

# Is There a Causal Link Between Childhood Gender Nonconformity and Adult Homosexuality?

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**SUMMARY.** The correlation between childhood gender conformity or nonconformity and adult sexual orientation is well established, but is it causal? The Exotic-Becomes-Erotic (EBE) theory of sexual orientation asserts that it is. A path analysis of data from a large sample of twins demonstrates that childhood gender conformity or nonconformity is an intervening step in the developmental path from the genotype to sexual orientation. The possibility that EBE theory provides viable strategies for influencing a child's future sexual orientation is discussed. doi:10.1300/J529v12n01\_05 [Article copies available for a fee from The Haworth Document Delivery Service: 1-800-HAWORTH. E-mail address: <docdelivery@haworthpress.com> Website: <<http://www.HaworthPress.com>> © 2008 by The Haworth Press. All rights reserved.]

**KEYWORDS.** Development, Exotic-Becomes-Erotic (EBE), gender, gender identity, gender nonconformity, heterosexuality, homosexuality, path analysis, sexual orientation, twin studies

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The correlation between childhood gender conformity or nonconformity and adult sexual orientation is well established. A meta-analysis of 48 studies with sample sizes ranging from 34 to 8,751 confirmed that gay men and lesbians were more likely to recall gender-nonconforming behaviors and interests in childhood than were heterosexual men and women (Bailey and Zucker, 1995). The differences were large and significant for both men and women, ranging from 0.5 to 2.09 standard deviations across studies, with means of 1.31 and 0.96 for men and women, respectively. As the authors note, "these are among the largest effect sizes ever reported in the realm of sex-dimorphic behaviors" (p. 49).

Prospective studies come to the same conclusion. The largest of these involved a sample of 66 gender-nonconforming and 56 gender-nonconforming boys with a mean age of 7.1 years (Green, 1987). The researchers were able to assess about two thirds of each group in late adolescence or early adulthood, finding that about 75% of the previously gender-nonconforming boys were either bisexual or homosexual compared with only one (4%) of the gender-conforming boys. In six other prospective studies, 63% of gender-nonconforming boys whose sexual orientations could be ascertained in late adolescence or adulthood had homosexual orientations (Zucker, 1990).

This body of data has led one researcher in the field to assert that the link between childhood gender nonconformity and an adult homosexual orientation "may be the most consistent, well-documented, and significant finding in the entire field of sexual-orientation research and perhaps in all of human psychology" (Hamer and Copeland, 1994, p. 166). That may be a bit hyperbolic—Hamer is a molecular geneticist, not a psychologist—but it *is* difficult to think of other individual differences (besides IQ or sex itself) that so reliably and so strongly predict socially significant outcomes across the life span—and for both sexes, too.

Which brings us to the question of causation: Are childhood gender conformity or nonconformity and adult sexual orientation merely correlated—*independent consequences of biological or other antecedents*—or does gender conformity or nonconformity play a causal role in the development of adult sexual orientation? As the existence of this special issue of the *Journal of Gay and Lesbian Psychotherapy* attests, the answer to this question has both clinical and political implications.

My own Exotic-Becomes-Erotic (EBE) theory of sexual orientation (D.J. Bem, 1996) asserts that the link is, in fact, causal, that gender conformity or nonconformity is an intervening step in the path from biological variables to sexual orientation.

### OVERVIEW OF EBE THEORY

EBE theory proposes a single unitary explanation for both opposite-sex and same-sex desire, asserting that the same developmental pathway accounts for both heterosexual and homosexual orientations for both men and women. The central propositions of the theory are that: (a) individuals can become erotically attracted to a class of individuals from whom they felt different during childhood and (b) gender conformity or nonconformity is the primary antecedent of these feelings of being different. Figure 1 shows how these steps are embedded in the overall sequence of events that leads to an individual's erotic attractions. The sequence begins at the top of the figure with Biological Variables (labeled A) and ends at the bottom with Erotic Attraction (F).

A → B. According to the theory, biological variables do not code for sexual orientation per se but for childhood temperaments, such as aggression and activity level.

