

Gender & Society

<http://gas.sagepub.com/>

Adolescents of the U.S. National Longitudinal Lesbian Family Study : Male Role Models, Gender Role Traits, and Psychological Adjustment

Henny Bos, Naomi Goldberg, Loes Van Gelderen and Nanette Gartrell

Gender & Society published online 1 June 2012

DOI: 10.1177/0891243212445465

The online version of this article can be found at:

<http://gas.sagepub.com/content/early/2012/05/30/0891243212445465>

Published by:



<http://www.sagepublications.com>

On behalf of:



Sociologists for Women in Society

Additional services and information for *Gender & Society* can be found at:

Email Alerts: <http://gas.sagepub.com/cgi/alerts>

Subscriptions: <http://gas.sagepub.com/subscriptions>

Reprints: <http://www.sagepub.com/journalsReprints.nav>

Permissions: <http://www.sagepub.com/journalsPermissions.nav>

>> [OnlineFirst Version of Record](#) - Jun 1, 2012

[What is This?](#)

ADOLESCENTS OF THE U.S. NATIONAL LONGITUDINAL LESBIAN FAMILY STUDY:

Male Role Models, Gender Role Traits, and Psychological Adjustment

HENNY BOS

University of Amsterdam, Amsterdam, Netherlands

NAOMI GOLDBERG

*University of California Los Angeles, School of Law, Williams Institute,
Los Angeles, CA, USA*

LOES VAN GELDEREN

University of Amsterdam, Amsterdam, Netherlands

NANETTE GARTRELL

*University of California Los Angeles, School of Law, Williams Institute,
Los Angeles, CA, USA*

This article focuses on the influence of male role models on the lives of adolescents (N = 78) in the U.S. National Longitudinal Lesbian Family Study. Half of the adolescents had male role models; those with and those without male role models had similar scores on the feminine and masculine scales of the Bem Sex Role Inventory, as well as on the trait subscales of the State-Trait Personality Inventory (anxiety, anger, depression, and curiosity) and the Child Behavior Checklist (internalizing, externalizing, and total problem behavior). A positive association was found between feminine gender role traits and curiosity, and a negative correlation between this trait and internalizing

AUTHORS' NOTE: *The NLLFS has been supported in part by small grants from the Gill Foundation, the Lesbian Health Fund of the Gay Lesbian Medical Association, the Horizons Foundation, the Roy Scrivner Fund of the American Psychological Association, and the Williams Institute at UCLA School of Law. The Williams Institute has also provided personnel support to the NLLFS. Funding sources played no role in the design or conduct of the study; the management, analysis, or interpretation of the data; or the preparation, review, or approval of the manuscript. The authors thank Prof. Dr. Esther Rothblum and Nate Gartrell for helpful suggestions during the preparation of this manuscript. Direct correspondence to Henny Bos, University of Amsterdam, Nieuwe Prinsengracht 130, Amsterdam 1018VZ, Netherlands; e-mail: H.M.W.Bos@uva.nl.*

GENDER & SOCIETY, Vol. XX No. X, Month XXXX xx-xx

DOI: 10.1177/0891243212445465

© 2012 by The Author(s)

problem behavior; these associations were independent of the gender of the adolescents and the presence of male role models. In sum, the absence of male role models did not adversely affect the psychological adjustment of adolescents reared by lesbian mothers.

Keywords: *adolescence/children; development; family; male role models; sexuality*

INTRODUCTION

An increasing number of children in the United States are raised in families headed by parents of a single gender (Lippman 2004; U.S. Census Bureau 2010). Questions have been raised about possible detrimental effects of father or mother absence on child development and psychological adjustment (Donovan 2000; Goldberg 2010; Silverstein and Auerbach 1999). Social learning theory posits that boys need adult males to model what is expected of men, just as girls need adult women as role models (Bandura and Walters 1963). An underlying assumption of social learning theory is that developing adequately gendered behavior is important in its own right and is a necessary end in itself (Ward and Schneider 2009). The concern that children with same-sex parents may suffer from inadequate gender socialization is based on an erroneous assumption that these children are exposed only to adults of a single gender (Clarke 2001; Goldberg 2010; Goldberg and Allen 2007). Inherent in this concern is the notion that the gender roles of parents are related to the development of "appropriate" gendered behavior in the offspring, which in turn is associated with higher levels of psychological adjustment.

Embedded within this longstanding critique of single-gender parenting is a substantially greater concern for the well-being of fatherless boys than motherless girls, as reflected in the sheer volume of research on the former and relatively little data on the latter (Baron-Cohen 2003; Faludi 1999; Hoff Sommers 2000; Kindlon and Thompson 2000; Pollack 1999; Sax 2006, 2007; Tyre 2008). Several authors have made normative claims, supported by little or no empirical evidence, that fatherless boys will be confused about their masculinity and are therefore more likely to develop psychological conflicts or behavioral problems, or become gay (see for overview of these arguments, Clarke 2001; Golombok 2000). As for children reared in same-sex-parent families, there are no empirical data supporting

the normative claim that there are associations between the availability of these role models and the children's gender role development and psychological adjustment.

THEORIES OF GENDER SOCIALIZATION

The process whereby people acquire the rules, beliefs, and attitudes appropriate to their particular gender is known as gender socialization (e.g., Muelenhard and Peterson 2011). Theories that are based on gender socialization, such as social learning theory and cognitive developmental theory, share a common assumption that behavior, roles, traits, and attitudes considered appropriate for a particular gender are learned through observation and training (see, for overview, Lippa 2002). Theories of gender socialization contrast with those of biological determinism (Iervolino et al. 2002), which assert that differences in gender behavior and gender-specific traits are developed through the action of prenatal sex hormones on the developing fetus (Collaer and Hines 1995).

Social learning theory (e.g., Bandura 1977) postulates that children learn gender roles through observing and modeling the behavior and gender-related attitudes of parents of the same sex, and also by imitating same-sex siblings, friends, and media figures. However, cognitive developmental theory predicates that the learning of gender is not a passive process, as social learning theory suggests. Rather, children are thought to play an active role in acquiring organized knowledge and beliefs about gender from the wider social environment; integrating information about gender from their families, peers, and culture; and actively constructing for themselves what it means to be a girl or a boy (Bem 1981; Maccoby 1998; Martin 2000; Martin, Ruble, and Szykrybalo 2004).

Based on theories of gender socialization, Hetherington, Bridges, and Insabella (1998) and Sax (2006, 2007) have suggested that the absence of a same-sex parent or same-sex role model may lead to problems in the development of a stable gender identification, and, as a consequence, to a greater chance of developing psychological problems. Eisenberg et al. (1985) postulate that boys experience more rigid gender socialization than girls; as such, boys without male role models are more likely than girls without female role models to experience psychological dysfunction. Sax (2007) asserts that there is a growing epidemic of unmotivated

and underachieving boys in the United States, and that one of five factors causing this epidemic is a lack of male role models. Although several scholars have questioned the claim that boys need a same-sex parent or male role model to prevent psychological problems and gender identity confusion (e.g., Biblarz and Stacey 2010; Stacey and Biblarz 2001; Sullivan 2004), opponents of planned lesbian families still argue that the presence of an involved male role model is essential for adequate child development (Rosky 2009).

PLANNED LESBIAN FAMILIES

Male Role Models

Planned lesbian families are those in which the mothers identify as lesbian before children become part of the family. As there are no traditional father figures in these families, they provide an opportunity to explore how the availability of other male role models influences the gender socialization of children reared in these households. To assess lesbian mothers' feelings about the role of men in their children's lives, Goldberg and Allen (2007) interviewed 30 lesbian couples during the pregnancy and again when their children were three months old. More than two-thirds of the women were concerned that the absence of a male figure might affect their children's psychological well-being. Many women had screened prospective male role models even before their children were born. When asked why they thought that male role models were important for their children, some women indicated that children should be exposed to a diverse range of people of different genders, sexual orientations, races, and ethnicities. Other women hoped that their children might have positive interactions with male role models that were similar to the loving relationships these women had with their own fathers. Heteronormative social pressure (or the desire to create a family structure that mirrors those of traditional two-parent households) was also a factor in some women's pursuit of male involvement in their children's lives (see also Clarke and Kitzinger 2005).

Other studies of lesbian-parent families suggest that the mothers' goals of male involvement in their children's lives may be realized for many, but not all. In a study of 37 lesbian-mother families, Patterson, Hurt, and Mason (1998) found that more than half of the four- to nine-year-old children had regular contact with their grandfathers or unrelated male

adults. The U.S. National Longitudinal Lesbian Family Study (NLLFS) has been following a cohort of planned lesbian families prospectively since the index children were conceived through donor insemination. Before the NLLFS children were born, three-quarters of the prospective mothers indicated that they hoped to provide their children with positive male role models (often described as “good, loving men”), yet many of these women felt that being a good role model was not associated with gender-specific traits (Gartrell et al. 1996). By the time the index offspring were 10 years old, half of the families had incorporated male role models into their children’s lives (Gartrell et al. 2005).

The above-mentioned studies were focused on lesbian mothers’ feelings about role modeling in the gender socialization of their offspring. However, no studies have compared the gender role development and psychological adjustment of offspring of lesbians who do and do not have male role models.

