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A Critique of Bem's "Exotic Becomes Erotic" Theory of Sexual Orientation

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Two critiques of D. J. Bem's (1996) "Exotic Becomes Erotic" (EBE) theory of sexual orientation are presented. First, the core proposition of EBE theory is considered; that is, the idea that adults are erotically attracted to the gender-based class of peers (males or females) who were dissimilar or unfamiliar to them in childhood. Studies cited by Bem and additional research show that EBE theory is not supported by scientific evidence. Second, Bem's claim that his theory applies equally to both sexes is questioned; instead the argument that it neglects and misrepresents women's experiences is made. Bem's conceptualization of erotic desire and his analysis of gender nonconformity illustrate this problem. It is suggested that different theories may be needed to explain the development of men's and women's sexual orientation.

Nearly 100 years ago, Havelock Ellis (1901) and other early sexologists described homosexuality as a form of gender "inversion." According to this view, homosexuality is associated with having or wanting to have characteristics of the opposite sex, including attraction to one's own sex. Thus a lesbian's attraction to women was seen as part of a larger constellation of masculine attributes. Krafft-Ebing (1886/1950) classified lesbians into four increasingly masculine types, culminating in the lesbian who "possesses of the feminine qualities only the genital organs; thought, sentiment, action, even external appearance are those of a man" (p. 399). Similarly, early discussions of male homosexuality assumed that gay men were psychologically feminine. Ellis (1901, p. 287) noted "a distinctly general, though not universal, tendency for [male] sexual inverts to approach the feminine type, either in psychic disposition or physical constitution, or both."

In 1996, Daryl Bem presented a theory of sexual orientation which, although couched in modern terminology, represents a variation on the inversion theme. Like earlier theorists, Bem bases his analysis on hypothesized similarities between gay men and heterosexual women, and between lesbians and heterosexual men. In Bem's theory, boys on the path to homosexuality are similar to girls in temperament (low activity level), similar to girls in activity preferences (dislike of rough and tumble play), and similar to girls in playmate preference (preference for playing with girls). The prototype of the prehomosexual boy might be the "sissy boys" studied by Green (1987).

What is new and potentially most important in Bem's (1996) theory is the hypothesized process through which childhood experiences shape adult sexual orientation. Bem posits that sexual attraction develops as a result of perceiving one gender class (males or females) as dissimilar, unfamiliar, and "exotic." The heterosexual scenario is this: Children who conform to gender norms and associate with same-sex peers experience opposite-sex peers as exotic. During adolescence, they eroticize this exotic opposite-sex class of peers and so develop a heterosexual orientation. In the homosexual case, children who do not conform to gender norms experience same-sex peers as unfamiliar and different, and later develop a homosexual orientation.

In this critique, we scrutinize Bem's assertion that the "exotic becomes erotic," showing that it is not supported by scientific evidence. We also question Bem's claim that his theory applies equally to both sexes, arguing instead that it neglects and misrepresents women's experiences.

The Heart of Bem's Theory: Does the Exotic Become Erotic?

According to Bem (1996, p. 323), the "heart of EBE [Exotic Becomes Erotic] theory is the proposition that individuals become erotically or romantically attracted to those who were dissimilar or unfamiliar to them in childhood." Lesbians are attracted to women because in childhood they were different from other girls. Note that Bem's level of analysis concerns attraction to a category of people, not unique individuals. Bem is not asserting that a specific individual who is perceived as dissimilar or unfamiliar in childhood will later become an object of adult desire. Rather, his argument is about a gender-based *class* of people. If a young girl is unfamiliar with other girls, she will later become erotically attracted to the gender category of women. In Bem's (p. 322) words, "the exotic class of peers becomes erotically or romantically attractive" to the individual.