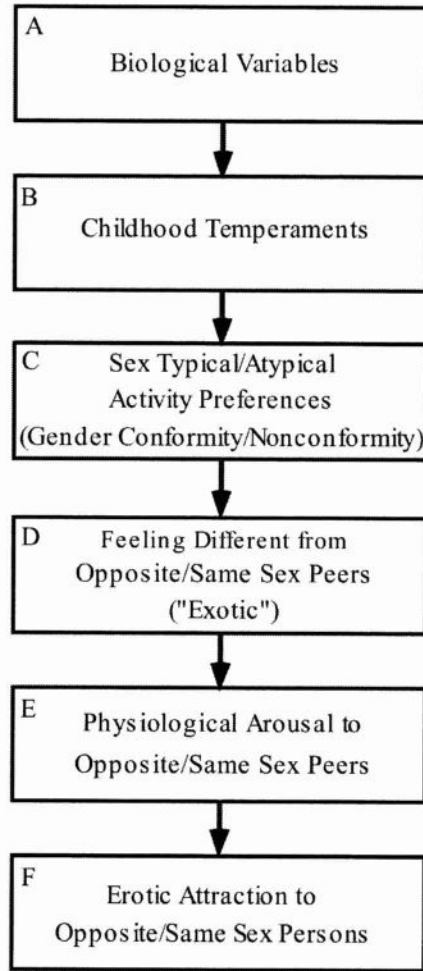
B → C. A child's temperaments predispose him or her to enjoy some activities more than others. One child will enjoy rough-and-tumble play and competitive team sports (male-typical activities); another will prefer to socialize quietly or play jacks or hopscotch (female-typical activities). Children will also prefer to play with peers who share their activity preferences; for example, the child who enjoys baseball or football will selectively seek out boys as playmates. Children who prefer sex-typical activities and same-sex playmates are referred to as gender conforming; children who prefer sex-atypical activities and opposite-sex playmates are referred to as gender nonconforming.

C → D. Gender-conforming children will feel different from opposite-sex peers, and gender-nonconforming children will feel different from same-sex peers.

D → E. These feelings of being different produce heightened physiological arousal. For the male-typical child, it may be felt as antipathy or contempt in the presence of girls ("girls are yucky"); for the female-typical child, it may be felt as timidity or apprehension in the presence of boys. A particularly clear example is the "sissy" boy who is taunted by male peers for his gender nonconformity and, as a result, is likely to experience the strong physiological arousal of fear and anger in their presence. The theory claims, however, that every child—conforming or nonconforming—experiences heightened, nonspecific physiological arousal in the presence of peers from whom he or she feels different. For

F<sub>1</sub>

FIGURE 1. The temporal sequence of events leading to sexual orientation for most men and women in a gender-polarizing culture.



most children, this arousal is neither affectively toned nor consciously experienced.

E → F. Regardless of the specific source or affective tone of the childhood arousal, it is subsequently transformed into erotic attraction. Steps D → E and E → F thus encompass specific psychological mechanisms that transform exotic into erotic (D → F).

Figure 1 is not intended to describe an inevitable, universal path to sexual orientation but the modal path followed by most men and women in a gender-polarizing culture like ours, a culture that emphasizes the differences between the sexes by pervasively organizing both the perceptions and realities of communal life around the male-female dichotomy (S.L. Bem, 1993).

### ***EVIDENCE FOR THE THEORY***

#### ***Exotic Becomes Erotic (D → F)***

The proposition that individuals can become erotically attracted to a class of individuals from whom they felt different during childhood is very general and transcends erotic orientations that are based on gender. For example, a light-skinned person could come to eroticize dark-skinned persons through one or more of the processes described by the theory. To produce a differential erotic attraction to one sex or the other, however, requires that the basis for feeling different must itself differentiate between the sexes; that is, to arrive at a sex-based erotic orientation, an individual must feel different for sex-based or gender-related reasons. Simply being lighter-skinned, poorer, more intelligent, or more introverted than one's childhood peers does not produce the kind of feeling different that produces differential homoerotic or heteroerotic attraction.