Children’s Gender Roles and Psychological Adjustment

Our knowledge of the gender role behavior and psychological adjustment of offspring in planned lesbian families is based primarily on studies in which young children with lesbian mothers were compared with their counterparts in heterosexual two-parent families. No prior study has specifically examined the gender roles of older adolescents raised in planned lesbian families, or explored the differences between offspring who grew up with and without male role models.

Research on the gender role behavior of young children in planned lesbian families has primarily focused on children’s preferences for playing with toys and games that are stereotypically feminine or masculine, and on children’s aspirations to careers that are traditionally associated with women or men. For example, Brewaeys et al. (1997) studied four- to eight-year-old children raised by lesbian and heterosexual couples. The parents were asked how frequently their child played with toys and games typically associated with girls or boys, and how frequently their child engaged in activities that are more often associated with one gender than the other. The researchers found no differences in child play or activities based on family type (Brewaeys et al. 1997). Fulcher, Sutfin, and Patterson (2008) asked young children (mean age five years) about their preferences for current and future activities that are generally considered more feminine or masculine, as well as their preferences for future occupations traditionally associated with women or men. No significant differences

were found between the responses of children with lesbian parents and those with heterosexual parents. However, children whose parents had more liberal attitudes toward gender and more egalitarian household divisions of labor were more flexible in their own occupational aspirations, regardless of their parents' sexual orientation.

One of the few studies on gender roles in older children from planned lesbian families is that by MacCallum and Golombok (2004). In contrast to the above-mentioned studies on younger children, these authors used the Children's Sex Role Inventory (CSRI) (Boldizar 1991), which conceptualizes gender roles in terms of stereotypically feminine and masculine personality traits. In the CSRI, traits such as sensitivity to others are considered feminine, and traits such as self-reliance are considered masculine. The CSRI is an adaption of the Bem Sex Role Inventory (BSRI; Bem 1974, 1981). MacCallum and Golombok reported that boys reared in families without fathers (both lesbian-parent households and households headed by single heterosexual mothers) did not differ on masculinity traits from boys raised in families with two heterosexual parents; however, the sons of lesbians had higher scores on femininity traits. The femininity or masculinity scores did not differ between the daughters of lesbian parents and girls raised in heterosexual single- or two-parent families. The average age of the children in this study was 12 years.

Most studies on psychological adjustment compare children or adolescents who have lesbian parents with those in heterosexual two-parent families (e.g., Bos and Van Balen 2008; Bos, Van Balen, and Van den Boom 2007; Brewaeys et al. 1993; Flaks et al. 1995; Gartrell et al. 2005; Patterson 1994; Steckel 1987). No differences in psychological well-being have been found between children in planned lesbian families and those in heterosexual two-parent families (see, for overview, Bos and Van Balen 2010). In several respects, adolescents in planned lesbian families were reportedly faring better than their counterparts in heterosexual families. For example, Golombok and Badger (2010) found that 19-year-old adolescents who had been born into British lesbian-parent families showed lower levels of anxiety, depression, hostility, and problematic alcohol use, and higher levels of self-esteem than those in heterosexual two-parent families. Likewise, the 17-year-old NLLFS adolescents demonstrated higher levels of social, school/academic, and total competence and significantly lower levels of social problems, rule breaking, aggressive behavior, and externalizing problem behavior than age- and gender-matched normative samples of American adolescents (Gartrell and Bos

2010). Also, there were no differences in psychological adjustment within the NLLFS sample based on whether the adolescents knew the identity of the sperm donor (Bos and Gartrell 2010). However, until the present study, no research had examined whether access to positive male role models influences the psychological adjustment of adolescents with lesbian mothers.

AIM OF THE PRESENT STUDY

The present study fills a gap in the literature on fatherless families and the role of male role models through its exploration of the gender role traits of adolescents reared in planned lesbian families, and its assessment of the impact of having male role models on adolescents' gender role traits and psychological adjustment. According to social learning theory, boys imitate the behavior and gender role traits of male adults, and girls do the same with female adults. Following this line of reasoning, one might expect to find differences in feminine/masculine gender role traits and psychological well-being between NLLFS adolescents who do and do not have male role models.

The adolescent participants are the index offspring in the NLLFS. First, we asked these adolescents whether they had male role models, and if so, to indicate their relationship to these men. Second, we examined whether the NLLFS adolescents with and without male role models differed on feminine/masculine gender role traits and on psychological well-being. Third, we explored the relationship between the adolescents' feminine and masculine gender role traits and psychological adjustment and whether this relationship varied for adolescent girls and boys, and for those with and without male role models.

DATA AND METHOD

Between 1986 and 1992, lesbians who were inseminating or pregnant through donor insemination were recruited as study participants via announcements at lesbian events, in women's bookstores, and in lesbian newspapers throughout metropolitan Boston, Washington, DC, and San Francisco. Data were collected when the prospective mothers were inseminating or pregnant with the index children (T1), and when the index offspring were 2 years old (T2), 5 years old (T3), 10 years old (T4),

TABLE 1: Demographic Characteristics of the NLLFS Sample

<i>Characteristics</i>	<i>NLLFS</i> (<i>N</i> = 78 ^a)
Adolescent gender, % (<i>n</i>)	
Girls	50.0% (39)
Boys	50.0% (39)
Adolescent age	
Mean	17.05
SD	00.36
Adolescent ethnic background, % (<i>n</i>)	
White/Caucasian	87.1% (68)
Latina/Latino	03.8% (03)
African American	02.6% (02)
Asian/Pacific Islander	02.6% (02)
Armenian	01.3% (01)
Lebanese	01.3% (01)
Native American	01.3% (01)
Parental socioeconomic status, % (<i>n</i>) ^b	
Working	18.2% (14)
Middle	57.1% (45)
Upper middle and upper	24.7% (19)
Family region of residence (U.S.), % (<i>n</i>)	
Northeast	47.0% (36)
Midwest	01.0% (01)
South	09.0% (07)
West	43.0% (33)

a. *N* = 78 index offspring including 1 set of twins (77 families).

b. Based on Hollingshead Index (see also Gartrell, Bos, and Goldberg, 2011).

and 17 years old (T5). At T5, 78 of the original 84 families were still participating in this ongoing study (93 percent retention). For the T5 analyses, one family was excluded because not all parts of their survey instruments were returned, resulting in a total sample size of 77 families with 78 adolescents (including one set of twins). Approval for the NLLFS was granted by the Institutional Review Board of the California Pacific Medical Center.

At T5, the adolescent sample was composed of 39 girls and 39 boys (*N* = 78). The mean age of the combined group of girls and boys was 17.05 years (*SD* = 0.36; range 16-18 years). Most of the adolescents were white/Caucasian, and most were raised in middle- or upper-middle class families that resided in large urban areas, midsize towns, and rural communities in the northeastern and western regions of the United States (see Table 1).

Data for the present study were gathered from the 17-year-old adolescents and their mothers by means of two separate online questionnaires, one for the adolescents and one for the parents. Each adolescent and mother received a unique identity code that allowed them to log into a protected part of the NLLFS and the Child Behavior Checklist (CBCL) websites, respectively. Adolescents and mothers were asked to complete their questionnaires independently and were assured that their responses would be kept completely confidential.

Male Role Models

Two questions were asked in the adolescent questionnaire about male role models. First, the adolescent was asked: "Do you have an important male role model in your life?" (0 = *no*, 1 = *yes*). If the answer was "yes," the adolescent was asked to identify the type of role model based on the following list: "donor/biological father," "grandfather," "uncle," "sibling," "teacher," "friend," and/or "other." Multiple answers were allowed.

Feminine and Masculine Traits

Adolescents completed the short version of the BSRI (Bem 1974, 1981), which includes 10 adjectives for traits that are described as feminine (e.g., understanding) and 10 for traits that are described as masculine (e.g., competitive) (see Appendix A). Although the BSRI was originally developed for adults, this instrument has also been validated for adolescents (e.g., Fontayne, Sarrazin, and Famose 2000; Grané 2010; Nepper Fiebig 2011). Each adolescent was asked to indicate how reflective the adjectives were of her or his personality (1 = *never or almost never true for me*; 7 = *always or almost always true*). For each adolescent, a score on feminine traits was calculated by totaling the ratings on the feminine items and dividing by 10; the same procedure was used to calculate a score for masculine traits. In line with previous studies, rather than categorizing the adolescents as feminine or masculine, we used continuous scores in our analyses (Pickard and Strough 2003; Strough et al. 2007; Twenge 1997). The BSRI subscales for feminine and masculine personality traits have high internal consistency and test-retest reliability for both adolescents and adults (Bem 1974, 1981; Strough et al. 2007). In the present study, Cronbach's alpha for the feminine traits subscale was .89, and for the masculine traits subscale .77. As in other studies (e.g., Strough et al.

2007), the feminine and masculine traits subscale scores were not significantly correlated ($r = .05$, $p = .70$).

Psychological Adjustment

Previous studies on adolescents reared by two female parents relied solely on teen reports (e.g., Wainright, Russell, and Patterson 2004) or on parental reports (Gartrell and Bos 2010), with the exception of one study in which both adolescent and parental reports were used (Golombok and Badger 2010). In the present study, we obtained information about adolescent psychological adjustment from two sources: the State-Trait Personality Inventory completed by the adolescents (STPI; Spielberger 1995) and the CBCL/6-18 completed by their mothers (Achenbach 1991; Achenbach and Rescorla 2001).

