

Individual Differences in Gender Development: Associations with Parental Sexual Orientation, Attitudes, and Division of Labor

Megan Fulcher · Erin L. Sutfin · Charlotte J. Patterson

Published online: 25 November 2007
© Springer Science + Business Media, LLC 2007

Abstract Research on children of lesbian parents has suggested that such children are developing well, but questions have been raised about their gender development. In this study, we explored associations among parental sexual orientation, parental gender-related attitudes, parental division of labor, and children's gender development. Participants were 66 preschool children and their 132 parents from the East Coast of the United States. Thirty-three families were headed by lesbian and 33 by heterosexual couples. Parents who divided paid and unpaid labor more unequally had children whose occupational aspirations were also more traditional. Measures of children's gender development were generally unrelated to parental sexual orientation. Parents' attitudes and behaviors were more strongly associated with children's gender development than was parental sexual orientation.

Keywords Gender-role development · Parental sexual orientation · Division of Labor

Introduction

Many children are growing up in families headed by lesbian mothers (Patterson and Friel 2000), and research suggests that these children show normal development (Perrin 2002). One review of research on children of lesbian and gay parents (Stacey and Biblarz 2001) concluded that children of lesbian mothers are generally developing well. It was suggested that a next step in research is to examine other interesting differences that may exist between children of lesbian and heterosexual parents. Specifically, the researchers suggested that questions about gender development among these children have not yet been adequately addressed. The purpose of the current study is to directly assess the associations between parents' sexual orientation, parental gender-related attitudes, parental division of labor and individual differences in children's gender development. In order to answer these questions, 33 lesbian couples and 33 heterosexual couples who were raising children together were interviewed about their gender attitudes and division of paid and unpaid labor. Their children were also interviewed about their gendered attitudes and their occupational aspirations. This research provides a new look at how individual differences in children's gender role development may emerge. It is important to disentangle family structure variables (i.e. parental sexual orientation) from family process variables (i.e. attitudes and behaviors). It is hypothesized that family process variables will be more strongly associated with children's gender development than will family structure variables.

Past research on children of lesbian parents suggests that they show typical development of gender identity, as well as of sex-typed behaviors and preferences (Patterson 2000; Perrin 2002; Tasker and Golombok 1997). However, lesbian and heterosexual parents may offer children

M. Fulcher (✉)
Department of Psychology, Washington & Lee University,
Lexington, VA 24450, USA
e-mail: fulcher@m@wlu.edu

E. L. Sutfin
Wake Forest University School of Medicine,
Winston-Salem, NC, USA

C. J. Patterson
University of Virginia,
Charlottesville, VA, USA

different information about the role of gender in family life. In particular, lesbian couples may offer children different models of division of paid and unpaid labor and different gender-related attitudes either because of their sexual orientation or the gender composition of the couple. Thus, children with lesbian parents may show patterns of gender development that differ from those of children with heterosexual parents (Baumrind 1995; Stacey and Biblarz 2001).

Research on children reared by heterosexual parents indicates that individual differences in gender development covary with differences in parental attitudes and practices (Fagot and Leinbach 1995; Turner and Gervai 1995). For example, when parents hold more conservative attitudes about gender-related issues, and when they divide household labor along traditional, gender-specialized lines, their children are likely to label their own gender as well as that of others earlier than children of more egalitarian parents (Fagot and Leinbach 1995). These children who learn gender labels earlier are also likely to have more extensive knowledge of gender role stereotypes, and more traditional gender-related preferences and behaviors. However, during the preschool period, even children of more liberal parents often report strong same sex-typed preferences similar to children with more conservative parents. Fagot and Leinbach (1995) suggested that the preferences of these later labelers may be more flexible and temporary than those of other children. In the current study, we tested Fagot and Leinbach's argument by investigating the extent to which parents' attitudes, identities, and practices were related to the flexibility and permanence of children's sex-typed preferences. We were interested in how gendered their visions of their future were, particularly their occupational aspirations.

Parental Gender-related Attitudes

Parents' gender-related attitudes are associated with children's gender-role development across all of childhood. Parents' stronger gender schemas are associated with children's cognitions in which gender is more salient (Tenenbaum and Leaper 2002). In heterosexual-parented families, fathers usually hold more conservative attitudes about gender roles and gender-related activities than do mothers (Turner and Gervai 1995). Fathers' attitudes also appear to be more closely associated with children's own gender-related attitudes than are those of mothers (Turner and Gervai 1995; Fagot and Leinbach 1995). For instance, fathers with conservative attitudes toward women have young children who are better able to perform gender-labeling tasks, but mothers' attitudes are unrelated to the ages at which children label gender (Turner and Gervai 1995; Weinraub et al. 1984).

One might also expect lesbian mothers to have more liberal attitudes than heterosexual parents about issues

related to gender. Indeed, Green et al. (1986) reported that lesbian mothers participated in more feminist and women's groups than did heterosexual mothers. Little other research has examined lesbian mothers' attitudes about issues related to gender. Thus, children with lesbian parents may be exposed to less conservative attitudes either because of lesbians' more liberal attitudes or perhaps because of the absence of the more conservative father.

Division of Labor

Lesbian and heterosexual parents might also be expected to differ in their division of household and paid labor. In most heterosexual-parented families, women are responsible for the bulk of household labor and childcare (Perkins and Demeis 1996; Cowan and Cowan 1992; MacDermid et al. 1990). This specialization is accentuated after the birth of a child (Belsky and Pensky 1988; Ruble et al. 1988) and remains characteristic of heterosexual-parented families throughout childhood (Perry-Jenkins and Crouter 1990). In most families headed by heterosexual parents, mothers are more involved in household and childcare duties, and fathers are more involved in paid employment than mothers (Belsky and Pensky 1988; Cowan and Cowan 1992). For families headed by lesbian mothers; however, division of labor is usually less specialized.

Lesbian couples with children are likely to divide household labor, childcare, and paid employment more evenly than do heterosexual couples (Chan et al. 1998; Gartrell et al. 1999; Patterson et al. 2004). Patterson et al. (2004) found a significant effect of parental sexual orientation on parents' reports of their responsibilities for childcare. Lesbian parents were more likely to divide childcare equitably than were heterosexual parents. Even after accounting for the effects of weekly hours spent in employment, mothers in heterosexual families reported being responsible for more childcare than did lesbian genetic or legally adoptive mothers. Likewise, fathers reported being responsible for less childcare than lesbian non-genetic mothers (see Patterson et al. 2004 for statistical details).