Data consistent with this analysis comes from the intensive, large-scale interview study conducted in the San Francisco Bay Area by the Kinsey Institute for Sex Research (Bell, Weinberg and Hammersmith, 1981; hereinafter, the San Francisco Study). Using retrospective reports from adult respondents, the investigators compared approximately 1,000 gay men and lesbians with 500 heterosexual men and women to test several hypotheses about the development of sexual orientation. The study found that 71% of the gay men and 70% of the lesbians in the sample reported that they had felt different from their same-sex peers during childhood, a feeling that was sustained throughout childhood and adolescence for most respondents.

When asked in what ways they had felt different, they overwhelmingly cited gender-related reasons. Gay men were most likely to say that they had not liked boys' sports; lesbians were most likely to say that had been more masculine than other girls and had been more interested in sports than other girls. In contrast, fewer than 8% of heterosexual men

or women said that they had felt different from same-sex childhood peers for gender-related reasons. Those who had felt different from their peers tended to cite such reasons as having been poorer, more intelligent, or more introverted (All statistical comparisons between gay and heterosexual respondents were significant at  $p < .0005$ ).

Several other studies have also reported that gay men and lesbians recall having felt different from same-sex peers on gender-related characteristics during childhood (e.g., Newman and Muzzonigro, 1993; Savin-Williams, 1998; Telljohann and Price, 1993; Troiden, 1979). The major weakness in all these studies, including the San Francisco study, is that they rely on adults' retrospective reports of childhood feelings. On the other hand, the respondents in some of the studies were relatively close in time to their childhood years; in one study, for example, 88% of gay male youths as young as 14 years reported having felt different from other boys on gender-related characteristics throughout their childhood years (Savin-Williams, 1998). (In their meta-analysis, Bailey and Zucker (1995) discuss corroborating data for the retrospective reports in many studies of gender nonconformity.)

***Gender Conformity and Nonconformity:  
The Antecedents of Feeling Different (C → D)***

Feeling different from one's childhood peers can have any of several antecedents, some common, some idiosyncratic. The most common antecedent is gender polarization. Virtually all human societies polarize the sexes to some extent, setting up a sex-based division of labor and power, emphasizing or exaggerating sex differences, and, in general, superimposing the male-female dichotomy on virtually every aspect of communal life (S. L. Bem, 1993). These gender-polarizing practices ensure that most boys and girls will grow up feeling different from opposite-sex peers and, hence, will come to be erotically attracted to them later in life. According to the theory, this is why gender becomes the most salient category for the developing child and, hence, the most common criterion for selecting sexual partners later in life. It is also why heteroeroticism is the modal preference across time and culture.

A less common occurrence is the child who comes to feel different from same-sex peers and who, according to the theory, will develop same-sex erotic attractions. As the responses given by gay and lesbians in the San Francisco study imply, the most common antecedent of feeling different from same-sex peers in childhood were sex-atypical preferences and behaviors in childhood: gender nonconformity. In fact, in

the path analyses of the San Francisco study, childhood gender conformity or nonconformity was not only the strongest but the only significant childhood predictor of later sexual orientation for both men and women (Bell et al., 1981).

In light of the current debate over “reparative” therapy, it is also pertinent to note that no family variables were strongly implicated in the development of sexual orientation for either men or women. With respect to the classical psychoanalytic account, for example,

our findings indicate that boys who grow up with dominant mothers and weak fathers have nearly the same chances of becoming homosexual as they would if they grew up in “ideal” family settings. Similarly, the idea that homosexuality reflects a failure to resolve boys’ “Oedipal” feelings during childhood receives no support from our study. Our data indicate that the connection between boys’ relationships with their mothers and whether they become homosexual or heterosexual is hardly worth mentioning. . . . [Similarly,] we found no evidence that prehomosexual girls are “Oedipal victors”—having apparently usurped their mothers’ place in the fathers’ affections. . . . [Finally,] respondents’ identification with their opposite-sex parents while they were growing up appears to have had no significant impact on whether they turned out to be homosexual or heterosexual. (Bell, et al., 1981, pp. 184, 189).

