

Do Parents Influence the Sexual Orientation of Their Children? Findings From a Longitudinal Study of Lesbian Families

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Findings are presented of a longitudinal study of the sexual orientation of adults who had been raised as children in lesbian families. Twenty-five children of lesbian mothers and a control group of 21 children of heterosexual single mothers were first seen at age 9.5 years on average, and again at age 23.5 years on average. Standardized interviews were used to obtain data on sexual orientation from the young adults in the follow-up study, and on family characteristics and children's gender role behavior from the mothers and their children in the initial study. Although those from lesbian families were more likely to explore same-sex relationships, particularly if their childhood family environment was characterized by an openness and acceptance of lesbian and gay relationships, the large majority of children who grew up in lesbian families identified as heterosexual.

Opinion varies among biological and psychological theorists regarding the extent to which it is possible for parents to influence the sexual orientation of their children. From a purely biological perspective, parents should make little difference. In contrast, psychoanalytic theorists believe that relationships with parents in childhood are central to the development of sexual orientation in adult life. Research on adults raised in lesbian families provides an opportunity to test theoretical assumptions about the role of parents in their children's sexual orientation; if parents are influential in whether their children grow up to be heterosexual, lesbian, or gay, then it might be expected that lesbian parents would be more likely than heterosexual parents to have lesbian daughters and gay sons. With the exception of Gottman's (1990) investigation of adult daughters of lesbian mothers in which actual sexual behavior was not reported, research on lesbian families has focused on children rather than adults, and sexual orientation has not been assessed (Golombok, Spencer, & Rutter, 1983; Green, Mandel, Hotvedt, Gray, & Smith, 1986; Hoeffler, 1981; Kirkpatrick, Smith, & Roy, 1981; for a review, see Patterson, 1992).

From the existing literature, it seems that no single factor determines whether a person will identify as heterosexual or homosexual. The current view is that there are a variety of influences, from the prenatal period onward, which may shape development in one direction or the other. Studies of gay men with twin brothers (Bailey & Pillard, 1991) and lesbian women with twin sisters (Bailey, Pillard, Neale, & Agyei, 1993) have found that a significantly greater proportion of monozygotic than di-

zygotic co-twins were gay or lesbian. The greater concordance between identical than nonidentical twin pairs indicates a genetic link to homosexuality, although this does not mean that a homosexual (or heterosexual) orientation is dependent on a specific genetic pattern. The identification of a genetic marker for male homosexuality has recently been reported by Hamer, Hu, Magnuson, Hu, and Pattatucci (1993). Of 40 pairs of brothers, both of whom were homosexual, 33 pairs were found to have a marker in a small region of the X chromosome, suggesting that there may be a specific gene, yet to be located, which is linked to male homosexuality. However, the presence of this gene, if it exists, would not necessarily determine a homosexual orientation, and not all homosexual men would necessarily possess the gene (the marker was not found in 7 pairs of brothers). Instead, it may be one of many factors that influence development along a homosexual rather than a heterosexual course.

Gonadal hormone levels may constitute another such factor. Although no consistent differences in gonadal hormone levels between heterosexual and homosexual adults have been identified (Meyer-Bahlburg, 1984), there is evidence to suggest that the prenatal hormonal environment may play some part in the development of sexual orientation. Studies of women with congenital adrenal hyperplasia (CAH), a genetically transmitted disorder in which malfunctioning adrenal glands produce high levels of androgens from the prenatal period onward, have found that these women were more likely to consider themselves to be bisexual or lesbian than were women who do not have the disorder, suggesting that raised levels of androgens prenatally may be associated with a lesbian sexual orientation (Dittman, Kappes, & Kappes, 1992; Money, Schwartz, & Lewis, 1984). In addition, a significantly greater proportion of women exposed in utero to the synthetic estrogen diethylstilbestrol (DES), an androgen derivative, reported bisexual or lesbian responsiveness compared with both unexposed women from the same clinic and their unexposed sisters (Ehrhardt et al., 1985). It is important to note, however, that most of the women with CAH, and most of the women prenatally exposed to DES, were heterosexual despite their atypical endocrine history.

On the basis of this research, together with animal research

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which has demonstrated that gonadal hormones influence the development of sex-typed behavior and sex differences in brain morphology (Goy & McEwen, 1980), it has been proposed that prenatal gonadal hormones may act on neural substrates of the human brain to facilitate development as heterosexual or homosexual (Hines & Green, 1990; Money, 1987, 1988). However, the mechanisms involved in the link between prenatal gonadal hormones, sex differences in brain morphology, and sexual orientation have not been established (Byne & Parsons, 1993). Although an anatomical difference in the hypothalamus of homosexual and heterosexual men has recently been identified (LeVay, 1991), the reason for this difference, and how it may influence sexual orientation, remains unknown.