Parental division of labor is associated with children's gender-role preferences and with their knowledge of and adherence to gender stereotypes. In heterosexual families, mothers who perform nontraditional household work are more likely to have children who report more flexible ideas about gender roles (Serbin et al. 1993). In fact, heterosexual fathers who report greater participation in childcare have preschoolers who are less likely to be knowledgeable about gender stereotypes, and who have less stereotyped preferences about future occupations and toy preferences (Turner and Gervai 1995). These findings suggest that children who see heterosexual parents divide labor in nontraditional ways may develop more flexible ideas about gender role stereo-

types. It would be interesting also to examine the gender-related attitudes of children with lesbian parents. Lesbian parents' tendency to share the responsibility for housework, childcare, and paid employment suggests that children of these parents may show greater gender-role flexibility than do children of heterosexual parents (Stacey and Biblarz 2001). A goal of this study is to explore how division of labor among lesbian parents is related to their children's gender-role flexibility.

Occupational Aspirations

One way to measure children's flexibility of thinking about gender roles is to investigate their preferences for current and future activities. Children generally show sex-typed preference for peers and activities (Fabes et al. 2003). Children's knowledge of gender role stereotypes is not limited to childhood activities; they also have some familiarity with stereotypes pertaining to adult activities and interests (Martin et al. 1990), particularly occupations (Durkin and Nugent 1998; Barak et al. 1991). Children show sex-typed preferences for future occupations from an early age (Helwig 1998; Liben and Bigler 2002; Liben et al. 2001). Mothers who report a less traditional division of household and childcare labor have children who tend to report less sex-typed occupational preferences in middle childhood (Liben et al. 2002; Serbin et al. 1993). Older children's more flexible occupational preferences have also been associated with more flexible beliefs about sex-role stereotypes overall (Serbin et al. 1993), but no research in this area has yet focused on younger children. One aim of the current study was to assess the traditionality of preschool children's occupational aspirations, as a function of parental gender-related attitudes and behaviors.

Boys' and Girls' Gender Development

Previous research indicates that as children develop girls hold more flexible ideas about gender than do boys. They are less likely to endorse stereotypes about occupations than are boys (Bussey and Perry 1982; Etaugh and Liss 1992). There is also evidence that parents may hold less rigid ideas about their daughters' gender transgressions than do parents do for their sons' gender transgressions (Fagot and Hagan 1991). Thus, although within groups of boys and girls there may be wide variability in adherence to gender roles, there are also important group differences between boys and girls. Although the primary goal of this research is to understand the family processes that are associated with individual differences in children's gender development, it is important to determine if these processes are similarly associated with boys' and girls' gender development.

Hypotheses of the Current Study

We expected to find support for Fagot and Leinbach's argument that preschool children with parents who report more egalitarian behaviors and attitudes would show sex-typed preferences for current activities but more flexible attitudes and a less gendered visions of their futures. We expected that measures of individual differences in preschool children's gender development would be associated with parental sexual orientation but for this difference to be accounted for by parental attitudes and behaviors. More specifically, we expected that parents with more liberal attitudes about gender-related issues would have children who were more likely to select non-traditional occupations for themselves, regardless of their sexual orientation. Similarly, we expected that parents who divided childcare evenly (rather than assigning it mainly to one or the other parent) would have children who were more likely to choose non-traditional occupations. We also expected that, in general, girls would report more flexibility in current and future activities and more tolerance for gender transgressions than would boys. Except through the influence of these attitudes and behaviors, we expected no effect of parental sexual orientation on children's gender development.

Method

Participants

The participants were 66 4- to 6-year-old children and their 132 parents. Half of the families were headed by lesbian and half by heterosexual couples. Originally, heterosexual, lesbian and gay parents were recruited. Over the course of the study it became difficult to recruit families parented by gay fathers whose children fell into our restricted age range. In the end, we were only able to collect data on three families headed by gay fathers. These families are not included in the analysis because there were too few for reliable findings.

All of the children had been born to (or adopted early in life by) the families in which they lived. On average, children were 5 years of age and parents were 41 years of age at the time of testing. Both heterosexual- and lesbian-parented families were recruited for participation via notices at churches, daycare centers, and parenting support groups, and through word of mouth. Leaders of support groups, directors of daycare centers and church leaders were contacted and the research was explained. With leaders' permission, researchers set up recruitment stands or called families and talked with each family about the study. Parents in each family were told that the study investigated parents' attitudes and behaviors and its impact on children's healthy

development. All of the families resided in the mid-Atlantic section of the United States.

Characteristics of participating families are shown in Table 1. Most parents were white, well-educated, and reported incomes that were above the national averages; there were no differences between lesbian and heterosexual parents in this regard. Lesbian mothers who were genetically related to the child or who were the child's legal adoptive parent (hereafter called "genetic lesbian mothers") were older than their partners (hereafter called "non-genetic lesbian mothers"). Parents of boys and girls were also similar to one another.

Characteristics of participating children are also shown in Table 1. The numbers of boys and girls in lesbian and heterosexual parent families did not differ. However, because more lesbian than heterosexual parents had formed families by adopting from abroad, children of lesbian couples were more likely to be non-white than were the children of heterosexual couples. The greater likelihood of adoption among lesbian versus heterosexual parents is consistent with the characteristics of lesbian mother com-

munities in the United States today (Morris et al. 2002; see Table 3).

Materials

We collected data about four constructs: children's knowledge and flexibility surrounding gender-role stereotypes, children's preferences and occupational aspirations, parental attitudes concerning children's gender-related behaviors, and parental divisions of childcare and paid labor.

Children's Stereotype Knowledge and Flexibility

Children's knowledge of and flexibility surrounding gender-role stereotypes were assessed using two measures. The Gender Transgressions Measure (Smetana 1986) assessed the seriousness that children attribute to moral, social, and gender transgressions. Children were shown pictures of other children their age involved in each type of transgressions. For instance, a child hitting another child was considered to be committing a moral transgression; there

Table 1 Demographic characteristics of sample.