#### *How Does Exotic Become Erotic? (D → E → F)*

EBE theory proposes that exotic becomes erotic because feeling different from a class of peers in childhood produces heightened nonspecific physiological arousal (D → E) which is subsequently transformed into erotic attraction (E → F). There are at least three mechanisms that can potentially transform generalized arousal into erotic attraction (D. J. Bem, 1996). Only one of these, the extrinsic arousal effect, is discussed here.

In his first-century Roman handbook, *The Art of Love*, Ovid advised any man who was interested in sexual seduction to take the woman in whom he was interested to a gladiatorial tournament, where she would more easily be aroused to passion. He did not say why this should be so, however. A contemporary version of Ovid’s claim was introduced by Walster (Berscheid and Walster, 1974), who suggested that arousal

constitutes a special case of Schachter and Singer's (1962) two-factor theory of emotion. That theory states that the physiological arousal of our autonomic nervous system provides the cues that we feel emotional but that the more subtle judgment of *which* emotion we are feeling often depends on our cognitive appraisal of the surrounding circumstances. According to Walster, then, the experience of erotic desire results from the conjunction of physiological arousal and the cognitive causal attribution (or misattribution) that the arousal is elicited by a potential sexual partner.

Although not all investigators agree that it arises from a cognitive attribution process, there is now extensive experimental evidence that an individual who has been physiologically aroused will show heightened sexual responsiveness to an appropriate target person. In one set of studies, male participants were physiologically aroused by running in place, by hearing an audio tape of a comedy routine, or by hearing an audio tape of a grisly killing (White, Fishbein and Rutstein, 1981). No matter how they had been aroused, these men reported more erotic interest in a physically attractive woman than did men who had not been aroused. This effect has also been observed physiologically. In two studies, preexposure to a disturbing (nonsexual) videotape subsequently produced greater penile tumescence in men and greater vaginal blood volume increases in women when they watched an erotic videotape than did preexposure to a non-disturbing videotape (Hoon, Wincze and Hoon, 1977; Wolchik et al., 1980).

In other words, generalized physiological arousal, regardless of its source or affective tone, can subsequently be experienced cognitively, emotionally, and physiologically as erotic desire. At that point, it *is* erotic desire. The EBE claim, then, is that an individual's protracted and sustained experience of feeling different from same- or opposite-sex peers throughout childhood and adolescence produces a correspondingly sustained physiological arousal that gets eroticized when the maturational, cognitive, and situational factors coalesce to provide the critical defining moment.

The precise timing of this moment, however, is influenced by several factors, including actual sexual experience with opposite- and same-sex peers. One review suggests that, in general, men and women recall their first sexual attractions—whether same-sex or opposite-sex—as occurring when they were between 10 and 10.5 years of age (McClintock and Herdt, 1996). Nevertheless, social norms and expectations inevitably influence an individual's awareness and interpretation of early arousal. Most individuals in our culture are primed to anticipate, recognize, and



interpret opposite-sex arousal as erotic or romantic attraction and to ignore, repress, or interpret comparable same-sex arousal differently. We should also expect to see secular changes and cohort effects. For example, the heightened visibility of gay men and lesbians in our society is now prompting individuals who experience same-sex arousal to recognize it, label it, and act on it at earlier ages than in previous years (Dubé, 1997; Fox, 1995; Savin-Williams, 1995; Savin-Williams, 1998).

***The Biological Connection*** ( $A \rightarrow F$ ) ~~(vs)~~ ( $A \rightarrow B$ )

spell out

As outlined in Figure 1, EBE theory proposes that to the extent that biological factors such as the genotype, prenatal hormones, or brain neuroanatomy influence an individual's later sexual orientation, they do so only indirectly by intervening earlier in the chain of events to influence a child's preference for sex-typical or sex-atypical activity and peer preferences—his or her gender conformity or nonconformity.

