

The Influence of Parents and Family Context on Children's Involvement in Household Tasks¹

John K. Antill,² Jacqueline J. Goodnow, Graeme Russell, and Sandra Cotton

Macquarie University

To determine the relative impact of a number of family variables on children's performance of gender-typed household tasks, this study took account of the gender of the child, the gender of a sibling within the same age range (8–14 years), whether a first or second child and three parental variables: the degree of encouragement given to perform masculine and feminine tasks, parental involvement in the same tasks, and parents' general egalitarianism. The sample consisted of 191 white, mainly Anglo Australian two-parent families, with the two oldest children in a boy-boy, girl-girl, boy-girl, or girl-boy sequence. To check on the robustness of effects, measures were taken on two occasions, on average 16 months apart. Among the family context variables, the gender of the child was the strongest contributing variable, with girls doing more feminine tasks than boys and boys doing more masculine tasks than girls. There was limited support for the proposition that first children do more housework than second children of the same gender, while the results for gender of sibling were small and inconsistent. Among the parental variables, encouragement had strong positive effects for feminine tasks (i.e., more encouragement by parents corresponded to more involvement by children). In contrast, parental involvement in the same tasks (modeling) and parental egalitarianism predicted only the performance of masculine tasks, and the direction of the effects was mostly negative (e.g., the more a father was involved in masculine tasks, the less a child did of those tasks). The results point to involvement in gender-typed activities being influenced by multiple factors, with parental encouragement and gender of child being most prominent among these. They also point to the value of sampling on more than one occasion and of considering separately the performance of feminine and masculine tasks.

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²To whom correspondence should be addressed at The School of Behavioural Sciences, Macquarie University, Sydney, NSW Australia 2109.

Family variables have often been proposed as influencing the extent to which children engage in gender-typed activities. This broad proposal has been supplemented by the argument that influences may come about through several processes (e.g., by the rewards, the models, or the opportunities that parents provide), and may vary as a function of factors such as the gender of the child, the composition of the family, or the gender of the parent (e.g., Antill, 1987; Blair, 1992a; Etaugh & Liss, 1992; Huston, 1985; Maccoby & Martin, 1983; McHale, Bartko, Crouter, & Perry-Jenkins, 1990; Serbin, Powlishta, & Gulko, 1993; Siegal, 1987). For example, it is often proposed that "same-sex models will be imitated more than opposite-sex ones because the child tends to imitate models whom he/she perceives as being similar to him/herself" (Maccoby & Jacklin, 1974, p. 286).

The argument for multiple sources of influence has been offered both for children's involvement in gender-typed activities and for their gender schemas (e.g., Katz, 1987; Serbin *et al.*, 1993). The present study concentrates on a particular activity: the performance of gender-typed household tasks. It adds to the multiple sources argument by considering a number of family variables (related both to parents and to children), and by asking about the extent to which their influence varies not only with characteristics of the child and the family but also as a function of the activity (its status as traditionally feminine or masculine).

The family variables are divided into two groups. The first group is concerned with family context. This covers whether each of the two oldest children is a first or second child, a boy or a girl and has a brother or a sister. The second group is concerned with parental influences. This covers the extent to which parents (mothers and fathers) (a) encourage or discourage their child's involvement in various household tasks, (b) model same-gender or cross-gender behavior by way of their own performance of the same tasks, and (c) endorse egalitarian attitudes towards gender roles. The influences of these family variables are examined separately for boys and for girls in the middle childhood age range (8 to 12 years), for mothers and fathers, for families in which both the first and second children are either boys or girls, for two types of activity (household tasks traditionally considered feminine or masculine) and at two points of time, separated by an interval of approximately 16 months.

The choice of household tasks stems from the opportunities they provide for the exploration of several possibilities related to the nature of socialization within the family (Goodnow, 1988). This is an area of performance where parents describe themselves as taking multiple factors into account when they consider asking a son or daughter to take on a task: factors that include the child's competence, the child's physical availability

when the job needs to be done, and the degree of parental effort required to get the job done (Goodnow, Bowes, Warton, Dawes, & Taylor, 1991). In addition, household tasks allow one to ask whether influences are the same for same-gender and for cross-gender activities and to examine whether traditionally feminine and traditionally masculine tasks vary in their openness to influence. Children's performance of feminine tasks, for example, has emerged as more open to possible redistribution among family members (Goodnow et al., 1991) and to influences such as the mother's involvement in paid work (Blair, 1992a) or the length of parents' education (Zill & Peterson, 1982). A similar result has been reported for adults. Their performance of feminine tasks can be predicted from variables such as the adults' age, the length of their marriage, and the number of children they have; the performance of masculine tasks by parents in the same sample is not predicted by any of these variables (Antill & Cotton, 1988).

The choice of particular parental variables (encouragement, modeling, egalitarianism) reflects the way these have emerged, from past studies of gender-typing, as routes by which parental influence comes to have an impact. Studies have explored the effects of parental attitudes towards gender-typing (e.g., Lackey, 1989), parental actions with regard to same-gender or cross-gender behaviors (e.g., Fagot & Leinbach, 1989), or a combination of attitudes and practices (e.g., Katz & Boswell, 1986). All three processes — encouragement, modeling, expression of values — have been implicated. Little research has been conducted into the relative effectiveness of these three processes. Of the three, encouragement might be expected to have the strongest effect because it is the closest to what the child actually does; general egalitarianism would then have the weakest effect because it is the furthest away from actual performance. Still in need of assessment is the extent to which these three forms of influence have similar effects when exerted by mothers and fathers and when directed towards feminine and masculine tasks.