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Although "exotic" is the central concept in EBE theory, Bem (1996) offers no definition of the term, which he generally equates with being unfamiliar or dissimilar from oneself. Sometimes Bem seems to refer to objective familiarity and similarity; more often he emphasizes perceptions of difference. Bem suggests that there may be an optimal level of exoticism, but does not discuss how this level could be determined. Unfortunately, the example that Bem uses to illustrate optimal exoticism—that an erotic interest in human partners of a different race or ethnicity is common but a preference for "lying with the beasts in the field is not" (p. 325)—is irrelevant to the issue of sexual orientation. We agree that attraction to a specific individual may be sparked by the novelty of the new partner's cultural background, but this individual-level phenomenon is not informative about how gender exoticism affects attraction to an entire class of peers. The unanswered question for EBE theory concerns the type or degree of gender exoticism needed to influence sexual orientation.

Bem (1996) does not present new data testing his theory, but rather culls supportive illustrations from the published literature. In this critique, we reexamine research cited by Bem, often questioning his interpretation of these studies. We also present additional research not cited by Bem that challenges or disconfirms aspects of his theory.

Although the empirical database on homosexuality has grown in the past two decades (e.g., Garnets & Kimmel, 1993), existing research remains limited. Most studies of sexual orientation are based on relatively small samples. The use of retrospective reports about childhood experiences is common and can lead to problems of reconstructed memory (Ross, 1980). Comparative studies have often used different recruitment methods for heterosexual and homosexual participants and this may bias the resulting samples in important but unknown ways. All studies of the childhood antecedents of sexual orientation are based on unrepresentative samples. This point is important because Bem repeatedly claims to describe the modal or most common developmental sequence. Until studies of representative samples are available, claims about modal patterns leading to homosexuality are untestable and cannot be verified scientifically.

Nonetheless, available research does provide some basis for evaluating the general adequacy of Bem's theory. In the next sections, we consider the two elements of exoticism—similarity and familiarity—and their links to adult erotic attraction.

Similarity and Sexual Orientation

EBE theory hypothesizes that people become erotically attracted to the gender class of peers who were dissimilar to them in childhood. EBE theory would be supported by research linking childhood feelings of difference to adult sexual orientation. Bem offers evidence on this crucial point from only one study. In 1969–1970, Bell, Weinberg, and Hammersmith (1981a, 1981b) interviewed homosexual and heterosexual men and women in the San Francisco area. They recruited heterosexuals through stratified random sampling but recruited gay men and lesbians from gay bars, public ads, personal contacts, parks, and public restrooms. Respondents were asked "to what extent do you think you were different from the [same-sex children] your age" in grade school? We do not know how the noncomparability of the heterosexual and homosexual recruitment and the retrospective nature of the data affected the results of this study, but it is possible that they may have exaggerated the extent of true differences between heterosexual and homosexual respondents.

Bem reports that significantly more lesbians (70%) than heterosexual women (51%) recalled feeling somewhat or very different from other girls their age. Note, however, that regardless of sexual orientation, the majority of women reported feeling different from other girls their age. Turning to men, 71% of gay men reported feeling different from other boys, but so did 38% of heterosexual men. The difference for men is larger, but still indicates that feeling different from same-sex peers was common for heterosexual men. Perhaps because so many heterosexuals remember feeling different, Bem goes on to note that heterosexuals and homosexuals gave different reasons for feeling different (e.g., gay men tended to say they disliked sports; heterosexual men cited reasons such as being poor or introverted). This seems to suggest that the reasons for feeling different matter: Girls who felt different from other girls because of their appearance became heterosexuals but girls who felt different because they liked sports became lesbians. However, later in his analysis, Bem contradicts this interpretation, noting that "the effect of any childhood variable on an individual's sexual orientation depends on whether it prompts him or her to feel more similar to or different from same-sex or opposite-sex peers" (p. 331). Bem gives examples of children who feel different not only for gender-related reasons but also because of a physical disability or illness. How, then, are we to explain why feelings of difference based on income, introversion, or appearance did not affect the sexual orientation of heterosexuals in the San Francisco study?