More specifically, the theory specifies that any link between, say, the genotype and gender nonconformity ( $A \rightarrow C$ ) is composed of two parts: a link between the genotype and childhood temperaments ( $A \rightarrow B$ ) and a link between those temperaments and gender nonconformity ( $B \rightarrow C$ ). This implies that the mediating temperaments should possess three characteristics: First, they should be plausibly related to those childhood activities that define gender conformity and nonconformity. Second, because they manifest themselves in sex-typed preferences, they should show sex differences. And third, because they are hypothesized to derive from the genotype, they should have significant heritabilities (For general discussions and reviews of childhood temperaments, see Goldsmith et al., 1987; Kohnstamm, Bates and Rothbart, 1989).

One likely candidate is aggression and its benign cousin, rough-and-tumble play. Gay men score lower than heterosexual men on measures of childhood aggression (Blanchard et al., 1983), and parents of gender-nonconforming boys specifically rate them as having less interest in rough-and-tumble play than do parents of gender-conforming boys (Green, 1976). Second, the sex difference in aggression during childhood is one of the largest psychological sex differences known (Hyde, 1984). Rough-and-tumble play in particular is more common in boys than in girls (DiPietro, 1981; Fry, 1990; Moller, Hymel & Rubin, 1992). Third, individual differences in aggression have a large heritable component (Rushton et al., 1986).

Another likely candidate is activity level, considered to be one of the basic childhood temperaments (Buss and Plomin, 1975, 1984). Like aggression, differences in activity level would also seem to characterize the differences between male-typical and female-typical play activities in childhood. Moreover, gender-nonconforming boys and girls are lower and higher on activity level, respectively, than are control children of the same sex (Bates, Bentler and Thompson, 1973, 1979; Zucker and Green, 1993). Second, the sex difference in activity level is as large as it is for aggression. Even before birth, boys *in utero* are more active than girls (Eaton and Enns, 1986). Third, individual differences in activity level have a large heritable component (Plomin, 1986; Rowe, 1997).

### **TESTING THE PATH FROM GENOTYPE TO SEXUAL ORIENTATION**

There are now several studies that indicate a link between an individual's genotype and his or her sexual orientation. In one, a sample of 115 gay men who had male twins, 52% of identical twin brothers were also gay compared with only 22% of fraternal twin brothers and 11% of adopted brothers (Bailey and Pillard, 1991). In a comparable sample of 115 lesbians, 48% of identical twin sisters were also lesbians compared with only 16% of fraternal twin sisters and 6% of adopted sisters (Bailey et al., 1993). A subsequent study of nearly 5,000 twins who had been systematically drawn from a twin registry confirmed the significant heritability of sexual orientation for men but not for women (Bailey, Dunne and Martin, 2000). Finally, an analysis of families in which there were two gay brothers suggested a correlation between a homosexual orientation and the inheritance of genetic markers on the X chromosome (Hamer and Copeland, 1994; Hamer et al., 1993).

These same studies also provide evidence for the link proposed by EBE theory between an individual's genotype and his or her childhood gender nonconformity. For example, in the 1991 study of male twins, the correlation on gender nonconformity between gay identical twins was as high as the reliability of the nonconformity measure would permit, .76, ( $p < .0001$ ), compared with a nonsignificant correlation of only .43 between gay fraternal twins (Bailey and Pillard, 1991). This implies that even when sexual orientation is held constant, there is a significant correlation between the genotype and gender nonconformity. Similarly, the 1993 family study, found that gay brothers who shared the same ge-

netic markers on the X chromosome were more alike on gender nonconformity than were gay brothers who did not (Hamer and Copeland, 1994; Hamer et al., 1993). Finally, childhood gender nonconformity was significantly heritable for both men and women in the large twin registry study—even though sexual orientation itself was not significantly heritable for the women (Bailey, Dunne and Martin, 2000).

