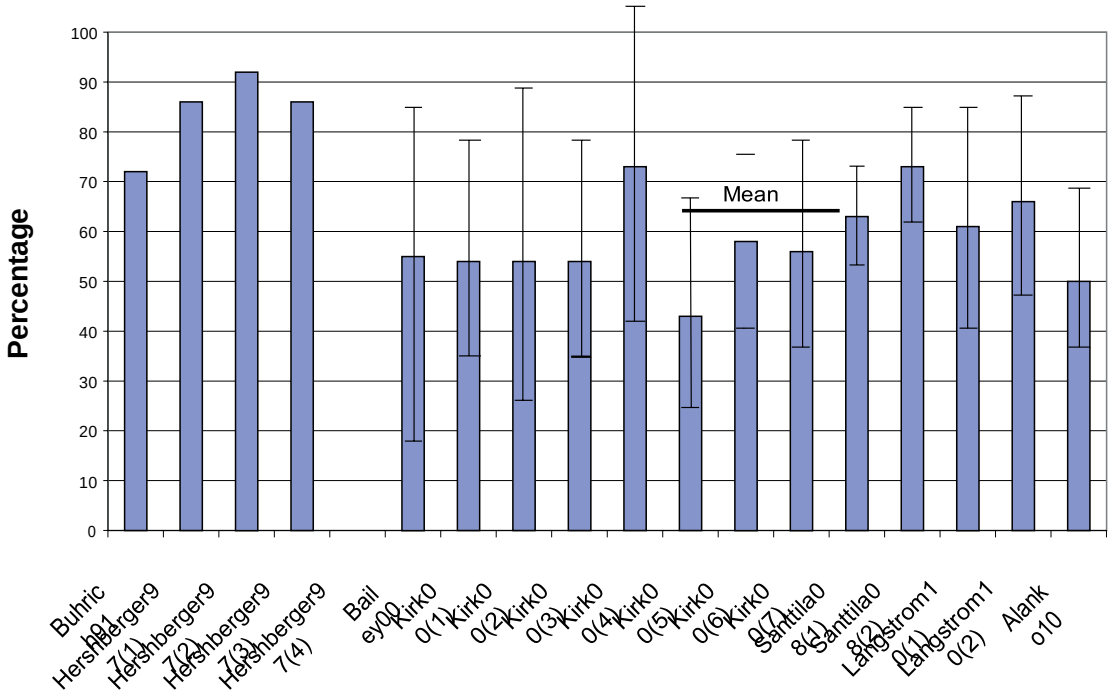

Figure 3. Nonshared environmental fraction for male SSA. The Hershberger (4) result is not missing, but is zero. Error bars are 95% confidence intervals, not available for the early studies. References as for figure 1.

The mean is (64±14)% and the relative standard deviation is much lower than for the genetic fraction estimations. This is a moderately precise estimation.

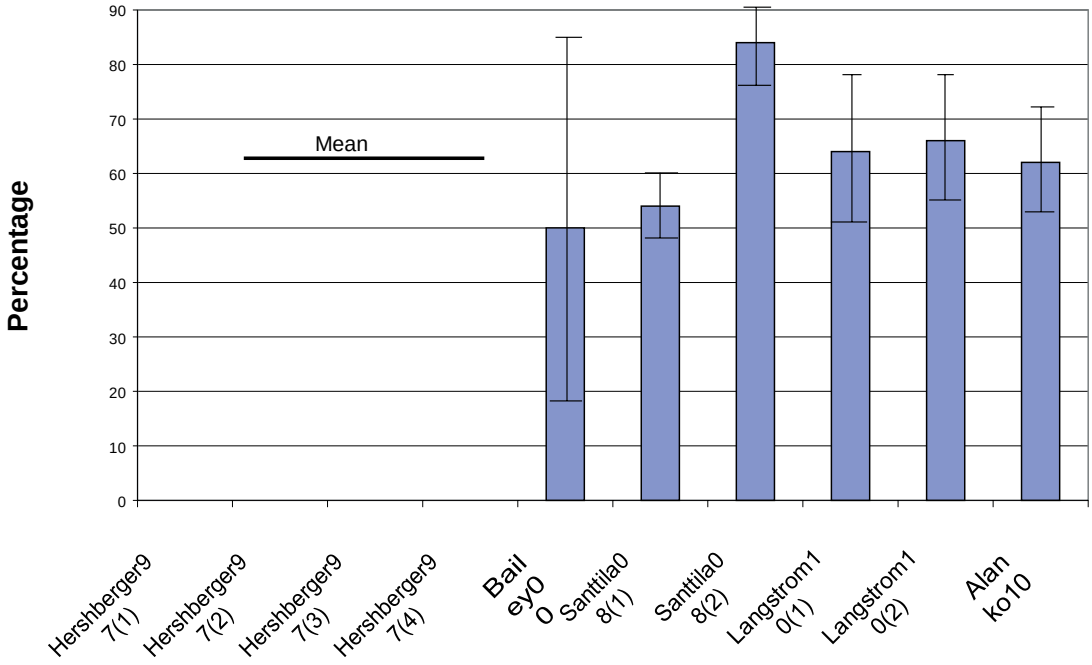

Figure 4. Nonshared environmental fraction from twin studies for females. References and same scale as for figure 2. (The Hershberger paper does not have female data for nonshared environment, only data for the genetic fraction).

The mean is (63±12)%, statistically the same as for the males.

Discussion

The relatively low results for the genetic fraction are in huge contrast to the genetically programmed events of puberty. Twin studies put the very strong genetic influence on pubertal events at 90% (Silventoinen, Haukka, Dunkel, Tynelius, & Rasmussen, 2008). This is much higher than the 22% and 33% means for SSA. The degree of any genetic programming must be much less for SSA than for puberty.

The calculated nonshared environmental contribution at 63 to 64% is moderate to strong. It is likely to increase with further research.

What Comprises Nonshared Environment?

From traditional twin studies, we therefore find in summary that SSA is predominantly (63%) produced by erratic, unique factors of a type that could affect one mz twin but not another.

An important outcome of the studies, therefore, is that the nonshared environment fraction is always two to three times the genetic fraction and has much smaller errors. Shared environment fractions are very low, consistent with zero—but, as mentioned, this paper suggests that varying reactions to shared environment are, in fact, very important to individuals.

Nonshared environment is characteristically elusive because it is erratic. There are probably very many individualistic experiences and factors that are very difficult to capture in surveys, explaining why general research into nonshared environment has been so unproductive. Turkheimer (2000) cites research that since 1987 had only accounted for 2% of such effects. However, in their study of socially problematic behaviors, Rodgers, Rowe, and Li (1994) accounted for a much larger proportion; they ascribed nonshared environment to features of the home that were experienced differently, so some research has succeeded.

Nonshared environment contains several components: (a) possible measurement error of SSA; (b) biological randomness; (c) differing random events affecting one mz twin but not the other; and (d) differing random psychological reactions.

The measurement error of SSA in adults is probably much less than in psychiatric studies of twins, in which conditions can be hard to diagnose. The error is probably not a large proportion of the "nonshared environmental" fraction.

There is some inherent randomness in gene expression. Gene expression is not a perfect clockwork-type system; it contains "noise" or variation in the expression of genes, depending on the circumstances or point in time (Bar-Even, Paulsson, Maheshri, Carmi, O'Shea, Pilpel, & Barkai, 2006). There is also randomness introduced when the

chromosomes recombine after the meiosis that forms the ova and sperm (Coop, Wen, Ober, Pritchard, & Przeworski, 2008). Those recombination events can be imperfect, introducing random errors.

This makes individual animals irreducibly different from each other; however, many researchers breed for uniformity and ensure that the environment is completely standardized. This effect has been known and puzzled about for many years. For example, breeding colonies of laboratory rats, however much inbred, always contain significantly variable-weight individuals. The same applies to cloned animals—and, therefore, human twins.

Other interesting mechanisms producing "epigenetic" differences within the category of randomness have become recently known; these involve environmental influences on genes and are considered further in the technical appendix.

This biochemical-connected randomness is a contributor to that part of the variance considered to be nonshared environmental. We do not presently know how large a percentage this is.

Some examples of differing random events that could influence one mz twin but not the other—especially among males—could include male sexual abuse, bullying, exposure to same-sex pornography, encounter with someone interested in same-sex experimentation, and bad experience during encounters with the opposite sex. In only a minority of individuals would any particular factor be a major reason for the development of SSA. In general, however, an unusual event—particularly of a sexual nature—has a formative effect that may outweigh routine years of other types of experience.

The nonshared environment may occur when individual children react differently to the same family environment or dynamics. For example, identical twins react differently to the same classroom (Oliver, Pike, & Plomin, 2008). Bailey and Pillard (1995) found identical SSA nonconcordant twins differed in some perceptions of childhood. Identical twins could also misperceive family dynamics in different ways.

Judging by the low values for shared environment in twin studies generally, these differing reactions to the same environment could be the predominant contributor to the random fraction.

All these random factors mean that it is likely each case of SSA will have an almost unique history, though some broadly common themes may be present.

Choice as a Possible Factor

Is deliberate personal choice one of the idiosyncratic, erratic factors involved in SSA? This seems very unlikely but is raised here mainly because it tends to be a possible issue associated with SSA when research results are discussed in the public arena. Most other twin study traits would not be given the same type of attention by the public. Whether choice has the usual adult meaning must be considered in relation to the age of first attraction.

Many papers show that the mean age of first attraction to the same or opposite sex (with 1 sigma error) is 10.9±4.5y for same-sex attraction and a similar 10.3±4.8y for opposite sex attraction (Hamer, Hu, Magnuson, Hu, & Pattatucci, 1993; Whitam & Mathy, 1986; D'Augelli, Grossman, Salter, Vasey, Starks, & Sinclair, 2005; Floyd & Bakeman, 2006; Floyd & Stein, 2002; Grossman, 2008). The standard deviation is exceptionally wide, and programmed biological events have a significantly smaller standard deviation (paper in preparation). When the referenced studies were published at the end of the twentieth century, first attraction to the same or opposite sex preceded puberty by nearly two years. Subsequent to puberty, attraction becomes more clearly sexualized, and identification as GLB usually occurs during adolescence. Deliberate choices about sexual preference prior to ten years are probably quite erratic and immature.

Even when clear choice is involved as an adult, there is evidence that random factors can be more important than the genetic elements. Thus in studies of opposite sex

attraction (OSA) mate selection and similarities in chosen partners, the genetic influence on mate characteristics was 34% genetic and 54% due to random factors—the familiar pattern in behavioral genetics (Philippe & Ann, 2005). One can easily imagine that there could be a significant degree of chance in finding a mate who is personally attractive. Even in this case, "choice" is overshadowed by chance. Another paper studying OSA concluded that the genetic component to most preferred love styles or forms of romantic attraction was zero, that there was a small to modest contribution from the shared environment, and that there was an overwhelmingly large contribution from the nonshared environment, ranging between 61 and 85% (Waller & Shaver, 1994). In both of these papers that examined choice, the nonshared environment was predominant.

Mate selection is probably one of the strongest examples of deliberate choice among life decisions—but, as seen above, even it has a strong random component. For children, the idea of such deliberate choice is even less applicable. It is hard to think of any major life decision that is made involving informed choice at the age of ten. Although cases probably exist, it must be very rare to find any individual who makes a conscious choice about SSA or OSA at that age and who can describe the event and process later. Contrast that to most adults, who can describe clearly the decision to live with a partner. This means that the unique factors rather than deliberate choice must be strongest among children.

The universal experience of those with SSA is that they neither deliberately chose it nor initially welcomed it; indeed, SSA is a significant factor in early suicide attempts. Similarly, the experience of those with OSA is that they did not deliberately choose it, in any common-sense use of the term *choice,* but merely reacted to life's circumstances in ways that seemed best at the time.

According to Bailey (1995, p. 103), "The argument over whether homosexuality is 'biological' or 'freely chosen' is perhaps the most common and the least productive version of the biology debate." The current analysis strongly backs his conclusion because it emphasizes the predominance of idiosyncratic factors over both.

Three Further Implications of Low Genetic Influence of SSA

There are three further implications showing that genetics have a low influence in SSA.

First, as demonstrated from the twin studies, SSA is *unusually* subject to production by erratic nonshared factors. The genetic fraction is much lower than usual compared with those for other traits; for example, a psychological component is typically nearer to but less than 50%. The high level of erratic nonshared factors for SSA is completely contrary to the common but uninformed assumption that SSA is usually produced by some inexorable deterministic process. This is exemplified by the anecdote of the nonconcordant mz twin pair in which the SSA twin insisted SSA must have a genetic origin (Bailey, 1995).

Second, the twin data sum up the influences of all shared and erratic factors, whether presently known or not. After more than seven large studies, the concordance percentages and estimated contributions to genetic, shared, and nonshared influences as estimated by traditional twin-study methods are not likely to change by large factors. Thus it is almost impossible that some genetic or shared social factor—whether already known or to be discovered in the future—will be shown to be a predominant cause of SSA for the general population. As an illustration of this, it is emphasized that all genetic and social factors together produce for male mz twins a low 11% pairwise concordance (Bailey, Dunne, & Martin, 2000). All such shared factors must be individually classified as relatively weak or modest influences, especially if there are more than one. This must be the ultimate conclusion of all the various pieces of research currently being undertaken. All these are interesting, but will not find a predominant cause. We have that conclusion already: nonshared factors predominate.

Third, the low results for the influence attributed to the shared environment leads to the conclusion that parental factors common to each twin are mostly not responsible—in other words, parents are unwise to hold themselves directly responsible for SSA in a

child. Instead, SSA has usually arisen from idiosyncratic immature reactions to factors (including family factors) that are shared by *all* children. The nonshared factors seem to include the child's perceptions of his/her experiences and his/her individual reactions to those experiences. One conclusion of the study of Bell, Weinberg, and Hammersmith (1981) was that 70% of SSA variation was not accounted for by social factors. The present paper concludes that a similar fraction is random factors, but concealing varying reactions to shared social factors.