A stronger test of EBE theory would be provided by statistical analyses attempting to link childhood experiences to adult sexual orientation. The San Francisco researchers conducted such analyses, and Bem cites them in support of this theory. It should be emphasized that the path analyses reported by Bell et al. (1981a, 1981b) included many variables that are not part of EBE theory and do not really provide an adequate test of Bem's ideas. Consequently, specific findings can be cited that appear to support and to disconfirm EBE theory. For instance, in support of his theory, Bem notes (p. 323) that for women, "feeling different from same-sex peers during childhood remained significant during adolescence," which he takes as evidence of the temporal stability of feeling different. Bem does not report, however, the failure of the path analyses to show the crucial theoretical link between feelings of difference in childhood and adult sexual orientation. Describing results for women, the authors commented: "Our path analysis indicates . . . that such feelings of alienation did not in and of themselves play a role in our respondents' becoming homosexual. The variables about feeling different from other girls were eliminated" from the path analysis (Bell et al., 1981a, pp. 157–158; see also Bell et al., 1981b, pp. 198, 275). Similarly for men, feelings of difference in childhood were not a significant predictor of adult sexual orientation.

Familiarity and Sexual Orientation

A second aspect of exoticism is familiarity, a concept that is not explicitly defined by Bem (1996). Does familiarity refer

to mere exposure to peers, knowledge about peers, or actual interaction? Is a boy "familiar" with other boys if he goes to a coeducational school? has two older brothers? has a very close male friend? or watches childrens' TV shows? Bem does not discuss the nature or the degree of familiarity required to prevent versus spark erotic attraction to a gender class of peers.

In support of the link between familiarity and sexual orientation, Bem again draws on the San Francisco survey, which asked homosexuals and heterosexuals retrospective questions about their childhood experiences. Bem notes that homosexuals were more likely than heterosexuals to remember having had many childhood friends of the other sex: 42% of gay men but only 13% of heterosexual men said that "most childhood friends" were girls. Similarly, 60% of lesbians but only 40% of heterosexual women said that "most childhood friends" were boys. Do these data indicate that gay men and lesbians were unfamiliar with members of their own sex in childhood?

Our examination of data from the San Francisco study leads to an opposite conclusion: virtually all respondents were familiar with children of both sexes. The vast majority of men in the San Francisco study reported having male friends in childhood. Only 9% of gay men said that "none or only a few" of their friends were male, and most gay men (74%) reported having "an especially close friend of the same sex" during grade school. Turning to women, only 24% of lesbians said that most or all of their childhood friends were boys, and most lesbians (71%) reported having an especially close friendship with a girl. In short, the modal case for both heterosexuals and homosexuals and for both women and men in this sample was to have had a close same-sex friend and to have had a significant proportion of friends of the same sex.

Another factor that might affect familiarity is the sex ratio of a person's siblings. Six studies have investigated this issue among men (see Blanchard & Zucker, 1994). From EBE theory, we would expect gay men to be less familiar with boys and therefore to have fewer brothers than heterosexual men. All studies have failed to confirm this prediction. For example, Bell et al. (1981a, 1981b) found no differences between heterosexuals and homosexuals in the number or proportion of brothers and sisters. Blanchard and Sheridan (1992) found that gay men have an unusually high proportion of brothers. Recently, Blanchard and Bogaert (1996) reported that gay men were more likely than heterosexual men to have older brothers, but not younger brothers. Bem (1996, p. 331) has attempted to view these recent findings as supporting his theory, suggesting that a link between having older brothers and being gay "could come about, in part, if having gender-conforming older brothers especially enhances a gender-nonconforming boy's sense of being different from other boys." So in this case, Bem suggests, greater familiarity actually increases feelings of difference. The difficulty in deriving clear-cut predictions from EBE theory exemplified here and the lack of specification about the association between familiarity and feelings of difference are both serious weaknesses in Bem's analysis.

Bem (1996) also offers several cross-cultural examples of the theorized link between childhood gender familiarity and adult sexual orientation. As we will show, none of these actually supports EBE theory. One illustration concerns arranged marriages in which future spouses live together during childhood. Bem notes that in these cases, the spouses often experience problems in their sexual relations with each other as adults. In this case, intense childhood familiarity with one individual diminishes subsequent erotic attraction to that individual. This observation does not support EBE theory for two reasons. First, childhood arranged marriage illustrates an association between familiarity and erotic attraction at the individual level. It does not provide evidence about familiarity and attraction to a gender-based class of people, which is the focus of EBE theory. Second, the logic of EBE theory suggests that living with an opposite-sex partner in childhood (like having many opposite-sex friends) should lead to homoerotic attraction in adulthood. Bem does not make this point, however, nor does he provide information about the adult sexual orientation of these individuals.