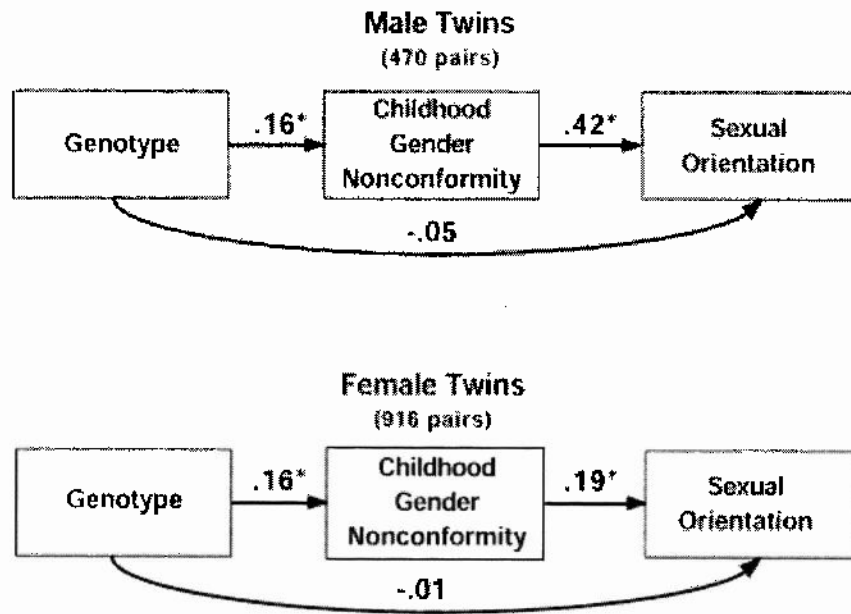
Because the twin registry study was based on a very large sample and includes heterosexual as well as bisexual and homosexual individuals, the data can be used in a path analysis to test the EBE model against the competing hypothesis that gender conformity or nonconformity and sexual orientation are correlated only because they are independent consequences of the genotype. In particular, the EBE model predicts that any correlation between the genotype and sexual orientation is mediated by gender nonconformity and, hence, should vanish when gender nonconformity is entered into the path analysis. In contrast, the “correlation only” hypothesis predicts that the correlation between the genotype and sexual orientation should remain unaffected when gender nonconformity is entered into the path analysis.

The path analysis presented here is based on the fact that monozygotic twins will be more similar than dizygotic twins on any trait with non-zero heritability. This is equivalent to saying that zygosity is itself correlated with trait similarity across pairs of twins: the higher the heritability of the trait, the higher the correlation. Accordingly, the unit of analysis here is the twin pair, and each variable is a measure of the pair’s similarity on the three variables at issue (The variables are actually all coded in the direction of dissimilarity). Genetic similarity (zygosity) is coded as 0 for monozygotic twin pairs and as 1 for dizygotic pairs. The similarity of a pair’s childhood gender nonconformity is the absolute value of the difference between their scores on a multi-item scale of childhood gender nonconformity; and, the similarity of their sexual orientations is the absolute value of the difference between their scores on the 7-point Kinsey scale of sexual orientation, which ranges from 0 = *exclusively heterosexual* to 6 = *exclusively homosexual*. A full description of the twin sample, the methodology of the study, and a more thorough analysis of the data can be found in Bailey et al., (2000).<sup>1</sup>

As shown in Figure 2, the pattern of path coefficients is consistent with the EBE model for both male and female twin pairs: For both sexes, there is a significant path between the genotype and childhood gender nonconformity and a further significant path between childhood gender nonconformity and sexual orientation, but there is no remaining, direct link between the genotype and sexual orientation.<sup>2</sup> Gender con-

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FIGURE 2. Path coefficients between genetic similarity (zygosity), childhood gender nonconformity similarity, and sexual orientation similarity for male and female twin pairs.



\*p < .001

formity or nonconformity is therefore a mediating link between the genotype and sexual orientation.

***DOES EBE THEORY PROVIDE VIABLE STRATEGIES FOR INFLUENCING SEXUAL ORIENTATION?***

Like most experiential or biological-cum-experiential theories, EBE theory prompts the question of whether a child's eventual sexual orientation can be influenced by intervening somewhere in the causal chain. The theory suggests four potential strategies for doing so.