Blair (1992b) has conducted a study which is consistent with the approach being advocated here. He has conceptualized parental influences as being either direct (i.e., through the application of their own gender-role ideologies and attitudes in assigning children tasks or providing differential rewards), or indirect via the role models they present to their children in terms of their performance of gender-typed household tasks. Support was found for several of the hypotheses investigated. Sons of parents with more traditional gender-role orientations performed less household labor, while daughters of more traditionally oriented parents performed more labor. Findings also indicated that the effects were strongest for children of the same gender as the parent, thus supporting a modeling effect. For example, sons of fathers who performed a relatively high level of household work

were more likely to perform household work than sons of fathers whose household work levels were relatively low. This pattern was not evident for mothers of sons. Blair concluded that the issue requiring particular attention in future research concerned the influence of parental factors in the case of a child of the same gender as the parent. This issue is investigated here.

The choice of family context variables reflects the general argument that analyses of family influences need to go beyond parents: in particular, to consider the relatively neglected influence of siblings and the impact of the different family environments experienced by siblings (e.g., Dunn & Plomin, 1991). The position taken in this paper is that the family environment will be experienced differently by children depending on the gender of the child, the gender of his/her sibling and whether the child is the first or second in the family.

It follows from the above that the gender composition of the family will influence the degree to which the division of household tasks occurs along gender lines. This type of possibility is contained in Antill's (1987) suggestion that families comprising all boys, all girls, or some of each gender may vary in the extent to which parents hold gender-typed views of children. In all-boy families or all-girl families, for instance, where the children are nevertheless different from one another, the attribution of difference may be less to gender than to temperament or upbringing. Similarly, Brody and Steelman (1985) have suggested that parents are less likely to endorse a gender-based distribution of work when all the children are boys or all are girls than when the family contains children of each gender. Whether this kind of difference applies at the level of behaviors is an open issue. It makes intuitive sense, however, that when two children are close in age and of opposite gender, the practice of dividing tasks on the basis of gender will be easy to follow. When the two children are of the same gender, the opportunity to follow conventional patterns is diminished. The traditionally "appropriate" pair of hands is simply not available. The task may now need to go to whichever child is available, or revert to the parent(s).

Sibling pattern effects on gender typing have been explored by Stoneman, Brody, and MacKinnon (1986) and by Blair (1992a) but the results still leave questions open. Stoneman *et al.* (1986) focused on children aged 7-9 years and used two measures of gender typing: a gender-role index and observations of self-selected activities during a period of unstructured play. The gender composition of the sibling pair displayed effects, but in the form of some relatively complex interactions between gender and birth order. For example, the strongest degree of gender typing in activities was shown by siblings of the same gender, and the lowest scores on the gender-role index came from boys with older sisters.

Blair's (1992a) study is the closest to the concern of the present study with its focus on the performance of gender-typed household tasks. Blair analyzed the results of a U.S. national survey, extracting from it reports of children's work, parental attitudes, and parental paid work in 1352 two-parent households. One of the bases on which he divided these families was in terms of households where all the children were males, all the children were females, or the siblings were of both genders. How far, Blair asked, do these variations affect the work children do? The number of hours spent each week in "female-dominated labor" was at its lowest in the all-boys type of household (approximately 3 hours per week), was higher for the all-girls type (close to 6 hours per week), and highest of all in the boys-and-girls type (approximately 8 hours per week). Findings from this study are hard to interpret, however, because the age range of the "children" is broad (from 5 to 18 years) and is not broken down statistically. In addition, there is no analysis by birth order and no comparison of, say, boys in all-boy families with boys in "mixed" families.

The last feature of our design to call for comment has to do with sampling. We have chosen middle childhood (ages 8 to 12 years) as the age range, on the grounds that this covers a period in which children are old enough to be involved in household tasks but not yet at an age where the competing activities and interests of adolescence have made household jobs a major source of conflict (e.g., Montemayor, 1983). We have also chosen to collect data at two points of time, a longitudinal sampling that provides a way of checking the robustness of effects that emerge in any single "snapshot" of gender-typed performance.

From the above review, it is clear that few studies have examined the impact of family context and parental influences on children's household task performance. Nevertheless, we have developed a set of coherent hypotheses based on the findings from a variety of studies of family influences and social learning theory (e.g., Maccoby & Jacklin, 1974; Maccoby & Martin, 1983; Mischel, 1968). These are presented in detail below.

1. Family Context

(a) *First versus Second Children.*

Because parents will see it as more appropriate for first children to contribute to the running of the household, and encourage them accordingly, first children will report doing more housework than second children of the same gender in terms of both masculine and feminine tasks.

(b) *Gender of Child.*

Children of each gender will report doing more same-gender tasks than their opposite-gender peers. Thus, boys will report doing more masculine tasks than girls, while girls will report doing more feminine tasks than boys.