Variable	Parental sexual orientation		Lesbian vs. heterosexual
	Lesbian	Heterosexual	
Parent 1			
Age in years	42.06 (4.42)	38.94 (4.22)	$F(1, 61)=6.08^*$
Educational attainment ^a	5.33 (1.05)	4.94 (1.20)	$F(1, 61)<.1$
Work hours per week	35.83 (10.50)	22.70 (21.37)	$F(1, 61)=8.06^{**}$
Occupational traditionality ^b	61.54 (23.84)	60.21 (18.98)	$F(1, 61)<.1$
Race ^c	97%	97%	$\chi^2(2)=2.00$
Parent 2			
Age	42.66 (6.38)	40.79 (5.46)	$F(1, 61) <.1$
Educational attainment ^a	5.15 (1.15)	5.00 (1.35)	$F(1, 61) <.1$
Work hours per week	34.35 (17.28)	47.27 (16.06)	$F(1, 61)=11.48^{**}$
Occupational traditionality ^b	51.98 (21.16)	64.19 (19.60)	$F(1, 61)=5.05^*$
Race ^c	94%	97%	$\chi^2(3)=3.02$
Household			
Work hours ^d	70.18 (20.72)	69.97 (22.82)	$F(1, 62) <.1$
Income ^e	6.82 (.46)	6.64 (.78)	$F(1, 62)=1.53$
Child			
Age in months	61.91 (9.42)	62.36 (10.78)	$F(1,60)=. <.1$
Gender ^f	30%	45%	$\chi^2(1)=1.61$
Race ^c	51%	94%	$\chi^2(4)=15.54^{**}$
Adoption status ^g	52%	15%	$\chi^2(1)=9.82^{**}$
Number of siblings	.83 (.59)	1.15 (.97)	$F(1, 60)=2.50$

Except where noted, standard deviations are given in parentheses. $^*p<.05$, $^{**}p<.01$

^a Education: 1 = some high school, 2 = high school degree, 3 = some college, 4 = college degree, 5 = graduate work, 6 = graduate degree.

^b Percent of workers in this occupation of the participant's gender according to Bureau of Labor Statistics (2001)

^c Percent European American

^d Household work hours is the sum of Parent1 and Parent 2 weekly work hours.

^e Household income: 0 = no income, 1 = less than \$10,000, 2 = \$10,000–20,000, 3 = \$20,000–30,000, 4 = \$30,000–40,000, 5 = \$40,000–50,000, 6 = \$50,000–60,000, 7 = more than \$60,000.

^f Percent boys

^g Percent adopted children

were two such items. A child eating food with their fingers was considered to be committing a social transgression; there were two such items. A boy with fingernail polish and girl playing football were considered to be committing gender transgressions, there were two such items for each gender. Children were asked a series of questions about the child's behavior in each item. Scores ranged from 0 to 6, with higher scores indicating the child found the transgression to be more serious. Cronbach's alpha for this measure was .69.

The Sex-Role Learning Index (SERLI), (Edelbrock and Sugawara 1978) measured three aspects of children's gender-role knowledge and flexibility. In order to assess children's sex-typed preferences, pictures of children in five traditionally masculine (hammering, digging, car play, boxing, and baseball) and five traditionally feminine activities (sewing, ironing, sweeping, cooking, and washing dishes) were ranked by children in order of how much they themselves would like to participate in the activity. This served as a measure of their preference for current activities. Children's scores reflected the rank of their preferences for cross-sex typed activities. Scores ranged from 23 to 80 with higher scores indicating more sex-typed preferences.

Pictures of adult women or men engaged in occupational activities—5 traditionally masculine (carpenter, police officer, firefighter, soldier, and doctor) and 5 traditionally feminine (childcare provider, waitress, teacher, hair stylist, and baker)—were ranked by children according to how much they themselves would like to do the activity when they grew up. This served as a measure of children's preference for sex-typed future occupations. Children's scores reflected the frequency and rank of their preferences for cross-sex typed occupations. Scores ranged from 23 to 80 with higher scores indicating more sex-typed preferences.

The SERLI also assessed children's flexibility surrounding sex-typed objects and activities. The children were asked to put twenty separate cards with pictures of occupational objects into "boy only," "girl only," or "both boys and girls" boxes. Ten of the items on the cards were traditionally feminine and ten were traditionally masculine. The number of cards in the "both boys and girls" box served as a measure of children's flexibility. Scores ranged from 0 to 20 with higher scores revealing greater flexibility. Cronbach's alpha for this scale was .86.

In order to assess children's knowledge of gender-role stereotypes, children were then asked to choose "boy only" or "girl only" for the items they had placed in the "both boys and girls." This forced choice reflected the child's knowledge of gender-role stereotypes. Scores were a percentage of correct answers children reported for each gender. Scores ranged from zero to 100, with higher scores indicating more detailed knowledge of stereotypes. Internal consistency scores for the SERLI ranged from .67 to 78.

Parental Attitudes

Parents' attitudes surrounding children's gender-related behaviors were assessed using the Parent Ideas Questionnaire (PIQ; Gervai et al. 1995). This subscale consists of 18 statements that pertain to boys' and girls' sex-typed and cross sex-typed behavior. Parents respond to each item on a scale ranging from "strongly agree (0)" to "strongly disagree (4)". Sample items include, "It is more acceptable to me for a girl to cry than a boy (excluding major injuries)" or, "Boys are naturally more adventurous than girls". Scores range from 0 to 72, with higher scores showing more conservative attitudes. Internal consistency for the PIQ was .89.

Parental Division of Paid Labor

Parents were asked to report their occupation and the amount of hours each spent in paid labor each week. Parents' occupations were given a traditionality score based on the percentage of people of their gender currently in that occupation according to the Bureau of Labor Statistics (2001). Therefore, high scores indicated traditional occupations while low scores indicated nontraditional careers.

Procedure

After names were gathered from parenting support groups, churches, businesses, daycare centers, or other participating families, each family was initially contacted via telephone or e-mail. Methods of recruitment were similar for both lesbian-parented and heterosexual-parented families. Parents were given a brief description of the study and of what their participation would involve. During the first contact, prospective participants also identified themselves as either lesbian or heterosexual, verified the ages of their children, and confirmed they had been in a relationship with their partner since before the child's birth or adoption.

Once a family agreed to participate, researchers visited their home to conduct the procedures. After obtaining written parental consent, the child was interviewed and the parents completed questionnaires. Most parents completed the questionnaires during the home visit. In a few cases, it was not possible for parents to complete all measures during the home visit, and these were returned by mail, using stamped self-addressed envelopes that we provided. The protocol was approved by the University of Virginia Institutional Review Board prior to data collection.