As a second cross-cultural example, Bem (1996) considers a culture that creates intense familiarity among boys and girls during childhood. Children on an Israeli Kibbutz are raised communally with age-mates in mixed-sex groups. Bem cites evidence that in adolescence and adulthood, these individuals do not show erotic attraction toward their peer group members, but rather find marriage partners outside the group. These findings show that intense familiarity with a small group of peers diminishes attraction to those individual peers but, again, does not directly address the issue of attraction to a gender class of people. Further, because Kibbutz children are very familiar with peers of both sexes, we might expect, based on EBE theory, that they would become either asexual (erotically attracted to no one) or bisexual (attracted to both sexes) as adults. Yet Bem seems to imply that they form heterosexual relationships as adults. These findings contradict the EBE theory assertion that childhood experiences influence sexual orientation because the extreme familiarity of Kibbutz children with both sexes does not affect their adult sexual orientation.

Third, Bem (1996) considers a culture in New Guinea that enforces a strict separation of the sexes during late childhood and early adolescence, thereby creating extreme familiarity with peers of one's own sex and extreme unfamiliarity with agemates of the other sex. According to EBE theory, children raised in a single-sex environment should show higher levels of heterosexuality in adulthood than children raised in a mixed-sex environment. Among the Sambia, boys leave their family home before puberty and spend up to 10 or 15 years living apart from all girls and women. During this time of sex segregation, the younger boys participate in ritualized homosexual activities (oral sex) with older male adolescents and young adults. Despite this extensive homosexual contact, most of these young men eventually marry and lead a heterosexual life. Bem (1996, p. 325) suggests that "the context of close familiarity [with other males] either extinguishes or prevents the development of strongly charged homoerotic feelings" and therefore fosters adult heterosexuality.

On close examination, however, research about the Sambia (Herdt, 1981) does not support EBE theory. First, there is no evidence that the close familiarity boys experience with other boys prevents the development of homoerotic feelings or extinguishes them in adulthood. In the ritualized homosexuality of the Sambia, older adolescents and unmarried young men frequently engage in oral sex with younger boys. According to Herdt, the anthropologist who has studied the Sambia intensively, "the

arousal of youth and men is strong and they experience the inseminating of boys as highly pleasurable" (Herdt & Boxer, 1995, p. 76). Second, despite the extreme segregation of the sexes during childhood and adolescence, not all Sambian men are exclusively heterosexual. Bem (p. 324) acknowledges that "a tiny minority of Sambian males" do not become exclusively heterosexual, but he does not consider the implications of this fact. According to Herdt, "Somewhere less than 10% but more than 3% of all Sambian adult men continue to engage in same-gender sexual behavior, even when this defies the cultural taboos and norms of their society, which require them to marry and father children" (Herdt, personal communication, May 13, 1996). Some of these men are exclusively homosexual in their activities. Other men marry but "continue to enjoy oral sex with boys on the sly," apparently being "unable to give up the pleasures of intercourse with both sexes" (Herdt & Boxer, 1995, p. 77). This rate of homosexual attraction is remarkably similar to estimates of the percentage of American men—roughly 3–8% depending on sampling and specific questions asked—who are homosexual (Harry, 1990; Laumann, Gagnon, Michael, & Michaels, 1994, pp. 296–297). In other words, even though Sambian boys were segregated to the extreme, the rate of adult male homosexuality in their culture is strikingly similar to the rate in our own culture where formal sex segregation is minimal. Contrary to EBE theory, sex segregation in childhood does not seem to determine adult sexual orientation.

Importantly, anthropological reports not cited by Bem (1996) disconfirm the hypothesized link between sex segregation and sexual orientation. Using the Human Relations Area Files, Minturn, Grosse, and Haider (1969) identified 59 cultures in which information was available about adolescent sex segregation, adult attitudes toward homosexuality, and the incidence of male homosexuality in adulthood. Some cultures (like the Sambia) had virtually complete sex segregation; others permitted unchaperoned social contacts between boys and girls. Statistical analyses found no significant association between sex segregation and either adult homosexuality or attitudes toward homosexuality.