A number of investigations point to a relationship between nonconventional gender role behavior in childhood and adult homosexuality. In retrospective studies, differences in childhood gender role behavior have been found between homosexual and heterosexual men (Bell, Weinberg, & Hammersmith, 1981; Saghir & Robins, 1973; Whitam, 1977) and between lesbian and heterosexual women (Bell et al., 1981; Safer & Reiss, 1975; Whitam & Mathy, 1991), with homosexual men and lesbian women consistently reporting greater involvement in cross-gender activities. Prospective studies of boys with gender identity disorder (American Psychiatric Association, 1994)—children who express a strong desire to be the other sex and characteristically engage in cross-gender behavior including a marked preference for friends of the other sex—have shown that more than two thirds of the children develop a bisexual or homosexual orientation in adulthood (Green, 1987; Zuger, 1984). Nevertheless, the identification of a link between cross-gender behavior in childhood and homosexuality in adulthood does not mean that all or even most adults who identify as homosexual were nonconventional in their gender role behavior as children. A substantial proportion of gay and lesbian adults who participated in the retrospective studies reported no or few cross-gender behaviors in childhood, and the prospective studies examined gay men who had been referred in childhood to a clinic because of marked cross-gender behavior and thus were not representative of the general population of adult homosexual men. Investigations of parental influences on childhood gender nonconformity have failed to identify a clear and consistent association between the two, either for boys (Roberts, Green, Williams, & Goodman, 1987) or for girls (Green, Williams, & Goodman, 1982; Williams, Goodman, & Green, 1985). However, to the extent that sexual orientation results from complex interactions between the individual and the social environment, studies that have demonstrated a link between boyhood cross-gender behavior and adult homosexuality suggest that feminine boys, and possibly masculine girls, in lesbian families may be more likely than their counterparts in heterosexual families to develop a sexual orientation toward partners of the same sex.

From the perspective of classical social learning theory, the two processes that are important for children's gender development are differential reinforcement and the modeling of same-sex individuals, particularly same-sex parents (Bandura, 1977; Lytton & Romney, 1991; Maccoby & Jacklin, 1974; Mischel, 1966, 1970). Although social learning theorists have focused on the development of gender role behavior rather than on sexual orientation, insofar as sexual orientation results from social

learning, the processes of reinforcement and modeling would also apply. From this viewpoint, it could be expected that different patterns of reinforcement may be operating in lesbian than in heterosexual families, such that young people in lesbian families would be less likely to be discouraged from embarking upon lesbian or gay relationships. With respect to modeling, contemporary social learning theorists now believe that it is the modeling of gender stereotypes, rather than same-sex parents, that promotes gender development (Bandura, 1986; Bussey & Bandura, 1984; Perry & Bussey, 1979). Thus, girls would no longer be expected to adopt a lesbian identity simply by observing and imitating their lesbian mother. But by virtue of their nontraditional family, the sons and daughters of lesbian mothers may hold less rigid stereotypes about what constitutes acceptable male and female sexual behavior than their peers in heterosexual families, and they may be more open to involvement in lesbian or gay relationships themselves. Thus, from a social learning theory perspective, children's sexual orientation may be influenced by attitudes toward sexuality in the family in which they are raised.

In examining the cognitive mechanisms involved in gender development, cognitive developmental theorists, like social learning theorists, have focused on the acquisition of sex-typed behaviour rather than on sexual orientation (Kohlberg, 1966, 1969; Martin, 1993; Martin & Halverson, 1981). Cognitive developmental explanations of gender development emphasize that children actively construct for themselves, from the gendered world around them, what it means to be male or female, and they adopt behaviors and characteristics that they perceive as being consistent with their own sex. Again, gender stereotypes, rather than parents, are viewed as being the primary source of gender-related information. To the extent that cognitive processes are contributing to the adoption of a heterosexual or homosexual orientation, it would seem that young people seek out information that is in line with their emerging sexual orientation, and they come to value and identify with those characteristics that are consistent with their view of themselves as heterosexual, lesbian, or gay. Cognitive developmental theorists would place less emphasis on the role of parental attitudes than on prevailing attitudes in the wider social environment. Thus, the social context of the family, within a wider community that is either accepting or rejecting of homosexuality, would be considered to facilitate or inhibit respectively young people's exploration of relationships with partners of the same sex as themselves.