Results

Results are reported in three sections. The first section reports on children's outcomes. This set of analyses

addresses questions about outcomes for boys and girls and in lesbian versus heterosexual parented families: Do children of lesbian parents differ in their gender development from children of heterosexual parents? The second set of analyses reports on outcomes for parental attitudes and division of paid labor. The third set of analyses addresses questions about the relations among parental attitudes, parental division of labor and children's outcomes: Does gender-role development vary as a function of parental attitudes or division of labor? Our results showed that while parental sexual orientation was associated with few outcomes, parental attitudes and division of labor were strongly associated with children's gender development.

Results for Children

Preliminary Analysis

Initial analyses revealed that children's race and adoption status were not associated with any of the child outcome variables of interest. Therefore, all of the following analyses were collapsed across these variables.

Children's knowledge of gender-role stereotypes We assessed children's knowledge of gender-role stereotypes for their own gender as well as stereotypes pertaining to the other sex. Results revealed that children generally had a detailed knowledge of gender-role stereotypes and reported a more detailed knowledge of stereotypes pertaining to their own gender as compared to stereotypes regarding the other

sex, $t(64) = -5.57, p < .01$. See Table 2 for means and standard deviations.

Children's activity flexibility and preferences We assessed children's preferences for stereotyped current and future activities as well as their flexibility surrounding others' participation in these particular activities. Children in this sample reported preferences for current activities ($M = 54.36, sd = 12.42$) and future occupations ($M = 55.17, sd = 12.58$) that were stereotyped. Children also reported flexibility for about half of the activities and occupations ($M = 9.12, sd = 4.99$).

Children's perceptions of moral, social and gender transgressions To assess children's attitudes about gender role violations using independent t -tests we compared the seriousness children attributed to moral, social and gender transgressions. Children reported girls' gender transgressions to be the least serious of the transgressions. Children reported moral transgressions to be more serious than social transgressions, $t(63) = 4.03, p < .01$, social transgressions to be more serious than boys' gender transgressions, $t(64) = -7.91, p < .01$, and boys' gender transgressions to be more serious than girls' gender transgressions, $t(64) = 3.65, p < .01$.

Group Differences

Did children differ in their gender role development as a function of their gender or their parents' sexual orientation? A 2 (child gender) by 2 (parental sexual orientation) multivar-

Table 2 Children's reports as a function of gender and parental sexual orientation.

Variable	Children of lesbian parents		Children of heterosexual parents		Gender effects $F(1,64) =$	Sexual orientation effects $F(1,64) =$	Interaction effects $F(1,64) =$
	Boys	Girls	Boys	Girls			
Moral transgressions ^a	5.00 (1.15)	5.23 (.92)	5.00 (1.18)	5.11 (1.28)	<1	<1	<1
Social transgressions ^a	4.50 (1.43)	4.59 (1.74)	3.80 (1.70)	3.61 (1.72)	<1	3.67	<1
Gender transgressions (male actor) ^a	1.50 (2.01)	.59 (1.65)	2.53 (2.33)	1.83 (2.46)	2.66	5.01*	<1
Gender transgressions (female actor) ^a	1.20 (1.99)	.18 (.50)	1.33 (1.59)	.61 (1.20)	7.53**	1.59	<1
Occupational flexibility ^b	8.90 (6.92)	10.45 (4.86)	7.47 (4.32)	9.00 (4.37)	1.49	1.31	<1
Stereotype knowledge (own gender) ^c	88.00 (9.19)	82.73 (21.20)	91.33 (15.98)	79.44 (21.82)	1.09	<1	<1
Stereotype knowledge (other gender) ^c	61.00 (29.61)	65.91(17.64)	71.33 (22.95)	70.56 (23.13)	<1	1.62	<1
Preference for child activities ^d	58.40 (14.07)	50.68 (12.23)	57.43 (11.79)	54.22 (11.86)	1.30	<1	<1
Preference for future occupations ^d	58.60 (16.13)	53.95 (12.74)	54.71 (9.48)	55.11 (13.06)	<1	<1	<1

Except where noted, standard deviations are given in parentheses. * $p < .05$, ** $p < .01$

^a 0 (not serious)–6 (very serious)

^b 0 (low flexibility)–20 (very flexible)

^c 0 (low knowledge)–100 (high knowledge)

^d 20 (nontraditional preferences)–80 (traditional preferences)

iate analysis of variance was conducted with children's knowledge and flexibility about gender stereotypes, children's current and future preferences, and children's tolerance for transgressions as the dependent variables. See Table 2 for means and standard deviations

Children's gender effects There were very few differences in children's responses according to their gender. Boys and girls were equally knowledgeable about gender stereotypes. Girls were more likely to choose current activities that were stereotypically feminine and boys were more likely to choose activities that were stereotypically masculine. However, there was no main effect of gender in the flexibility of such activities. A significant main effect of gender did emerge in children's perceptions of gender transgressions. Girls found gender transgressions committed by girls to be less serious than did boys $F(1,64)=7.53, p<.01$.

Parental sexual orientation effects There were also very few main effects for parental sexual orientation. Children with lesbian or heterosexual parents were not significantly different from one another in their knowledge of gender stereotypes, or in their preference for current or future activities. However, a main effect of parental sexual orientation did emerge in children's perceptions of gender transgressions. Children with lesbian parents found gender transgressions committed by boys to be less serious than did children of heterosexual parents, $F(1, 64)=5.01, p<.01$. Further analysis revealed that children of lesbian parents found social transgressions to be as serious as moral transgressions, $t(31)=1.42, n.s.$, and also found boys' gender transgressions to be only as serious as girls' transgressions, $t(31)=1.75, n.s.$

Interaction effects In addition, there was an interaction effect in the pattern of seriousness according to the child's gender. Boys of heterosexual parents found gender transgressions committed by boys equally as serious as they found social transgressions, $t(14)=-1.86, ns$; this was not the case for girls.

Results for Parents

Did parents differ in their attitudes or division of labor as a function of their child's gender or their own sexual orientation? Multivariate 2 (child gender) by 2 (parental sexual orientation) analysis of variance revealed no main effect for child gender, so results presented below are organized around outcomes of the dependent measures of parental attitudes and division of paid labor. As reported in Patterson et al. (2004), lesbian couples in this sample divided labor more equitably than heterosexual couples. Specifically,

heterosexual mothers reported being responsible for more childcare labor than any other parents, and heterosexual fathers reported being responsible for fewer childcare tasks than any other parent (see Patterson et al. for details).