For the adolescent reports, four trait subscales of the STPI were used: anxiety, anger, depression, and curiosity. Each subscale consisted of 10 items (see Appendix B), and for each item the adolescent was asked to indicate her or his current feeling, such as “I feel nervous and restless” (anxiety), “I am quick-tempered” (anger), “I feel gloomy” (depression), and “I feel like exploring my environment” (curiosity) (1 = *not at all*; 4 = *very much so*). Cronbach’s alpha for these subscales in the present study were .84 (anxiety), .86 (anger), .87 (depression), and .87 (curiosity).

One of the strengths of the STPI is that it measures both negative and positive affects (Spielberger and Reheiser 2009). The subscale “curiosity,” which measures the desire to explore one’s environment, was used because some have suggested that boys without fathers or male role models are less likely to engage in exploratory behavior in a wide variety of situations (*ibid.*). The STPI has been used extensively with both adults and adolescents (see, for overview, Spielberger and Reheiser 2009). The STPI meets the guidelines for psychological measurements as described by Newman, Ciarlo, and Carpenter (1999); for example, it gives clear instructions for administration and scoring and has good psychometric properties and a history of successful use in research.

Adolescent psychological adjustment was also assessed through information provided by the mothers on the CBCL, which is noted for its internal consistency, reliability, and factor structure (CBCL/6-18; Achenbach 1991; Achenbach and Rescorla 2001). The CBCL has been used extensively in studies on adolescent psychological adjustment (Achenbach, Dumenci, and Rescorla 2002) and on the psychological well-being of younger children who were conceived through assisted

reproductive technologies (Bos and Van Balen 2010; Flaks et al. 1995; Montgomery et al. 1999; Patterson 1994). In the present study, the CBCL was completed by the birth mothers in 71 families and by the co-mothers in seven families in which the birth mothers were unavailable.

The CBCL includes 113 problem behavior items (0 = *not true*, 1 = *somewhat true*, 2 = *very true*). The mother's raw scores were tabulated so that the adolescent's problem behavior could be rated on the three broadband scales of the CBCL, viz. internalizing, externalizing, and total problem behavior (Achenbach and Rescorla 2001). The internalizing problem behavior scale aggregates the three syndrome scales (anxious/depressed, withdrawn, somatic complaints) and includes 32 items. Externalizing problem behavior consists of 35 items and is a composition of the two syndrome scales (rule-breaking behavior, aggressive behavior). The sum of the raw scores on all items of the CBCL produces a total behavioral problem score. The alphas for the internalizing, externalizing, and total behavior scales were .92, .90, and .95, respectively.

Simple frequencies were calculated for the questions on male role models and the types of role models. For the latter question, multiple answers were allowed if the adolescent had more than one male role model.

Social learning theory suggests that the absence of male role models in lesbian-parent households influences the gender role traits of the adolescent offspring and therefore might also have an impact on their psychological adjustment. The assumption that lesbian mothers' offspring, and especially their male offspring, need male role models is embedded in heteronormative conceptions of families (Goldberg and Allen 2007). To assess the effects of male role models on the lives of 17-year-old adolescents reared in planned lesbian families, we first analyzed whether there were significant differences in feminine/masculine gender role traits between the NLLFS adolescents who do and do not have male role models. We examined the effect of having male role models on each of the two BSRI trait subscales (feminine and masculine) by conducting a two (availability of male role models: 0 = *no*, 1 = *yes*) by two (adolescent gender: 1 = *girl*, 2 = *boy*) multivariate analysis of variance (MANOVA). Second, we analyzed whether there were significant differences between NLLFS adolescents who do and do not have male role models in the adolescents' psychological well-being. Again, we conducted a two (availability of male role models: 0 = *no*, 1 = *yes*) by two (adolescent gender: 1 = *girl*, 2 = *boy*) MANOVA, with psychological adjustment (measured by the STPI) as dependent variables. This analysis was repeated using the mothers' CBCL reports as dependent variables.

Social learning theory also suggests that sons in planned lesbian families may be more affected by the absence of male role models than daughters, since same-gender role models are thought to be essential in the development of masculinity and femininity. The daughters of lesbian parents have such a model in their mothers (Beatty 1995; Ruble, Martin, and Berenbaum 2007). However, claims have been made that boys without male role models struggle with their masculinity and exhibit more problematic behavior (e.g., Piffner, McBurnett, and Rathouz 2001). Because this possibility had not been investigated in planned lesbian families, we first examined whether gender role traits (femininity and masculinity) were related to psychological adjustment, and whether these associations were different for girls and boys in planned lesbian families, and for those with and without a male role model. To do so, we conducted a series of linear multiple regression analyses in which we entered in the first step gender and male role models, and the interaction between gender and male role models; the feminine and masculine traits subscale scores were entered in the second step. In the third step, we included the interaction between the feminine traits subscale scores and gender, and the interaction between the masculine traits subscale scores and gender. Finally, in the fourth step, we entered the interactions between the feminine traits subscale scores and male role models, and the masculine traits subscale scores and male role models. We conducted the same multiple regression analyses for each dependent variable (anxiety, anger, depression, and curiosity as reported by the adolescents, and internalizing, externalizing, and total problem behavior as reported by the mothers).

RESULTS

Male Role Models

Thirty-eight NLLFS adolescents indicated that they had important male role models. There was no significant difference between the percentage of girls and the percentage of boys who indicated that they had male role models: 48.7 percent of the girls versus 51.4 percent of the boys, $\chi^2(1, 76) = .05, p = .818$. The most frequently mentioned types of role models (multiple answers were permitted) were “friend” (47.4 percent, $n = 18$), “uncle” (36.8 percent, $n = 14$), and “biological father/donor” (34.2 percent, $n = 13$). Other role models included “grandfather” (23.7 percent, $n = 9$), “teacher(s)” (18.5 percent, $n = 7$), “sibling” (13.2 percent, $n = 5$), and “other” (5.2 percent, $n = 4$).

TABLE 2: Descriptive Statistics for Adolescent Feminine and Masculine Traits and Psychological Adjustment^a by Gender and Availability of Male Role Models

	No Male Role Model				Male Role Model				F Value					
	Girls		Boys		Girls		Boys		Total	Girls	Boys	Male Role Models	Gender	Male Role Model × Gender
	Total	SD	Total	SD	Total	SD	Total	SD						
BSRI Feminine and Masculine traits ^b														
Feminine														
M	5.53	0.99	4.83	1.06	5.20	0.99	5.88	0.79	5.48	5.70	4.96	2.00	12.98**	0.07
SD														
Masculine														
M	4.59	0.99	4.79	0.67	4.69	0.85	4.96	0.63	4.76	4.77	4.67	0.14	0.35	3.19
SD														
Psychological adjustment based on adolescent self-report ^c														
Anxiety														
M	22.75	6.92	19.17	4.58	21.05	6.13	20.83	5.39	19.14	21.84	18.32	1.80	06.77**	0.00
SD														
Anger														
M	19.90	5.99	17.56	6.10	18.79	6.08	17.94	5.13	18.43	18.97	18.24	0.05	0.26	1.47
SD														
Depression														
M	18.65	6.12	17.11	4.97	17.92	5.59	17.28	5.61	16.57	18.00	16.49	1.07	1.36	0.00
SD														

(continued)

TABLE 2. (continued)

	No Male Role Model			Male Role Model			F Value					
				Gender			Male Role Model × Gender					
	Girls	Boys	Total	Girls	Boys	Total	Girls	Boys	Gender	Male Role Models	Gender	Male Role Model × Gender
Curiosity												
M	18.35	22.39	20.26	22.72	23.37	23.05	20.42	22.89		3.42	2.62	1.37
SD	4.94	6.65	6.09	6.73	6.65	6.60	6.18	6.60				
Psychological adjustment based on mothers' report ^d												
Internalizing problem behavior												
M	7.80	5.89	6.89	5.79	3.74	4.76	6.82	4.78		1.96	2.17	0.00
SD	8.35	5.61	7.16	6.02	3.49	4.97	7.29	4.71		<0.0001	0.25	0.56
Externalizing problem behavior												
M	4.35	5.33	4.82	4.68	3.68	4.18	4.51	4.49				
SD	3.25	6.82	5.20	6.20	6.24	6.16	4.85	6.49				
Total problem behavior												
M	18.25	17.39	17.84	17.37	13.42	15.39	17.82	15.35		0.43	0.43**	0.18
SD	13.59	16.85	15.01	17.67	15.97	16.62	15.51	16.30				

a. Obtained through adolescent and mother reports.

b. Wilks' Λ : male roles = .97, ns; gender = .84**, male roles \times gender = .96, ns.

c. Wilks' Λ : male roles = .94, ns; gender = .87**, male roles \times gender = .95, ns.

d. Wilks' Λ : male roles = .10, ns; gender = .96, ns; male roles \times gender = .01, ns.

** $p < .01$.

Male Role Models and Adolescent Feminine and Masculine Traits

In this section, we examined whether or not having male role models influenced the acquisition of gender traits for the NLLFS adolescents. Table 2 presents the means and standard deviations for the BRSI feminine and masculine traits subscale scores separately for adolescents who do and do not have male role models, and separately by gender.