Otis & Skinner (2004) studied which developmental factors had at least some perceived importance to those with SSA. Most participants were able to endorse at least part of one or more factors from a preselected list, generally of the type used by Bell, Weinberg, and Hammersmith (1981). The survey suggests that many respondents thought multiple causes could be involved.

Modern investigations of genetic contributions to psychological traits show that many genes are involved, each with a very small contribution. It seems likely that the random contributions to SSA will likewise be multitudinous, and that each will have a small effect (although some may have a strong effect in some individuals).

Conclusions

The title of this paper asserted that neither genes nor (deliberate) choice was directly responsible for SSA. Chance incidents and idiosyncratic personal reactions predominate, and this has been demonstrated in almost all the twin surveys that have used modern sampling techniques. The present weak to modest estimates of 22% for men and 33% for women for all shared prenatal biological influences are likely to decrease significantly with further research (see technical appendix). The present fairly strong estimate of 63% for both men and women for the nonshared influences is correspondingly likely to increase with further research. The statement of LeVay (2010) derived from twin studies saying that "genes exert a significant although not all-dominating influence

on sexual orientation" (p. xv) must be interpreted as meaning the lower part of the significance range.

Because of the calculated low genetic fraction, we are safe in saying that people are predominantly not "born that way"; in fact, SSA is a good example of relative lack of prenatal preprogramming. However, the basic attraction constituent of SSA is on average present or absent at age ten, and explanations of origin should concentrate on ages earlier in childhood but post-natal. Some development and sexualization of this attraction certainly occurs at later ages.

There has been, and still is, much research on prenatal causes for SSA. This is reasonable research in its own terms, but according to the twin data in this paper, any findings capable of impacting two identical twins similarly will be numerically minor in terms of total causes. SSA also seems usually not a matter of deliberate choice, because differing reactions to shared environment occur too young; immature reactions are much more erratic and varied than informed adult ones.

Many years ago, Kinsey and associates said that it is possible that the early initiation of sexual experimentation with a same-gender partner is essentially a random event (Kinsey, Reichert, Cauldwell, & Mozes, 1955, as cited in Bickham, O'Keefe, Baker, Berhie, Kommor, & Harper-Dorton, 2007). He may have been right.

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Technical Appendix

This appendix contains discussion of factors that are often highly technical but are an important part of the intellectual debate and will become more so. They tend to argue that the conclusions in the main body of the paper are quite conservative.

Epigenetics

Epigenetics is an emerging research current that describes how the environment influences gene expression. It is simply incorrect that genes control human characteristics in a deterministic, autonomous fashion. This has a potential impact on the twin studies described in the main text. It has been shown that gene expression is only 4% different in mz human twins near birth; more significant divergence emerges later due to epigenetic effects (Fraga, Ballestar, Paz, Ropero, Setien, Ballestar, . . . Esteller, 2005). Differences are more significant by age five (Mill et al., 2006) and continue to increase to old age by a factor of about 4. These epigenetic effects could contribute to different SSA outcomes, but those different SSA outcomes would mainly occur postnatally, when the environment is an actively contributing factor. These differences would decrease any effects of genetic preprogramming.

The Assumptions of Twin Study Analysis

There are rules for twin studies, and violating them leads in almost all cases to a genetic component that is too high. This paper asserts that the rules are often violated in SSA twin studies, resulting in genetic fractions that are significantly overestimated. This

paper also acknowledges that the researchers have checked many of the factors where they can.

For twin studies to be accurate in their conclusions about homosexuality, they must show that:

1. Mz twins did not volunteer for the study at higher rates than dz twins, nor did mz twins show unusual eagerness to answer intimate sexual questionnaires. (This "volunteer error" effect is one of the banes of psychological studies).

2. Families really do treat each of a pair of twins identically (the "shared environments" or "equal environments" assumption).

3. Homosexuality has a statistically "normal" distribution (bell curve) in the population.

4. There is no interaction between genes and environment.

5. People with the "homosexual gene" very rarely mate with others carrying the "homosexual gene."

6. The twins do not imitate each other; in particular, identical twins do not encourage each other to be homosexual (the "twin environment" effect).

7. Apart from being twins, the twins are very similar to the rest of the population (in other words, they are physically the same and about 1% are exclusively homosexual).

8. The calculations should give genetically consistent results when siblings, parents, and other relatives are included in the calculation model.

9. Whether an mz twin has an independent placenta or shares it with the co-twin makes no difference to the results.

Are These Rules Broken?

1. The volunteer error has been minimized (but not completely removed) by using modern twin registers. Another type of distortion can occur when twins refuse to take part

in the SSA section of a survey. Such twins tend to be more conservative, and less probably homosexual. Each of these factors tends to overestimate apparent genetic content.

2. Families treat each individual twin the same. Care given by parents amounts to a strongly individualized care that can be experienced as quite different from that given to a brother or sister. This could lead to differing SSA. But if in fact idiosyncratic reactions of children predominate anyway, this may not be a very important factor.

3. Normal distributions are respected. SSA certainly does not have a normal distribution in the population, and that is what causes the large error ranges. The endpoint of these particular mathematical distortions is to produce a "genetic" contribution result that is too high. Santtila and colleagues tried to allow for this mathematically, and presented evidence they had succeeded (Santtila, Sandnabba, Harlaar, Varjonen, Alanko, & von der Pahlen, 2008). But the calculated genetic fractions were much the same as those from other authors who did not allow for it. Either this is a small effect, or the results are dominated by other uncertainties.

4. There is a proper perspective on nature and nurture. Probably the most important criticism that has been leveled at twin studies is that they treat nature and nurture as totally separate influences that don't interact during human development. Is there an interaction between influences produced by genes and the environment? Of course there is. If interaction does occur between the influences of the genes and the environment among any population in a twin study, it has the effect of artificially raising the calculated genetic contribution (Eaves, Last, Young, & Martin, 1978; Eaves, Eysenck, & Martin, 1989; Lathrope, Lalouel, & Jacquard, 1984). Researchers are generally very critical of the idea that nature and nurture do not interact: "In a specific practical situation do we really believe . . . the . . . model is at all realistic? The answer is no" (Goodall, 1990, p.133). So, these interactions certainly exist. Let's look at an example. If a person were genetically inclined to become homosexual, would an environment that encouraged him to express his sexuality (for example, seeing homosexual porn or receiving advances

from homosexual men) have any effect on him? Of course it would. There is definitely interaction of the genes and environment. However, it may not always affect the results too seriously. In the Australian SSA study (Kirk, Martin, & Bailey, 2000) researchers tested for this specifically and couldn't find clear evidence of it—only a strong suspicion. It is also fair to say that when gene-environment interaction has been obvious in non-SSA studies, it has had only has a minor effect (Eaves, Last, Young, & Martin, 1978; Eaves, Eysenck, & Martin,1989). The possibility is disturbing, though, because it is an effect that is easily missed.

5. Do people with the "homosexual gene" or genes tend to marry each other more frequently than they marry those without the gene or genes? There are no such clearly known genes (Mustanski, DuPree, Nievergelt, Bocklandt, Schork, & Hamer, 2005), and this is therefore unlikely to be important. But if this effect existed, it would have an effect opposite to all the other factors mentioned here—it would underestimate the contributions from genes (Waller, Kojetin, Bouchard, Lykken, & Tellegen, 1990).

6. Do twins tend to imitate each other in homosexual development? Twins certainly do imitate each other (for example, they are known to imitate each other in antisocial behavior and in truthfulness or lying—Eaves, Last, Young, & Martin, 1978). It is quite conceivable that the same might happen in the development of homosexuality. Twins often have an unusually close bond, sharing intimately and reinforcing each other, particularly if they are identical. These environmental factors could lead to higher levels of homosexuality in identical twins, making the genetic content appear higher. Influence on each other could range from talking about SSA with each other to exploratory sex. Hershberger (1997) found statistical evidence in his sample that the mz twins had indeed influenced each other in the occurrence of their SSA.

7. It is quite doubtful that twins are completely similar to the general population. On average they start life smaller than other babies, and they have fewer verbal and social skills until as late as eight years (Powers & Kiely, 1994). The rate of child abuse among

twins is nearly three times higher than for the general population (Nelson & Martin, 1985). They tend to be found toward the bottom of the social scale in their schools and are often subject to harassment and teasing by schoolmates. Young male twins are often called "fairies" (Winestone, 1976), probably adding to self-perceptions of childhood gender nonconformity, which is one of the strongest predictors of later homosexuality. Twins are such good and sufficient friends to each other that their individuality and sexuality may not be entirely developed for social rather than hormonal reasons. For example, some studies have shown they are more likely to be unmarried than nontwins, though this effect was not found in the Australian twin study. The overall rate of self-evaluated SSA among twins was 3.1%, rather higher than 1.8% for an independent survey of prevalence in the general Australian population (Bailey, Kirk, Zhu, Dunne, & Martin, 2000). Other surveys also suggest SSA might be slightly higher for twins than for the general population. In summary, they are a somewhat suspect population for sexual surveys for a variety of reasons.

8. Inclusion of siblings has given contradictory results in SSA twin studies, worse than for other traits. For their research, Santtila and colleagues state that "attempts at fitting univariate and bivariate extended-family scripts for categorical data were not successful" (Santtila, Sandnabba, Harlaar, Varjonen, Alanko, & von der Pahlen, 2008, p.103). In other words, including nontwin siblings in a modified twin research design gave results that could not be interpreted or that were perhaps contradictory. Kendler and colleagues found a decrease in the genetic fraction, when siblings were included in the model (Kendler, Thornton, Gilman, & Kessler, 2000), and Hershberger (1997) could find no resulting genetic influence at all. This argues there may be a basic problem with the conventional genetic model used in all these SSA twin studies, and further investigation is necessary. This tends to point to a sibling social, rather than genetic, effect.

9. In traditional twin studies, the genetic fraction is probably further overestimated because of an effect of placenta on gene expression (whether mz twins have a shared

placenta in the womb or whether they had separate placentas, as dz twins do). Mz twins can have either, and it makes a difference. In a groundbreaking paper, Kaminsky and colleagues studied about 6,000 differences in gene expression between twins (Kaminsky, Tang, Wang, Ptak, Oh, Wong, . . . Petronis, 2009). Twins that shared a placenta were much more alike than expected. This is because the same blood supply ran through both twins and cells from each twin ended up in the other. Shared placentas occur in perhaps 25% of mz twins. Combining both kinds of mz twins, the average is still more similar than genetic theory says it should ideally be for the mz twins. The effect of this is to artificially increase the difference between mz and dz twin concordance on which the traditional twin method depends and hence overestimate the genetic fraction. Assuming an allowance needs to be made for the mz placenta effect, the average effect for all traits of not factoring it in would be that the genetic fraction is 15% too high (Kaminsky, Tang, Wang, Ptak, Oh, Wong, . . . Petronis, 2009)—quite a significant effect. Does this apply to SSA also?

It was already known in some of the above-cited SSA twin studies that mz twins were more alike than conventional genetic theory should allow. This could mean that overestimation of the genetic fraction due to mz excess similarity also applies to SSA. It has been theorized that this has been due to nonadditive genetic effects (Kirk, Bailey, Dunne, & Martin, 2000), but a simpler explanation is the placenta effect.

Allowing for this likely 15% overestimation would reduce the weak SSA 22% genetic contribution to 7% in men—with an error of zero—and from 33% to 18% in women. The genetic effect for the women would then also be classified as weak rather than modest.

Consequences of Assumption Violation

In most twin studies of homosexual populations, most of the assumptions that must be met if the results are to be trusted have been partly violated in such a

way that the genetic contribution is significantly overexaggerated. This also implies that the nonshared environmental fraction has been underestimated, if as usual the apparent shared environmental fraction seems to be low. Does this mean that twin studies are a completely unsuitable tool for gauging the genetic content of sexual orientation? Probably not. When other traits have been investigated closely for the effects of violated assumptions, the genetic proportion is over-estimated but is still real. So while it is a reasonable supposition as shown above that the 22% estimated figure for the genetic component of male SSA could be consistent with zero, the genetic influence for female SSA is more likely to survive further testing but is likely to be less than 20%.

In summarizing all of this, one may estimate that the genetic contribution to SSA as shown by twin studies is presently weak for men and modest for women, but may well downgrade ultimately to zero for men and weak for women. One can also estimate that the nonshared environment fraction will correspondingly increase.

Poor Penetrance?

Penetrance means that the genes for a trait may be present but do not exert their effects. So there could be genes for SSA that are, for unknown reasons, partly inactivated. This was raised as a possibility by Bailey, Dunne, and Martin (2000). Penetrance is usually judged by effects on relatives, particularly twin pairs. The pairwise identical twin concordance for SSA in men and women is typically 11 and 14% respectively (Bailey, Dunne, & Martin, 2000), meaning that identical twins are strongly discordant for SSA—they usually differ, and this might indicate poor genetic penetrance. We now examine the possibility, based on the interpretation of twin studies, that genetic factors are present but "non-penetrant" (Kastern & Kryspin-Sorensen, 1988) and produce this low concordance. The hypothesis would suggest that although responsible genes for SSA are normally present, their effects are for some reason not

being produced consistently in the nonconcordant twin. This would give rise to a low calculated genetic fraction.

This is unlikely. The huge database Omim (www.ncbi.nlm.nih.gov/omim), which contains data on genetic variations and mutations in man, contains most of the quantitative data on typical penetrance. A penetrance as low as observed in the mz twins for SSA occurred in only 9% of cases.

A study on 6,578 human genes—nearly 30% of the total genome (York, Miles, Kendler, Jackson-Cook, Bowman, & Eaves, 2005)—showed that the expression of genes was 11.2 times more correlated in mz twins than dz twins. A much less extreme value from a much larger sample was found by Kaminsky and colleagues, but the correlation was in the same direction—positive (Kaminsky, Tang, Wang, Ptak, Oh, Wong, . . . Petronis, 2000). This means that discordant effects in mz twins are the exception rather than the rule. To observe strong discordance for SSA in both male and female mz twins seems even more unlikely.