In summary, the evidence marshalled by Bem (1996) to support his core proposition is unconvincing. The single study addressing childhood similarity and sexual orientation is based on retrospective reports that may well inflate differences between the reports of heterosexuals and homosexuals. Nonetheless, more than half the heterosexual women and a third of the heterosexual men reported feeling "different" in childhood. Research on familiarity and sexual orientation has also failed to support EBE theory. Survey results from the San Francisco study showed that most adults, regardless of sexual orientation, had considerable contact with same-sex peers. Bem's cross-cultural examples of childhood arranged marriage, communal childrearing on the Kibbutz, and sex segregation among the Sambia suggest that extreme patterns of contact between the sexes in childhood have remarkably little influence on adult sexual orientation. A further test of the association between sex segregation and homosexuality based on 59 cultures also failed to support EBE theory. In short, there is no reason to believe that the exotic-erotic link proposed by Bem accurately describes a common developmental path to adult sexual orientation.

Gender and Sexual Orientation: Does One Model Fit All?

Bem (1996) makes very broad claims for his theory, asserting that it applies to both women and men and to both same-sex and opposite-sex desire. Commenting on the wide generality of his theory, Bem (p. 320) notes, "In addition to finding such parsimony politically, scientifically, and aesthetically satisfying, I believe that it can also be sustained by the evidence." It would certainly be appealing to have a universal theory of sexual orientation that fits most people. However, theories that claim universality without carefully considering available research on sex differences run the risk of taking the experience of one sex (typically men) as normative and ignoring distinctive aspects of women's experiences. As Blackwood (1993, p. 301) noted, "the historical-cultural construction of homosexuality has been based predominantly on the theories of male homosexuality that have been applied to both male and female homosexual behavior." We believe that EBE theory makes this error. Two aspects of EBE theory illustrate this point: the conceptualization of erotic desire and the analysis of gender nonconformity.

Erotic Desire

Bem (1996) does not claim to explain all facets of sexual orientation, which would include issues of behavior, identity, and lifestyle. Rather EBE theory focuses on what Bem terms "erotic/romantic attraction." Bem does not explicitly define this key concept, but typically uses it to refer to sexual desire. Because of Bem's focus on eroticism, it is puzzling that he does not consider widely documented sex differences in erotic desire. For example, a review of research on human sexuality by Symons (1979, p. 301) concluded: "Heterosexual men tend to see women as sex objects and to desire young, beautiful women; homosexual men tend to see men as sex objects and to desire young, handsome men; but women, whether heterosexual or homosexual, are much less likely to be sexually aroused by objectified visual stimuli or to experience sexual arousal primarily on the basis of cosmetic qualities." Consistent with this view, the gay men surveyed by Bell and Weinberg (1978) emphasized their partners' physical appearance. According to these researchers (p. 92), "A chief interest which many of our [gay male] respondents had in a prospective sexual partner was the degree to which he conformed to a stereotypically 'masculine' image." Lesbians did not express similar concerns.

Survey research with lesbians and gay men also documents many differences in the selection of sexual partners and the desire for sexual variety. Findings from the Bell and Weinberg (1978) study are illustrative. These gay men had many more sexual partners than did the lesbians: 75% of men reported having 100 or more sex partners compared with only 2% of lesbians. Gay men often reported sexual encounters with strangers; lesbians typically knew their partners before having sex. As Greenberg (1995, p. 238) suggests, "When one's partner is someone whom one has never met before, for whom one feels no affection or love, and whom one never expects to see again, the subjective experience of a sexual encounter is likely to be different from what it is when one likes or loves one's partner and is in an ongoing relationship with that partner."

Blumstein and Schwartz (1990, p. 312) also highlighted male–female differences in erotic attraction: "In our culture women's sexuality is organized by other than physical cues" and "eroticization is more often a consequence of emotional attraction than a trigger" for it. In contrast, for gay and heterosexual men, it is common to develop erotic feelings for "a number of specific persons (some or all of whom may be total strangers), or to a generalized other, or to fantasized persons. . . . An intimate or committed relationship is not necessary for excitation and in some cases may even be counterproductive to sexual arousal."