Parental Attitudes

We assessed parents' tolerance of children's cross-sex typed behavior using the PIQ scale. There was an association between genetic mothers' ages and PIQ scores in that older mothers reported less conservative attitudes about children's gendered behavior, $r(65)=.63, p<.01$. Therefore, genetic mothers' ages were entered as a covariate into the 2 (child gender) by 2 (parental sexual orientation) multivariate analysis of covariance with each parent's attitude score as a dependent measure (see Table 3). Results showed that lesbian mothers had more liberal attitudes about gender-related behavior among children than did heterosexual parents. Specifically, lesbian genetic mothers reported more liberal attitudes about children's gender-related behavior than did heterosexual mothers, $F(1, 65)=7.49, p<.01$. Likewise, lesbian non-genetic mothers reported more liberal attitudes than did heterosexual fathers, $F(1, 61)=12.81, p<.01$. There was no difference in parents' attitudes according to their child's gender.

Parental Division of Labor

Paid labor We hypothesized that lesbian parents would divide labor more equitably than heterosexual parents. To test this hypothesis a 2 (child gender) by 2 (parental sexual orientation) multivariate analysis of variance with each parents work hours and occupational traditionality and the difference between parents' work hours as dependent measures (see Table 3). Lesbian genetic mothers reported spending more hours in paid employment each week than did heterosexual mothers, $F(1, 60)=11.53, p<.01$. Lesbian non-genetic mothers reported spending fewer hours in paid employment each week than did heterosexual fathers, $F(1, 60)=9.67, p<.01$. When considering the total number of hours spent in paid employment each week by parents in each family, however, lesbian and heterosexual parents did not differ, $F(1, 60)=<1, ns$. On average, both lesbian and heterosexual couples spent a total of about 70 h/week in paid employment. Paired t-tests revealed that heterosexual couples were less likely to divide time spent in paid labor equally (mean difference 32 h), $t(64)=-3.93, p<.01$, than were lesbian couples (mean difference 15 h). In 72% of heterosexual couples fathers worked more hours in paid labor more than mothers, in 12% of these couples mothers worked more hours than fathers (including 2 stay-at-home fathers) and 15% of couples mothers and fathers worked equal hours. 39% lesbian couples the genetic mother

Table 3 Parental attitudes and behavior as a function of parental sexual orientation and child gender.

Variable	Lesbian parents		Heterosexual parents		Gender effects	Sexual orientation effects	Interaction effects
	Parents of Boys	Parents of Girls	Parents of Boys	Parents of Girls			
Parent 1							
Attitudes (PIQ) ^a	13.00 (10.20)	9.04 (7.23)	18.96 (10.51)	17.00 (9.58)	$F(1, 64) < 1$	$F(1, 64) = 6.49^*$	$F(1, 64) < 1$
Occupational traditionality ^b	63.48 (24.67)	61.76 (24.95)	70.06 (25.75)	62.73 (22.53)	$F(1, 60) < 1$	$F(1, 60) < 1$	$F(1, 60) < 1$
Parent 2							
Attitudes (PIQ) ^a	16.50 (9.68)	15.39 (8.87)	27.57 (10.75)	24.20 (12.75)	$F(1, 64) = 1.96$	$F(1, 64) = 14.92^{**}$	$F(1, 64) < 1$
Occupational traditionality ^b	59.61 (24.80)	49.12 (21.43)	60.00 (16.45)	63.73 (22.74)	$F(1, 60) < 1$	$F(1, 60) < 1$	$F(1, 60) = 1.00$
Difference in work hours ^c	1.59 (1.33)	1.30 (1.16)	2.09 (1.29)	2.47 (1.26)	$F(1, 60) < 1$	$F(1, 60) = 13.89^{**}$	$F(1, 60) = 1.81$

Except where noted, standard deviations are given in parentheses. * $p < .05$, ** $p < .01$

^a 0 (less conservative attitudes)–72 (more conservative attitudes)

^b Percent of people of the same gender in the occupation

^c Absolute difference in hours in paid labor between parent 1 and parent 2

worked more hours, in 36% of these couples the non-genetic mothers worked more hours, and 24% of couples worked equal hours outside of the home.

Lesbian genetic mothers and heterosexual mothers were in similarly traditional occupations but paired t tests revealed that lesbian non-genetic were in less traditional occupations than were heterosexual fathers. Heterosexual fathers were also in more traditional occupations than their wives, $t(32) = 4.68$, $p < .01$.

Process Variables

To test our hypothesis that individual differences may exist in children's gender-role flexibility as a function of parents' attitudes and behaviors, correlations were performed to determine the association between parent and child variables. For both parental attitudes and parental division of labor, composite scores were created that incorporated both parents' reports. For parental attitudes, both parents' scores were summed for a total score. For division of paid labor, the absolute difference between parents work hours was calculated. Inequality in the division of childcare responsibilities was defined by the absolute value of the difference between partners' reports of the amounts of childcare for which they were responsible.

Parents' attitudes were associated with children's knowledge of and flexibility surrounding gender stereotypes. More conservative parents had children who found both boys', $r(60) = .39$, $p < .01$, and girls', $r(60) = .37$, $p < .01$, gender transgressions to be more serious, who had a more detailed knowledge of gender stereotypes pertaining to their own gender, $r(60) = .28$, $p < .01$, and who showed more stereotyped preferences for future occupations, $r(59) = .26$, $p < .01$, than did children of less conservative parents.