Social constructionist theories start from the premise that sexual feelings are not essential qualities that the individual is born with or that are socialized by childhood experiences (e.g., Kitzinger, 1987; Simon & Gagnon, 1987; Tiefer, 1987). What these approaches have in common is an emphasis on the individual's active role, guided by his or her culture, in structuring reality and creating sexual meanings for particular acts. Sexual identity is considered to be constructed throughout the life course; the individual first becomes aware of cultural scenarios for sexual encounters and then develops internal fantasies associated with sexual arousal (intrapsychic scripts) and interpersonal scripts for orchestrating specific sexual acts (Gagnon, 1990; Simon & Gagnon, 1987). Identification with significant others is believed to be important for enabling an individual either to neutralize a homosexual potential or to construct a

homosexual identity. For example, heterosexual parents may respond negatively to what they perceive as children's same-gender sexual activity (Gagnon, 1977). Plummer (1975) suggested that awareness of others who identify as homosexual validates feelings of same-gender attraction that might otherwise go unnoticed or be denied. From a social constructionist perspective, therefore, children raised in lesbian families would be expected to be more likely than children in heterosexual families to adopt a lesbian or gay identity themselves as a result of their exposure to lesbian lifestyles, and often to gay lifestyles as well.

Although psychoanalytically oriented theorists hold the view that homosexuality arises from disturbed relationships with parents (Freud, 1905/1953, 1920/1955, 1933; Socarides, 1978), empirical studies of the influence of parent-child relationships on the development of a gay or lesbian identity have produced inconclusive results. In a study of psychoanalysts' reports of the family relationships of their male homosexual patients, the fathers of gay men were described as hostile or distant and the mothers as close-binding, intimate, and dominant (Bieber et al., 1962). With a nonpatient sample, Evans (1969) also showed a similar pattern of a close mother and a detached father. However, Bene (1965b) found no evidence that homosexual men who were not in therapy were more likely to have been overprotected by, overindulged by, or strongly attached to their mother than heterosexual men, and in a well-controlled large-scale study by Siegelman (1974), no differences were identified in parental background between homosexual and heterosexual men who were low on neuroticism. Studies of the parents of lesbian women have similarly failed to produce consistent findings, although some investigations have reported mothers of lesbian women to be dominant and fathers to be inferior or weak (Bell et al., 1981; Bene, 1965a; Kaye et al., 1967; Newcombe, 1985).

Although existing research has failed to produce empirical evidence to demonstrate that parents' behavior influences the development of their children's sexual orientation, all of the studies to date have investigated heterosexual families. In addition, these studies have focused on the quality of parent-child relationships rather than on other aspects of the family environment. By investigating the sexual partner preferences of young adults who have grown up in a lesbian family, we hoped to examine in the present research the impact on sexual orientation of being raised by a lesbian mother, and thus to address the question of what influence, if any, parents may have in their children's development as heterosexual, lesbian, or gay. As data in this study were first collected from the families when the children were school age, this prospective investigation not only provides data on the sexual orientation of young adults raised by lesbian mothers, but it also allows an examination of the processes through which childhood family characteristics and experiences may influence the development of sexual orientation during the transition to adult life.

Method

Sample

Twenty-seven lesbian mothers and their 39 children and a control group of 27 heterosexual single mothers and their 39 children¹ first par-

ticipated in the study in 1976-1977 when the average age of the children was 9.5 years (Golombok et al., 1983). The two types of family were alike in that the children were being raised by women in the absence of a father in the household, but they differed with respect to the sexual orientation of the mother. Similar procedures were used to recruit the two groups: advertisements in lesbian and single-parent publications and contacts with lesbian and single-parent organizations. The criteria for inclusion were that the lesbian mothers regarded themselves as predominantly or wholly lesbian in their sexual orientation and that their current or most recent sexual relationship was with a woman. The single-parent group was defined in terms of mothers whose most recent sexual relationship had been heterosexual but who did not have a male partner living with them at the time of the original study. The two groups were matched for the age and social class of the mothers, and all of the children had been conceived within a heterosexual relationship.