A two (male role models) by two (adolescent gender) MANOVA was conducted using BRSI feminine and masculine trait subscales as dependent variables. The main effect of gender on the combination of these dependent variables was significant; however, the main effect of male role models was not significant, nor was the multivariate interaction between male role models and gender (see Table 2).

Univariate *F* tests indicated that the multivariate main effect of gender was localized to only one of the dependent variables, namely, the feminine traits subscale scores: The girls had higher mean scores on the feminine traits subscale than the boys (see Table 2). No significant difference was found between girls and boys on the masculine traits subscale (see Table 2).

Our finding that the presence or absence of male roles did not influence the adolescents' scores on the feminine or masculine traits subscale scores indicates that there was no evidence in support of the assumption that male role models influence the acquisition of gender traits.

Male Role Models and Offspring Psychological Adjustment Based on Adolescent Reports

In this section, we examine whether or not having male role models influenced the adolescents' psychological adjustment. For the analyses, we used the STPI self-report of the adolescents (see Table 2).

A two (male role models) by two (adolescent gender) MANOVA using the four STPI subscales (anxiety, anger, depression, curiosity) as dependent variables showed a significant main effect of gender (see Table 2). No multivariate main effect was found for male role models or for the interaction between male role models and gender (see Table 1).

Univariate *F* tests showed that the multivariate main effect of gender was localized to anxiety and not to any other dependent variable: The girls scored significantly higher on anxiety than the boys (see Table 2) but did not differ significantly from the boys on the subscales anger, depression, and curiosity (see Table 2).

The finding that within the NLLFS sample, there were no differences between those adolescents with and without male role models in the

scores on the self-reported subscales of the STPI, and that the interaction between male role models and gender was also not significant, indicates that there was no empirical evidence for the normative claims that adolescent boys require a same-sex parent, or male role model, to develop healthy psychological well-being (see for overview of these claims Clarke 2001; Golombok 2000).

Male Role Models and Offspring Psychological Adjustment Based on Mother Reports

The relationship between psychological well-being and the presence of male role models was also examined through the maternal CBCLs (see also Table 2). The results of a two (male role models) by two (adolescent gender) MANOVA with internalizing, externalizing, and total problem behavior (based on the maternal reports) showed no significant main effect for gender or for male role models (see Table 2). In these analyses, the interaction between gender and male role models was also not significant (see Table 2).

Again, no evidence was found for the normative assumptions of those opposed to planned lesbian families that fatherless boys are more likely to develop behavioral problems if they do not have male role models.

Associations between Feminine and Masculine Traits and Psychological Adjustment Based on Adolescent Reports

In this section, we examine the relationship between offspring gender role traits (femininity and masculinity) and psychological adjustment vis-à-vis offspring gender in association with the presence or absence of male role models. Table 3 presents the results of the regression analyses with gender, male role models, and gender \times male role models entered in Step 1, and BSRI feminine and masculine traits subscale scores entered in Step 2. In Step 3, BSRI feminine traits subscale scores \times gender and BSRI masculine traits subscale scores \times gender were entered, and in Step 4, BSRI feminine traits subscale scores \times male role models and BSRI masculine traits subscale scores \times male role models were entered. Separate regressions were conducted with anxiety, anger, depression, and curiosity as dependent variables.

Gender was significantly related to the variable "anxiety" in Step 1 and accounted for 11 percent of the variance. As revealed by the MANOVAs,

TABLE 3: Linear Multiple Regression Analyses Predicting Adolescent Psychological Adjustment^a

	Anxiety			Anger			Depression			Curiosity		
	B	SE	β	B	SE	β	B	SE	β	B	SE	β
Step 1												
Gender	-3.45	1.32	-.29**	-0.70	1.36	-.06	-1.46	1.25	-.14	2.34	1.45	.18
Availability of male role models	-1.18	1.32	-.15	-0.31	1.36	-.03	-1.29	1.25	-.12	2.68	1.45	.21
Gender x availability of male role models	0.28	2.65	.01	3.30	2.72	.14	0.16	2.51	.01	-3.39	2.90	-.13
R^2			.11*			.03			.04			.10
F			2.96			0.61			0.85			2.59
Step 2												
Gender	-4.20	1.44	-.36**	-1.09	1.46	-.09	-2.21	1.36	-.21	4.37	1.47	.34***
Availability of male role models	-1.46	1.35	-.12	-0.19	1.36	-.02	-1.00	1.27	-.09	1.83	1.37	.14
Gender x availability of male role models	-0.17	2.71	-.01	4.25	2.73	.18	0.25	2.55	.01	-2.17	2.75	-.08
BSRI feminine traits	-0.93	0.75	-.15	-0.72	0.75	-.12	-1.03	0.70	-.19	2.47	0.76	.38***
BSRI masculine traits	-0.54	0.91	-.07	1.76	0.92	.23	0.38	0.86	.05	1.50	0.92	.17
R^2			.14			.09			.07			.25**
F			2.16			1.29			0.98			4.48
ΔR^2			.03			.06			.03			.15**
ΔF			0.95			2.20			1.16			6.69
Step 3												
Gender	-4.23	1.46	-.36**	-1.06	1.48	-.09	-2.18	1.35	-.20	4.33	1.48	.34**
Availability of male role models	-1.56	1.38	-.13	-0.06	1.40	-.01	-0.79	1.28	-.07	1.63	1.40	.13
Gender x availability of male role models	0.26	2.76	.01	4.09	2.80	.18	0.89	2.56	.04	-2.42	2.81	-.09
BSRI feminine traits	-0.93	0.75	-.15	-0.71	0.76	-.12	-1.00	0.70	-.18	2.44	0.76	.37**
BSRI masculine traits	-0.62	0.96	-.08	1.89	0.97	.24	0.63	0.89	.09	1.28	0.97	.15

(continued)

TABLE 3. (continued)

	Anxiety			Anger			Depression			Curiosity		
	B	SE	β	B	SE	β	B	SE	β	B	SE	β
BSRI feminine traits × gender	-1.48	1.50	-0.11	0.62	1.52	.05	-1.98	1.39	-0.17	0.68	1.53	.05
BSRI masculine traits × gender	-0.33	1.91	-0.02	0.79	1.94	.05	2.01	1.78	.14	-1.61	1.94	-0.09
R^2			.15			.09			.11			.26**
F			1.66			0.95			1.18			3.27
ΔR^2			.01			.01			.05			.01
ΔF			0.50			0.17			1.65			0.44
Step 4												
Gender	-4.23	1.52	-0.36**	-1.08	1.55	-0.09	-2.13	1.42	-0.20	4.38	1.55	.34
Availability of male role models	-1.56	1.40	-0.13	-0.05	1.42	-0.00	-0.81	1.30	-0.08	1.62	1.43	.13
Gender × availability of male role models	0.58	3.08	.02	3.83	3.13	.17	1.15	2.86	.05	-2.21	3.13	-0.09
BSRI feminine traits	-0.85	0.80	-0.14	-0.77	0.81	-0.13	-0.96	0.74	-0.17	2.48	0.81	.38
BSRI masculine traits	-0.70	1.00	-0.09	1.93	1.02	.25	0.62	0.93	.09	1.28	1.02	.15
BSRI feminine traits × gender	-1.45	1.53	-0.11	0.60	1.55	.05	-1.97	1.42	-0.17	0.68	1.55	.05
BSRI masculine traits × gender	-0.28	1.98	-0.02	0.78	2.01	.05	1.98	1.84	.14	-1.65	2.01	-0.10
BSRI feminine traits × availability of male role models	0.55	1.59	.05	-0.39	1.62	-0.03	0.34	1.48	.03	0.25	1.62	.02
BSRI masculine traits × availability of male role models	-0.53	2.00	-0.03	0.23	2.02	.02	-0.01	1.85	.00	0.06	2.03	.00
R^2			.15			.09			.11			.26**
F			1.28			0.72			0.90			2.47
ΔR^2			.00			.01			.00			.00
ΔF			0.10			0.04			0.03			0.01

^aObtained through adolescent reports.

* $p < .05$, ** $p < .01$.

the girls reported significantly higher levels of anxiety than boys (see also Table 2). The inclusion of BSRI feminine and masculine traits subscale scores in Step 2 did not produce a change in the coefficient of determination (ΔR^2), nor did the inclusion of the interaction terms (BSRI feminine traits subscale scores \times gender, and BSRI masculine traits subscale scores \times gender) in Step 3, or the interaction terms entered in Step 4 (BSRI feminine traits subscale scores \times male role models, and BSRI masculine traits subscale scores \times male role models).

For the variables “anger” and “depression,” none of the steps in the regression analyses were significant; that is, there was no significant relationship between anger/depression and gender, availability of male role models, BSRI feminine and masculine traits subscale scores, or the interactions among these studied variables.

For the curiosity subscale, the inclusion of BSRI feminine and masculine traits subscale scores in Step 2 produced a significant change in the coefficient of determination (ΔR^2), and accounted for 25 percent of the variance. After controlling for gender (which was also significant in Step 2), feminine traits subscale scores were significantly associated with curiosity: Adolescents with high scores on the BSRI feminine traits subscale also reported higher levels on the curiosity subscale of the STPI. The interactions of BSRI feminine traits subscale scores \times gender, BSRI masculine traits subscale scores \times gender (Step 3), BSRI feminine traits subscale scores \times male role models, and BSRI masculine traits subscale scores \times male role models (Step 4) did not produce a significant ΔR^2 for curiosity, indicating that the positive association between BSRI feminine traits subscale scores and curiosity was the same for adolescents with and without male role models, and for girls and boys.