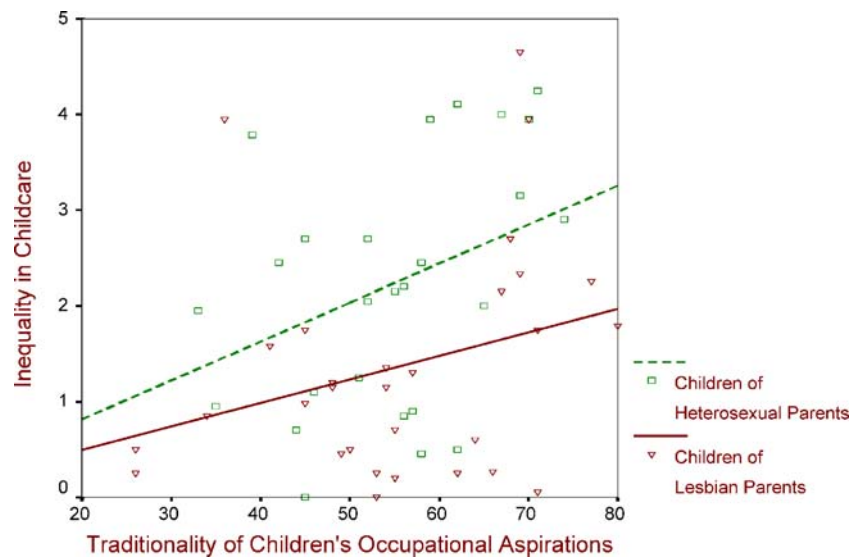
To assess the role of parental attitudes in the effect of sexual orientation on tolerance for transgressions, parents' combined PIQ score was entered as a covariate into a 2 (child's gender) by 2 (parental sexual orientation) with children's tolerance of boys' gender transgressions as the dependent variable. After considering parental attitudes as a covariate in this analysis, the main effect of parental sexual orientation on children's tolerance of boys' gender transgressions was no longer significant.

Parents' time spent in paid labor was also associated with aspects of children's gender role development. As the difference in time spent in paid labor increased between parents, so did children's preference for sex-typed current activities, $r(64) = .26$, $p < .05$. Children's preferences for sex-typed current activities also increased as the traditionality of their heterosexual mothers' or lesbian genetic mothers' occupation increased in traditionality, $r(62) = .28$, $p < .05$. Also, the less time heterosexual mothers or lesbian genetic mothers spent in the workplace the more knowledge their children reported of stereotypes about the other sex, $r(64) = -.26$, $p < .05$.

Reports of higher inequality in childcare were associated with children's more detailed knowledge of gender stereotypes pertaining to the other sex, $r(56) = .28$, $p < .05$. In addition, as expected, children with parents who divided childcare less equally had more traditional occupational aspirations, $r(55) = .32$, $p < .05$, than did children whose parents reported a more egalitarian division of childcare labor (See Fig. 1).

Parents' attitudes and division of labor were associated with one another, $r(57) = .27$, $p < .05$. Regression analysis which predicted children's tolerance for gender transgressions and occupational aspirations in which the variables: parental sexual orientation, parental attitudes, child gender and division of labor, were entered simultaneously revealed

Fig. 1 Associations between parental inequality in childcare and children's traditionality of occupational aspirations as a function of parental sexual orientation.



that parental attitudes were the best predictors of children's tolerance of gender transgressions. As shown in Table 4, children of more conservative parents were less tolerant of gender transgressions. On the other hand, parental division of childcare labor was the best predictor of children's occupational aspirations. As shown in Table 4, children of parents who shared childcare evenly had occupational aspirations which were less sex-typed.

Discussion

Does the course of gender development vary as a function of parental sexual orientation? Stacey and Biblarz (2001) suggested that it might, in part because of the different environments relevant to gender that may be provided by lesbian versus heterosexual parents. Our current results showed that lesbian and heterosexual parents did provide different information to their children about gender roles. Lesbian mothers' own attitudes about children's gendered behaviors were more liberal than were those reported by

heterosexual parents, and lesbian mothers were more likely than heterosexual parents to divide both the labor involved in childcare and paid labor evenly. Children with parents with more liberal attitudes about gender and more egalitarian divisions of labor were more flexible in their own gender stereotypes and in their occupational aspirations. So it seems that lesbian parents are constructing family life that parallels the processes that may lead to more gender flexibility in children. However, because there was considerable variability within as well as between family types, very few child outcomes varied as a function of parental sexual orientation in this sample. For example, children's occupational choices were associated with parental division of labor, not with parental sexual orientation. This suggests that if parents, regardless of sexual orientation, organize their attitudes and behaviors in an egalitarian manner more common in lesbian couples, children may have more flexible attitudes about gender.

As expected based on earlier findings (Barak et al. 1991; Edelbrock and Sugawara 1978; Fagot and Leinbach 1995), children in the current study reported detailed knowledge of

Table 4 Children's gender-role flexibility predicted by gender, parental sexual orientation, attitudes and division of child care.

	Gender transgressions (male actors)				Gender transgressions (female actors)				Future occupations			
	B	SE(B)	B	<i>t</i>	B	SE(B)	B	<i>t</i>	B	SE(B)	B	<i>t</i>
Parental sexual orientation	.21	.30	.10	<1	.11	.19	.08	<1	-3.31	1.83	-.265	-1.81
Child's gender	.49	.55	.11	<1	.70	.34	.25	2.04*	2.53	3.53	.10	<1
Parents' attitudes	3.68	.02	.34	2.39*	2.57	.01	.37	2.65*	.18	.09	.27	1.89
Division of childcare	2.14	.23	.01	<1	-.23	.14	-.21	-1.59	3.29	1.31	.34	2.52*
<i>R</i> ²	.18				.24				.19			
<i>F</i> (4, 55)	3.02*				4.19**				3.05*			

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

gender stereotypes and strong preferences for sex-typed childhood activities. These preferences were particularly strong in children where parents divided paid labor less equitably. Children whose parents modeled egalitarian divisions of labor were, however, able to envision occupational futures that were less constrained by gender stereotypes. Children of parents with traditional divisions of labor chose stereotypic occupations for themselves, with boys envisioning themselves in male stereotyped occupations and girls choosing female occupations. There were, however, few gender differences in occupational choices among children of egalitarian parents. This finding was consistent with the view proposed by Fagot and Leinbach (1995) that the stereotyped preferences of young children with egalitarian parents may be relatively flexible and temporary.

As expected (Chan et al. 1998; Gartrell et al. 1999; Kurdek 1993), lesbian and heterosexual couples chose different divisions of labor. Lesbian couples divided both childcare and paid employment more evenly than did heterosexual couples. Thus, heterosexual fathers spent more time in paid employment and heterosexual mothers spent more time in unpaid childcare than did lesbian mothers. Interestingly, the total number of hours spent in paid work *per household* did not vary as a function of parental sexual orientation; both lesbian and heterosexual couples reported spending about 70 total hours per week in paid employment. Among heterosexual couples, the husband was likely to report spending more hours in paid employment than did his wife, but among lesbian couples, the partners were more likely to report about equal numbers of hours on the job. Thus, lesbian and heterosexual couples took different approaches to dividing up the same overall amount of paid and unpaid labor.