(c) *Gender of Sibling.*

Children with an opposite-gender sibling will do fewer opposite-gender tasks but more same-gender tasks when compared to children with a same-gender sibling. For example, boys will do fewer feminine tasks and more masculine tasks when they have a sister than when they have a brother. Similarly, girls will do fewer masculine tasks and more feminine tasks when they have a brother than when they have a sister. These hypotheses are based on the assumption that tasks are divided along gender lines, and that they can be passed more easily to siblings whose gender corresponds to that of the task than to siblings whose gender does not.

2. Parental Influences(a) *Parental Encouragement.*

Parental encouragement of both masculine and feminine household tasks will result in increased child performance of those tasks. The links are expected to be stronger for first versus second children, at time 2 versus time 1, for mothers versus fathers and for cross-gender tasks versus same-gender tasks (i.e., feminine tasks for boys and masculine tasks for girls).

The general prediction is made on the grounds that parental reinforcement or encouragement will have a positive impact on child outcomes at this age. Parents are more likely to insist that their wishes are fulfilled for first-born and older children and hence it is expected that the links will be stronger for first than for second children and at time 2 than for time 1. Due to their likely greater availability and investment in having allocated tasks completed, the links for mothers are expected to be stronger than those for fathers. Finally, the fact that same-gender behaviors are also reinforced by society, suggests that a more unique contribution by family factors to the performance of cross-gender tasks may be possible.

(b) *Parental Modeling.*

When parents do household tasks they are providing models for their children which should increase the chances of their children doing these tasks.

Stronger positive links are expected for parental performance of cross-gender tasks as the child's performance of these tasks will rely more on the unique family contribution than on society generally and also for same-gender parents where stronger identification is expected to occur. Thus mothers' performance of masculine tasks should have a strong impact on their daughters, while fathers' performance of feminine tasks should have a strong impact on their sons. Somewhat less strong will be the impact of mothers' performance of feminine tasks on

daughters, mothers' masculine tasks on sons, fathers' feminine tasks on daughters and fathers' masculine tasks on sons. The weakest links of all should thus be for the impact of mothers' feminine tasks on sons and fathers' masculine tasks on daughters.

(c) *Parents' Egalitarian Attitudes.*

Parents' egalitarian attitudes are expected to increase the likelihood of children performing cross-gender tasks while, to a lesser extent, decrease their performance of same-gender tasks. The impact will be greater for same-gender dyads, that is, mothers on daughters and fathers on sons.

This hypothesis is based on the assumption that parents' attitudes will be translated into action. Parents' performance of cross-gender tasks should thus follow from their egalitarian attitudes. The impact of these attitudes on same-gender tasks may be less as these will also be reinforced by society generally. Due to the likely stronger identification with same-gender parents, it is predicted that the impact of attitudes will be greater in same-gender dyads.

3. The Combined Impact of Family Context and Parental Influences

Considering the combined impact of family context and parental influence variables, it is expected that the gender of the child will be the most influential of the family context variables on the performance of gender-linked household tasks. This is due to the strong emphasis placed on this factor by parents. Further, it is expected that the greatest impact by parental variables will be in terms of encouragement, followed by modeling, then egalitarianism. This order is based on the direct relevance or closeness of each variable to the child's behavior.

METHOD

Subjects

Data were collected on two occasions. The initial sample consisted of 191 white, mainly Anglo Australian couples living in Sydney and their 382 children (the two oldest from each family). These two oldest children were boys in 46 families and girls in 44 families; the patterns boy/girl and girl/boy occurred in 52 and 49 of the families respectively. Among the children, there were 189 girls (93 first borns, mean age 10.5 years; 96 second borns, mean age 8.8 years) and 193 boys (98 first borns, mean age 10.8 years; 95 second borns, mean age 8.7 years). The mean age of the mothers was 36.7 years, while that of the fathers was 39.0 years. Most of the parents were born in Australia (67%), with 19% born in other English-speaking countries and 14% in non-English-speaking countries.

Preference in sampling was given to two-child families. Of the 191 families, 120 contained two children only. Among the remaining 71 families, 54 contained three children, 16 contained four children and one contained five children. For families with children beyond the two that we sampled, the mean age of the next child was 5.2 years (s.d. 2.1 years). In effect, few of the other siblings were in an age range that would modify the task involvement of the two oldest children. For families with children beyond the two sampled, the gender of the third child and of subsequent children was also restricted by sampling. If the first two children were boys, any subsequent children also needed to be boys. If the first two were girls, then any subsequent children also needed to be girls. If the first two were not of the same gender (boy/girl; girl/boy), any subsequent children could be male or female.

For the follow-up, families were contacted between one and two years (mean 16.4 months) after the initial data collection. Of the original 191 families, 161 agreed to participate again; 10 had moved and could not be contacted, while 20 refused to participate. This sample comprised 322 children: 154 girls (76 first borns, mean age 11.8 years; 78 second borns, mean age 10.1 years) and 168 boys (85 first borns, mean age 12.1 years; 83 second borns, mean age 9.9 years). The numbers remaining in each of the four gender-of-child groups were: boy/boy 40, girl/girl 33, boy/girl 45, girl/boy 43.