In summary, there are important gender differences in sexual desire that are germane to a theory about the development of erotic attraction. Current research challenges the inversion assumption that essential commonalities are to be found among gay men and heterosexual women, and among lesbians and heterosexual men. Rather, research on human sexuality repeatedly emphasizes similarities based on sex rather than sexual orientation.

An analytic framework for understanding gender differences in erotic desire is provided by Weinrich (1987). He distinguishes between two types of erotic attraction—lust and limerence. Weinrich argues that both women and men are capable of lust and limerence, but that lust is more readily experienced by men in our culture and limerence is more easily experienced by women. According to Weinrich, lust is attraction to a physical "type" of person; it is often linked to certain body parts or personality characteristics. Lust is directed at a particular class of objects. This is the type of eroticism attributed to men by Bell and Weinberg (1978), Blumstein and Schwartz (1990), Symons (1979), and other researchers. This is also the type of eroticism described by EBE theory. For example, Bem (p. 326) notes that "one can dislike a person or class of persons overall but still be attracted to their physical appearance or idealize and eroticize one or more of their attributes." Bem (1996, p. 326) offers several anecdotal illustrations: misogynist heterosexual men who dislike women but are nevertheless aroused by specific attributes of women's bodies such as large breasts, as well as gay men and heterosexual women who dislike men in general but are "turned on by a muscular male body or a pair of tight 'buns.' " (Bem offers no example for lesbians.)

In contrast, limerence is erotic attraction that arises from an emotional attachment to a particular person; it depends on connectedness and familiarity. Limerent desire is based on an intimate relationship with a specific individual, rather than attraction to a particular physical "type" or class of persons. This is the kind of erotic attraction one finds in descriptions of women's sexuality (e.g., McCormick, 1994). It is important to emphasize that the difference between lust and limerence is not simply a matter of labels, that is, calling one's feelings sexual versus romantic. Rather, lust and limerence are distinct phenomena that have different origins. Because EBE theory begins with the assumption that erotic attraction stems from difference, unfamiliarity, and exoticism, it does not consider the possibility of limerent eroticism based on intimacy and familiarity. Weinrich (1987, p. 119) explicitly warns against "approaching female sexuality just from the point of view of a masculine model" based on lust. To do so ignores important psychological and interpersonal processes that contribute to women's erotic desire and partner choice. Yet this is precisely the error made by EBE theory.

Different explanations are needed for the development of lust and limerence. Bem's (1996) model attempts to account for the development of lust—attraction to a "type" or class of persons, based in part on physical attributes. EBE theory assumes that individuals come to find one gender group arousing, and then select partners from within this group. To the extent that desire is based on physical attributes, attraction can occur quickly and erotic encounters with many partners are possible. In contrast, limerence is a different process in which sexual attraction develops for a person-in-a-relationship, not for a class of people. In limerent attraction an individual, often a woman, gets to know another person, finds their relationship enjoyable, and then begins to develop erotic feelings toward the other person. The resulting erotic attraction may rival lust in intensity, but it comes about in a different way. EBE theory does not consider this type of erotic attraction.

Finally, before leaving this discussion of how EBE theory ignores women's sexuality, one further comment by Bem deserves attention. Bem (1996) writes:

> Some women who would otherwise be predicted by the EBE model to have a heterosexual orientation might choose for social or political reasons to center their lives around other women. This could lead them to avoid seeking out men for sexual or romantic relationships, *to develop affectional and erotic ties to other women* [italics added], and to self-identify as lesbians or bisexuals. In general, issues of sexual orientation identity are beyond the formal scope of EBE theory. (p. 331)

In this curious passage, Bem appears to make a distinction between the fundamental type of "erotic/romantic attraction" that his model addresses, and a different or secondary type of erotic attraction in which women somehow in an unknown way "develop affectional and erotic ties to other women." Bem does not acknowledge that this phenomenon might reveal important information about women's sexuality or the development of women's sexual orientation. Nor does he suggest, as we might, that this is an illustration of limerent eroticism. Rather, Bem dismisses this case in which women's experiences deviate from his model as outside the scope of his theory.