How did parents' division of labor affect children? We found that parents' ways of dividing childcare were associated with children's visions of their own future adult responsibilities. Children whose parents shared childcare evenly reported less stereotyped occupational aspirations than did other children. In families characterized by traditional divisions of labor, boys gave high rankings to masculine occupations and low rankings to feminine occupations; similarly, girls gave high rankings to feminine occupations and low rankings to masculine occupations. In families that reported more egalitarian (i.e., shared) divisions of labor, however, the results were very different. In egalitarian families, children were less likely to rank occupations as a function of the gender stereotypes associated with them. All these children preferred childhood activities that were in line with cultural expectations for their gender. Perhaps using their parents' behavior as a template, however, children of egalitarian parents saw their future in terms less restricted by gender role stereotypes (Fagot and Leinbach 1995).

There was one significant difference in children's knowledge about or flexibility around gender stereotypes as a function of parental sexual orientation. Children of heterosexual parents described gender role transgressions committed by boys as being more serious than those committed by girls. Children of lesbian mothers, on the other hand, saw gender transgressions as similar in seriousness, regardless of whether they were committed by boys or by girls. This finding is suggestive, hinting that children of lesbian mothers may not apply a double standard to their judgments of children's gendered behavior, but its generality remains to be assessed. This structural difference was accounted for by lesbian parents more liberal gender attitudes or because of the absence of a more conservative father. Thus, it seems that sexual orientation can predict parental attitudes which in turn may predict flexibility in children's own attitudes.

We found few gender differences in children's knowledge of or flexibility around gender stereotypes. As in earlier research (Helwig 1998; Katz and Ksanskak 1994; Lobel and Menashri 1993), most children found gender transgressions committed by boys to be more serious than those committed by girls. Overall, however, gender differences were few and far between, indicating that most gender stereotypes were widely shared.

Both the strengths and the limitations of this research should be acknowledged. First, the study is based on a convenience sample, and this limits the scope of generalization that is appropriate based on the results. A few of the scales used in this research had alphas that approached .70, results from these scales should be cautiously interpreted. Families in this sample, regardless of parental sexual orientation, were relatively affluent and well-educated. This limitation is due to, in some part, the difficulties that lesbian parents face when constructing their families. Both reproductive technology and international adoption are expensive and may not be available to more economically diverse families. Regardless of its causes, this issue limits the ability to generalize these findings. Future studies should examine such issues in less affluent families. Children of lesbian mothers in our sample were more likely to be adopted and to be non-white than were children of heterosexual parents. However, race and adoption were not associated with the outcomes of interest here, so this is unlikely to have been a major problem for the present study. On the other hand, the samples of lesbian and heterosexual parents were generally well-matched on an array of variables such as income and education. The samples were drawn from among families living in the Mid-Atlantic States, an area from which participants in research on lesbian parents and their children have rarely been recruited. Our use of standardized assessment procedures also adds to the likely generalizability of our

results. Thus, the study had important strengths as well as limitations.

A second important limitation to the generalization of these findings is in the use of the SERLI to assess children's occupational aspirations. The SERLI has been criticized for being dated and offering more appealing masculine (recreational for current activities and more prestigious for occupations) activities. However, it is important to note that even given that boys' activities were more recreational and seemingly more appealing, girls were most likely to rank the feminine activities as more appealing to them. This finding really reflects the developmental moment in preschool when adherence to gender roles is more salient in activity choice than any other factor. It is also important that the association between the SERLI and parent traditionality was significant in the predicted direction. We think that the SERLI may not now be the best measure of children's choice of current and future activities, but we think it was an adequate measure for this study. Future studies should use or create measures of children's activity and occupational preferences in which are more equitable on appeal between the two genders.

In what ways is parental sexual orientation linked to children's gender development, if at all? Stacey and Biblarz (2001) suggested that children of lesbian parents are offered different gender-related information and may develop different ideas about gender than do children of heterosexual parents. We found that lesbian mothers did offer children different information about gender roles than did heterosexual parents. When compared to heterosexual parents, lesbian mothers had more liberal attitudes about gender roles and maintained more equitable divisions of childcare and paid labor in their families. Parental sexual orientation strongly predicted parents' attitudes and behaviors and these attitudes and behaviors were associated with children's stereotype flexibility and gendered visions of their futures. However, variations in these attitudes and arrangements occurred within lesbian as well as heterosexual households and it was the variations that were most closely associated with children's gender-related outcomes. The childcare arrangements that were most often reported by lesbian couples may serve to enhance children's resistance to stereotypic beliefs, but these arrangements were by no means unique to lesbian couples. Regardless of parental sexual orientation, children with parents who divided labor evenly were more able to imagine a future unrestricted by gender-related societal stereotypes.

Acknowledgement We gratefully acknowledge the University of Virginia's Center for Children, Families, and the Law for support of this project, as well as National Institute of Health's U.S. Public Health Service Pre-Doctoral Traineeships awarded to the first and second authors.