The primary criteria for selection at Time 1 were (a) the sibling gender pattern (families were selected so that an approximately equal number represented the patterns: boy/boy, girl/girl, boy/girl, girl/boy), and (b) the age of the children. Both target children needed to be in the age range of 8-12 years. Families were also selected in a way designed to promote socio-economic diversity. The basis was an area risk score devised by Vinson and Homel (1976). This score combines several statistical indicators for an area; indicators that cover income levels, social disorganization (e.g., number of court appearances for people in the area), family stability (e.g., number of divorces, child care orders), and educational disadvantage (e.g., number not completing high school). The risk scores were used to identify three types of area: high, medium, and low risk. The result was a satisfactory spread. The distribution of families in the sample in these three areas was 34%, 38%, and 28% respectively.

For each of the three risk areas, two suburban divisions (local government areas) were randomly selected. Lists of primary schools, and their enrollments, were obtained for each division from the educational authority responsible for all divisions (the N.S.W. Department of Education). Through the schools, this authority then distributed 1500 letters on our behalf to the parents of children enrolled in grades 3 to 6 in these schools, asking about family composition and willingness to participate.

The pool of 1500 families was based upon an assessment of what would be needed in order to reach a target sample of 200 families. We estimated that one fifth of the families would contain two parents and have the two oldest children in the appropriate age range, and that two thirds of these would be willing to participate. Because we were unable to control the distribution of letters, the precise response rate is difficult to assess. If, as we expected, only one fifth of the families met the sample criteria, the response rate would be 64%.

Procedure

Reports of the work that children do came from interviews with the children. Reports of parental encouragement, parental performance of household tasks, and endorsement of egalitarian beliefs came from questionnaires completed by parents. At the time of initial contact with parents, arrangements were made to send questionnaires to them, with the request that they be completed by each parent separately before the date of interview with the children. About a week later, usually in the evening or at weekends, the children were interviewed in private. The parents were asked if any items in the questionnaires needed to be clarified and the questionnaires were collected.

Measures

The measures comprised seven scales.

Children's Masculine and Feminine Task Scales. Children were asked how often they did or helped with each of 18 household tasks: (1) never, (2) about once a month or less, (3) 2-3 times a month, (4) about once a week, (5) 2-3 times a week, (6) once a day or more. Of the 18 tasks, five emerged as performed statistically more often ($p < .05$) by boys than by girls. These tasks consisted of: doing repairs around the house; cutting the grass; doing some gardening; taking out the garbage; washing or polishing car(s). The mean of these items formed each child's masculine task scale. The feminine task scale was formed similarly and consisted of six tasks performed statistically more often ($p < .05$) by girls than by boys. These were: doing some laundry (washing/ironing); preparing part of a meal; setting or clearing the table; washing dishes (or loading the dishwasher); drying and putting away dishes (or unloading the dishwasher); cleaning, vacuuming or dusting the house. Excluded from both scales, either because they did not differentiate between boys and girls or because excluding them

improved the quality of the scales (i.e., significantly raised coefficient alpha) were the following tasks: put away own toys; make own bed; tidy own room; clean, dust or vacuum own room; look after younger sisters or brothers; feed pet(s); food shopping. For this procedure and for additional details on the construction of all scales, see Antill, Russell, Goodnow, and Cotton (1993).

Coefficients alpha were assessed separately for the oldest and youngest children of each gender at both Time 1 and Time 2. For the masculine task scale, the alpha values ranged from .35 to .65 (mean = .55); for the feminine task scale, the values ranged from .59 to .78 (mean = .67). Although coefficient alpha for the masculine task scale could have been marginally improved by removing the item "take out the garbage", it was decided to retain it as the scale consisted of only five items and the removal of one would have significantly reduced its breadth of coverage. It is also noted that in recent review of homogeneity and internal consistency issues, Boyle (1991) concludes that ". . . especially in the non-ability areas of motivation, personality and mood states, moderate to low item homogeneity is actually preferred if one is to ensure a broad coverage of the particular constructs being measured." (p. 294).

Parents' Encouragement Scales for Masculine and Feminine Tasks. For the same set of 18 tasks, parents were asked to describe the extent to which they encouraged or discouraged each child to do or to help with each task. Responses were in terms of (1) strongly discourage, (2) discourage to some extent, (3) neither encourage or discourage, (4) encourage to some extent, (5) strongly encourage. The scales were formed by taking the means of the same sets of items that formed the children's masculine and feminine task scales. Coefficients alpha were assessed separately for mothers and fathers at Time 1 and Time 2, for their oldest and youngest boys and girls. Alpha values for masculine tasks ranged from .63 to .84 (mean = .73); for feminine tasks, they ranged from .61 to .82 (mean = .76).

Parents' Performance Scales for Masculine and Feminine Tasks. Parents were provided with a set of 20 household tasks and asked to "indicate how you and your spouse divide them up". The options were (1) spouse only, (2) spouse mostly, (3) shared roughly equally, (4) self mostly, (5) self only. The scales were formed as above and comprised the same eleven items covered by the children's scales. Coefficient alpha values (assessed separately for mothers and fathers at Time 1 and Time 2) ranged from .53 to .60 (mean = .57) for the masculine performance scale; and from .81 to .88 (mean = .85) for the feminine performance scale.