Although there was a significant association between feminine traits subscale scores on one of the STPI subscales (curiosity), for none of the self-reported subscales measuring psychological adjustment was the interaction between gender and gender role traits significant. The interaction between gender role traits and male role models was also not significant on any of the STPI subscales. This finding indicates that the associations between gender role traits and psychological adjustment are similar for girls and boys, and for adolescents with and without male role models. This empirical finding contrasts with the normative claims made by scholars who attribute importance to having a same-sex role model in the association between gender role traits and the development of psychological adjustment.

TABLE 4: Linear Multiple Regression Analyses Predicting Adolescent Psychological Adjustment^a

	Internalizing Problem Behavior			Externalizing Problem Behavior			Total Problem Behavior		
	B	SE	β	B	SE	β	B	SE	β
Step 1									
Gender	-1.98	1.42	-.16	-0.01	1.32	-.00	-2.40	3.68	-.08
Availability of male role models	-2.08	0.42	-.17	-0.66	1.32	-.06	-2.43	3.68	-.08
Gender \times availability of male role models	-0.14	2.83	-.01	-1.98	2.64	-.09	-3.09	7.37	-.05
R^2			.06			.01			.01
F			1.41			0.26			0.35
Step 2									
Gender	-3.55	1.48	-.29*	-1.17	1.38	-.10	-6.40	3.87	-.20
Availability of male role models	-1.43	1.37	-.12	-0.24	1.28	-.02	-0.87	3.61	-.03
Gender \times availability of male role models	-1.24	2.77	-.05	-1.29	2.59	-.06	-3.29	7.27	-.05
BSRI feminine traits	-1.89	0.77	-.30*	-1.74	0.72	-.30*	-5.40	2.01	-.33*
BSRI masculine traits	-1.47	0.94	-.18	1.44	0.87	.19	0.63	2.46	.03
R^2			.16*			.12			.11
F			2.65			1.89			1.68
ΔR^2			.10*			.11*			.09*
ΔF			4.30			4.29			3.64
Step 3									
Gender	-3.56	1.49	-.29*	-1.18	1.39	-.11	-6.40	3.93	-.20
Availability of male role models	-1.41	1.41	-.12	-0.37	1.32	-.03	-0.90	3.73	-.03
Gender \times availability of male role models	-0.83	2.83	-.03	-1.58	2.64	-.07	-3.21	7.47	-.05
BSRI feminine traits	-1.89	0.77	-.29*	-1.75	0.72	-.30*	-5.40	2.04	-.33*
BSRI masculine traits	-1.44	0.99	-.17	1.30	0.92	.17	0.60	2.60	.03
BSRI feminine traits \times gender	-1.42	1.54	-.10	0.90	1.44	.07	-0.29	4.08	-.01

(continued)

TABLE 4. (continued)

	Internalizing Problem Behavior			Externalizing Problem Behavior			Total Problem Behavior		
	B	SE	β	B	SE	β	B	SE	β
BSRI masculine traits \times gender	0.38	1.97	.02	-1.13	1.84	-.07	-0.12	5.21	.00
R^2			.17			.13			.11
F			1.99			1.43			1.66
ΔR^2			.01			.01			.00
ΔF			0.44			0.38			0.00
Step 4									
Gender	-2.82	1.49	-.23	-1.25	1.46	-.11	-5.50	4.09	-.18
Availability of male role models	-1.59	1.37	-.13	-0.36	1.34	-.03	-1.12	3.77	-.04
Gender \times availability of male role models	-0.17	3.00	-.01	-1.63	2.94	-.07	-1.99	8.26	-.03
BSRI feminine traits	-1.99	0.78	-.31*	-1.74	0.76	-.30*	-5.42	2.14	-.33*
BSRI masculine traits	-0.79	0.99	-.10	1.23	0.97	.16	1.31	2.71	.06
BSRI feminine traits \times gender	-1.70	1.50	-.12	0.92	1.47	.07	-0.59	4.12	-.02
BSRI masculine traits \times gender	-0.50	1.95	-.03	-1.04	1.91	-.07	-0.16	5.35	-.03
BSRI feminine traits \times availability of male role models	-0.49	1.56	-.04	0.06	1.53	.01	0.12	4.29	.00
BSRI masculine traits \times availability of male role models	5.00	1.96	.30*				5.54	5.39	.13
R^2			.25*			.13			.12
F			2.38			1.09			1.01
ΔR^2			.07*			.00			.01
ΔF			3.31			0.03			0.53

a. Obtained through mother reports.
* $p < .05$, ** $p < .01$.

Associations between Feminine and Masculine Traits and Psychological Adjustment Based on Mother Reports

In this section, we examined the same research question as in the previous section, but using the mothers' CBCLs as the dependent variables. Table 4 shows the findings of the multiple regression analyses with adolescent internalizing, externalizing, and total problem behavior measured by means of the mothers' answers to the CBCL as dependent variables. We used the same procedure as the above analyses of psychological adjustment based on the adolescents' STPI subscale scores.

As shown in Table 4, for externalizing and total problem behavior, the β s for BSRI feminine traits subscale scores were significant; however, the R^2 s in these equations were not significant. In the equation for internalizing problem behavior, there was a significant change in R^2 after including BSRI feminine traits \times availability of male role models, and BSRI masculine traits \times availability of male role models (Step 4). The findings showed that in Step 4, the variable "BSRI feminine traits" was significantly associated with internalizing problem behavior: Adolescents with higher scores on internalizing problem behavior had lower scores on the BSRI feminine traits subscale. The interaction between the variable "BSRI masculine traits" and the availability of male role models in Step 4 was also significantly associated with internalizing problem behavior.

To interpret this interaction effect, we first performed a median split on the variable "BSRI masculine traits" (median = 4.80). Second, separately for adolescents with and without male role models, we conducted two (BSRI masculine traits score: 0 = *low*, 1 = *high*) by two (adolescent gender: 1 = *girl*, 2 = *boy*) ANOVAs with internalizing problem behavior as the dependent variable. Adolescents who had no male role models and low scores on the masculinity traits subscale scored higher on the internalizing problem behavior CBCL subscale than those who had no male role models and high scores on the BSRI masculine traits subscale (see Figure 1). In this additional analysis, no significant main effect was found for gender, or for gender \times BSRI masculine traits score (based on the median split). For the adolescents with male role models, no significant difference was found on internalizing problem behavior for those who scored low on BSRI masculine traits compared to those who scored high on BSRI masculine traits (see Figure 1); also, no significant main effect was found for gender, or for the interaction between gender \times BSRI masculine traits.

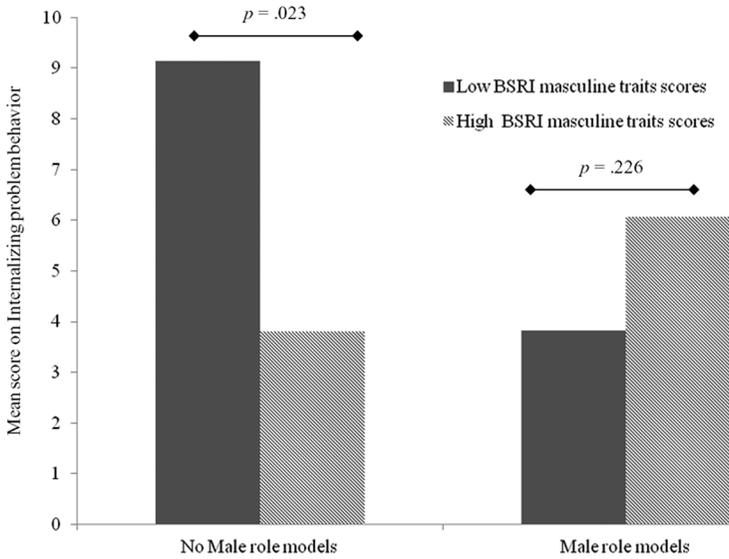


Figure 1: Interaction between Availability of Male Role Models and BSRI Masculinity Traits (median split), and Internalizing Problem Behavior

On two of three regression analyses that were carried out on the CBCL variables, we found no empirical evidence that the associations between gender role traits and adolescent psychological well-being were different for girls and boys, or for those with or without male role models. These findings contradict the claims of scholars who, based on social learning theory, assert that male role models, particularly for boys, play a critical role in the development of healthy psychological well-being.

DISCUSSION

The aim of this study was to determine how many of the 17-year-old NLLFS offspring have male role models, and to examine whether those with and without male role models differed on BSRI feminine and masculine gender role traits and on psychological well-being. We also assessed the associations between the adolescents' psychological

adjustment and feminine and masculine gender role traits, and whether these relationships varied for adolescent girls and boys, and for those with and without male role models.

It is known from the interviews with the NLLFS mothers at T1 (when they were inseminating or pregnant) and T2 (when the NLLFS offspring were two years old) that almost all mothers felt that male role models would be important for their children, and that they planned to ensure that their children had contact with kind, considerate men (Gartrell et al. 1996; Gartrell et al. 1999). When the offspring were five years old, some mothers who had intended to incorporate such role models in the lives of their children had not yet done so (Gartrell et al. 2000). By T5, only half of the 17-year-old offspring indicated that they had male role models.