We cannot meaningfully talk about penetrance until the genes are specified. This is because unless the genes are well-known, the effect of low-penetrance mechanisms cannot be differentiated from their absence, and other causes might instead be responsible. In the present case, about two decades of research on SSA-genetic association has found only genes that are individually not statistically significant (Mustanski, DuPree, Nievergelt, Bocklandt, Schork, & Hamer, 2005). More research is proceeding, but even if it yields positive findings it will need much replication and confirmation, particularly because of the previous conflicting findings in this field. It is likely, as for most traits, that SSA will be multigene, and such genes will eventually be found—but each will have a very weak and indirect influence by itself and individual confirmation will be quite difficult. Even if the influence of such genes is unequivocally established, it would be a further step to establish in this particular case the mechanism that produces poor concordance. At present, therefore, the idea of poor gene penetrance

is far too speculative and awaits much more research progress. The best conclusion right now is that unusually poor penetrance in the classic sense is not a factor.

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Sociological Studies Show Social Factors Produce Adult SSA

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Abstract

An important path analysis study by Bell, Weinberg, and Hammersmith (1981a) is usually interpreted in the literature as proving there are no social/upbringing effects on development of adult SSA (same-sex attraction). Instead, the study said that varying social factors leading to SSA occur in different ways in various classes, such as bisexuals, blacks, and effeminate homosexuals. It correctly points out that individual factors contribute to SSA for the whole population in small and diverse ways and that any single cause will result in SSA only in small percentages of a population. The present paper shows that these social factors are collectively significant. An important follow-up study (Van Wyk & Geist, 1984) showed sexual experience factors were very important.

Bell, Weinberg, and Hammersmith (1981a) believe that adolescent SSA development is biologically preprogrammed—in other words, it is fixed in childhood and shows no further change. This is shown to be quite erroneous on several counts. For example, recent work on teenage twins with SSA (Bearman & Brueckner, 2002) shows no genetic influence and a predominant nonshared environmental component.

The conclusion regarding factors contributing to SSA is that social factors are significant, confirming the observations of clinicians, but the influence of the factors is heavily dependent on personal idiosyncrasy.

Introduction:
The Apparent Lack of Studies Showing Social Effects on SSA Origins

In her book on biological effects as the cause of SSA, Cheryl Weill (Weill, 2009) very evenhandedly says she would have included papers talking about social causes, but could not find credible material; she concluded that "there is no data." By this she seems to primarily mean sociological survey data, since the psychological clinical data has existed for many decades.

Similarly, Savic and colleagues (Savic, Garcia-Falgueras, & Swaab, 2010) say there is no evidence at all of anything after birth affecting sexual orientation. However, sociological data providing such evidence does exist in various papers, particularly because an important decades-old study has been misinterpreted. This research is the foundational study of Bell, Weinberg, and Hammersmith (1981a, 1981b). Other important evidence is provided by the follow-up study of Van Wyk and Geist (1984).

The 1981 Path Analysis Study

After more than a decade of work that resulted in the 1981 Path Analysis Study, Bell, Weinberg, and Hammersmith produced two volumes. The first (Bell, Weinberg, & Hammersmith, 1981a), a 242-page book, describes the interpretation and implications of the large amount of data they collected. Detailed statistical tables of this data and further resulting path diagrams comprise the second volume (Bell, Weinberg, & Hammersmith, 1981b), a 322-page book.

The study examined the causes of adult homosexuality using interviews from the early 1970s, a few years before the Stonewall riot. Their White sample was comprised of 575 homosexual males, 284 heterosexual males, 229 homosexual females, and 101 heterosexual females. Block sampling techniques were used, which should have ensured a reasonably representative sample. A Black sample of adequate size was also interviewed. However, because the sample was not rigorously random in today's terms, there does remain a real question as to whether the results may be validly extrapolated

to all homosexual people, particularly those not living in urban areas. Participants were asked to complete a 175-page questionnaire that took three to five hours to complete; the survey asked questions checking on almost every cause of SSA suggested at that time by clinicians, psychiatrists, and theoreticians. The survey was designed to directly test whether those theories were valid.

The answers from respondents were combined into areas of similarity, with constant testing to ensure that combining made a measurable statistical difference. Many causes apparently did not significantly contribute to adult homosexuality and were eliminated. Such a procedure was understandable for that time, but probably mistaken because it questionably assumed that a single unique cause for SSA would predominate and be highlighted.

After all those factors were eliminated, what ultimately remained were about fifteen factors, or variables, such as "hostile mother," "homosexual genital activities in childhood," and "felt different for gender reasons." These factors were examined statistically for connections to other variables and the end point—adult homosexuality—using a technique called *path analysis*, which is supposed to give information about causes. The results were published in 1981, a decade after data was collected. This certainly cannot be considered a hasty publication.

Path analysis tries to identify the most common path or paths leading to a particular condition—in this case, homosexuality. Path analysis produces diagrams (figures 1 and 2, redrawn and altered from the 1981 study) that visually show the network of causes; it then attempts to assign a relative importance to each cause. The method works best when there are a relatively small number of causes. For that reason, it does not seem to be an ideal tool for the study of homosexuality, because even from the diagrams there seem to be a multitude of causes or paths, many of which are social/family factors. It is also doubtful that the sample size was large enough to firmly establish the large number of paths displayed. In any case, the authors thought the results for social influence were illusory, and they preferred a biological explanation.

A second, approximately confirmatory study by Van Wyk and Geist, published in 1984, used male and female data collected by Kinsey and his co-workers in the 1940s, but corrected for sampling bias. While Bell and colleagues found preexisting sexual feelings were primary as a cause of homosexuality, Van Wyk and Geist found instead that sexual experiences (social factors) were primary.

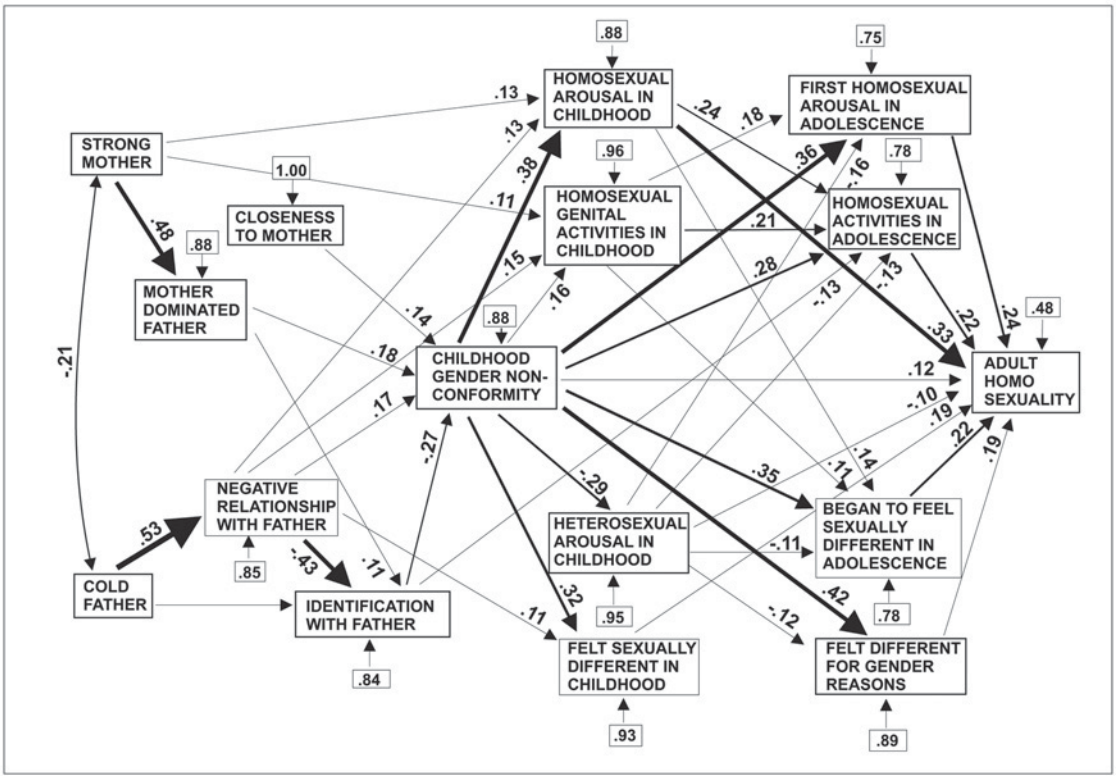

Figure 1. Path diagram for male adult homosexuality. The thickness of arrows is proportional to the strength of connection. The strength of effects is also indicated by the numbers alongside the arrows. Numbers alongside the boxes indicate the influences due to chance.

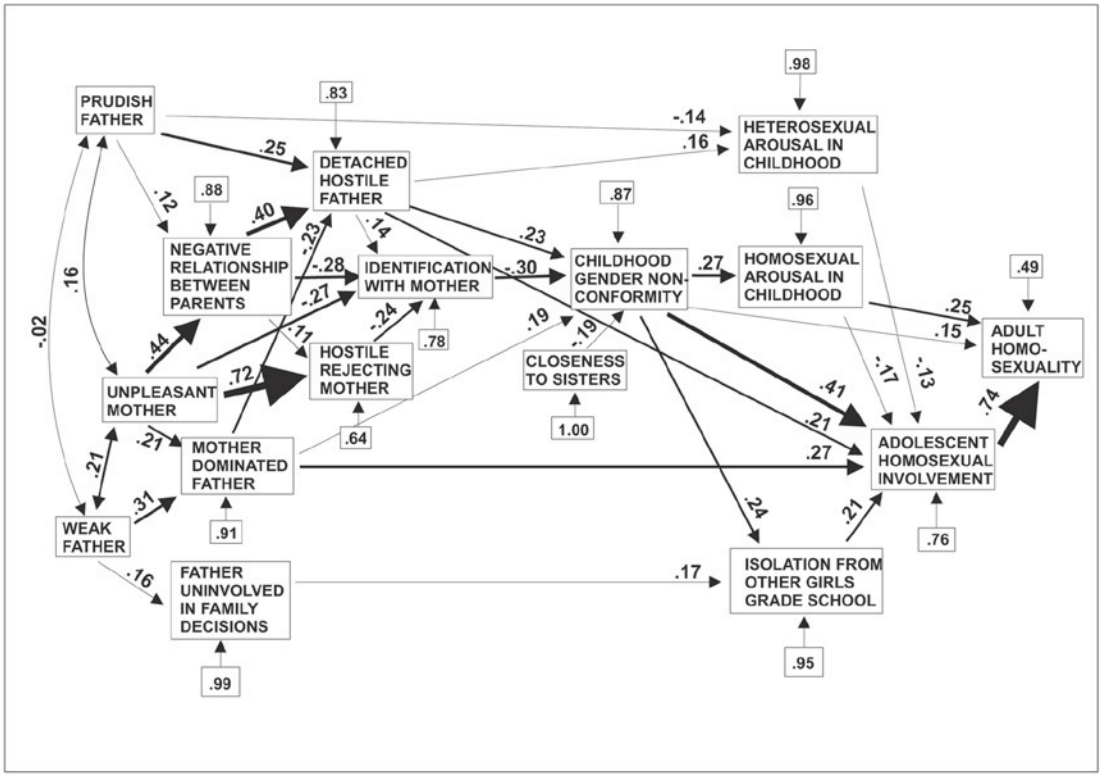

Figure 2. Path diagram for female adult homosexuality. The thickness of the arrows is proportional to the strength of connection.

Some paths in figures 1 and 2 showed up more strongly than others, but even the strongest variable was described by the authors as rather mediocre as a direct predictor. Child gender nonconformity ("sissiness") was the strongest single variable for boys, but on a scale of 0 to 100, it measured only 12% as a direct contributor to homosexuality. This means that few "sissy" boys became homosexual as a direct consequence of their sissiness. However, when indirect paths (such as sexual arousal) were considered, the contribution was much higher (61%). This means that most paths—about 80%—were indirect and depended on other factors being present. This is an important and typical pattern in sociological research (Rutter, 2006); most factors interact with a multitude of others. However, researchers in the 1980s were still looking for single predominant factors that might cause SSA, and as a result they postponed examination of the idea that many factors might be involved.

The individual psychiatric/psychological factors popular in 1981 were shown in the study to have almost zero direct or indirect effects on adult homosexuality. This was a striking and challenging finding and seemed to remove most such theories from further consideration in the eyes of many academics. These academics thought the clinical psychologists with their vivid case studies showing the importance of individual psychological factors must simply be wrong. The clinicians, on the other hand, unable to deny their clear clinical experience, basically ignored the statistical findings.

This study had a strong effect on subsequent thought. In 2010, Google Scholar found the study was cited 680 times by other scholarly works, which by definition makes it a citation classic. To put that in perspective, most papers in most fields do not get cited by anyone—even by their authors.

Since studies showed that individual social factors did not clearly predominate in the development of SSA, critics of psychological theories of SSA then tended to emphasize and research biological causes. But in the thirty years that followed, no single biological factor was shown to have a predominant influence on SSA. This alleged choice between nature and nurture has been debated in many areas other than SSA, and a general academic consensus from the last few decades is that both are always involved and both are multifactorial. Whitehead (2011) has emphasized that chance is also an important factor that was previously considered too little in the debate.

This 1981 Path Analysis Study is particularly important because it has been consistently misinterpreted ever since its publication, probably because its specialized statistical techniques are not familiar to the average reader nor even the psychotherapeutic community, who felt unqualified to challenge them. (There appear to be no subsequent reviews of the study with informed statistical commentary.) The usual claim by several authors is that the study disproves *any* social cause for homosexuality (APA Task Force on Appropriate Therapeutic Responses to Sexual Orientation, 2009), though Bell, Weinberg, and Hammersmith had a considerably more nuanced approach.