Attitudes Toward Women Scale. Parents completed the 15-item version of this scale developed by Spence, Helmreich, and Stapp (1973). High scores reflect egalitarian rather than traditional views of women's role in society. Some examples of items on the scale are: "It is insulting to women to have the 'obey' clause in the marriage service"; "A woman should be as free as a man to propose marriage"; "Women should assume their rightful place in business and all the professions along with men"; "Under modern economic conditions with women being active outside the home, men should share in household tasks such as washing dishes and doing the laundry". Coefficient alpha values were assessed separately for mothers and fathers at Time 1 and Time 2 and ranged from .79 to .81 (mean = .80).

RESULTS

The results are in three sections. They deal with hypotheses relating to: (1) family context — first child/second child, gender of child, and gender of sibling effects; (2) parental influences — encouragement, modeling, egalitarianism; and (3) the combined and relative impacts of the family context and parental variables based on regression analyses.

Tests for Family Context

First Child/Second Child Comparisons. To determine whether first children were more involved in household tasks than second children, a series of eight paired *t*-tests was conducted. These compared the first and second children within families where both children were of the same gender (mixed-gender pairs confound first child/second child and gender differences). The eight tests were based on all the combinations of: gender of sibling pairs (2) \times gender of tasks (2) \times time period (2). The results indicate that first-born girls did more feminine tasks than their second-born sisters at the time of the first data collection (means 4.08, 3.60; $t(43) = 3.08, p < .01$). This is consistent with the hypothesis that first children will do more than second children, but the effect only holds for girls and only for the first data collection point for feminine tasks.

Gender of Child Comparisons. The means for boys' and girls' involvement in feminine and masculine tasks are displayed in Table I. The differences between these means were tested by a series of 16 independent-groups *t*-tests. The means are always in the expected direction with half the differences significant ($p < .01$). Thus, boys did masculine tasks more often than girls did, and girls did feminine tasks more often than boys did.

Table I. Mean Scores (and Standard Deviations) for Frequency of Performance of Feminine and Masculine Tasks, for Gender of Child, by First Child/Second Child, Time, and Gender of Sibling^a

			Gender of child		t ^e
			Male	Female	
Feminine tasks					
First child	Time 1	(brother)	3.39	3.65	1.30
		(sister)	3.60	4.08	2.64 ^c
	Time 2	(brother)	3.38	3.86	2.36 ^b
		(sister)	3.75	4.23	2.57 ^c
Second child	Time 1	(brother)	3.52	3.81	1.52
		(sister)	3.12	3.60	2.60 ^c
	Time 2	(brother)	3.36	4.11	3.58 ^d
		(sister)	3.48	4.02	2.47 ^c
Masculine tasks					
First child	Time 1	(brother)	2.63	2.15	2.84 ^c
		(sister)	2.68	2.33	2.23 ^b
	Time 2	(brother)	2.84	1.97	5.38 ^d
		(sister)	2.67	2.27	2.52 ^c
Second child	Time 1	(brother)	2.71	2.35	2.29 ^b
		(sister)	2.54	2.31	1.31
	Time 2	(brother)	2.68	2.44	1.30
		(sister)	2.58	2.37	1.28

^a Means are from 1 (never) to 6 (once a day or more).

^b $p < .05$.

^c $p < .01$.

^d $p < .001$.

^e Degrees of freedom vary for the different comparisons. For Time 1, the mean was 92 (range 82-96), for Time 2 the mean was 76 (range 46-83).

Both, however, were engaged to some extent in both types of task. In addition, the frequency of involvement for both, as one might expect from the nature of the tasks, was higher for feminine than for masculine tasks (the table is set or cleared more often than the garbage is taken out or the car washed). The mean scores point to a frequency of "about once a week" for feminine tasks and "between 1 to 3 times a month" for masculine tasks.

Gender of Sibling Comparisons. To determine whether the gender of a sibling makes a difference to the types of household tasks a child does, 16 independent-groups *t*-tests were conducted. The relevant comparisons are between children of the same gender who have siblings of different genders. The 16 tests were based on all the combinations of: first child/second child (2) \times gender of child (2) \times gender of task (2) \times time period (2). None of these analyses was statistically significant ($p < .01$). In neither the initial nor the follow-up study did the gender of the sibling significantly influence the extent to which children performed feminine or masculine tasks. Thus, the proposal that the gender of a child's sibling has an impact on the type of household tasks he/she does is not supported by these data.

Tests For Parental Influences

These analyses concern the effects of (a) parental encouragement, (b) parental modeling, and (c) parental egalitarianism (Table II). The results demonstrate the strong impact of parental encouragement and the differential effects of parental influences for feminine and masculine tasks.

Parental Encouragement. For feminine tasks, all 16 correlations are positive (Table II, column 1) and 11 of them are significant ($p < .01$). The effects hold for mothers and fathers, for boys and girls, for first and second children, at Time 1 and Time 2. A more robust effect is difficult to imagine. The proposal that the correlations would be higher for certain cases (i.e., first children, Time 2, mothers and cross-gender tasks) is generally not supported. However, there is a trend for stronger associations for first children and where mothers are involved.

In contrast, only two of the 16 correlations are significant ($p < .01$) for masculine tasks (Table II, column 2). They are the correlations for first children who are boys, for mothers and fathers at Time 1. The reasons for this group being an exception are not clear, although it was expected that parents would put more effort into encouraging the performance of work of all types for first children. The effect is not significant, however, at Time 2. The striking result here is the difference between feminine and masculine tasks.