In 1992-1993, the children, who were 23.5 years old on average, were seen again. For ethical reasons, it was necessary to locate the mothers in the first instance to request permission to recontact their children. Fifty-one of the 54 mothers who participated in the original study were traced, mostly with the aid of the U.K. National Health Service Central Register. Thus, 3 children in the original sample could not be traced, 1 from a lesbian family and 2 from heterosexual families. In addition, 1 daughter of a lesbian mother had died before the follow-up study. From the remaining 37 potential recruits from lesbian families, 25 young adults were interviewed, as were 21 of the 37 potential recruits from heterosexual families, representing an overall response rate of 62%. Thus, the follow-up sample comprised 25 young adults raised in lesbian families (8 men and 17 women) and 21 young adults raised in heterosexual families (12 men and 9 women). For 11 of the 12 noninterviewees among children from lesbian backgrounds, and for 13 of the 16 noninterviewees from single-parent heterosexual backgrounds, mothers declined to allow their children to participate further in the research. For ethical reasons, mothers who declined in writing (the majority) were not contacted directly; thus, it was not possible to establish their reasons for refusal. Those with whom we did have direct contact, from both family types, generally felt that they did not wish their children to be reminded of an unhappy time in the past. In the remaining 4 cases of nonparticipation, the children were contacted directly but did not wish to take part. They repeatedly failed to keep appointments and generally seemed uninterested in the research.

An examination of the demographic characteristics of the young people who participated at follow-up showed no statistically significant differences between those from lesbian and those from heterosexual single-parent homes with respect to age, gender, ethnicity, and educational qualifications (see Table 1). There were seven pairs of siblings in the lesbian group and five pairs of siblings in the heterosexual group. By the time of the follow-up study, all but one of the original group of heterosexual single mothers were reported by their children to have had at least one heterosexual relationship, and in most cases (18 out of 20), the new male partner had cohabited with the mother while the children were living at home. Likewise, all but one of the children in lesbian families reported that their mother had had at least one lesbian relationship, and in 22 out of 24 cases, their mother's female partner had resided with them. Thus, the large majority of children in both groups had lived in a stepfamily during their adolescent years.

Data from the initial study were examined to ascertain possible reasons for sample attrition. There were no differences between follow-up participants and nonparticipants for the following variables from the initial study: age and gender of children, mother's social class, mother's

¹ Data that had been collected from 3 children in the initial study but not reported because the children were not of school age (1 child age 4 years from the lesbian mother group, 1 child age 4 years from the heterosexual mother group, and 1 child age 19 years from the lesbian mother group) are included here.

Table 1
Demographic Characteristics of Young Adults by Family Type

Variable	Lesbian mother	Heterosexual single-parent mother	t(44)	p	Fisher's exact p
Age at follow-up (years)			0.68	ns	
M	23.96	23.19			
SD	4.29	3.11			
Gender					ns
Male	8	12			
Female	17	9			
Ethnic group					ns
White	23	19			
Non-White	2	2			
Education					ns
College	14	7			
No college	11	14			

psychiatric history, quality of the mother-child relationship, quality of children's peer relationships, children's gender role behavior, and the presence of emotional or behavioral problems in the children. However, within the lesbian mother group, children whose mother had reported greater interpersonal conflict with her cohabitee were less likely to contribute to the follow-up study, $t(19) = 3.87, p < .01$.

Measures

Sexual orientation. Data on the young adults' sexual orientation were gathered in the follow-up study by using a semistructured interview with a standardized coding scheme that had been developed specifically for the present investigation (Tasker & Golombok, in press). Each man and woman was interviewed either at home or at the university by a female interviewer (Fiona Tasker). Although the interviewer was not unaware of family type, the standardized coding scheme ensured that the same information was obtained from young adults from both lesbian and heterosexual families. The psychosexual history section of the interview commenced with questions on experience of prepubertal sexual play with same-gender and opposite-gender children and about interest in other children's bodies and physical development during puberty. These background questions encouraged participants to talk about both same-gender and opposite-gender sexual curiosity in a nonthreatening way prior to questions concerning sexual attraction and relationships during adolescence and adulthood. The men and women were then asked to recall their first crush and subsequent crushes from the beginning of puberty through to their first sexual relationship in order to establish the extent of same-gender and opposite-gender attraction. To further assess the presence or absence of same-gender attraction, we asked the participants whether they had ever thought that they might be physically attracted to a friend of the same gender, and whether they had ever had sexual fantasies about someone of the same gender. A chronological sexual relationship history was then given by each interviewee detailing their age when the relationship began, the gender of their partner, the level of sexual contact, and the duration of the relationship. The participants were also asked whether they had ever thought during adolescence that they might have a gay or lesbian relationship and whether they thought it possible that they might have a gay or lesbian relationship in the future. In addition, information was obtained regarding their current sexual identity as heterosexual, bisexual, lesbian, or gay.