Some authors theorize that boys need male role models for the development of stereotypical gender roles (Baron-Cohen 2003; Faludi 1999; Hoff Sommers 2000; Kindlon and Thompson 2000; Pollack 1999; Sax 2006, 2007; Tyre 2008). Social learning theory postulates that the absence of traditional male role models in planned lesbian families might leave the sons without instructors of the same gender to help these offspring develop their own sense of masculinity. In the present study, however, the data did not support this theory: No differences were found between adolescents with and without male role models on the BSRI femininity and masculinity variables, independent of the gender of the offspring. An explanation for this finding might be that in planned lesbian families, there is less adherence to strict gender roles (Biblarz and Stacey 2010; Stacey and Biblarz 2001). To explore this interpretation further, future studies might compare gender roles of mothers in lesbian two-parent families with those of mothers and fathers in heterosexual two-parent families. A second step in such studies would be to assess how gender traits of parents are related to those of their offspring, and whether such associations in lesbian two-parent families might be different from those in heterosexual two-parent families.

Our findings are inconsistent with social learning theory, suggesting that this theory may be biased by heteronormative beliefs and assumptions. An increasing number of children in the United States are raised in families without fathers or traditional male role models. Because the current study focused only on offspring reared in planned lesbian families, future studies are needed to determine whether these results are generalizable to other types of families in which children grow up without traditional male role models. For example, in single-mother families, it would be interesting to

study the gender role traits of offspring who do and do not have contact with their fathers. To explore the influence of family type and parental gender on the gender role traits and psychological adjustment of children in depth, studies should also be conducted on gay fathers who became parents through adoption or surrogacy, comparing their children who do and do not have female role models.

Another salient finding is that there were no significant differences between the NLLFS adolescents with and without male role models on the studied psychological adjustment variables. These results run counter to the concerns raised prospectively by lesbian mothers in Goldberg and Allen's study (2007), namely that the absence of a male role model might have negative consequences for their offspring's psychological well-being. It is noteworthy that NLLFS adolescents with high scores on the BSRI feminine gender role traits also had high scores on curiosity as measured by the self-report STPI questionnaire and low levels of internalizing problem behavior based on the parental CBCL report. Although the literature is very inconsistent on the associations between feminine gender role traits and psychological adjustment, several studies have shown that feminine gender role traits, such as being sensitive to others, help to protect children against psychological problems (e.g., Aubé et al. 2000; Wichstrøm 1999).

In contrast to studies of offspring in heterosexual-parent families (e.g., Priess, Lindberg, and Shibley Hyde 2009; Whitley 1985; Wilson and Cairns 1988), no significant associations between BSRI masculine gender role traits and psychological adjustment were found in the adolescent offspring of lesbian parents. Possible explanations for this difference include the small sample size and the unique characteristics of planned lesbian families. For example, studies have shown that there is less power assertion and corporal punishment by lesbian than heterosexual parents (Golombok et al. 2003). Future studies should explore whether various power dynamics in lesbian-parent families are associated with gender role traits and psychological adjustment.

This study's findings for the associations between psychological adjustment and feminine and masculine gender role traits were similar for the adolescent girls and boys, and for those with and without male role models. The only difference was that adolescents with no male role models who had low scores on BSRI masculine traits had higher scores on internalizing problem behavior, although none of the latter fell within the clinical range (Achenbach and Rescorla 2001). It might be that these adolescents have more internalizing problem behavior because they are not

engaging in stereotypical masculine behavior. In the next wave of NLLFS data collection—when the offspring will be 25 years old—we will assess this research question in more detail to determine whether it is an isolated finding or associated with other life experiences.

The results of the current study raise several broader questions about the role of parents in the gender development of their children. Given that the adolescent boys with and without male role models did not differ in their masculine gender role traits, this finding challenges the notion that there are gender-specific behaviors that can be imparted only by mothers to daughters and by fathers to sons. The finding that the adolescent offspring of planned lesbian families do not vary in their gender role traits based on the presence of a meaningful male role model also suggests that parenting role behaviors may have shifted. In many cultures, parental role behavior is now less constricted by gender than ever before (e.g., Bianchi and Milkie 2010; Lamb 2010). Many of today's fathers braid their children's hair, prepare family meals, and supervise homework, while contemporary mothers coach their children in sports and help them with their science projects and career choices. Parents of both genders foster integrity, inquisitiveness, compassion, kindness, thoughtfulness, morality, and motivation in their children. Likewise, the ability to love, nurture, groom, teach, inspire, and guide children from infancy to adulthood is shared by mothers and fathers alike (e.g., Bos, Van Balen, and Van den Boom 2007; Van der Bruggen et al. 2010). Most of the NLLFS mothers consider good role modeling more a matter of character than gender (Gartrell, Peyser, and Bos 2011).

To enhance our understanding of these evolving constructs of parenting, future longitudinal studies should compare outcomes for the offspring raised by single lesbian mothers, single gay fathers, single heterosexual mothers, and single heterosexual fathers and for those raised in families headed by two lesbian mothers, two gay fathers, and two heterosexual parents, with a specific focus on the availability of female and male parental and nonparental role models. These families should be matched on socioeconomic status as well as on the number of children and other relatives who are dependent on each household income. A child with two siblings whose middle-income parents house and support three grandparents, an aunt, and four cousins is unlikely to have the same advantages and opportunities as an only child whose middle-income parents have no other dependents.

Our findings have implications for healthcare professionals, social service agencies, prospective same-sex parents, fertility clinics, policy makers, and the general public. Our data suggest that it would be inappropriate for healthcare professionals or social service agents to assume psychological disadvantage to offspring of same-sex parents who do not have role models of both genders. Likewise, prospective same-sex parents who have concerns about the long-term impact of rearing children in single-gender-parent households should be advised that the quality of the parenting, rather than the sexual orientation of the parents, has stronger associations with the psychological adjustment of offspring. Finally, our data indicate no basis for denying child custody or restricting access to fertility services, adoption, or foster care based on family type.

Several limitations of the present study should be mentioned. First, our findings would be enhanced by comparing BSRI feminine and masculine gender role traits in larger samples of age-matched adolescents with same-gender and different-gender parents. Second, a convenience sample was used for the NLLFS, and this may have resulted in a cohort of mothers who were more interested in the topic under investigation, namely the development of children reared in planned lesbian families. One should keep in mind, however, that when the study began in the 1980s, the targeted population was largely hidden because of the long history of discrimination against lesbian and gay people, which made it even more unlikely that a representative sample of prospective lesbian mothers could be recruited than it is today (Golombok et al. 2003). The third limitation is that the sample is predominantly white and middle class. Socio-economic status (SES) and ethnicity may play an influential role in gender development (e.g., Schippers 2007).

There are also limitations inherent to the BSRI used in this study to measure gender role traits. The adolescents were asked to indicate the extent to which they believed that certain BSRI gender-typed attributes characterized them. Based on this information, and in line with other researchers, we classified them along femininity and masculinity dimensions. It is possible that notions of femininity and masculinity have shifted in ways that the classification in the BSRI does not fully capture. Additionally, the BSRI does not specifically assess the participant's own thoughts, feelings, and knowledge about her or his gender (Tobin et al. 2010). In future research, adolescents in planned lesbian families should be asked how they feel about being female or male, the degree to which they feel that they are typical members of their gender group, and the extent to

which they are content with being a member of that group (Egan and Perry 2001). By doing so, it will be possible to investigate gender identity as a complex and multifaceted construct (Carver, Yunger, and Perry 2003). In addition, if future studies use a larger sample size, it will also be possible to infer causal relationships by using structural equation modeling (SEM).

Notwithstanding these limitations, this study was the first to investigate the differences between adolescents who were reared with and without male role models in planned lesbian families. In some U.S. states, lesbian and gay people are prohibited from adopting children because of the erroneous belief that children with same-sex parents will be exposed only to role models of a single gender, and consequently develop maladaptive gender roles or psychological maladjustment. However, our results on the BSRI feminine and masculine gender role traits and psychological well-being indicate that 17-year-olds who had male role models were comparable to those who did not, suggesting that the latter were not suffering as a consequence.