Parental Modeling. The correlations between parents' and children's performance of household tasks are shown in Table II, columns 3 and 4. As can be seen, few of them are significant and indeed, the majority of those which are significant are negative. Furthermore, all the significant ($p < .01$) correlations are for masculine tasks. One trend which is discernible,

Table II. Correlations Between Parent Variables and Children's Performance of Household Tasks

		Parent variable					
		Encouragement		Modeling		Egalitarianism	
		Tasks					
		Fem	Masc	Fem	Masc	Fem	Masc
Time 1: Mothers							
First child	Boys	.24 ^b	.34 ^b	-.04	-.06	-.07	-.18 ^a
	Girls	.40 ^c	-.04	-.09	-.11	-.04	-.17 ^a
Second child	Boys	.36 ^c	.10	-.20 ^a	.08	.17	-.07
	Girls	.17 ^a	.04	.00	.16	.01	-.12
Time 1: Fathers							
First child	Boys	.28 ^b	.24 ^b	.07	-.04	-.15	-.28 ^b
	Girls	.30 ^b	.02	.06	.07	-.09	-.31 ^c
Second child	Boys	.14	.15	.11	-.14	.10	-.13
	Girls	.18 ^a	.01	.01	-.26 ^b	-.06	-.07
Time 2: Mothers							
First child	Boys	.29 ^b	.12	-.14	-.17	-.03	-.27 ^b
	Girls	.38 ^c	.17	.07	.10	-.06	-.08
Second child	Boys	.24 ^b	.17	-.16	.25 ^b	.05	-.11
	Girls	.25 ^b	.01	.05	.21 ^a	-.05	-.19 ^a
Time 2: Fathers							
First child	Boys	.22 ^a	.17	.08	.16	-.05	-.21 ^a
	Girls	.30 ^b	.10	.01	-.04	-.12	-.12
Second child	Boys	.15	.16	.11	-.28 ^b	-.09	-.14
	Girls	.31 ^b	-.05	-.06	-.20 ^a	-.03	.01

^a*p* < .05.^b*p* < .01.^c*p* < .001.

is that the more a parent does a same-gender task (e.g., a father does a masculine task), the less a child does this type of task — suggesting availability is the critical factor. However, the more a parent does a cross-gender task (e.g., a mother does a masculine task), the more a child does this type of task — suggesting modeling is the critical factor. Overall, the results do not support the combination of hypotheses proposed. However, it is clear that the effects (few as they are) vary with the task and the gender of the parents.

Parental Egalitarianism. The general trend is for negative relationships, with the significant results appearing for the performance of masculine tasks by first children (three of the eight correlations are significant, $p < .01$). For first children who are boys, all four correlations are significant ($p < .05$); the more egalitarian the parents' attitudes — mothers' or fathers' — the less boys do masculine tasks. For first children who are girls, and masculine tasks, two of the four correlations are significant and negative. Again, which parent it is does not matter. These results provide only partial support for the hypotheses. Parental egalitarianism has not resulted in an increase in children's performance of cross-gender tasks, but corresponds to a decrease in same-gender tasks by males, particularly for first children.

The Combined Impact of Family Context and Parental Variables

To assess the combined and relative impacts of all the variables, a series of regressions was conducted as follows. The dependent variables were children's masculine and feminine household task variables considered separately for First child vs. Second child and Time 1 vs. Time 2. The independent variables were gender of child, gender of sibling, parental encouragement, modeling and egalitarianism. Separate analyses were run for mothers' and fathers' variables. For analyses concerned with children's masculine tasks, only parents' modeling and encouragement of masculine tasks were included. Similarly, for analyses concerned with children's feminine tasks, only parents' modeling and encouragement of feminine tasks were included.

The first set of 16 regression equations (2 tasks \times 2 times \times 2 children \times 2 parents) involved entering the five independent variables listed as a set, followed by the three interactions — gender of child by respectively, parental encouragement, modeling and egalitarianism. The purpose of these analyses was to check whether the gender of child variable made a significant contribution by interacting with any of the parent variables after accounting for all main effects. However, in none of the sixteen analyses was the set of interactions significant and so these are not considered any further.

The second set of 16 regression equations was the same as the first set except that the interaction terms were not included. The five predictor variables were entered simultaneously and the Beta coefficients and multiple correlations of the resulting equations are listed in Tables III and IV. The Beta coefficients reflect the significance of each variable, after accounting for all other variables in the equation. The R squared statistic reflects the degree of predictability of the children's task performance by the five predictor variables.

Table III. Regression Analyses for Children's Performance of Feminine Tasks

	Beta coefficients ^a for					<i>R</i> ²
	Child gender ^b	Sibling gender ^b	Parent encourage	Parent model	Parent egalitarianism	
Time 1: Mothers						
First child	.16 ^c	.13 ^c	.29 ^e	-.05	-.08	.16
Second child	.15 ^c	-.15 ^c	.26 ^e	-.12	-.01	.15
Time 1: Fathers						
First child	.18 ^d	.13 ^c	.27 ^e	.08	-.14 ^c	.16
Second child	.15 ^c	-.16 ^c	.16 ^c	.04	.00	.10
Time 2: Mothers						
First child	.26 ^e	.15 ^c	.31 ^e	-.01	-.01	.20
Second child	.28 ^e	.01	.23 ^d	-.05	.00	.15
Time 2: Fathers						
First child	.23 ^d	.18 ^d	.29 ^e	.03	-.16 ^c	.21
Second child	.28 ^e	.02	.21 ^d	.03	-.10	.15

^a Beta coefficients reflect a variable's importance after controlling for all other variables.