References

- Barak, A., Feldman, S., & Noy, A. (1991). Traditionality of children's interests as related to their parents gender stereotypes and traditionality of occupations. *Sex Roles, 24*, 285–297.
- Baumrind, D. (1995). Commentary on sexual orientation: Research and social policy implications. *Developmental Psychology, 31*, 130–136.
- Belsky, J., & Pensky, E. (1988). Marital change across the transition to parenthood. *Marriage and Family Review, 12*, 133–153.
- Bureau of Labor Statistics (2001). Household Data Annual Averages. Table 11. Employed persons by detailed occupation, sex, race, and Hispanic origin, (online). Available: www.bls.gov/cps/cpsaat11.pdf.
- Bussey, K., & Perry, D. G. (1982). Same-sex imitations: The avoidance of cross-sex models or the acceptance of same-sex models? *Sex Roles, 8*, 774–785.
- Chan, R. W., Brooks, R. C., Raboy, B., & Patterson, C. J. (1998a). Division of labor among lesbian and heterosexual parents: Associations with children's adjustment. *Journal of Family Psychology, 12*, 402–419.
- Cowan, C. P., & Cowan, P. A. (1992). *When partners become parents: The big life change for couples*. New York: Basic Books.
- Durkin, K., & Nugent, B. (1998). Kindergarten children's gender-role expectations for television actors. *Sex Roles, 38*, 387–403.
- Edelbrock, C., & Sugawara, A. I. (1978). Acquisition of sex-typed preferences in preschool-aged children. *Developmental Psychology, 14*, 614–623.
- Etaugh, C., & Liss, M. B. (1992). Home, school, and playroom: Training grounds for adult gender roles. *Sex Roles, 21*, 129–147.
- Fabes, R. A., Martin, C. L., & Hanish, L. D. (2003). Young children's play qualities in same- other, and mixed sex peer groups. *Child Development, 74*, 921–932.
- Fagot, B. I., & Hagan, R. (1991). Observations of parent reactions to sex-stereotypes behaviors: Age and sex effects, *Child Development, 62*, 617–628.
- Fagot, B.I., & Leinbach, M.D. (1995). Gender knowledge in egalitarian and traditional families. *Sex Roles, 32*, 513–526.
- Gartrell, N., Banks, A., Hamilton, J., Reed, N., Bishop, H., & Rodas, C. (1999). The national lesbian family study: 2. Interviews with mothers of toddlers. *American Journal of Orthopsychiatry, 69*, 362–369.
- Gervai, J., Turner, P. J., & Hinde, R. A. (1995). Gender-related behavior, attitudes, and personality in parents of young children in England and Hungary. *International Journal of Behavioral Development, 18*, 105–126.
- Green, R., Mandel, J. B., Hotvedt, M. E., Gray, J., & Smith, L. (1986). Lesbian mothers and their children: A comparison with solo parent heterosexual mothers and their children. *Archives of Sexual Behavior, 15*, 167–184.
- Helwig, A. A. (1998). Gender-role stereotyping: Testing theory with a longitudinal sample. *Sex Roles, 38*, 403–424.
- Katz, P. A., & Ksanskak, K. R. (1994). Developmental aspects of gender role flexibility and traditionality in middle childhood and adolescence. *Developmental Psychology, 30*, 272–282.
- Kurdek, L. (1993). The allocation of household labor in homosexual and heterosexual cohabiting couples. *Journal of Social Issues, 49*, 127–139.
- Liben, L. S., & Bigler, R. S. (2002). The developmental course of gender differentiation. *Monographs of the Society for Research in Child Development, 66*, (2 Serial No. 269).
- Liben, L. S., Bigler, R. S., & Krogh, H. R. (2001). Pink and blue collar jobs: Children's judgements of job status and job aspirations in relation to sex of worker. *Journal of Experimental Child Psychology, 79*, 346–363.

- Liben, L. S., Bigler, R. S., & Krogh, H.R. (2002). Language at work: Children's gendered interpretations of occupational titles. *Child Development, 73*, 810–828.
- Lobel, T. E., & Menashri, J. (1993). Relations of conceptions of gender-role transgressions and gender constancy to gender-typed preferences. *Developmental Psychology, 29*, 150–155.
- MacDermid, S. M., Huston, T. L., & McHale, S. M. (1990). Changes in marriage associated with the transition to parenthood: Individual differences as a function of sex-role attitudes and changes in the division of household labor. *Journal of Marriage and the Family, 52*, 475–486.
- Martin, C. L., Wood, C. H., & Little, J. K. (1990). The development of gender stereotype components. *Child Development, 61*, 1427–1439.
- Morris, J. F., Balsam, K. F., & Rothblum, E. D. (2002). Lesbian and bisexual mothers and nonmothers: Demographics and the coming-out process. *Journal of Family Psychology, 16*, 144–156.
- Patterson, C. J. (2000). Sexual Orientation and family life: A decade review. *Journal of Marriage and the Family, 62*, 1052–1069.
- Patterson, C. J., & Friel, L. V. (2000). Sexual orientation and fertility. In G. Bentley & N. Mascie-Taylor (Eds.), *Infertility in the modern world: Biosocial Perspectives*. Cambridge: Cambridge University Press.
- Patterson, C. J., Sutfin, E. L., & Fulcher, M. (2004). Division of labor among lesbian and heterosexual parenting couples: Correlates of specialized versus shared patterns. *Journal of Adult Development, 11*, 179–189.
- Perrin, E. C. (2002). Technical report: Coparent or Second-parent adoption by same sex parents. *Pediatrics, 109*, 341–344.
- Perkins, H. W., & DeMeis, D. K. (1996). Gender and family effects on the “second-shift” domestic activity of college-educated young adults. *Gender & Society, 10*, 78–93.
- Perry-Jenkins, M., & Crouter, A. C. (1990). Men's provider-role attitudes: Implications for household work and marital satisfaction. *Journal of Family Issues, 11*, 136–156.
- Ruble, D. N., Fleming, A. S., Hackel, L., & Stangor, C. (1988). Changes in the marital relationship during the transition to first-time motherhood: Effects of violated expectations concerning division of household labor. *Journal of Personality and Social Psychology, 55*, 78–87.
- Serbin, L. A., Powlishta, K. K., & Gulko, J. (1993). The development of sex typing in middle childhood. *Monographs of the Society for Research in Child Development, 58*, 1–74.
- Smetana, J.G. (1986). Preschool children's conceptions of sex-role transgressions. *Child Development, 57*, 862–871.
- Stacey, J., & Biblarz, T. J. (2001). (How) Does sexual orientation of parents matter? *American Sociological Review, 65*, 159–183.
- Tasker, F. L. & Golombok, S. (1997). *Growing up in a lesbian family: Effects on child development*. New York, NY: Guildford Press.
- Tenenbaum, H. R., & Leaper, C. (2002). Are parents' gender schemas related to their children's' gender related cognitions? A meta-analysis. *Developmental Psychology, 38*, 615–630.
- Turner, P. J., & Gervai, J. (1995). A multidimensional study of gender typing in preschool children and their parents: Personality, attitudes, preferences, behavior, and cultural differences. *Developmental Psychology, 31*, 759–772.
- Weinraub, M., Clemens, L. P., Sockloff, A., Ethridge, T., Gracely, E., & Myers, B. (1984). The development of sex role stereotypes in the third year: Relationships to gender labeling gender identity, sex-typed toy preference, and family characteristics. *Child Development, 55*, 1493–1503.