Tomboys and Sissies

According to EBE theory, "gender conformity/nonconformity in childhood is a causal antecedent of sexual orientation in adulthood" (Bem, 1996, p. 322) because it determines which gender will be perceived as "exotic." The central image running throughout Bem's analysis of homosexuality is of an effeminate boy who avoids rough and tumble play, wants to be with girls, is taunted and ostracized by male peers, perceives other boys as different, and eventually becomes homoerotic in his adult sexual desires. Like other inversion models, EBE theory emphasizes assumed similarities between gay men and heterosexual women, and between lesbians and heterosexual men.

How important is childhood gender conformity versus nonconformity to women's sexual orientation? In commenting about the link between gender conformity and sexual orientation, Bem (1996) observes, "it is difficult to think of other

individual differences (besides IQ and sex itself) that so reliably and so strongly predict socially significant outcomes across the life span—and for both sexes, too. Surely it must be true" (p. 323). Despite Bem's personal certainty about this issue, the research evidence suggests otherwise. Research on gender nonconformity documents many differences between the experiences of boys and girls.

Retrospective reports. Most evidence about gender nonconformity and adult sexual orientation comes from retrospective studies asking adults to recall their childhood experiences. A recent meta-analysis of available retrospective studies (Bailey & Zucker, 1995) found a significant association between gender nonconformity and sexual orientation for both sexes. Importantly, memories of gender nonconformity were a much better predictor of homosexuality among men than women. Bailey (1996, p. 78) suggests: "Using results from our meta-analysis, we estimated that of girls as masculine as the typical prelesbian, only 6% will become lesbians. In contrast, the analogous estimate for feminine boys becoming gay men was 51%. Although these estimates are very rough, they demonstrate that [gender nonconformity] is substantially less predictive of homosexuality for females than males."

Prospective studies. Because memories of childhood may be colored by adult experiences, retrospective studies do not provide strong or conclusive evidence of causal processes. Longitudinal studies linking childhood gender conformity and adult sexual orientation would permit more solid conclusions. Several studies have followed boys initially referred to clinics because of gender identity disorders (see review by Zucker & Bradley, 1995). For example, Green (1987) followed a sample of "feminine" and control boys from childhood to young adulthood, and found that more than three out of four "feminine" boys could later be classified as homosexual or bisexual. This is clearly a strong association, and other studies of clinic samples have replicated this finding for boys (see review by Zucker & Bradley, 1995). Of course, most gay men did not suffer from gender identity disorder in childhood and were not referred for treatment, so the extent to which research based on clinical samples is relevant to the experiences of most gay men is open to question.

Prospective studies of gender nonconforming girls do not exist (Bailey, 1996, p. 77). The only available information is provided in case studies. In an ongoing prospective study of children referred to a Toronto clinic for gender identity disorders (Zucker & Bradley, 1995, pp. 294–295), five girls initially seen in childhood for extreme masculine behavior were later reinterviewed in adolescence. Three of the adolescent girls reported exclusively heterosexual fantasies; of these, two had not yet engaged in sexual behavior and one was exclusively heterosexual. A fourth adolescent did not report sexual fantasies or behavior. A fifth adolescent girl "reported an exclusively heterosexual orientation in fantasy and in behavior; however, there was compelling evidence that she was in fact involved in an enduring lesbian relationship" (Zucker & Bradley, 1995, p. 295). These data, though obviously limited, appear to be quite different from findings for boys, and do not indicate a link between childhood gender nonconformity and sexual orientation in adolescence for girls.