Five variables relating to sexual orientation were derived from the interview material: (a) The presence of *same-gender attraction* (0 = no; 1 = yes) was established from data on sexual object choice in crushes, fantasies, and sexual relationships from puberty onward. This was

equivalent to categorizing participants according to a Kinsey scale rating of 1 or above for fantasy (Kinsey, Pomeroy, & Martin, 1948). (b) *Consideration of lesbian or gay relationships* (0 = no; 1 = previously considered; 2 = future possibility) was rated according to whether participants had ever previously thought that they might experience same-gender attraction or relationships, or whether they thought it possible that they might do so in the future. Consideration of the possibility of having a same-gender sexual relationship did not always involve feelings of same-gender sexual attraction. (c) *Same-gender sexual relationships* (0 = no; 1 = yes) ranged from a single encounter involving only kissing to cohabitation lasting over 1 year. (d) For the variable *sexual identity* (0 = heterosexual; 1 = bisexual, lesbian, gay), men and women were categorized according to whether they identified as bisexual, lesbian, or gay and expressed a commitment to a bisexual, lesbian, or gay identity in the future. (e) A composite rating of *same-gender sexual interest* was also made for each participant ranging from 0 = no same-gender sexual attraction or same-gender sexual relationships, 1 = same-gender sexual attraction but no same-gender sexual relationships, to 2 = same-gender sexual attraction and same-gender sexual relationships. In addition, a *Kinsey scale* rating (Kinsey, Pomeroy, & Martin, 1948, 1953) was made for each participant as follows: 0 = entirely heterosexual, 1 = largely heterosexual but incidentally homosexual, 2 = largely heterosexual but also distinctly homosexual, 3 = equally heterosexual and homosexual, 4 = largely homosexual but also distinctly heterosexual, 5 = largely homosexual but incidentally heterosexual, and 6 = entirely homosexual. Each variable was coded by a second experienced interviewer who was unaware of family type to calculate interrater agreement using the kappa coefficient (Cohen, 1960). Values of kappa were found to be as follows: same-gender attraction (1.00), consideration of lesbian or gay relationships (0.735), same-gender sexual relationships (1.00), sexual identity (1.00), same-gender sexual interest (1.00), and Kinsey scale rating (0.813).

Family characteristics. Using an adaptation of a standardized interview previously designed to assess family functioning (Brown & Rutter, 1966; Quinton, Rutter, & Rowlands, 1976; Rutter & Brown, 1966), we obtained data on characteristics of the lesbian family environment that may be hypothesized to influence the development of children's sexual orientation from the lesbian mothers in the initial study when the children were school age. The variables derived from the initial study were the following: (a) number of years the child had been raised in a heterosexual home, (b) the mother's warmth to the child² (0 = distant

² This rating took account of the mother's tone of voice, facial expressions, and spontaneous comments when talking about the child.

to 5 = very warm), (c) the child's contact with his or her father (0 = none to 2 = weekly contact), (d) the child's gender role behavior³ (with a higher score representing greater cross-gender behavior), (e) quality of the child's peer relationships (0 = good to 2 = definite difficulties), (f) quality of the mother's relationship with her current female partner (1 = fully harmonious to 5 = serious conflict), (g) the mother's relationship history (0 = four partners or less to 1 = more than four partners or concurrent relationships), (h) the mother's openness in showing physical affection (0 = none to 2 = kiss/caress), (i) the mother's contentment with her sexual identity (1 = preferred to be heterosexual to 5 = positive about lesbian identity), (j) the mother's political involvement (0 = no involvement in lesbian or gay politics to 3 = frequent involvement in lesbian or gay politics), (k) the mother's preference for the child's sexual orientation (0 = prefer heterosexual to 1 = no preference), and (l) the mother's attitude toward men (1 = negative to 5 = some sexual feelings toward men). Comparable data from the initial study are not available for the young people raised in heterosexual families as it would not have been meaningful to ask the heterosexual mothers questions about lesbian relationships when they had not experienced any (e.g., about physical affection shown toward their female partner in front of the child). However, data on mother's warmth to the child, child's contact with father, child's gender role behavior, and quality of child's peer relationships were obtained from the heterosexual mothers at the time of the initial study.