APPENDIX A

Bem Sex Role Inventory (BSRI), Feminine and Masculine Traits Subscales (1 = *never or almost never true for me*; 7 = *always or almost always true for me*)

	<i>Item-total correlation</i>
Feminine traits (Cronbach's alpha = .89)	
01. Affectionate	.75
02. Sympathetic	.70
03. Sensitive to needs of others	.59
04. Understanding	.36
05. Compassionate	.63
06. Eager to soothe hurt feelings	.71
07. Warm	.59
08. Tender	.80
09. Love children	.58
10. Conventional	.56
Masculine traits (Cronbach's alpha = .77)	
01. Defend my own beliefs	.34
02. Independent	.21
03. Assertive	.57
04. Strong personality	.48
05. Forceful	.48
06. Have leadership abilities	.37
07. Willing to take risks	.44
08. Dominant	.61
09. Willing to take a stand	.40
10. Aggressive	.43

APPENDIX B

State-Trait Personality Inventory; Traits Subscales for Anxiety, Anger, Depression, and Curiosity (1 = not at all; 4 = very much so)

	<i>Item-total correlation</i>
Anxiety (Cronbach's alpha = .84)	
01. I am a steady person ^a	.34
02. I feel satisfied with myself ^a	.59
03. I get in a state of tension or turmoil as I think over my recent concerns and interests	.60
04. I wish I could be as happy as others seem to be	.62
05. I feel like a failure	.70
06. I feel nervous and restless	.49
07. I feel secure ^a	.41
08. I lack self-confidence	.51
09. I feel inadequate	.72
10. I worry too much over something that really does not matter	.48
Anger (Cronbach's alpha = .86)	
01. I am quick-tempered	.70
02. I have a fiery temper	.64
03. I am a hotheaded person	.70
04. I get angry when I'm slowed down by others' mis- takes	.58
05. I feel annoyed when I am not given recognition for doing good work	.55
06. I fly off the handle	.54
07. When I get mad, I say nasty things	.52
08. It makes me furious when I am criticized in front of others	.42
09. When I get frustrated, I feel like hitting someone	.53
10. I feel infuriated when I do a good job and get a poor evaluation	.59
Depression (Cronbach's alpha = .87)	
01. I feel gloomy	.68
02. I feel happy ^a	.57
03. I feel depressed	.71
04. I feel sad	.68
05. I feel hopeless	.57
06. I feel low	.78
07. I feel whole ^a	.52
08. I feel safe ^a	.40
09. I feel peaceful ^a	.49
10. I enjoy life ^a	.61

(continued)

APPENDIX B. (continued)

	<i>Item-total correlation</i>
Curiosity (Cronbach's alpha = .87	
01. I feel like exploring my environment	.65
02. I am curious	.57
03. I feel interested	.74
04. I feel inquisitive	.63
05. I feel eager	.65
06. I am in a questioning mood	.53
07. I feel stimulated	.67
08. I feel disinterested ^a	.48
09. I feel mentally active	.65
10. I feel bored ^a	.39

a. These items are scored reserved.

REFERENCES

- Achenbach, T. M. 1991. *Manual for the child behavior checklist and revised child behavior profile*. Burlington, VT: University of Vermont Department of Psychiatry.
- Achenbach, T. M., and L. A. Rescorla. 2001. *Manual for ASEBA school-age forms and profiles*. Burlington, VT: University of Vermont, Research Center for Children, Youth, and Families.
- Achenbach, T. M., L. Dumenci, and L. A. Rescorla. 2002. Ten-year comparisons of problems and competencies for national samples of youth: Self, parent, and teacher reports. *Journal of Emotional and Behavioral Disorders* 10:194-203.
- Aubé, J., L. Fichman, C. Saltaris, and R. Koestner. 2000. Gender differences in adolescent depressive symptomatology: Towards an integrated social-developmental model. *Journal of Social and Clinical Psychology* 19:297-313.
- Bandura, A. 1977. *Social learning theory*. London: Prentice-Hall.
- Bandura, A., and R. H. Walters. 1963. *Social learning and personality development*. New York: Holt, Rinehart and Winston.
- Baron-Cohen, S. 2003. *The essential difference: The truth about the male and female brain*. New York: Basic Books.
- Beaty, L. 1995. Effects of paternal absence on male adolescents' peer relations and self-image. *Adolescence* 30:873-80.
- Bem, S. L. 1974. The measurement of psychological androgyny. *Journal of Consulting and Clinical Psychology* 42:155-62.
- Bem, S. L. 1981. *Bem Sex Role Inventory: Professional manual*. Palo Alto, CA: Consulting Psychologists Press.

- Bianchi, S. M., and M. A. Milkie. 2010. Work and family research in the first decade of the 21st century. *Journal of Marriage and Family* 72: 705-55.
- Biblarz, T. J., and J. Stacey. 2010. How does the gender of the parents matter? *Journal of Marriage and Family* 72:3-22.
- Boldizar, J. P. 1991. Assessing sex typing and androgyny in children: The children's sex role inventory. *Developmental Psychology* 27:505-15.
- Bos, H. M. W., and N. Gartrell. 2010. Adolescents of the U.S. National Longitudinal Lesbian Family Study: The impact of having a known or an unknown donor on the stability of psychological adjustment. *Human Reproduction* 26:630-37.
- Bos, H. M. W., and F. Van Balen. 2008. Children in planned lesbian families: Stigmatisation, psychological adjustment and protective factors. *Culture, Health, & Sexualities* 10:221-36.
- Bos, H. M. W., and F. Van Balen. 2010. Children of the new reproductive technologies: Social and genetic parenthood. *Patient Education and Counseling* 81:429-35.
- Bos, H. M. W., F. Van Balen., and D. Van den Boom. 2007. Child adjustment and parenting in planned lesbian-parent families. *American Journal of Orthopsychiatry* 77:38-48.
- Brewaeys, A., I. Ponjaert, E. V. Van Hall, and S. Golombok. 1997. Donor insemination: Child development and family functioning in lesbian mother families with 4- to 8-year-old children. *Human Reproduction* 12:1349-59.
- Brewaeys, A., I. Ponjaert-Kristoffersen, A. C. Van Steirteghem, and P. Devroey. 1993. Children from anonymous donors: An inquiry into homosexual and heterosexual parents' attitudes. *Journal of Psychosomatic Obstetrics and Gynecology* 14:23-35.
- Carver, P. R., J. L. Yunger, and D. G. Perry. 2003. Gender identity and adjustment in middle childhood. *Sex Roles* 49:95-109.
- Clarke, V. 2001. Sameness and difference in research on lesbian parenting. *Journal of Community and Applied Social Psychology* 12:210-22.
- Clarke, V., and C. Kitzinger. 2005. "We're not living on planet lesbian": Constructions of male role models in debates about lesbian families. *Sexualities* 8:137-52.
- Collaer, M. L., and M. Hines. 1995. Human behavioural sex differences: A role for gonadal hormones during early development? *Psychological Bulletin* 118:55-107.
- Donovan, C. 2000. Who needs a father: Negotiating biological fatherhood in British lesbian families using self-insemination. *Sexualities* 3:149-64.
- Egan, S. K., and D. G. Perry. 2001. Gender identity: A multidimensional analysis with implications for psychosocial adjustment. *Developmental Psychology* 37:451-63.
- Eisenberg, N., S. A. Wolchik, R. Hernandez, and J. F. Pasternack. 1985. Parental socialization of young children's play: A short-term longitudinal study. *Child Development* 56:1506-13.

- Faludi, S. 1999. *Stiffed: The betrayal of the American man*. New York: William Morrow.
- Flaks, D. K., I. Ficher, F. Masterpasqua, and G. Joseph. 1995. Lesbian choosing motherhood: A comparative study of lesbian and heterosexual parents and their children. *Developmental Psychology* 31:105-14.
- Fontayne, P., P. Sarrazin, and J. P. Famose. 2000. The Bem Sex-Role Inventory: Validation of a short version for French teenagers. *European Review of Applied Psychology* 50:405-17.
- Fulcher, M., E. L. Sutfin, and C. Patterson. 2008. Individual differences in gender development: Associations with parental sexual orientation, attitudes, and division of labor. *Sex Roles* 58:330-41.
- Gartrell, N., A. Banks, J. Hamilton, N. Reed, H. Bishop, and C. Rodas. 1999. The National Lesbian Family Study: 2. Interviews with mothers of toddlers. *American Journal of Orthopsychiatry* 69:362-69.
- Gartrell, N., A. Banks, N. Reed, J. Hamilton, C. Rodas, and A. Deck. 2000. The National Lesbian Family Study: 3. Interviews with mothers of five-year-olds. *American Journal of Orthopsychiatry* 70:542-48.
- Gartrell, N., and H. M. W. Bos. 2010. The U.S. National Longitudinal Lesbian Family Study: Psychological adjustment of 17-year-old adolescents. *Pediatrics* 126:1-9.
- Gartrell, N., H. M. W. Bos, and N. Goldberg. 2011. Adolescents of the U.S. National Longitudinal Lesbian Family Study: Sexual orientation, sexual behavior, sexual risk exposure. *Archives of Sexual Behavior* 40:1199-1209.
- Gartrell, N., A. Deck, C. Rodas, H. Peyser, and A. Banks. 2005. The National Lesbian Family Study: 4. Interviews with the 10-year-old children. *American Journal of Orthopsychiatry* 75:518-24.
- Gartrell, N., J. Hamilton, A. Banks, D. Mosbacher, N. Reed, C. H. Sparks, and H. Bishop. 1996. The National Lesbian Family Study: 1. Interviews with prospective mothers. *American Journal of Orthopsychiatry* 66:272-81.
- Gartrell, N., H. Peyser, and H. M. W. Bos. 2011. Planned lesbian families: A review of the U.S. National Longitudinal Lesbian Family Study. In *Adoption by lesbian and gay men*, edited by D. M. Brodzinsky and A. Pertman. Oxford, UK: Oxford University Press.
- Goldberg, A. 2010. *Lesbian and gay parents and their children: Research on the family life cycle*. Washington, DC: American Psychological Association.
- Goldberg, A., and K. R. Allen. 2007. Lesbian mothers' ideas and intentions about male involvement across the transition to parenthood. *Journal of Marriage and Family* 69:352-65.
- Golombok, S. 2000. *Parenting: What really counts?* London: Routledge.
- Golombok, S., and S. Badger. 2010. Children raised in mother-headed families from infancy: A follow-up of children of lesbian and heterosexual mothers, at early adulthood. *Human Reproduction* 25:150-57.
- Golombok, S., B. Perry, A. Burston, C. Murray, J. Mooney-Somers, M. Stevens, and J. Golding. 2003. Children with lesbian parents: A community study. *Developmental Psychology* 39:20-33.