Denial That Social Factors Were Important

Bell, Weinberg, and Hammersmith (1981a) initially found a strong link between their social factors and adult SSA. Social/upbringing factors explained an almost unprecedented 76% of the variation (variance) for both men and women, but the researchers then denied that those social factors were significant—an unusual course of action. We therefore consider in detail the appropriate passages in their book (italics are in the originals):

> Our path models for describing the development of sexual orientation succeed in explaining 76% of the variation in adult sexual orientation among both the men and the women in our study … As we have already pointed out, this value is extremely high—so high, in fact, that it forces us to consider adult homosexuality as just *a continuation of the earlier homosexual feelings and behaviors from which it can be so successfully predicted*.… we should not forget that these variables in large part simply measure the same phenomenon at different times.
>
> What our study suggests, then, is a strong continuity between a person's childhood and adolescent sexual feelings (and to a lesser extent behaviors) and his/her adult sexual preference.… The very strong continuity between preadult homosexual patterns and an adult homosexual preference can be interpreted as reflecting an extraordinarily strong conditioning effect of some sort that "tracks" people into homosexuality. (pp.186–187)
>
> *By the time boys and girls reach adolescence, their sexual preference is likely to be already determined, even though they may not yet have become sexually very active.* (p. 186)
>
> We therefore conclude, statistically speaking, that the presence of [adolescent] homosexual feelings and homosexual activity in our model is due to statistical artifact; i.e., they are there not because they are really distinct from

> adult homosexuality but simply because they occur before adulthood. In plain language, we infer that what the model is telling us is that sexual preference seems to be pretty well established early in life and Adult Homosexuality simply represents the last stage in the emergence of a deep-seated pattern of homosexual responsiveness. (pp.103–104)

The negative reaction of Bell, Weinberg, and Hammersmith to such a good explanation of homosexuality was quite reasonable. It is so rare in the social sciences to find such high variance contributions that one must certainly look for other explanations. The immediate explanation they give is "tracking"—a strong pattern of homosexual response that does not change significantly with age and that is completely responsible for the apparent importance of social factors (though, if that is true, it makes their path diagram essentially meaningless).

One can indeed believe that a very sexually active adolescent might continue this sexual activity into adulthood—a form of "tracking," or perhaps more realistically a type of repetitive behavior. This pattern could indeed contribute in a major way to that improbably high 76% of variance.

This means their research design was confusing. If there is a very strong connection between adolescent homosexuality and adult homosexuality in a path diagram, that connection will greatly obscure the possible influence of social factors. If presenting a path diagram for the influence of social factors, the data should have been presented without this adolescent factor.

The quotes demonstrate that the study authors have extended their ideas about adolescents to children, with the conclusion that the homosexual pattern is essentially fixed and unalterable from childhood on. However, the authors do not actually calculate the degree to which their assertions are true, although they could have. This failure, at best, is sloppy interpretation. This paper will confirm that adolescent SSA is not fixed from childhood but remains very variable throughout adolescence.

Biological Explanation?

The authors also concluded: "What we seem to have identified . . . is a pattern of feeling and reactions within the child that cannot be traced back to a single social or psychological root; indeed homosexuality may arise from a biological precursor" (pp. 191–192).

We should note that there are hence two explanations given by the authors for their results. The first explanation is the idea of tracking (an artifact of research design); the implication is that tracking completely explains the path diagram. The second explanation is that biological/genetic factors may completely explain the path diagram, and although this important point is nowhere explicit, they probably intend to say that they coincide—in other words, tracking is created by prenatal biological imprinting.

When the authors were attacked in a book review by Tripp (1982) for espousing biological explanations, they coyly denied they had done so; they maintained that they had only suggested biology might be a factor (Hammersmith, Bell, & Weinberg, 1982). However, they indeed seem to have espoused biological explanations, which was also how later readers interpreted their results. In later advice to physicians, Hammersmith (1987) herself had hardened (or possibly clarified) her position to say:

> Homosexuality does not develop through social learning or sexual conditioning—e.g. early pleasurable experiences with members of one's own sex, traumatic experiences with members of the opposite sex or a same-sexed environment ..... Homosexuality appears to emerge rather independently of the causal factors so long espoused in psychiatry, psychology, and sociology. Although this study found some correlations between homosexuality and various factors thought to influence its development, a sequential path analysis showed most of these to be either reflections of an already-established inner difference, or to have virtually no independent effect on sexual orientation. (p. 183)

> I strongly suspect that one's inner sexual orientation is biologically rooted for the vast majority of both homosexuals and heterosexuals. (p. 184)

> The crucial implication for psychotherapy is simply that sexual orientation appears to be a given. It is not a matter of choice, and no-one is to "blame." . . . Beyond that, I think therapeutic speculation about why a particular person became homosexual is purely metaphysical and most likely a waste of time. (p. 185)

These statements show that Hammersmith (and probably her coauthors) would prefer a simple biological explanation for SSA origin—or possibly no explanation at all. This is a fascinating but illegitimate confusion of the psychological and sociological. She says one should not speculate about individual cases, but instead should rely on the sociological analysis. A sociologist is hence saying quite illegitimately that psychological evaluation of individuals is wrong and should not be used. On the contrary, deep understanding of an individual—which is possible through extensive interview—may shine light on more general causes, and cannot and should not be overruled by whatever is the usual case in society as a whole (Whitehead, 1996).

Hammersmith's quotations show that the interpretation has moved without justification from saying "We can find no social causes" to saying "There *are* no social causes, and causes are almost certainly biological." The evidence quoted for this by Hammersmith included studies that are no longer considered such evidence by the research community (for example, supposed estrogen response in SSA males).

It is impossible to prove such a universal negative about social causes—some social cause might always be found in the future. Such is philosophically inadmissible. No such negative statement should be made, nor particularly made the basis of a factor such as public policy.

Literature Showing Tracking Is Not Predominant

While it is completely true that the 76% of variance explained arises at least in part from the preexisting adolescent SSA—in other words, the very structure of the research that included adolescent stages—it is very misleading to think that there is universal tracking from adolescence to adulthood. Looking more closely, we find that some of the very data reported in the study contradict the idea of universal tracking, and other literature concurs. A number of places in the study compare preadult (including childhood) homosexual feelings or behavior and present data on whether they continued into adulthood. For men, preadult sexual *behavior* was predominantly homosexual for only 56% of the eventually homosexual adults (p. 100). Similarly, for predominant preadult homosexual *feelings*, the corresponding figure is only 59% (p. 99). For women, the corresponding predominantly homosexual behaviors were 22% (p. 168), and the corresponding figure for feelings is only 44% (p. 167). Only about half the homosexual men and a smaller percentage of the women show "tracking." The effect is not "extraordinarily strong," as the authors stated, but moderate at best. So approximately half of the SSA male teenagers are no longer SSA active as adults, nor do they have homosexual feelings. This degree of change is now a well-known rule of thumb that has been documented by others (Sandfort, 1997; Whitehead & Whitehead, 1999), and because there is so much change, it is clear that tracking is not a predominant factor.

Stability of teenage attraction was the subject of a very large and detailed subsequent study by Savin-Williams and Ream (2007). They similarly concluded that teenage homosexual attractions were so variable over time that they queried whether the concept of homosexual orientation had any meaning in the adolescent context. Whitehead and Whitehead (2010) calculate from those data that midteenage homosexuality is at least twenty-five times as unstable as teenage heterosexuality. For example, overwhelmingly, a sixteen-year-old with SSA (including cases concurrent with opposite-sex attraction) will be exclusively heterosexual in attraction the following year.

This means that the idea of stability, or tracking, is true only for some SSA people. Was this known in 1981? Yes. Even at that time, it was the general professional opinion that the orientation of SSA teenagers was notoriously unstable, being well-known from the sociological data of Kinsey, Pomeroy, and Martin (1948). This opinion, also held by the psychological professions, was summarized in an incensed commentary by Barnhouse (1977):

> It is impossible for me to state strongly enough that to present this model to young people, or to allow them—as often happens in the contemporary climate of open discussion—to imagine that their transitory adolescent experiments are truly indicative of a settled homosexual disposition, is not only evidence of psychiatric ignorance, but is specifically wicked as well. (pp. 153–154)

Because of this well-known contemporary psychological fact (the lack of tracking by adolescents) and the implications from their own data, it is not clear why the authors said that "extraordinarily strong" tracking takes place. That conclusion was simply not correct.

The analysis of Van Wyk and Geist (1984) clearly showed that throughout adolescence, the probability of homosexual activity continuing into adulthood increases with age. However, what is the explanation? Is it inevitable revelation of an already firmly fixed biological propensity, or is it learned social behavior that becomes strongly embedded? Bell, Weinberg, and Hammersmith (1981a) give both possibilities, but opt very strongly for the former, saying their sample shows that feelings precede any behavior (p. 188). An important question remains: Do SSA feelings before adolescence have any social causes?

Direct Evidence for Social Factors

It is possible to derive such a test from the tabulated data in Bell, Weinberg, and Hammersmith (1981b). We find in the data for those exclusively SSA in adulthood—

hence the clearest case (Bell, Weinbergs, & Hammersmith, 1981b, p. 250)—that 28% of SSA feelings variance in children is explained by social factors, particularly "childhood gender nonconformity" and "strong mother." Similarly, "began to feel sexually different in adolescence" has 24% of feelings variance explained this way, and numerous social factors are tabulated as contributing to it (p. 250). These numerical results are weak to modest but are far from zero. It is beyond the scope of this paper to give more detailed calculation, but the actual social factors contribute somewhere between 24% and the inflated 76% previously attributed to tracking. So even if the feelings began in childhood, there is evidence for social explanations. The "universal negative" hypothesis of no possible social factors is negated by this positive evidence.

The authors were disappointed in their 1981 study that they could not find a single social cause for SSA. At the time, it was reasonable to seek a single predominant cause. However, in hindsight we must ask why there would not be multiple causes for SSA, just as we find with so many other psychological states? Because the authors were searching for a single unified cause and could not find one, they thought a single biological cause might be more reasonable. However, genetic influences—for example, the genetic influence on schizophrenia—are similarly now known to be multifactorial (Nieratschker, Nothen, & Rietschel, 2010), and we know that in those cases very many genes are involved. Today a social multiple-cause hypothesis would be considered more likely. For example, "The great bulk of psychological traits and of mental disorders is multifactorial in origin" (Rutter, 2006, p. 221).

Social factors as a whole are significant, but individually they are not significant. This could mean a) that the correct questions have not yet been asked, which is rather unlikely; b) that the interactions are much more complex than the model suggests, and the influence of the social factors has escaped detection; or c) that there is much individuality (chance reactions), and although indeed no factor will produce SSA in more than a small percentage of those exposed, such factors are quite important to those who do respond.

Complex interactions could be possible, but individual erratic response is a simpler hypothesis and is already known. An example is early sexual abuse. Most individuals are resilient and not greatly affected in the long term. But a minority are hugely, devastatingly, and enduringly affected (Rubino, Nanni, Pozzi, & Siracusano, 2009).

The boxed numbers in the path diagrams show the fraction of the variance for a particular characteristic that was not explained by factors in the study and was attributed to chance. The numbers can be quite large, and this chance element is another important factor. It seems, then, that the best option is the third option (c).

The work of Otis and Skinner (2004) showed that almost all homosexual people could name a few factors that probably contributed to their homosexuality. Their work also demonstrated that there was much variety in the factors named—in other words, chance and individuality were important.

If SSA is indeed the result of uncommon reactions to social factors, and if indeed most people are not affected, then eliminating apparently unimportant paths—as was done for path analysis—eliminates some actual paths that are traversed and is a quite inappropriate model. A different analysis structure is needed—a kind of outcome analysis that tabulates the paths most commonly traversed to arrive at SSAonly, or alternatively those factors that had the most impact on individuals who arrived there. A paper describing this is in preparation and approximates the approach of Otis and Skinner (2004).

Van Wyk and Geist's Findings Partly Contradict Bell, Weinberg, and Hammersmith

Van Wyk and Geist did not agree that sexual feelings are most basic. They found from their calculations on the Kinsey data that sexual experience variables are significantly more important. The two studies clashed. Van Wyk and Geist hence suggested that the predominance of primary feelings in Bell, Weinberg, and Hammersmith (1981a) is an illusion. The feelings could arise from sexual experience, such as masturbation. They also argued that many experiences such as atypical play

interests, ostracism by peers, and uncommon types of sexual experience are easily summarized by the brain as feelings—in other words, "felt sexually different." Feelings, then, are social causes in disguise. Van Wyk and Geist also argued that idiosyncratic feelings and experiences were eliminated from consideration, but definitely do affect sexual orientation. These are reasonable arguments and would mean that social impacts of various sorts are quite possible.

How should the clash between the two studies have been resolved? Which is more important—feelings or sexual experiences? On the one hand, we have Bell, Weinberg, and Hammersmith arguing an unknown (but probably biological) origin for feelings; on the other hand, we have Van Wyk and Geist arguing that the pleasurable effects of sexual experience lead to a continuation and strengthening of those feelings. But where did the feelings originate? Are they due to innate biological factors?

The assumption of tracking as an explanation really derives from the organizational/activational hypothesis of Phoenix, Goy, Gerall, and Young (1959). They assert that sexual orientation is fixed prenatally in the brain and although quiescent until puberty, when it is activated, it must manifest itself and no social factor will significantly affect it. The work of Van Wyk and Geist seriously questions that hypothesis with evidence that sexual experience factors are predominantly important.

The clashing results pattern of the two studies is counter-intuitive for historical reasons. The Kinsey sample of Van Wyk and Geist was from the 1940s, whereas the sample of Bell, Weinberg, and Hammersmith postdated the sexual revolution in the 1960s and should have contained much more sexual experience in the collected histories. Thus for the Kinsey data the feelings should be extremely important, the sample having perhaps less "outlet" in their terms during that era, but instead it is shown in the work of Van Wyk and Geist that it is the sexual experience in the Kinsey sample that is predominantly important. This contradiction needs further work to resolve. However, it is possible that the very aggressive interviewing style of Kinsey—in which respondents had

to strenuously and actively disagree that they had various suggested behaviors—elicited more accounts of actual behaviors than did the interviewing style of Bell, Weinberg, and Hammersmith.

There has not been another large study since the early 1980s that can be directly compared with these two conflicting studies, though there have been many with other emphases. However, there is a much larger and important study on whether common prenatal factors are overwhelming for teenage same-sex romantic attraction (or feelings). (Bearman & Brueckner, 2002). That study found zero genetic influence, and showed that at least two social influences were significant (opposite-sex twins influenced each other and elder sisters were an influence). But the predominant influence was chance, or nonshared individualistic influences. This shows clearly that the increasing development of SSA throughout adolescence is not due to prenatal influence nor the sudden emergence of a preprogrammed biological process. We conclude that strongly individualized experiences are paramount. This means that the broad-brush sociological approach is not helpful for uncovering specific causes of homosexuality, and we must return to the individualized clinical case-studies.