^b Child gender and sibling gender are coded 1 = male, 2 = female.

^c $p < .05$.

^d $p < .01$.

^e $p < .001$.

Overall, the results highlight the strength of effects of the gender of the child, the difference between feminine and masculine tasks, and the differences among the three forms of parental influence. The gender of a sibling emerges as having a small but variable impact.

More specifically, the first columns in Tables III and IV show that the child's gender is a consistent predictor of his/her involvement in gender-typed tasks. That is, girls did more feminine tasks than boys, and boys, more masculine tasks than girls. The results are not always significant for masculine tasks, but the results are consistently in the expected direction.

The second column in Table III shows a small effect occurring for feminine tasks depending on the gender of the child's sibling. The first child contributes more to feminine tasks if his/her younger sibling is a girl. This finding is the opposite of what was expected on the basis of task differentiation by gender (Hypothesis 1c). However, this explanation is consistent with the finding that at Time 1, the second child does more feminine tasks if the older sibling is a boy ($p < .05$). There were no effects for masculine tasks.

Table IV. Regression Analyses for Children's Performance of Masculine Tasks

	Beta coefficients ^a for					<i>R</i> ²
	Child gender ^b	Sibling gender ^b	Parent encourage	Parent model	Parent egalitarianism	
Time 1: Mothers						
First child	-.22 ^d	.06	.16 ^c	-.13	-.22 ^d	.14
Second child	-.17 ^c	-.02	.05	.11	-.10	.06
Time 1: Fathers						
First child	-.13	.05	.17 ^c	.01	-.30 ^e	.16
Second child	-.17 ^c	-.04	.08	-.21 ^d	-.12	.09
Time 2: Mothers						
First child	-.34 ^e	.04	.20 ^c	-.10	-.12	.22
Second child	-.17 ^c	-.01	-.06	.23 ^d	-.04	.08
Time 2: Fathers						
First child	-.32 ^e	.02	.17 ^c	.04	-.21 ^d	.22
Second child	-.13	.00	.02	-.25 ^d	-.07	.08

^a Beta coefficients reflect a variable's importance after controlling for all other variables.

^b Child gender and sibling gender are coded 1 = male, 2 = female.

^c $p < .05$.

^d $p < .01$.

^e $p < .001$.

The third column in Table III shows that after all other variables are considered, parental encouragement makes a significant contribution to the child's performance of feminine tasks. If the parent (mother or father) encourages the performance of these tasks, the child does more of them. For masculine tasks (Table IV), the contribution from parental encouragement is in the direction expected, but the effect is variable. It just reaches significance for first children ($p < .05$), and is not present among second children.

The fourth column in Table III shows that, for feminine tasks, the effect of parental modeling adds nothing after the other variables are considered. However, the result is different for masculine tasks (Table IV). Here, there is an impact for second children, and it is different for mothers and fathers. Where mothers have an impact on the child's performance of masculine tasks, the effect is positive (the more the mother does, the more the child does). The impact of the father is negative (the more masculine tasks he does, the less the child does). Mothers who do masculine tasks may still leave masculine work for their children to do and the children do it. Fathers may well leave less work available.

The fifth columns in the two tables show a contribution from parental egalitarianism after all other variables are considered. The effect is more consistent for masculine tasks but is in a negative direction. The more egalitarian the parent, the fewer masculine tasks are done by the child, with this applying particularly to first children.

The final columns in the two tables indicate the degree to which the five predictor variables in combination can explain the extent to which children participate in household tasks. It is clear that there is higher predictability for first than second children and that the highest degree of predictability is for first children at the time of the second testing.

DISCUSSION

The results of this study show that the performance of gender-typed household tasks by children aged 8-14 years is open to multiple influences, with no single variable accounting for a large amount of the variance. In terms of family context variables, gender of child was the major determinant of how much work was done, with girls doing more than boys in the feminine task area, and boys doing more than girls in the masculine task area. There was only limited support for the proposition that first children do more housework than second children of the same gender, while the results for gender of sibling were small, inconsistent and limited to feminine tasks. Among the parental variables, encouragement had strong positive effects for feminine tasks (i.e., more encouragement by parents corresponded to more involvement by children). In contrast, parental involvement in the same tasks (modeling), and parental egalitarianism predicted only the performance of masculine tasks, and the direction of the effects was mostly negative (e.g., the more a father was involved in masculine tasks, or expressed egalitarian views, the less a child did of those tasks).

The results have both methodological and conceptual implications for the analysis of gender-typed performance and its sources. Methodologically, the results point to the value of considering several sources of influence, using repeated sampling, and selecting activities that are both traditionally feminine and traditionally masculine. These features of the design have brought out the stronger effects of parental than sibling variables, the robustness of effects, the difference between the correlates of feminine and of masculine tasks, and the contrast between the positive correlations of performance with parental encouragement and the sometimes negative correlations with parental modeling (parental performance of the same tasks) and egalitarianism. Conceptually, the results point to gender-typed performance being open to multiple influences, extending beyond the gender of the child.