- Grané, M.-A. 2010. Gender stereotype conformity and age as determinants of preschoolers' injury-risk behaviors. *Accident Analysis & Prevention* 42: 726-33.
- Hetherington, E. M., M. Bridges, and G. M. Insabella. 1998. What matters? What does not?: Five perspectives on the association between marital transitions and children's adjustment. *American Psychologist* 53:167-84.
- Hoff Sommers, C. 2000. The war against boys. *Atlantic Monthly* 285:59-74.
- Iervolino, A. C., M. Hines, S. Golombok, J. Rust, and R. Plomin. 2002. Genetic and environmental influences on sex-typed behavior in pre-school children: A study of 2,434 same-sex twin pairs at 3 and at 4 years of age. *Child Development* 76:826-40.
- Kindlon, D., and M. Thompson. 2000. *Raising Cain: Protecting the emotional life of boys*. New York: Ballantine.
- Lamb, M. E., ed. 2010. *The role of the father in child development*. Oxford: John Wiley and Sons.
- Lippa, R. A. 2002. *Gender, nature, and nurture*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Lippman, L. 2004. *Indicators of child, family, and community connections*. Washington, DC: U.S. Department of Health and Human Services.
- MacCallum, F., and S. Golombok. 2004. Children raised in fatherless families from infancy: A follow-up of children of lesbian and single heterosexual mothers at early adolescence. *Journal of Child Psychology and Psychiatry* 45:1407-19.
- Maccoby, E. E. 1998. *The two sexes: Growing up apart, coming together*. Cambridge: Harvard University Press.
- Martin, C. L. 2000. Cognitive theories of gender development. In *The developmental social psychology of gender*, edited by T. Eches and H. Trautner. Mahwah, NJ: Lawrence Erlbaum Associates.
- Martin, C. L., D. N. Ruble, and J. Szykrybalo. 2004. Recognizing the centrality of gender identity and stereotype knowledge in gender development and moving toward theoretical integration: Reply to Bandura and Bussey (2004). *Psychological Bulletin* 130:702-10.
- Montgomery, T. I., F. Aiello, and R. D. Adelman, et al. 1999. The psychological status at school age of children conceived by in-vitro fertilization. *Human Reproduction* 14:2162-65.
- Muelenhard, C. L., and Z. D. Peterson. 2011. Distinguishing between sex and gender: History, current conceptualizations, and implications. *Sex Roles* 64:791-803.
- Nepper Fiebig, J. 2011. Gifted American and German adolescent women: A longitudinal examination of attachment, separation, gender roles, and career aspirations. *High Ability Studies* 19:67-81.
- Newman, F. L., J. A. Ciarlo, and D. Carpenter. 1999. Guidelines for selecting psychological instruments for treatment planning and outcome assessment. In *The use of psychological testing for treatment planning and outcomes assessment*, edited by M. E. Maruish. Mahwah, NJ: Lawrence Erlbaum Associates.

- Patterson, C. J. 1994. Children of the lesbian baby boom: Behavioral adjustment, self-concepts, and sex-role identity. In *Psychological perspectives on lesbian and gay issues: Vol. 1. Lesbian and gay psychology: Theory, research, and clinical applications*, edited by B. Greene and G. Herek. Thousand Oaks, CA: Sage.
- Patterson, C. J., S. Hurt, and C. D. Mason. 1998. Families of the lesbian baby boom: Children's contact with grandparents and other adults. *American Journal of Orthopsychiatry* 68:390-99.
- Pfiffner, L. J., K. McBurnett, and P. J. Rathouz. 2001. Father absence and familial antisocial characteristics. *Journal of Abnormal Child Psychology* 29:357-67.
- Pickard, J., and J. Strough. 2003. The effects of same-sex and other-sex contexts on masculinity and femininity. *Sex Roles* 48:421-32.
- Pollack, W. 1999. The "war" for boys: Hearing "real boys'" voices, health their pain. *Professional Psychology* 37:190-95.
- Priess, H. A., S. M. Lindberg, and J. Shibley Hyde. 2009. Adolescent gender-role identity and mental health: Gender intensification revisited. *Child Development* 80:1531-44.
- Rosky, C. J. 2009. Like father, like son: Homosexuality, parenthood, and the gender of homophobia. *Yale Journal of Law and Feminism* 20:256-355.
- Ruble, D. N., C. L. Martin, and M. S. Berenbaum. 2007. Gender development. In *Handbook of child psychology: Vol 3. Social, emotional, and personality development*, edited by W. Damon and N. Eisenberg. New York: Wiley.
- Sax, L. 2006. *Why gender matters: What parents and teachers need to know about the emerging science of sex differences*. New York: Broadway Press.
- Sax, L. 2007. *Boys adrift*. New York: Basic Books.
- Schippers, M. 2007. Recovering the feminine other: Masculinity, femininity, and gender hegemony. *Theory and Society* 36:85-102.
- Silverstein, L. B., and F. Auerbach. 1999. Deconstructing the essential father. *American Psychologist* 54:397-409.
- Spielberger, C. D. 1995. *State-Trait Personality Inventory (STPI): Sampler set preliminary manual, response sheet, scoring directions*. Tampa: University of South Florida.
- Spielberger, S. C., and E. C. Reheiser. 2009. Assessment of emotions: Anxiety, anger, depression, and curiosity. *Applied Psychology: Health and Well-Being* 1:271-302.
- Stacey, J., and T. J. Biblarz. 2001. (How) does the sexual orientation of parents matter? *American Sociological Review* 66:159-83.
- Steckel, A. 1987. Psychosocial development of children of lesbian mothers: Gay and lesbian parents. In *Homosexuality and family relations*, edited by F. Bozett. New York: Harrington Park.
- Strough, J., J. Pickard Leszczynski, T. L. Neely, J. A. Flinn, and J. Margrett. 2007. From adolescence to later adulthood: Femininity, masculinity, and androgyny in six age groups. *Sex Roles* 57:385-96.
- Sullivan, M. 2004. *The family of woman: Lesbian mothers, their children, and the undoing of gender*. Berkeley: University of California Press.

- Tobin D. D., M. Menon, B. C. Spatta, E. V. E. Hodges, and D. G. Perry (2010). The intrapsychics of gender: A model of self-socialization. *Psychological Review* 117:601-22.
- Twenge, J. M. 1997. Changes in masculine and feminine traits over time: A meta-analysis. *Sex Roles* 36:305-25.
- Tyre, P. 2008. *The trouble with boys: A surprising report card on our sons, their problems at school, and what parents and educators must do*. New York: Three Rivers Press.
- U.S. Census Bureau. 2010. America's families and living arrangements: 2010. Retrieved July 4, 2010, <http://www.census.gov/population/www/socdemo/hh-fam/cps2010.html>.
- Van der Bruggen, C. O., G. J. M. Stams, S. M. Bögels, and M. Paulussen-Hoogeboom. 2010. Parenting behavior as a mediator between young children's negative emotionality and their anxiety/depression. *Infant and Child Development* 19:354-65.
- Wainright, J. L., S.T. Russell, and C. J. Patterson. 2004. Psychosocial adjustment, school outcomes, and romantic relationships of adolescents with same-sex parents. *Child Development* 75:1886-98.
- Ward, J., and B. Schneider. 2009. The reaches of heteronormativity: An introduction. *Gender & Society* 23:433-39.
- Whitley, B. 1985. Sex-role orientation and psychological well-being: Two meta-analyses. *Sex Roles* 12:207-25.
- Wichstrøm, L. 1999. The emergence of gender difference in depressed mood during adolescence: The role of intensified gender socialization. *Developmental Psychology* 35:232-45.
- Wilson, R., and E. Cairns. 1988. Sex-role attributes, perceived competence and the development of depression in adolescence. *Journal of Child Psychology and Psychiatry* 29:635-50.

Henny Bos, PhD, is Assistant Professor at the Research Institute of Child Development and Education, the College of Child Development and Education, and the Graduate School of Child Development and Education at the University of Amsterdam. In 2012 she is the visiting scholar at UCLA School of Law.

Naomi G. Goldberg is a quantitative policy researcher, whose work centers on family and demographics, including LGBT people and their families. This article was completed while she was the Peter J. Cooper Public Policy Fellow at the Williams Institute at the University of California, Los Angeles. She is currently a researcher at The Movement Advancement Project.

Loes van Gelderen, MSc., received her master's degree in Educational Sciences at the University of Amsterdam. She is a PhD candidate at the

Research Institute of Child Development and Education, University of Amsterdam, as well as a teacher at the College of Child Development and Education, University of Amsterdam.

Nanette Gartrell, MD, is a Williams Institute Visiting Distinguished Scholar, UCLA School of Law. Dr. Gartrell also has a Guest Appointment at the University of Amsterdam, and she was previously on the faculty at Harvard Medical School and UCSF.