***Intervening at the Genetic Level***

In recent years, researchers, the mass media, and segments of the lesbian/gay/bisexual community have rushed to embrace the thesis that a

homosexual orientation is genetically coded. Genetic explanations of homosexuality have also become more popular with the public over the past several years: In 1977, 13% of Americans believed that "homosexuality is something that people are born with" compared with 53% who believed that it was caused by "other factors such as upbringing or environment." In other words, the public was divided 4 to 1 in favor of experiential explanations. By 2001, the public was evenly split between these alternatives (40% vs. 39%; Newport, 2001). Many members of the lesbian/gay/bisexual community welcome this trend. For example, *The Advocate*, a national gay and lesbian newsmagazine, reported that 61% of its readers believed that "it would mostly help gay and lesbian rights if homosexuality were found to be biologically determined" (1996).

Several supporting reasons for this expectation are frequently cited: Evidence for biological determination would convince the public that gays and lesbians do not simply choose their sexual orientations; it would calm fears that gays and lesbians (or even positive representations of them in the media) could prompt young people to adopt homosexual orientations; it would discourage the pursuit of strategies designed to prevent or "cure" homosexuality; and finally, it would strengthen the rationale for treating sexual orientation like race and sex in civil rights legislation.

Survey data are consistent with this reasoning. A 1993 Gallup poll found that Americans who believe that homosexuality is caused by "something that people are born with" were almost twice as likely as other Americans to believe that gays and lesbians should be permitted to serve in the military and that civil rights protection should be extended to gays (Moore, 1993). Similarly, a cross-national study in the United States, the Philippines, and Sweden found that those who believed that "homosexuals are born that way" held significantly more positive attitudes toward homosexuality than those who believed that "homosexuals choose to be that way" and/or "learn to be that way" (Ernulf, Innala and Whitam, 1989; see also Whitley, 1990).

However, I do not believe that beliefs about causality substantially influence most citizens' attitudes toward homosexuality. Rather, I believe the reverse, that attitudes toward homosexuality often influence beliefs about causality: Individuals are likely to find most plausible those beliefs that best rationalize their attitudes. For example, in the Gallup poll cited above, political liberals—who have historically been the most resistant to biological explanations of race and sex differences—were almost twice as likely as conservatives to endorse biologi-

cal explanations of homosexuality (Moore, 1993). Surely their political liberalism preceded their beliefs about causality. Of course, this same statistic implies that the political conservatives in the survey arrived at their beliefs about causality in the same way.

Consequently, I suspect that the increasing public endorsement of a biological explanation for homosexuality is not much of a causal factor in the increasing acceptance of gays and lesbians. Those who hold progay attitudes simply conclude that being gay is like being left-handed, no big deal. Those who hold antigay attitudes conclude that being gay is like having a congenital physical disability or an inborn tendency toward schizophrenia or alcoholism (or kleptomania, according to Senator Trent Lott).

Historically, of course, biological theories of human differences have tended to produce the least tolerant attitudes and the most conservative, even draconian, public policies—as in Nazi Germany. Today, whenever the media announce evidence for a “gay” gene, the researchers receive inquiries about detecting pregay children *in utero* so that they can be aborted. In other words, biological explanations of homosexuality are not more politically benign than experiential or interactional explanations.

Abortion and infanticide aside, rapidly developing technologies for reliably selecting the sex of a child at conception raise the possibility of eventually selecting for sexual orientation. Would it work?

In the twin studies cited earlier, the concordance of identical twins on homosexuality is approximately 50% for both gay men and lesbians (Bailey and Pillard, 1991; Bailey et al., 1993). On the basis of the very large twin registry study, Bailey himself believes that this figure is probably too high (Bailey et al., 2000). In other words, any intervention strategy based on the genetic link to homosexuality—whether the link is direct or is mediated by childhood gender nonconformity—is, at best, no better than a coin flip. Although that would be more effective than just going with the base rate of homosexuality, a 50% false-alarm rate might give even determined homophobes pause.