Invocation of Social Factors in the 1981 Study

Although Bell, Weinberg, and Hammersmith (1981a) discount social factors, they invoke them (highly inconsistently) elsewhere in the study as significant and significantly different for different subgroups. They devote chapter 18—nearly 10% of the book—to discussing path diagrams for exclusively homosexual people, effeminate homosexual people, homosexual people in therapy, and Blacks. They find different path diagrams for each case—in other words, different social factors—and even conclude that for Blacks, experiences are more important than feelings (p. 197). In light of this, the blanket statement that tracking is responsible for adult homosexuality as a whole is quite inconsistent. If tracking is genuinely overwhelmingly important, then the differences in

social factors to which they devote so much space are quite meaningless. If, however, different social factors are genuinely responsible, then the blanket statement of "no social factors" is again quite inadmissible:

> The findings reported in this chapter clearly demonstrate that there are variations in the patterns of homosexual development among different types of homosexual men and women" (p. 210). "For the bisexuals, by contrast [to exclusive adult homosexuality], a homosexual preference seemed to emerge later and to be more tied to learning and social experiences" (p. 211).

Social factors are indeed important.

Summary

It is simply a myth that there are no sociological data showing influence on adult sexual orientation.

Path analyses from 1981 have been used to argue that there is no social or familial basis to homosexuality. The path has proved rather slippery and the conclusion is completely unjustified. Bell, Weinberg, and Hammersmith (1981a, 1981b) thought prenatally-established tracking accounted for most adult homosexuality. This is quite wrong.

The current paper emphasizes the importance of individuals and their experiences, which is the traditional case-study approach of psychological clinicians. Sociological study confirms that social causes as a whole are significant, but the details must be filled in by narrated personal experience. It is also likely that chance reactions to the same common environmental factors are far more important than usually thought.

It is ironic that a study touted as disproving all influence of social factors actually shows that social factors as a whole are significant. Bell, Weinberg, and Hammersmith

(1981a) say, “To therapists, we would suggest that exclusive homosexuality probably is so deeply ingrained that one should not attempt or expect to change it” (p. 211) Rather, their own evidence shows that even therapeutic change should not be dismissed *a priori*.

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Book Review of Lisa M. Diamond's

Sexual Fluidity: Understanding Women's Love and Desire

by Mary Beth Patton, Janelle M. Hallman, and Shirley E. Cox[10]

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Lisa Diamond's book, *Sexual Fluidity: Understanding Women's Love and Desire*, (Cambridge, MA: Harvard University Press, 2008), is principally intended for therapists who want to understand the changeability or fluidity of women's reported same-sex sexual orientation, identity, or sexual preference. Readers may find *Sexual Fluidity* to be either a valuable resource or disappointing, depending on whether they are clinicians or researchers and whether they are more or less ideologically committed to the beliefs that female homosexuals are "born that way" and that their sexuality is not only innate but unchangeable,.

Overview of the Book

In 1995, Diamond set out to "study variability in women's sexual pathways" (p. 54) by tracking the experiences of one hundred women ranging in age from sixteen to twenty-three. Diamond recruited these women through a variety of settings, including: gay, lesbian, and bisexual (GLB) community events; GLB youth and student groups; and college courses on gender and sexuality. As she finished the first round of interviews in 1995, Diamond decided to include an additional eleven heterosexual participants she recruited from a college course on sexuality.

Participants reportedly came from both large urban cities and small rural towns in the large eastern state where Diamond was attending graduate school. The participants were largely middle class, a designation determined by their own and/or their parents' occupation and/or highest level of education. By the tenth year of the study, 90% of respondents had completed college and more than half had earned a graduate degree or professional degree.

Using a longitudinal research design, Diamond interviewed the participants over ten years—for the first time in 1995, and subsequently in 1999, 2000, 2003, and 2005. Diamond compiles the responses of eighty-nine participants between the ages of sixteen and twenty-three and documents her findings in the text.

Of the eighty-nine women documented in the book, 43% initially identified themselves as lesbian (reporting between 90 and 95% of their attractions for women), 30% as bisexual (reporting between 40 and 60% of their attraction for women), and 27% as nonheterosexual or unlabeled, not claiming a "sexual minority" status (reporting between 30 and 80% attractions for women, although most fell in the same category as the bisexuals.) Of this group, the majority of participants (85%) were Caucasian; 5% were African-American, 9% were Latina, and 1% were Asian-American. Diamond reports that she lost contact with some of the original participants, so that at the conclusion of the study in 2005, the sample contained seventy-nine of the original eighty-nine sexual minority women and ten of the added eleven heterosexual women.

Diamond strived to answer the following questions:

- How much stability and continuity was there in female same-sex sexuality over time?
- Could the long-term course of female same-sex sexuality be predicted from childhood and adolescent experiences?
- Was there any truth to the distinction between "born" lesbians (that is, "real" lesbians) and "political" lesbians (that is, "fake" lesbians)?
- "What could we say about the development of bisexual women, given that all the previous research examined only lesbians?" (p. 54)

To assess sexual behavior, participants were asked "to report the total number of men and women with whom they had had sexual contact (defined as sexually motivated intimate contact more substantial than kissing)" (p. 60). Diamond audiotaped all but the first of the interviews and included excerpts from the interview transcripts in the book. The voices of the women who participated are well represented as Diamond discusses the various topics covered in her study.

Diamond notes four findings as particularly important:

- Change in sexual identity—Over the ten years of the study, a "majority of the women repeatedly changed their sexual identity" (p. 82).
- Lack of closure—The women in Diamond's study "became increasingly willing to acknowledge the potential for future change in their attractions and relationships" (p. 83).
- The prevalence of nonexclusivity—The study suggests "that nonexclusive attractions are the norm rather than the exception. .....Over time, the majority of women in the study—including lesbians—acknowledged the possibility that they might experience attractions to or relationships with both sexes. Moreover, they underwent identity changes (such as adopting bisexual or unlabeled identities) specifically to accommodate such possibilities" (p. 83).
- Early experiences do not predict later ones—The "study indicators and milestones predicted nothing about women's eventual development, nor did the types of factors that initially caused women to question their sexuality" (p. 84).

Diamond reports that her most significant discovery caught her by surprise. She had not set out to study, nor had she expected to find, the phenomenon referred to as *sexual fluidity*. Diamond reports that this term, which became the eventual title of the study, was first was used by the women themselves in their interviews. Woman after woman spontaneously described the "fluid," "flexible," "plastic" (p. 134) nature of their attractions. As Diamond reports of previous studies she states:

> Most important in terms of sexual fluidity, women show more discontinuous experiences of same-sex sexuality than do men. In other words, they report more changes in sexual attractions and behaviors over time and in different situations. Women are also more likely than men to report sexual behaviors or attractions

> that are inconsistent with their identity (for example, other-sex behaviors in self-identified lesbians and same-sex behaviors in self-identified heterosexuals) and to grant a role to choice and circumstance. (p. 50)

The sexual fluidity of the participants is illustrated by the changes in their reported sexual identity self-labeling and/or gender of actual or preferred sexual partner(s). Diamond states that 57% of the bisexual/unlabeled women reported increases in their other-sex sexual contact, 33% reported decreases, and 10% reported no consistent pattern of change (p. 116). Similarly, twice as many of the women reported having become more attracted to men than did those who became more attracted to women (p. 145). Diamond states that over the ten years, "more women undertook identity changes that accommodated attractions and relationships with men (that is, switching to bisexual, unlabeled or heterosexual labels) than switched to lesbian labels" (p. 146).

Diamond observed that overall, women endorsed a notion of fluidity potential but not a notion of universal bisexuality (this refers to Freud's belief in a universal human *ambisexuality* that is molded by culture and experience into homosexuality or heterosexuality). A woman's once-reported sexual orientation did not provide the last word on her lifetime experience of love and desire (p. 135). Diamond noted two types of personal transformations: changes in patterns of attraction over time and the development of attractions specifically for a single individual. The issue of attraction to the person and not the gender surfaced as the women discussed their "fluidity" (p. 125).

Diamond states that "the most accurate conclusion is that though women's sexual orientations are fairly stable, they nonetheless accommodate an increasingly broad range of attractions as time goes by" (p. 147). Nonetheless, she cautions that fluidity does not necessarily mean the capacity to change. She states that "variability typically only occurs within a certain range, and it appears unrelated to any conscious attempt to control it" (p. 249).

Intentional or Assisted "Fluidity"?

Having established the fluid nature of female sexuality, a distinction must still be made. The concept of *sexual fluidity*—defined as the spontaneous evolution or transformation of one's sexual attractions, preferences, behaviors, or identity—is not identical to the concept of *changeability*—intentional effort directed toward altering or changing one's sexual attractions, preferences, behaviors, or identity. The fact that sexual preference does spontaneously change for some women does not directly translate into proof that any woman with same-sex attraction (SSA) can easily change or alter her same-sex attractions. It does, however, confirm that sexual feelings and behaviors are not absolutely immutable or unchangeable, and "if considerable swings in sexual orientation can happen without therapeutic intervention, it makes sense they would be even more considerable if they are therapeutically encouraged in a motivated person" (Whitehead & Whitehead, 2010, p. 237).

The degree to which a woman with SSA can or will experience change in her same-sex attractions or orientation is uniquely determined by a number of factors. Those include the nature of biological influences on her psychosexual differentiation; other innate traits; her environmental history; the degree of exclusivity of her same-sex feelings (and whether she also experiences bisexuality); the nature of her same-sex behaviors and patterns of emotional dependency; her level of identification with homosexuality; her current circumstances; and her motivation to change (Hallman, 2008).

In general, Diamond's findings about the fluidity of female sexual orientation are consistent with both the historical and recent body of clinical and social science literature (Jones & Yarhouse, 2007; NARTH, 2009). As Neil Whitehead and Briar Whitehead (2010) explain: "There is abundant documentation that people with SSA do move toward a heterosexual orientation, often with therapeutic assistance [cf. pp. 237–259], but mostly without it [cf. 224–237; 264–265]. Some achieve great change, some less, but it is clear that sexual orientation is fluid, not fixed . . ." (p. 259).

Therapeutic Relevance

One of the authors of this review found that this study helped explain the ambiguity in sexual attraction that she was seeing in so many of her clients who presented with unwanted SSA. She had found herself labeling (at least in her head) many of her clients as "bisexual" based on their histories, despite the gender of their current partner. Diamond's research has given her new insights and understanding of the many apparently "bisexual" women in her practice, as well as offering new terms and concepts to work with that she can then bring to her discussion of SSA with those clients.

Overall, readers may be thankful for the language Dr. Diamond has developed as a means to discuss her research. Therapists and future researchers can now openly discuss the phenomena of female sexual fluidity—in other words, loving the person and not the gender. The narratives provided in the women's own words unpack this concept of fluidity. As the authors of this review have sat with clients, they have heard how confusing the experience of fluidity can be for a woman. These women ask, "Why am I different?" "What happened to me that I don't fit the norm?" "I'm not gay—but I'm not sure I'm straight." Many have described themselves as a heterosexual woman who fell in love with a woman. Many also admit that if their current relationship with a woman ended, they would be open to pursuing a relationship with a man. In a culture riddled with labels, these women have difficulty knowing how to identify themselves.

Many women have come to therapy to work through these deep confusions and the contradictions they subsequently feel. They experience confusion about their sexual attractions in context of their ongoing roles as wives, mothers, women of faith, and friends. Most of the people in their lives do not easily understand let alone accept their experience of SSA in the midst of a seemingly heterosexual lifestyle. Many also have husbands, children, churches, and friends who don't understand their attractions. As therapists, our job is to allow them the time, space, safety, and language to explore and come to understand their own experiences of loving and desire. We are not to tell them who they are or what they should do. Diamond's book offers support to therapists striving to do exactly that.

The book would have been easier to read if it had included charts or graphs of the information presented. It was distracting to stop and try to visualize the various conclusions.

A greater criticism, however, is that Dr. Diamond's discussion of the ethics of treating unwanted SSA is unfair and harsh. The authors of this review do agree that therapists should avoid any coercive methods that might be used to persuade an individual to "change" her sexual orientation. But Diamond's clear rejection of therapists' ability to offer ethical psychological care to persons who want relief from unwanted SSA is inconsistent with her research that indicates the majority of women do—or want to at some point—accommodate relationships with men. Further, her harsh criticism of "change-oriented" psychological care is also inconsistent with her apparent support of gay-affirming therapists who encourage a female client to accept a lesbian lifestyle when she presents with SSA.

Ethical practice requires that therapists "stay with the client," allowing her a safe place to "hold" and freely examine her conflicting ideas and values. As part of that, therapy should provide a safe environment for clients to explore not only their sexual attraction but also their religious beliefs and values. Therapists should be as neutral as possible when working in this area (Patton, 2009). The authors assert and hope that a woman is supported within therapy to explore her religious beliefs and her sexuality with the goal of discovering how she might uniquely remain true to her sexual self while keeping true to her faith. Genuine diversity includes not just sexuality but also ethnic, cultural, and religious beliefs.