The experience of gender nonconformity in childhood. A major reason for the weak and inconsistent association between gender nonconformity and adult sexual orientation for women is that tomboyism is widespread among American girls. For example, 51% of Midwestern women approached in a shopping mall indicated that they had been tomboys (Hyde, Rosenberg, & Behrman, 1977). In another study, designed to avoid retrospective bias, junior high students attending a church camp were asked if they considered themselves "tomboys" (Hyde et al., 1977). Sixty-eight percent of the girls reported that they were tomboys. In a recent study (Sandberg, Meyer-Bahlburg, Ehrhardt, & Yager, 1993), parents of 687 boys and girls ages 6 to 10 rated how often their child engaged in a list of possible gender-typical and gender-atypical behaviors (e.g., "he dresses in male clothing" or "he plays with dolls"; "she experiments with cosmetics" or "she dislikes wearing attractive girl clothes"). Results indicated that 39% of girls and 23% of boys showed 10 or more different gender atypical behaviors at least occasionally.

Social reactions to gender nonconforming boys and girls are often quite different (Martin, 1990; Zucker & Bradley, 1995; Zucker, Wilson-Smith, Kurita, & Stern, 1995). In the eyes of many children and adults, a "sissy" is about the worst thing that a boy can be (Preston & Stanley, 1987). In contrast, most tomboys are accepted socially and even rewarded by peers and adults. For example, Hemmer and Kleiber (1981, p. 1210) studied fifth- and sixth-grade tomboys and found that they were "popular, cooperative, helpful, supportive of others . . . and were regarded as leaders." In other studies, girls who engage in cross-gender behaviors were just as popular as gender-conforming girls (Berndt & Heller, 1986; Huston, 1983). In a recent study, fifth- and sixth-grade children watched a video of a child playing a gender-appropriate game with members of the same sex, or a gender-inappropriate game with members of the other sex (Lobel, Bempechat, Gerwitz, Shoken-Topaz, & Bushe, 1993). Children rated the girl who played a masculine game with boys as the most popular and the boy who played a feminine game with girls as least popular. Parents and children alike tend to accept girls who exhibit traditional masculine play preferences or tomboy behaviors (Carter & McCloskey, 1983–1984; O'Leary & Donoghue, 1978).

In short, gender nonconformity among girls is often socially acceptable. Although rejection and ostracism may occur in individual cases, they are not the common or modal social response to tomboyism in our culture. One reason for the social acceptance of tomboys may be that they tend to combine so-called masculine interests with more traditionally feminine interests. For example, a study of 210 fourth, sixth, eighth, and tenth graders and adults (Plumb & Cowan, 1984, p. 703) found that "self-defined tomboys do not reject traditionally feminine activities; instead, they expand their repertoire of activities to include both gender-traditional and non-traditional activities." Tomboys and gender-conforming girls did not differ in their preference for traditionally feminine activities (e.g., sewing, jumping rope) but did differ in their preference for masculine activities (e.g., football, surfing). Another reason for the differential evaluation of tomboys and sissies may concern expectations about the future lives of these children. In one study (Martin, 1990), adults predicted that when "sissy" boys grew up, they would have poorer psychological adjustment than tomboys or gender con-

forming children, and would be more likely than other children to become homosexual.

In summary, the developmental implications of childhood gender nonconformity are quite different for boys and girls. Gender nonconformity among girls is widespread and often leads to positive social consequences. Contrary to Bem's assertion that gender nonconformity is a modal causal antecedent of adult sexual orientation, available research shows that being a tomboy is neither a necessary nor a sufficient determinant of becoming a lesbian. Gender nonconformity may contribute to the development of a lesbian sexual orientation for some women, but not for others. Most tomboys, even those who are fairly extreme in their gender nonconformity, grow up to be heterosexual.

Conclusion

We have shown that the core proposition in Bem's (1996) theory—that the exotic becomes erotic—is not supported by empirical evidence. We have also demonstrated important ways in which Bem's theory neglects or misrepresents women's experiences. Bem has made an ambitious attempt to develop a single unified theory of sexual orientation that can account for the modal paths to heterosexuality and homosexuality for men and for women. We believe this effort has been largely unsuccessful. We suggest that different theories are needed to explain men's and women's sexual orientation. A sensible research strategy will be to develop separate causal analyses of women's and men's sexual orientation, each grounded in generalizations that are accurate descriptions of the phenomena associated with sexual orientation for that gender. Whether or not commonalities will eventually emerge in the causal antecedents of sexual orientation for women and for men awaits further investigation.

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