Results

Sexual Orientation: Comparison Between Young Adults Raised in Lesbian and Heterosexual Families

As shown in Table 2, there was no significant difference between adults raised in lesbian families and their peers from single-mother heterosexual households in the proportion who reported sexual attraction to someone of the same gender. Nine children of lesbian mothers (6 daughters and 3 sons) and 4 children of heterosexual mothers (2 daughters and 2 sons) reported same-gender attraction.

Distinct from the experience of same-gender attraction is consideration of having a lesbian or gay relationship. Significantly more of the young adults from lesbian family backgrounds stated that they had previously considered, or thought it a future possibility, that they might experience same-gender attraction or have a same-gender sexual relationship or both (Fisher's exact probability = .003). Fourteen children of lesbian mothers (4 sons and 10 daughters) reported this to be the case compared with 3 children of heterosexual mothers (2 sons and 1 daughter). Daughters of lesbian mothers were significantly more likely to consider that they might experience same-gender attraction or have a lesbian relationship than daughters of heterosexual mothers (Fisher's exact probability = .019). There was no significant difference between sons from the two family types for this variable.

With respect to actual involvement in same-gender sexual relationships, there was a significant difference between groups (Fisher's exact probability = .022) such that young adults raised by lesbian mothers were more likely to have had a sexual relationship with someone of the same gender than young adults raised by heterosexual mothers. None of the children from heterosexual families had experienced a lesbian or gay relationship. In contrast, 6 children (1 son and 5 daughters) from lesbian families had become involved in one or more sexual relationships with a partner of the same gender. When this analysis

was repeated for daughters only, a nonsignificant trend remained (Fisher's exact probability = .094). It was also found that all of the men and women from lesbian (as well as from heterosexual) backgrounds had experienced at least one opposite-gender sexual relationship.

In terms of sexual identity, the large majority of young adults with lesbian mothers identified as heterosexual. Only 2 young women from lesbian families identified as lesbian (one at age 18 and the other at age 23) compared with none from heterosexual families. This group difference did not reach statistical significance. An examination of Kinsey scale ratings showed no significant group difference in the proportion of young adults with a rating of 1 or above. None of those with a rating of 1 to 5, representing sexual interest in partners of both the same and the opposite sex, identified as bisexual at the time of the follow-up interview.

Correlations Between Childhood Family Characteristics and Adult Sexual Orientation

To examine prospectively the processes that may result in the children of lesbian mothers being more likely to engage in same-gender relationships than those raised by heterosexual mothers, we correlated variables from the initial study relating to family characteristics with the overall rating of same-gender sexual interest for the group of young adults raised by lesbian mothers (see Table 3). We found that young adults whose mothers had reported greater openness in showing physical affection to their female partner when their children were school age ($r = .74, p < .001$) and young adults whose mothers had reported a greater number of lesbian relationships when their children were school age ($r = .60, p < .01$) were more likely to report same-gender sexual interest. These correlations remained significant after each of the other potentially confounding lesbian family characteristics variables were controlled using partial correlations. In addition, the correlation between the lesbian mothers' reported preferences for their children's future sexual orientation when the children were school age and the children's reports of same-gender sexual interest as adults showed a nonsignificant trend toward greater reporting of same-gender sexual interest among those whose mothers had been accepting of them having lesbian or gay relationships ($r = .38, p < .10$). No significant associations were found between same-gender sexual interest in adulthood and the number of years the child had been raised in a heterosexual household, the mother's warmth to the child, the child's contact with the father, the child's gender role behavior, the quality of the child's peer relationships, the quality of the mother's relationship with her female partner, the mother's contentment with her sexual identity, the mother's political involvement, or the mother's attitude toward men. Similarly, data obtained from the heterosexual mothers in the initial study on the mother's warmth to the child, the child's contact with the father, the child's gender role behavior, and the quality of the child's peer relationships showed no significant association between these variables and the overall rating of the young adults' same-gender sexual interest.

³ This composite variable was derived from data collected from an interview with the child as well as from the interview with the mother by standardizing and averaging the mother's and the child's score.