Research Reservations

Researchers may have serious concerns about Diamond's quantitative and qualitative research methodology as well as her reporting errors. Examples follow:

1. While Diamond makes a case for conducting personal interviews over a long-term period, she excuses a plethora of sampling problems with, "I had no research funding, so I was unable to place newspaper advertisements. The lack of funding also meant that I could not offer women financial compensation for the time. . . . I simply hoped that women would be motivated to participate in a study that took their unique experiences seriously" (p. 55–56).
2. Though Diamond surveyed her participants five times over ten years (every two years), between 1995 and 2003, she reports some loss of subjects (p. 55–56), but she does not explain which participants were eliminated over time and in what numbers.
3. Diamond's study was based on a convenience sample drawn from lesbian/gay/bisexual youth community events, student groups at various (predominately women's) colleges, and college courses on gender and sexuality. Given that it is unclear how the women in this sample were similar to or different from women in the general population, any conclusions drawn from the study are limited to this group of women alone. Conclusions that would generalize to the entire population of women cannot be made based on this study.
4. There are serious holes in the data collection process that generate a certain content validity problem. For example, throughout the book but particularly in the section, "Do Different Types Have Different Histories?" (p. 70–74), Diamond ignores the possible impact of sexual abuse/rape on the women in her study.
5. Though there was abundant opportunity, the findings as reported lack numbers and/or percentages, and there were no tests or significance noted for any of the data—especially the identity change ("fluidity") reported.
6. The authors quoted or cited by Diamond appear to be well-grounded in lesbian philosophy and lifestyle and sympathetic to sexual minority women. However, Diamond neglected to offer an explanation or theory for why two-thirds of her

sample moved toward a heterosexual identification. Additionally, Diamond and the authors she references fail to mention the small minority of women who are distressed by their SSA and who purposefully seek to explore heterosexual relating. The authors of this review wish that Diamond had offered a theoretical basis for these results of the study and had been more sympathetic to the personal experiences of women who do desire change.

Closing Thoughts

While Diamond's book does help to clarify the unique experiences of some women who have SSA and/or same-sex behaviors for at least a season of their lives, additional research is needed. As complex and detailed as this study is, many important questions remain unanswered. For example, what in these women's histories allows them to see and experience their sexuality as "fluid"? What is it about their temperaments and experiences that influenced them to be and act this way? What has brought about this unique view of gender in these women's lives? And why or how have these women failed to define gender as a part of their attraction?

Whatever combination of biological and environmental factors is at work, it is important to know more—especially how so many women come to experience and express their sexuality with such fluidity. Such information will enable our discussions with our clients to be more informed, beneficial, and supportive of their unique experiences and their rights as human beings. It will also enable us to grant each client the opportunity to direct her own life, choose her own experiences, determine her own destiny, and define herself as she deems best.

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Book Review of *Nature's Choice:*

What Science Reveals about the Biological Origins of Sexual Orientation

by Neil Whitehead[11]

[11] Neil E. Whitehead earned his PhD in biochemistry in 1971 at Victoria University of Wellington, New Zealand, and was employed as a scientist with the New Zealand government for 24 years and with the United Nations for 4 years. More recently he was a scientific research consultant. He has authored more than 100 professional papers while living and working in New Zealand, India, the United States, France, Japan, and Afghanistan.

Nature's Choice: What Science Reveals About the Biological Origins of Sexual Orientation by Cheryl Weill (New York: Routledge, 2009) is a book intended to offer support and encouragement to parents and others whose loved ones are living—or wish to live—openly as gays and lesbians. It seems particularly directed at parents, many of whom are members of Parents and Friends of Lesbians and Gays (PFLAG), a pro-gay organization that encourages support of gays and lesbians and parents who want to support their children and loved ones in living an openly homosexual lifestyle.

It is hardly surprising that a book like this is directed at parents, because parents easily blame themselves for the sexual orientation of their children. The line of comfort this book takes, as suggested by its title, is basically, "Your children were born this way and it is necessary to learn to live with this."

According to the biographical details in *Nature's Choice,* author Cheryl Weill was an assistant professor in the hard sciences at the University of Colorado; after retirement from the university she became a licensed social worker in Boulder, Colorado. She is self-identified as a lesbian, but the book is most refreshingly nonstrident in tone. Her definition of *sexual orientation* includes the delightful phrase, "charmed and bewitched by another person."

Weill's book offers a good compilation of much of the basic science that surrounds the whole subject of homosexuality. Readers who are looking for information about *potential* biological influences would get most of that pertinent information from this text.

Weill mentions that there is no inextricably associated mental disorder related to homosexuality and that homosexuality does not interfere with any vital function. But that prompts the question: Isn't one of mankind's vital functions to continue the human race? In spite of a very small group of lesbians or gays who conceive and bring up children in a technically assisted way, the basic ideal of homosexuality is sex with someone of the same sex—a reproductively empty act.

Weill is also an enthusiastic fan of the "neurohormonal hypothesis," a theory stating that sexual orientation is fixed in a critical period before birth and remains unchangeable and hidden until near puberty. This theory is more usually called the "organizational-activational hypothesis," and it really goes back to research published in 1959 (Phoenix, Goy, Gerall, & Young, 1959). Most of Weill's book surveys findings that are at least consistent with that idea. But that hypothesis is not currently popular. Today's researchers maintain that there are other periods of hormonal exposure near birth and at puberty that are generally more important and that there is also a lot of environmental influence on the development of sexual orientation (Whitehead & Whitehead, 2010).

My Genes (Whitehead & Whitehead, 2010) is a book that is also directed at parents, but it is intended as a support to parents of those who wish to exit a homosexual lifestyle. Unlike *Nature's Choice, My Genes* argues that sexual orientation changes. Weill's book does provide more detail in some areas than is given in *My Genes*. One that deserves special praise is dermatoglyphics, the theory that sexual orientation is connected to fingerprint type. Is this saying gays/lesbians leave special identifiable fingerprints behind? Weill says only that the data are "consistent with the theory," whereas *My Genes* maintain that there is usually an estimate of effect-magnitude—in other words, there is a very large overlap in the fingerprint type between homosexuals and heterosexuals.

My *bête noire* is Weill's use of the word *determined,* which she uses with a range of meanings from "slightly influenced" to "totally predestined." Scientists favor the former; activists like the latter. Like so many others, Weill uses the word without giving it even a semi-quantitative meaning. (Surely the word *determined* should have its meaning clearly determined!) She mostly neglects estimating how strong the biological influences she surveys may be, and I believe she might be a little surprised at the low results if she did. Her use of twin data only examines the older (pre-2000) surveys in detail. These accidentally used biased samples, and twin studies scholars would want to assert a much lower genetic influence than she quotes.

According to Weill, there is no survey of cultural differences or psychological development factors that might produce same-sex attraction (SSA). She says that if credible social causes for homosexuality had been published she would have surveyed them, but "there are no data" (p. 187). This is a remarkable statement. She does not accept that accounts of personal change constitute valid data, but instead apparently prefers sociological surveys, which are usually the worst possible tool to show individual reactions. However, even in the sociological literature, many papers show unassisted or assisted change of sexual orientation in the population with time (Spitzer, 2003; Whitehead & Whitehead, 2010). Her reaction is typical of many and is quite mistaken. The critical query must rather be: How far can the most striking individual cases be applied generally? This has always been the attitude in psychotherapy.

Her overall conclusion is:

> "We must remain open to what the future will reveal to us about ourselves and the world in which we live. What is revealed is nature's truth. None of us gets to choose who we are, when and where we are born, and the circumstances into which we were born. Similarly none of us gets to choose whether we are male or female, naturally left- or right-handed, gay or straight. Perhaps in a way, we are all here to only discover and live nature's truth as it is expressed in each of us the best we can …" (p. 194).

There are certainly a lot of things that none of us can choose, but as we grow and become self-aware, we become able to choose whether we want to stay the way we are, or whether we want to try to make changes.

Weill's conclusion is just another example of the naturalistic fallacy that claims, "What is, is right." No; to decide what should be, one must either use other criteria or must consciously say, "I take as a starting point that the way I am is the ideal which no other ideal can surpass. I will not strive to change." Following that statement, one would

also need to think about Scott Peck's assertion that refusal to consider change is the ultimate evil (Peck, 1983).

I would assert that another truth of nature is that constant change is the norm. The important question remains: How far can we tap that change?

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Editor's Note: Dr. Cheryl L. Weill, author of *Nature's Choice,* received a BS degree from the College of Chemistry at the University of California at Berkeley in 1969 and a PhD degree in chemistry from the University of California at Santa Barbara in 1974. After additional postdoctoral training in molecular neuroscience, she embarked on an independent research and teaching career in the Departments of Neurology and Anatomy and the Neuroscience Center at Louisiana State University Health Science Center in New Orleans, Louisiana. Her research concerned the survival of neurons during development and the identification of the genes and the molecular signals used by neurons for their survival. In 1993, she presented a lecture on the biology of sexual orientation at the PFLAG National Convention; she has presented updated material on which *Nature's Choice* is based numerous times to PFLAG chapters, medical and graduate school classes, and groups of laypersons and mental health professionals. She retired from academic science in 1999, obtained a MSW degree from the University of Denver in 2001. She is licensed as an LSW, and is in private clinical practice in Denver, CO.

NARTH Response to APA 2009 Task Force Report

November 12, 2009

In February 2007, the American Psychological Association (APA) appointed a six-member Task Force on Appropriate Therapeutic Responses to Sexual Orientation to review and update the APA 1997 resolution, *Appropriate Therapeutic Responses to Sexual Orientation.* At its August 2009 annual convention, the task force report was released and new resolutions were approved by the APA Council of Representatives.

An official APA press release announced the revised resolutions and summarized the report. The press release was entitled "Insufficient Evidence That Sexual Orientation Change Efforts Work, Says APA: Practitioners Should Avoid Telling Clients They Can Change from Gay to Straight" (http://www.apa.org/releases/therapeutic.html).

NARTH finds three major flaws with the APA task force report:

1. **The *Report* is unscientific and lacks objectivity and impartiality.** Before their appointment to the task force, all six members were already on record as opposing sexual orientation change efforts (SOCE) through psychotherapy. No APA members who provide psychological care to persons dissatisfied with their homosexual attractions were appointed, despite being nominated. The *Report* declares that *all* of the studies of SOCE are flawed, but uses some of these studies to support its conclusions and excludes other studies that do not support its conclusions. Some of the standards for research quality are unnecessarily strict and inappropriate for studying the helpfulness of SOCE. The task force demands an impossibly high standard of proof for reorientation therapy that APA does not demand for therapies dealing with other difficulties such as alcoholism, obesity, or behavioral addictions.

The *Report* demands an impossibly high standard of proof of the effectiveness of SOCE, particularly through therapy, and then dismisses more than a century of documented change. Yet the *Report* pushes gay-affirmative therapy—a virtually untested model—as *the* way to offer psychological care to those with unwanted homosexuality, while acknowledging **"**that the model presented in this report would benefit from rigorous evaluation**"** (p. 15). Also, in support of its claims, the *Report* cites studies (Kurdek, 2004; McCord, McCord, & Thurber, 1962) that failed to meet many (eight and ten respectively) of the sixteen standards of research quality by which the task force rejected the SOCE research. This selective use of standards shows significant bias.

2. **The *Report* falsely claims as proven "scientific facts" that homosexuality is normal and that homosexual relationships are equivalent to heterosexual relationships and families.** The Report states, "Same-sex attractions, behavior, and orientations per se are normal and positive variants of human sexuality—in other words, they do not indicate either mental or developmental disorders" (p. 2). It also states that "gay men, lesbians, and bisexual individuals form stable, committed relationships and families that are equivalent to heterosexual relationships and families in essential respects" (p. 2). The evidence for these "facts" is either not cited or is nonexistent. The political decision to remove "homosexuality" from the DSM-II, APA resolutions, and opinion pieces by gay activists does not prove such assertions.

3. **The *Report* irresponsibly ignores fifty years of scientific and clinical evidence that psychological care for unwanted homosexuality was accepted, effective treatment that never has been shown to be ineffective.** Until the 1973 political decision by the American Psychiatric Association that homosexuality

> no longer was a diagnosable disorder, psychotherapists commonly provided such care for clients seeking help for unwanted homosexual attractions. A variety of approaches—including psychoanalysis, other psychodynamic approaches, hypnosis, behavior therapies, cognitive therapies, sex therapies, group therapies, religiously mediated interventions, pharmacology, and others—have been used to help people successfully resolve unwanted homosexual attractions. Older reports, including case studies, of successful change were state-of-the-art, meeting the acceptable professional and scientific standards of the time.

A more comprehensive critique of the APA task force report is forthcoming.

NARTH does agree with the APA task force report when it states:

- **Sexual behavior, attraction, and orientation identity are fluid—in other words, changeable.** "Recent research on sexual orientation identity diversity illustrates that sexual behavior, sexual attraction, and sexual orientation identity are labeled and expressed in many different ways, some of which are fluid" (p. 14; cf. p. 2, 63, 77).

- **Clients have the right to determine their own direction of treatment**. As the *Report* says, licensed mental health providers (LMHP) "should strive to maximize autonomous decision making and self-determination and avoid coercive and involuntary treatments" (p. 76). "We also believe that LMHP are more likely to maximize their clients' self-determination by providing effective psychotherapy that increases a client's abilities to cope, understand, acknowledge, explore, and integrate sexual orientation concerns into a self-chosen life in which the client determines the ultimate manner in which he or she does or does not express sexual orientation" (p. 69), and that "clients perceive a benefit when

offered interventions that emphasize acceptance, support, and recognition of important values and concerns" (p. 63).

- **Religious beliefs in regards to homosexuality must be respected** (cf. p. 5, 19–20, 51, 53, 56, 59, 64, 69, 70, 77–78, 82, 120); so should the convictions of those who decide (apart from religious reasons) that their sexuality does not reflect their true self (cf. p. 18, 56, 68–69).

- **It is important that "scientific and professional information about sexual orientation . . . (be) accurate . . .** in order to counteract bias that is based in lack of knowledge about sexual orientation" (p. 122).

The concluding paragraph in the October 2009 issue of the *APA Monitor* summarizes well NARTH's position on the APA task force report:

> Julie Harren Hamilton, PhD, president of the National Association for Research and Therapy of Homosexuality (NARTH), said she appreciated what she described as the task force's recognition that clients have a right to self-determination, and its respect for religious diversity. But she disagreed with the task force's main conclusions, and charged that the task force was composed only of members opposed to sexual orientation change efforts.
>
> "We believe that if the task force had been more neutral in their approach, they could have arrived at only one conclusion, that homosexuality is not invariably fixed in all people, that some people can and do change," she said. (http://www.apa.org/monitor/2009/10/orientation.html)

NARTH's Response to the American Psychological Association (APA) Public Interest Directorate Public Comment Solicitation Program *Second* Round Concerning APA's Proposed *Guidelines for Psychological Practice with Lesbian, Gay, and Bisexual Clients*

(April 30, 2010)

The American Psychological Association (APA) should be praised for its attempts to answer questions about sexual orientation change efforts, for its work in developing nonbinding treatment guidelines, and for welcoming feedback on those guidelines. Of particular concern, however, is Guideline 3, which seems to go beyond the research findings.