### ***Attenuating Childhood Gender Nonconformity***

Perhaps the most obvious intervention strategy suggested by EBE theory is to attenuate a child’s gender nonconformity. Of course, the society hardly needed EBE theory to suggest it. The belief that childhood gender nonconformity leads to later homosexuality is already so widely believed that many parents (especially fathers) already discourage their

children (especially sons) from engaging in gender-nonconforming behaviors lest they become homosexual. If EBE theory is correct that both homosexuality and heterosexuality derive from the same childhood processes, then it is clear that a gender-polarizing society such as ours is already spectacularly effective in producing heterosexuality: 85-95% of all men and women in the United States are exclusively heterosexual (Laumann et al., 1994).

But this same figure suggests that the sex atypicality of children who persist in their gender nonconformity despite such pressures must be strongly rooted in their inborn temperaments—as EBE theory proposes. Requiring such children to engage in sex-typical activities and to avoid sex-atypical activities is unlikely to diminish their feelings of being different from same-sex peers—it may even enhance such feelings—and, hence, is unlikely to diminish their later erotic attraction to those peers.

Empirical support for this conjecture emerges from Green's (1987) longitudinal study of gender-nonconforming boys, cited earlier. About 27% of these boys had been entered by their parents into various kinds of therapy specifically designed to prevent a homosexual orientation from developing. Interviews with these parents revealed that they were more anxious about their sons' later sexuality than were parents of other gender-nonconforming boys in the sample, suggesting they had probably tried to actively discourage their sons' gender nonconformity in other ways as well. All of this effort was for naught: 75% of these boys emerged as homosexual or bisexual, slightly more than the percentage of boys who had not undergone therapy.

### *Attenuating the "Exotic"*

EBE theory suggests a third point of intervention, namely, eliminating the "exotic" from the exotic-becomes-erotic process. Rather than trying to encourage gender conformity and discourage gender nonconformity, perhaps parents could prevent their gender nonconforming children from feeling different from same-sex peers by encouraging them to play and interact with same-sex children who were also nonconforming—a strategy often used by non-homophobic parents who simply seek to give their gender-nonconforming children a more comfortable peer environment. This is, of course, an empirical question. Nevertheless, it seems unlikely, that such children would thereby become oblivious to and unaffected by the gender norms and gender polarization of the wider society. For them, gender-conforming chil-

dren of the same sex would remain the exotic and, hence, the eroticized group.

### ***Attenuating Gender Polarization***

As noted earlier, the EBE path from childhood gender conformity or nonconformity to sexual orientation applies only to the extent that the culture is gender-polarized. A less gender-polarized culture would less systematically estrange its children from either opposite-sex or same-sex peers, which would, in turn, attenuate the link between gender conformity or nonconformity and sexual orientation. Such children would not grow up to be asexual; rather, their erotic preferences would simply crystallize around a more diverse and idiosyncratic variety of attributes. As noted in my original article (D.J. Bem, 1996), gentlemen might still prefer blonds, but some of those gentlemen (and some ladies) might well prefer blonds of any sex.

Here, then, is a strategy that is likely to work. The irony, of course, is that in a gender-liberated culture such as that, nobody is likely to care.

### NOTES

1. I am grateful to Michael Bailey for providing the data necessary for these path analyses.

2. To ensure that this pattern of results is not simply an artifact of differing distributions of the two continuous variables (childhood gender nonconformity similarity and sexual orientation similarity), a logistic analysis (Darlington, 1990) was also performed in which these two variables were first transformed into dichotomous variables with identical distributions. Following Bailey et al. (2000), a twin pair was considered concordant for sexual orientation if both twins were either exclusively heterosexual (Kinsey scores of 0) or not (Kinsey scores greater than 0). The difference scores on childhood gender nonconformity were then dichotomized so that the number of concordant pairs on this variable equaled the number of pairs who were concordant on sexual orientation. In this way, both variables were given "an equal chance" of being correlated with genetic similarity. This alternative analysis yielded the same correlational patterns and the same significance levels as the analysis depicted in Figure 2.

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