Table 2
Young Adults' Experience of Same-Gender Attraction, Consideration of Lesbian or Gay Relationships, Involvement in Same-Gender Relationships, and Sexual Identity, by Family Type

Variable	Lesbian mother			Heterosexual single-parent mother ^a			Fisher's exact ^b <i>p</i>
	All	Women	Men	All	Women	Men	
Same-gender sexual attraction							<i>ns</i>
Same-gender attraction	9	6	3	4	2	2	
Opposite-gender attraction only	16	11	5	16	7	9	
Consideration of lesbian/gay relationships ^c							.003
Future possibility	6	5	1	2	1	1	
Previously considered possibilities	8	5	3	1	0	1	
Never considered	8	5	3	15	7	8	
Same-gender sexual relationship							.022
Same-gender relationship	6	5	1	0	0	0	
No same-gender relationship	19	12	7	20	9	11	
Sexual identity							<i>ns</i>
Bisexual/lesbian/gay identity	2	2	0	0	0	0	
Heterosexual identity	23	15	8	20	9	11	
Adult Kinsey scale ratings							<i>ns</i>
0	18			17			
1	3			3			
2	1			0			
3	1			0			
4	0			0			
5	0			0			
6	2			0			

^a Data on sexual orientation was unavailable for 1 male participant. ^b Fisher's exact calculated for men and women combined. ^c Fisher's exact calculated for previous or future consideration versus never considered gay or lesbian relationships. Data unavailable for 3 participants from each group.

Discussion

The sample studied in the present investigation is unique in that it constitutes the first group of young people raised in lesbian families to be followed from childhood to adulthood. As information about childhood family environment was collected before the participants began to engage in sexual relationships, the findings relating to the characteristics of the lesbian and heterosexual families in which these young people grew up are not confounded by knowledge of their sexual orientation in adult life.

Although no significant difference was found between the proportions of young adults from lesbian and heterosexual families who reported feelings of attraction toward someone of the same gender, those who had grown up in a lesbian family were more likely to consider the possibility of having lesbian or gay relationships, and to actually do so. However, the commonly held assumption that children brought up by lesbian mothers will themselves grow up to be lesbian or gay is not supported by the findings of the study; the majority of children who grew up in lesbian families identified as heterosexual in adulthood, and there was no statistically significant difference between young adults from lesbian and heterosexual family backgrounds with respect to sexual orientation.

It is important to remember that this research was conducted with volunteer samples of lesbian and heterosexual families, thus the generalizability of the findings is reduced. However,

similar procedures were used to recruit the two groups to control for self-selection biases, and the groups were matched for demographic characteristics. It is not possible to recruit a representative sample of lesbian mothers given that many do not publicly declare their sexual identity. However, both the lesbian and heterosexual groups reflected a diversity of families nationwide, from different socioeconomic backgrounds, and with different political or apolitical perspectives. Although our interviewees may have been reluctant to admit to same-gender sexual preferences, if underreporting took place, it seems reasonable to assume that this would have been more prevalent among men and women from heterosexual homes, as young adults from lesbian families appeared to be more comfortable in discussing lesbian and gay issues in general. Steps were taken to minimize this potential source of bias by adopting a flexible, in-depth approach to interviewing. It is possible that the small sample size resulted in an underestimate of the significance of group differences as a result of low statistical power (Type II error). Because of limitations of sample size, data have been presented for more than one child per family, which could have inflated significance due to reduced error variance. However, the 2 daughters who identified as lesbian were from different families, and of the 6 young adults from lesbian families who reported a same-gender relationship, only 2 belonged to the same family (a brother and sister), suggesting that the findings cannot be explained in this way. Ideally, an additional control group of heterosexual two-

Table 3
Pearson Product-Moment Correlations Between Family Characteristics in Childhood and Young Adults' Same-Gender Sexual Interest

Variable	Overall rating of same-gender sexual interest			
	Lesbian mother		Heterosexual single-parent mother	
	<i>r</i>	<i>n</i>	<i>r</i>	<i>n</i>
No. of years child raised in heterosexual home	.092	25	—	—
Mother's warmth to child	.094	24	.252	19
Child's contact with father	.280	25	.373	20
Child's gender role behavior	.209	17	-.197	14
Quality of child's peer relationships	.189	19	.170	14
Quality of mother's relationship with female partner	.000	13	—	—
No. of mother's lesbian relationships	.596*	25	—	—
Mother's openness in showing physical affection to female partner	.735**	18	—	—
Mother's contentment with her sexual identity	-.149	25	—	—
Mother's political involvement	.093	25	—	—
Mother's preference for child's sexual orientation	.384†	25	—	—
Mother's attitude toward men	-.030	25	—	—

Note. Dashes indicate no data available.