Although discounted by APA's six-member Task Force on Appropriate Therapeutic Responses to Sexual Orientation (2009), varying degrees of sexual orientation change have been repeatedly documented in the literature throughout the past century. While the task force deemed many of the studies insufficient to prove the possibility of change, their dismissal of these studies does not prove the impossibility of change. Simply stated, according to the standards used by the task force, if there is insufficient evidence to determine whether this type of treatment works, then there also is insufficient evidence to show—or justifiably claim—that this type of treatment does *not* work. This is also true for a variety of other psychological treatments in common use by APA members, none of which has yet to be validated using the gold standard design of outcome researchers: prospective and randomized control trials.

Therefore, stating in Guideline 3 that "efforts to change sexual orientation are neither effective nor safe for many clients" is inaccurate, as the research has been deemed by the APA 2009 task force insufficient to make this statement. It should also be noted that while gay-affirmative therapy is advocated by the 2009 task force, no studies that meet the task force's own criteria confirm the effectiveness of gay-affirmative therapy.

A Formal Response to the Report of the American Psychological Association Task Force on Appropriate Therapeutic Responses to Sexual Orientation[1]

by The National Association for Research and Therapy of Homosexuality (NARTH)

In February 2007, the American Psychological Association (APA) established the Task Force on Appropriate Therapeutic Response to Sexual Orientation. The goal of this six-member task force was to answer clinical questions about the efficacy of sexual orientation change efforts, and it produced a 138-page document updating and promulgating the APA resolutions of the same title.

The task force deemed that the report was grounded in the scientific fact that same-sex attractions, behavior, and orientations were normal and positive variants of human sexuality. In this view, same-sex orientations do not represent mental or developmental disorders. The task force incorrectly used the research methods of evidence-based medicine to address the following clinical questions: (1) Are sexual orientation change efforts (SOCE) effective at changing sexual orientation? (2) Are SOCE harmful? (3) Are there any additional benefits that can be reasonably attributed to SOCE? The task force broadly defined SOCE and categorized research studies into three designs: experimental, quasi-experimental, and nonexperimental. The three categories represented types of *quantitative* research design, which the task force then applied to *behavioral research.*

The goal of this response is to address concerns about the task force report and the promulgated APA resolutions recommended in an appendix. A major theme of the report that must not be overlooked is the driving force of *multiculturalism*[2], the belief that all cultures are created equal. This ideology allows the APA to assert the null hypothesis as policy—in plain terms, the policy is that homosexuality as culture is no different than heterosexuality

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[1] This represents a formal, overarching scientific response by NARTH to the APA task force report. NARTH already has responded with a shorter statement: http://www.narth.com/docs/apataskforcereportbroch.pdf. This paper is not exhaustive; other commentaries by individual NARTH members on particular aspects of the APA report may be seen at http://www.narth.com/.

[2] Multiculturalism is part of a postmodern ideology or worldview (*Zeitgeist*) in which traditional scientific inquiry is devalued and replaced with subjective "truth."

as culture. If there is truly no difference between these two "cultures," questions should be asked and answered through scientific inquiry that would allow professionals and laypersons to accept or reject the null hypothesis—in other words, to decide rationally whether the cultures of homosexuality and heterosexuality differ, and if so, how.

Answering these questions scientifically requires adding to the body of knowledge through quantitative or qualitative research. But in an apparent rush to advance gay civil liberties, the APA ignores these basic questions. However, it is NARTH's position that basic science relies on quantitative—and sometimes qualitative—data to explain theory and support scientific conclusions. NARTH also posits that policy, multiculturalism, or subjective truths cannot be demonstrated, verified, or disproved solely by quantitative data alone. The application of the scientific method and the interpretation of its findings should preempt jumping to conclusions where no data exists. This is in keeping with the APA's own "Leona Tyler Principle," which states that in speaking as psychologists—whether as part of an organization or as individuals—advocacy should be based on scientific data and demonstrable professional experience. Otherwise, psychologists are free to speak individually or as members of a group, but only as "concerned citizens."

Additionally, the importance of preventing biases in scientific research cannot be overlooked. *Bias* is the overrepresentation or the underrepresentation of segments of the population. In the postmodern world, this applies not only to the sample but also to the investigator(s). It is important to note that the task force members consisted of individuals who, before being named to the task force, were on record as opposing reorientation approaches.[3] Although a number of APA member psychologists who were equally as

[3] Judith M. Glassgold sits on the board of the *Journal of Gay and Lesbian Psychotherapy* and is the past president of the APA's Gay and Lesbian Division 44; Jack Dresher is a well-known gay-activist psychiatrist; Lee Beckstead is on record as opposing any efforts to change sexual orientation and is a gay-identified man; Beverly Green was the coeditor of the APA Gay and Lesbian Division 44 series, *Psychological Perspectives on Lesbian, Gay, and Bisexual Issues*; Robin Lin Miller worked for the Gay Men's Health Crisis and has written for a number of gay publications; and Roger Worthington is the interim Chief Diversity Officer at the University of Missouri and was awarded the "2001 Catalyst Award" from the LGBT Resource Center.

qualified as those selected but who were experienced in working with those distressed by unwanted homosexual attractions were recommended to the APA, none were named to the task force. Since the task force included only members with arguably strong gay-activist backgrounds, it may be assumed that their backgrounds influenced their ability to look objectively at all of the existing scientific data. Although a clear case could be made for confirmation bias based solely on the membership of the task force formally responsible for the report and associated resolutions, the balance of this response addresses the merits of the report itself.

Strong Assertions Made in the Absence of Scientific Evidence

NARTH has concerns about the following APA resolutions:

> APA Resolution—*That the American Psychological Association affirms that same-sex sexual romantic attractions, feeling, and behaviors are normal and positive variations of human sexuality regardless of sexual orientation identity.*

> APA Resolution—*That the American Psychological Association reaffirms its position that homosexuality per se is not a mental disorder and opposes portrayals of sexual minority youths and adults as mentally ill due to their sexual orientation.* (APA, 2009, p. 120)

Quantitative research addresses predictions (hypotheses) that are based on the premise that scientific knowledge can be organized into general laws. The task force grounds the aforementioned resolutions in what is claimed as "scientific fact" (dogma/law)—namely, that homosexuality is a normal and positive variant of human sexuality (APA, p. 2). *Normal* is defined by the task force as the absence of mental or developmental disorders. This definition is supported by research that shows or claims to show that the

homosexual population suffers no more or less mental or developmental disorders than the heterosexual population. The task force makes no mention of more recent and higher-quality studies showing that homosexuals do have more mental health issues. When the task force does mention other mental health issues, it deems that these psychological disturbances are caused by "organismic (in-) congruent" religiosity and the stigmatism of a prejudiced society (p. 18). However, no experimental, quasi-experimental, or qualitative data are presented that support such a conclusion, let alone define "normal" (typical or usual, if not good or healthy) variations in human sexuality in the overall population. If this type of statistical data exists, the task force should present it in support of its position.[4]

Additionally, the task force does not define the meaning of a positive variant of human sexuality. The task force needs to specifically define *positive variant*, paying particular attention to the positive reproductive advantage of homosexuality. Although it is understood that reproduction is not the only goal of human sexuality, it is likely the most important. The task force should address this oversight before incorporating the word *positive* into formal APA resolutions.

Also missing from the task force's work is a scientific grounding—in other words, suitable references of quality research findings for the origin of such a variant. For example, if homosexuality is genetic in origin, the human chromosome that contains the specific gene should be identified. It should be demonstrated whether the gene is *autosomal*, or sex-linked. Just the opposite is the case: there is no identification of the specific protein product of that gene, and there is no mention of the function of the

[4] In more technical terms, what is lacking is a predictive population frequency of variations in human sexuality that could be defined as normal (no reference range). No descriptive statistics are presented that define a Gaussian distribution or probability of population statistics relative to human sexuality. As presented, the definition of normal variant could be misinterpreted to mean that homosexuality falls within two standard deviations of a human sexuality distribution; however, it is much more likely that homosexual behavior falls into or near the tail ends of a normal distribution. For example, for a trait that was "normally distributed" (such as height), most or roughly 68% of people would be within one standard deviation of the "mean" (average) height common for someone of that sex, and "almost all" or roughly 95% of people would be within two standard deviations of their mean height. Statistically, the task force lacks the research to claim that homosexuality is "normal"—in other words, statistically "not uncommon."

protein and its influence on behavior. The task force report misses the opportunity to present clearly the scientific—in other words, empirically demonstrable—"facts" or data on which its hypotheses are based.

Though not specifically stated in the report, an implicit hypothesis of the task force is that SOCEs have no effect on sexual orientation. This is a correctly stated null hypothesis. However, hypothesis-driven biases are a potential outcome of all quantitative research designs. Functioning from what the task force believed is a scientific fact—that same-sex sexual attractions, behavior, and orientations are normal and positive—the task force hypothesis would come from this presumably governing scientific law. The "scientific fact" (dogma) of the task force established the paradigm that led to its ultimate conclusion not to reject the null hypothesis—in other words, not to accept any evidence of any kind that demonstrated that SOCEs may work. With such an initial bias, SOCEs could never be shown or seen to work as their caregivers or recipients intended because, by definition, experience cannot overcome a "scientific fact."[5]

Bias in the Application of Empirical and Clinical Criteria

NARTH has concerns about the following APA resolutions:

> APA Resolution—*That the American Psychological Association concludes that there is insufficient evidence to support the use of psychological interventions to change sexual orientation.*

[5] The analysis in this section is also relevant for considering the implications of the task force report's claim of a second "scientific fact": "Gay men, lesbians, and bisexual individuals form stable, committed relationships and families that are equivalent to heterosexual relationships and families in essential respects" (APA, p. 2). Cited references for this and the other "scientific fact" mentioned in the report include only the political decision to remove "homosexuality" from the DSM-II, APA resolutions, and opinion pieces by gay activists as references. None of these, singly or taken together, offers sufficient proof for the task force assertions.

> APA Resolution—*That the American Psychological Association concludes that the benefits reported by participants in sexual orientation change efforts can be gained through approaches that do not attempt to change sexual orientation.*
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> APA Resolution—*That the American Psychological Association concludes that the emerging knowledge on affirmative multiculturally competent treatment provides a foundation for an appropriate evidence-based practice for children, adolescents, and adults who are distressed by or seek to change their sexual orientation.* (APA, 2009, p. 120)

Evidence-based medicine research design is a quantitative approach to studying treatment methods involving a cause (independent variable) on some effect (dependent variable). The randomized clinical trial or randomized control trial is the gold standard for sources of new knowledge in evidence-based medicine. The task force deems that its review assessed the current randomized control trials (experimental), nonequivalent group comparisons (quasi-experimental), and multiple uncontrolled designs (nonexperimental) as if the methods of evidence-based medicine research were appropriate for evaluating the efficacy or effectiveness of SOCE.[6]

The task force report includes no SOCEs or affirmative-multicultural studies that fit the standards of evidence-based medicine research. No studies are presented

[6] In general, it is methodologically difficult to prove a cause-and-effect relationship between variables that are meant to impact human behavior. Experimental (quantitative) data link independent variables to dependent variables (in this instance, SOCE to change in one or more facets of sexual orientation). This makes it difficult to show if and the extent to which SOCE may impact sexual orientation. This is especially true in light of the experimental data presented in the report. The task force lumps together the outcome research findings of all the SOCEs that are reported. Also, the task force excludes other clinical and research data that otherwise support the efficacy of SOCE. Methodologically, the task force has applied reasoning that sets the stage for a Type II error—failing to notice significant or meaningful change when it does occur. Again, quantitative research design is difficult to use in the study of any behavior, including sexual orientation.

that directly compare an SOCE to an affirmative-multicultural therapy. The attempt of the task force and its report to evaluate SOCEs using evidence-based research in accordance with randomized control design is an inappropriate application of the scientific standard. In light of this, an attempt will be made to address the SOCE studies as presented in the report.

The task force reported that six randomized control trials of acceptable SOCE were completed from 1969 to 1975. In all cases, some form of *aversion therapy* was the intervention (independent variable) and penile circumference was the effect (dependant variable) measured. Aversion therapy was popular among mental health professionals in the 1960s and ‘70s and was used to treat many types of unwanted behaviors. During that period, some type of aversion therapy was used on persons with distress regarding sexual orientation. However, it was concluded at least twenty-five years ago that these types of interventions were unethical and did not work in regard to human behavior—in other words, what worked for lower mammals did not work on humans. Yet the task force seems to imply that these types of therapies are still being used. The task force also gives far too much attention to outdated, unethical aversion therapies and too little attention to current approaches to psychological care aimed at restoring congruence (attachment). In the view of the task force, six randomized control studies of aversion-based SOCE pass the *rigor* test because of their randomized design. However, these studies are not relevant to gathering data about whether modern approaches to SOCE work. Additionally, the rigorous standard (randomization) set by the task force for SOCE would not be met for research cited by the task force in support of the affirmative-multicultural approaches that it recommends.

In the task force report, affirmative-multicultural therapies should have been presented and subjected to the same standard, presenting their strengths and weaknesses as scrupulously as those of SOCE. This is a significant—and arguably fatal—weakness in the literature review of the report. When used correctly, the methods

of evidence-based medicine demand an equitable comparison of one kind of therapy to another therapy. If such a method were relevant for assessing the absolute and relative efficacy/effectiveness of SOCE and the task force preferred affirmative-multicultural therapies, then the task force clearly fails to apply the standards consistently or in an objective or professional manner.

The task force cited three quasi-experimental studies from the years 1971 to 1981. Subjects in these research studies were not randomized, but were assigned to nonequivalent treatment groups. These studies did not pass the task force rigor test; additionally, the studies overwhelmingly relied on aversion therapies as well. These studies only help to show that behavior modification is not the answer. No other answers to the clinical questions can be gleaned from these studies.