It is now possible to construct a tentative picture of how the various influences combine with one another to account for the performance of gender-typed household tasks. To be noted first, however, are some unexpected effects of some of the influences which have been studied. The impact of sibling gender, for instance, was surprisingly weak. There is an intuitive appeal to suggestions that gender-typing will not be the same in families where all the children are boys, all are girls, or some are of one gender and some of the other. The possibility is still worth pursuing, as there may be other activities where the effect would appear. At the moment, however, the evidence is far from strong. Moreover, where an effect occurs, it is limited to feminine tasks. Tasks that are traditionally masculine are performed far less frequently and may be less open to this type of influence, or perhaps to all influences: that is, they may be less flexible in their deployment from one child to another than traditionally feminine tasks.

The expected differences between first and second children were also largely not present. It is possible that this reflects an attempt by parents to be even-handed; that is, to ensure that their children do similar amounts of housework even though the specific tasks may differ. It will be recalled that these particular comparisons contrasted pairs of children of the same gender who were members of the same family and hence the likelihood of similarity is at its greatest. However, an unexpected difference occurred when comparing the results for first and second children; the amounts of housework done by first children are consistently more predictable than those done by second children. The least predictable results are for second children doing masculine tasks at both times of testing, while the most predictable results are for first children doing both feminine and masculine tasks at the time of the second testing. Thus, the combination of family context and parental variables has a greater impact on first rather than second children and this impact increases as children grow older. At the second testing, first children are at the top end of the age range for the study and it may be that at this point children give their most realistic estimates of the amounts of work they do and that these estimates are more predictable than those given by younger children.

The negative correlations with parental modeling also give rise to some rethinking. Typically, what a parent does is regarded as serving the function of a model, of facilitating the same actions especially by a child of the same gender. The long-term effect of a parent's involvement may be the higher likelihood of a child's engagement at a later age (perhaps when he or she is a parent). The interesting short-term effect, however, is often one of the child doing less of the task. Nevertheless, the behavioral index of modeling is that the parent does the task, and this clearly reduces

the availability of the task. Furthermore, this reduced task availability may vary with the parent and the task. The results of the present study could be tentatively summarized by saying that the more a parent does a same-gender task, the less the child does; the more a parent does a cross-gender task, the more a child does. Whether that is because a parent's cross-gender involvement is more salient to the child, or still leaves room for the child's involvement, we cannot tell. Any simple account in terms of imitation, however, will not be adequate; a result which raises the possibility that the more expected forms of modeling may apply to children's preferences and to children's ideas about what is possible. Those are the measures that yielded a positive effect in a recent study by Serbin *et al.* (1993). In that study, when mothers performed masculine household tasks, the children were less gender-typed in their preferences for adult occupations and same-gender peers.

Another source of variation from what might be expected, is the difference between feminine and masculine tasks which we alluded to above. Parental encouragement, for instance, has its strongest effect (positive) on feminine tasks for both males and females. In contrast, parental modeling and parental egalitarianism have their strongest effects (negative) on masculine tasks. There may well be status differences in parents' minds between the two types of tasks, for example, a differential concern by parents with these tasks being done. A more parsimonious explanation, however, may lie in the differential frequency and novelty of the tasks. Feminine tasks such as setting or clearing the table come up more regularly than do tasks such as taking out the garbage or washing the car. They also offer the child less autonomy or control over when they will be done (and perhaps how they will be done). These features of feminine activities then may account for the importance of parental encouragement; an effect found for both boys and girls, and for mothers and fathers.

Taken together, all these results suggest that the extent to which a child engages in gender-typed household tasks needs to be considered in the light of a number of variables. The gender of the child is certainly one of these. For parents, traditional assignment by gender is an easy route to follow. For children, it may be a route that the children themselves prefer or insist upon, especially if they see this, as McHale *et al.* (1990) suggest, as a sign of adult status: of doing things in the way most fathers or mothers do.

Moderating such effects, however, will be the influence of the need for work to be done by someone (the factor emphasized by White & Brinkerhoff, 1981, for large and for rural families), and the availability of a particular pair of hands. Also moderating the effects is the availability of a task. Is this task already "taken" by another member of the family (parent

or sibling)? How much room is left or made for the involvement of a second person? Influencing the availability of a task, we suggest, is not only the space left for involvement but also the type of factor emphasized by Goodnow and Warton (1991): the parent's sense that all members of a family should make some contribution to the work of the household. When one task is already "taken" by one member of the family, what choices are open to a parent? The choice between a child doing "nothing" and a child doing "something" that may conventionally be regarded as "not for boys" or "not for girls" may then depend upon the relative strength of two factors: the parent's gender schemas and the sense that some reasonably-sized contribution must be made. When the two conflict, and the latter sense is strong, gender-typed performances may be diluted.

In sum, feeding into the gender-typed nature of a child's performance is a range of child and family variables. Determining their interaction, and their relative strengths, will require designs that allow multiple effects to emerge. The end result is a more complex picture of the way gender-typed performance occurs, or is weakened, than would be provided by an expectation, say, of imitation or simple reproduction across generations. In exchange, the picture emerging is one that is (in comparison with a sole emphasis on the gender of the child or the parent), more dynamic, more family-based, and more open to shifts and negotiations as individual preferences or family circumstances change over time.

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