† $p < .10$, two-tailed. * $p < .01$, two-tailed. ** $p < .001$, two-tailed.

parent families would have been included at the outset, as well as a sufficiently large number of lesbian mothers to permit subdivision of this sample into one-parent and two-parent lesbian families. To definitively address the questions raised in this article, one would require a large-scale epidemiological study following children of lesbian and heterosexual parents from childhood to adulthood with respect to their family characteristics and sexual identity development.

The greater proportion of young adults from lesbian families than from heterosexual families who reported consideration of, and involvement in, same-gender sexual relationships suggests an association between childhood family environment and these aspects of sexual development. Moreover, the association found in lesbian families between the degree of openness and acceptance of lesbian and gay relationships and young adults' same-gender sexual interest indicates that family attitudes toward sexual orientation, that is, as accepting or rejecting of gay and lesbian lifestyles, constitute one of the many influences that may shape development in either a heterosexual or a homosexual direction. It seems that growing up in an accepting atmosphere enables individuals who are attracted to same-sex partners to pursue these relationships. This may facilitate the devel-

opment of a lesbian or gay sexual orientation for some individuals. But, interestingly, the opportunity to explore same-sex relationships may, for others, confirm their heterosexual identity. In the present sample, 4 of the 6 young adults who had experienced same-gender sexual relationships identified as heterosexual in early adulthood. Although the findings suggest that daughters of lesbian mothers are more open to same-sex relationships than are sons, in the initial investigation, there was a higher ratio of daughters to sons in the lesbian group and a higher ratio of sons to daughters in the heterosexual group, which remained at follow-up. Thus, the higher proportion of women than men who reported consideration of, and involvement in, same-sex relationships may reflect this sampling bias.

It is important to point out that the mothers and children who participated in the research were genetically related to each other, and thus it is not possible to disentangle the influence of genetic and social aspects of the parent-child relationship, that is, the influence of parental genetic material as opposed to parental behavior. It cannot be ruled out that the outcomes for these young people would have been the same had they been raised by parents who were genetically unrelated to them (e.g., adoptive parents). However, the results suggest that the group difference in same-gender sexual interest is a consequence of the children's experiences with lesbian and heterosexual mothers while growing up, particularly in view of the finding that the childhood family environments of young adults from lesbian families who reported same-gender sexual interest were characterized by an openness and acceptance of a lesbian lifestyle. It should be noted that the young adults raised in lesbian households were no more likely than those from heterosexual households to experience mental health problems, and both groups obtained scores on standardized measures of emotional well-being that did not differ significantly from those of general population samples (Tasker & Golombok, 1995, in press).

Although not inconsistent with biological theories that propose that sexual orientation results from interactions between prenatal factors and postnatal experience (Money, 1987, 1988), the findings of this investigation are also compatible with social-cognitive and social constructionist explanations of the psychological mechanisms involved in gender development. What these latter theories have in common is the view that sexual orientation is influenced, to some extent at least, by social norms. From this perspective, if children grow up in an atmosphere of positive attitudes toward homosexuality, they would be expected to be more open to involvement in gay or lesbian relationships themselves. Different aspects of sexual orientation may be influenced to a greater or lesser degree by experiential factors such that sexual experimentation with same-gender partners may be more dependent on a conducive family environment than the development of a lesbian or gay identity. It is worth noting that none of the sons or daughters of lesbian mothers in the present investigation showed marked childhood cross-gender behavior of the type associated with a later lesbian or gay identity. In addition, no difference in childhood gender role behavior was found between young adults who reported same-gender sexual interest and those who did not.

Whereas there is no evidence from the present investigation to suggest that parents have a determining influence on the sexual orientation of their children, the findings do indicate that by creating a climate of acceptance or rejection of homosexuality

within the family, parents may have some impact on their children's sexual experimentation as heterosexual, lesbian, or gay. Growing attention has been paid in recent years to the social context of families and to the processes through which social environments affect family relationships. It is important to remember that the young adults in this study were born at a time when there was less social acceptance of lesbian women and gay men. As Gagnon (1990) pointed out, young people are now better informed about lesbian and gay lifestyles and know about lesbian and gay possibilities at an earlier age. How the changing social climate may influence exploration of same-gender relationships remains open to speculation. It is conceivable, however, that children born at the present time to heterosexual parents who are accepting of lesbian and gay relationships will be just as open to same-sex exploration in adulthood as their counterparts from lesbian families are today.

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The Publications and Communications Board of the American Psychological Association announces the appointment of Kevin R. Murphy, PhD, as editor of the *Journal of Applied Psychology* for a six-year term beginning in 1997.

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