The task force further cited thirty-six nonexperimental studies from the years 1960 to 1976. In nonexperimental design, there is no attempt to control, eliminate, or exclude variables. Again, these studies used aversion therapy, the form of behavioral therapy popular at the time. Many of the studies were also retrospective—in other words, the subjects were studied only after they had completed treatment. Overall, as mentioned before, the studies did not support the use of aversion therapy as effective SOCE.

The task force also reported on eight recent studies completed between 1999 and 2004. These studies included various research designs such as retrospective pretest, ethnography, case study, and qualitative retrospective case study. Treatments ranged from conversion therapy to Bible study, and researchers used the patients' perceptions of the usefulness of treatment as a major outcome measure. Many patients reported that they believed sexual reorientation therapy was helpful to them psychologically and physiologically. However, the task force dismissed the relevance of these studies because the study design did not permit cause-and-effect attributions to be made. The task force valued these studies only for their ability to understand the population with distress concerning sexual orientation—a population that consisted mostly of white men with

strong religious backgrounds. Religiosity and stigmatization were the stated motivators of their distress. In the task force's view, this population relied heavily on "telic congruence" (vs. "organismic congruence"); however, the task force does not consider that these studies attempt to investigate the reconciliation of *telic* and *organismic* congruence, both of which are belief systems. It is quite possible that developmental and reparative processes, including self-awareness and personal identity, are not based on either doctrine.

If recent studies using SOCE therapies show that the population of interest can live more congruently with respect to the reality and needs of human physiology and psychology, the dismissal of these older studies is inappropriate. Ultimately, to offer reliable, valid, and relevant scientific answers to the clinical questions addressed by the task force, psychosocial and medical clinicians and researchers must study the psychology and physiology of human sexuality as objectively as possible, without undue consideration of religious, societal, family, or LGBT values. The task force has not dealt with these issues from an objective scientific stance, but from a belief system based on multiculturalism. In effect, the task force traded science for ideology and activism.

Neglect of Critical Areas of Scientific Literature

The APA task force report neglected a number of critical areas in the existing clinical and scientific literature. Studies using case study design were ignored in the task force report. Literature that documents spontaneous change in sexual attraction was omitted. And the literature showing that a combination of factors may be involved in the development of homosexuality was not reported.

Additionally, there was no mention of the literature on the persistence and significantly greater risk of comorbid pathologies in homosexual individuals who live in gay-friendly countries such as Denmark, the Netherlands, and New Zealand. Such research casts doubt on the task force assumption that *minority stress* is the primary

source of mental health problems for homosexuals, and suggests that some factors intrinsic to homosexuality may instead be at work in elevating the level of mental health problems. The task force also neglected to discuss the literature on lack of relationship commitment and the relational instability among homosexual individuals, including among those who have been legally "married" or otherwise given formal civil recognition in a same-sex union.

The task force failed to discuss predictive factors in the development of homosexuality and the hypothesized mechanisms of change in SOCE interventions. No attempts were made to reconcile the APA resolutions to new theories on the development and regulation of the central nervous system or the origin of self. Scientific knowledge has significantly increased in these areas, and the task force should have considered current scientific knowledge. Literature on the etiology of homosexuality (such as the influence of family interactions) was disregarded as if it had been scientifically disproved. The task force report also arbitrarily disregards a large subset of the literature on SOCE, presumably due to its age. Such older research was state-of-the-art at the time and warrants that this literature be considered more seriously.

Summary

Basic scientific research in all human development has advanced tremendously and is ongoing. Modern medicine owes its existence to the quantitative design of basic scientific research, and as professionals, we cannot ignore this knowledge. If real theories are to emerge on the true origins of a variety of human behaviors and experiences, clinicians and researchers will have to reconcile this massive increase in knowledge. It is questionable whether a postmodern society can do this type of work.

Perhaps a future endeavor of the APA should be to design and conduct an evidence-based research study that compares a relevant SOCE to a relevant affirmative-multicultural therapeutic approach. The APA insists that affirmative multicultural

therapies can provide the same relief as SOCE; however, this only can be scientifically evaluated through an evidence-based research project. Such a project ideally would use the methodological rigor emphasized by the task force. In this way, the patients would be randomized into groups, SOCE could be the intervention, affirmative-multicultural therapy would be the comparison, and objective and subjective outcomes would determine the relative efficacies between the therapies. This type of study would add to the body of knowledge needed to help answer the important clinical questions on SOCE.

It also should be noted, however, that a true experimental test of the absolute and relative efficacy/effectiveness in the end may be therapeutically unethical to conduct. The rights of clients to self-determination—in other words, to decide their own goals of treatment—may not be respected if clients were randomly assigned to be treated for a goal they did not want. For example, it would be unethical to force people who do not want relief from homosexual attractions and/or behaviors to undergo therapy with that goal in mind. Similarly, it would be unethical to force a client who wanted psychological care to resolve unwanted homosexual attractions/behaviors to instead undergo therapy to enable him to accept and be pleased with those attractions/behaviors.

The conclusions of the APA task force are based on a postmodern belief in multiculturalism, in which traditional science is looked at with skepticism and "truth" is in the eye of the beholder. The poor use of science in the task force report appears to be yet another example of a disturbing trend. As Baker, McFall, and Shoham (2009) have argued, "Clinical psychologists' failure to achieve a more significant impact on clinical and public health may be traced to their deep ambivalence about the role of science and their lack of adequate science training, which leads them to value personal clinical experience over research evidence" (p. 8). In his introductory commentary to the Baker et al., monograph, Walter Mischel laments that this "widening gulf" (p. 1) or "disconnect between much of clinical practice and the advances in psychological science is an unconscionable embarrassment" (p. 2). Mischel further warns that "clinical psychology . . . will

increasingly discredit and marginalize itself if it continues the trajectory it has pursued for far too many years" (p. 1).

References

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NARTH

NATIONAL ASSOCIATION FOR RESEARCH & THERAPY OF HOMOSEXUALITY

June 30, 2010

Professor Sir Michael G. Marmot MBBS, MPH, PhD, FRCP, FFPHM, FMedSci, FBA
President, British Medical Association

Sir Michael Marmot:

We are writing on behalf of the National Association for Research and Therapy of Homosexuality (NARTH), a secular, professional, and scientific organization in the United States of America. Our international division, the International Federation for Therapeutic Choice (IFTC), has membership in the United Kingdom.

It has come to our attention that at the British Medical Association's ARM meeting on Thursday, July 1, 460 Motion by NORTH THAMES RJDC will be discussed. This motion addresses issues of importance to NARTH and its members; namely, it "notes that . . . 'treatment' for homosexuality, . . . is discredited and harmful to those 'treated'" and "calls on the Royal College of Psychiatrists and other bodies setting standards for mental health workers to publicly repudiate these treatments and explicitly include stipulations in their codes of practice against these attempts to alter sexual orientation."

We understand that this motion is based in part on the 2009 *Statement from the Royal College of Psychiatrists' Gay and Lesbian Mental Health Special Interest Group* (cf. http://www.rcpsych.ac.uk/pressparliament/pressreleases2009/statement.aspx), which mentions NARTH by name and cites the American Psychological Association (APA) and the American Psychiatric Association as authorities for its claims. Perhaps the BMA and/or RCP are unaware of the APA's recent positions on this issue.

First, in its 2009 *Report of the Task Force on Appropriate Therapeutic Responses to Sexual Orientation* (http://www.apa.org/pi/lgbt/resources/therapeutic-response.pdf), the American Psychological Association has stated that the research on sexual orientation change efforts (SOCE) is inconclusive in regard to the issue of harm. In its report, the APA states, "There are no scientifically rigorous studies of recent SOCE that would enable us to make a definitive statement about whether recent SOCE is [*sic*] safe or harmful and for whom" (p. 83).

Second, the APA report declares that sexual behavior, attraction, and orientation identity are fluid—in other words, changeable: "Recent research on sexual orientation identity diversity illustrates that sexual behavior, sexual attraction, and sexual orientation identity are labeled and expressed in many different ways, some of which are fluid" (p. 14; cf. p. 2, 63, 77).

Third, the APA report supports the rights of clients to determine their own direction of treatment. As the report says, licensed mental health providers (LMHP) "should strive to maximize autonomous decision making and self-determination and avoid coercive and involuntary treatments**"** (p. 76). The report continues, "We also believe that LMHP are more likely to maximize their clients' self determination by providing effective psychotherapy that increases a client's abilities to cope, understand, acknowledge, explore, and integrate sexual orientation concerns into a self-chosen life in which the client determines the ultimate manner in which he or she does or does not express sexual orientation" (p. 69), and that "clients perceive a benefit when offered interventions that emphasize acceptance, support, and recognition of important values and concerns" (p. 63). The APA report reads further:

> For individuals who experience distress with their sexual attractions and seek SOCE . . . [t]he following appear to be helpful to clients: • Finding social support and interacting with others in similar circumstances. • Experiencing understanding and recognition of the importance of religious beliefs and concerns. • Receiving empathy for their very difficult dilemmas and conflicts. And, • Being provided with affective and cognitive tools for identity exploration and development. (p. 61)

While NARTH does not agree with everything written in the report, which we have critiqued elsewhere (cf. http://www.narth.com/docs/aformalresponse.html; also, http://www.narth.com/docs/apataskforcereportbroch.pdf), we support fully the use of strategies such as those mentioned by APA and cited above for helping clients with unwanted homosexuality achieve the goals they seek.

We agree also with the position of the APA that religious beliefs in regard to homosexuality must be respected (cf. p. 5, 19–20, 51, 53, 56, 59, 64, 69, 70, 77–78, 82, 120), as well as the convictions of those who decide (apart from religious reasons) that their sexuality does not reflect their true self (cf. p. 18, 56, 68–69). Finally, we concur with the APA that it *is important that "scientific and professional information about sexual orientation . . . (be) accurate . . . in order to counteract bias that is based in lack of knowledge about sexual orientation" (p. 122).*

As health-care professionals, we are obligated to "first do no harm." For UK medical and mental health practitioners to withhold psychological care for those who are distressed by unwanted homosexual attractions would be a violation of client autonomy, client self-determination, and client diversity. True diversity is meaningless unless it embraces different world views—and treatment should include those who seek to diminish their homosexual attractions and who desire a different path for their lives.

In th is instance, depriving such clients of the care they seek would in effect be malpractice, abandoning them to the unwanted, significantly greater risks for severe—even life-threatening—medical, psychological, and relational harm experienced by those who engage in homosexual behavior compared with those who do not (cf. http://www.

narth.com/menus/journal.html; http://narth.com/menus/medical.html; http://www.corporateresourcecouncil.org/white_papers/Health_Risks.pdf).

Finally, although the APA task force was biased—consisting of six individuals who, prior to their review of the literature, were on record as opposing SOCE—it still admitted that the research does not support the allegation that change attempts are harmful or without any merit. Therefore, the motion presented to the BMA to "publicly repudiate . . . mental health workers'. . . attempts to alter sexual orientation" because those attempts are "discredited and harmful to those 'treated'" is professionally and scientifically unfounded and should be dismissed.

While we recognize that the BMA may be in a difficult situation, perhaps receiving unwarranted pressure from activist groups within or without the organization, we also know that all decisions of professional associations should be grounded in science and demonstrable clinical experience—not political or ideological pressure. For example, former APA presidents Dr. Nicholas Cummings and Dr. Rogers Wright have decried the movements within the APA to trade science and professionalism for ideology and political activism (cf. Rogers Wright & Nicholas Cummings [eds.], *Destructive Trends in Mental Health: The Well-Intentioned Path to Harm* [New York: Routledge, 2005]; Nicholas Cummings & A. Dean Byrd, *Sexual Orientation, Faith Tradition, and the Disappearance of the Leona Tyler Principle*, 2010, http://www.apa.org/divisions/div1/news/Spring%202010/Spring%202010%20Final.pdf; http://www.narth.com/docs/APA2009SymposiumReport.pdf).

NARTH upholds the rights of persons with unwanted homosexuality to receive wanted psychological care, the rights of competent therapists to offer such care, and the duty of medical and mental health professionals to responsibly conduct and report clinical observations and scientific research relevant to homosexuality. To more fully understand the nature and mission of NARTH, we encourage you to read the attached statement by our current President, Dr. Julie Hamilton, PhD, which also may be read online (cf. http://www.narth.com/docs/addresses.html).

Thank you for your consideration of our, and of all, points of view. We trust that you will allow both the research itself and a professional, ethical concern for client rights to guide your discussion and any subsequent decisions.

Sincerely,

Julie Harren Hamilton, PhD, LMFT, NARTH President

Philip M. Sutton, PhD, LMFT, Licensed Psychologist, NARTH President-Elect

A. Dean Byrd, PhD, MBA, MPH, Licensed Psychologist, NARTH Past President

Narth's Response to the American Psychological Association (APA) Public Interest Directorate Public Comment Solicitation Program *Second* Round Concerning APA's Proposed *Guidelines for Psychological Practice with Lesbian, Gay, and Bisexual Clients*

(October 27, 2010)

Given that Guideline 3 was not changed from its original form following the first round of public comments, we again offer the following feedback:

Although discounted by APA's six-member Task Force on Appropriate Therapeutic Responses to Sexual Orientation (2009), varying degrees of sexual orientation change have been repeatedly documented in the literature throughout the past century. While the task force deemed many of the studies insufficient to prove the possibility of change, their dismissal of these studies does not prove the impossibility of change. Simply stated, as the task force report itself claims, there is insufficient evidence to determine whether this type of treatment works *or does not work.* This is likely the case for a variety of other psychological treatments in common usage by APA members, none of which have yet to be validated using the gold standard design of outcome researchers: prospective and randomized control trials.

Therefore, stating in Guideline 3 that "efforts to change sexual orientation are neither effective nor safe for many clients" is inaccurate, as the research has been deemed by the APA's 2009 task force insufficient to make this statement. It should also be noted that while gay-affirmative therapy is advocated by the 2009 task force, no studies meeting the task force's own criteria confirm the effectiveness of gay-affirmative therapy.