

Two-Career Families: Demographic Variables,  
Parenting, and Competence in Young Children

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Abstract

The demographic variables that distinguish social classes have long been recognized as heterogeneous in nature and indirect in their effects on parent and child behavior. While personality, cognitive functioning and language have been frequently used as child outcomes in studies of social class differences, few studies have examined children's competence, few have used naturalistic observations of parent-child behavior, and few have examined families in which both parents have careers. The present study addresses all these shortcomings. Demographic variables (parents' education, vocabulary, and socioeconomic status, as well as family size and income) were examined for associations with parenting and children's competence in preschool. Data on parenting were collected for 30 families using home observations, observer ratings, and self reports. Children's competence was assessed by Baumrind's Preschool Behavior Q-Sort. Patterns of employment and socioeconomic status differed for mothers and fathers, apparently in response to the demands of child bearing and rearing. However, for both parents, socioeconomic status was related across methods to parental warmth. Paternal variables were more strongly associated with children's competence than were maternal variables. Partial correlation analyses suggest that the links between paternal measures and competence were mediated by father warmth. These results have

implications for models of the processes connecting demographic variables, parenting, and child outcomes.

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Social classes are subjectively recognized groups of people with equivalent access to social and material goods and life opportunities (e.g., to education, jobs, and marriage partners), and equivalent power or influence vis-a-vis social institutions. Traditionally, social classes have been distinguished by such variables as paternal occupation, family income, education, social status, power, and style of life (Hoffman, 1984).

It has long been recognized that these indices of social class form a heterogeneous set of variables. This is true in two senses: they show limited convergence among themselves, and they show differential patterns of association with other sets of variables (e.g., sets assessing parenting styles or child outcomes). As a consequence, some authors (e.g., Deutsch, 1973) have advocated abandoning social class as a global construct in order to concentrate on the associations shown by the various indices themselves. Such an approach is followed here.

The causal status of demographic indices in relation to parent and child behaviors is also heterogeneous. Some variables, such as family size, are thought to influence directly certain types of family interactions. Other

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relations are thought to be indirect. Income, for example, can modify the effects on parenting of stressful events such as divorce or death. Most demographic variables, however, are thought to be marker or proxy variables, i.e., accidental correlates of underlying causal processes. Thus the relation found between occupation and parental discipline style (viz., that working class parents tend to use power assertion without accompanying explanations while middle class parents tend to use reason and induction) is thought to reflect not occupation per se, but rather the sort of power relationships experienced on the job (Aldous, Osmond, & Hicks, 1979).

The demographic research literature, while large, generally suffers from three shortcomings. Large sample sizes have entailed the use of global measures of parenting and child outcomes. However, understanding the processes for which demographic variables stand proxy will require detailed information on parent-child interactions, preferably collected across methods. In addition, few studies have examined the impact of occupation on family interactions in families in which both parents have careers, despite the large proportion of two-career families in the general population. In the U.S., 41% of married women with preschool children are employed full time (U.S. Department of Labor, 1978, cited in Greenglass, 1982). Finally, studies on social class differences in parenting have focused principally on child outcomes

in the areas of personality, cognitive functioning, and language development.

Little attention has been paid to children's competence, even though it is a fundamental dimension of behaviour.

There is substantial agreement in the research literature that competence in children is generally manifested as resourceful, goal-oriented, planful behavior (Baumrind, 1971; Block and Block, 1980). In social situations, it includes the skills to initiate and sustain nondisruptive social interactions and to modulate affect appropriately (Ainsworth and Bell, 1974; Baumrind, 1971; Sroufe, Motti, Lawroski, and LaFreniere, 1984).

Parental warmth and control have been shown to be important determinants of competence in young children (e.g., Baumrind, 1971; Roberts, 1986) and have been identified in previous research as fundamental, if complex, dimensions of parenting (Maccoby and Martin, 1983). Warmth is usually defined conceptually as liking or affection and behaviorally as responsiveness to child social cues. Control, on the other hand, refers to restrictiveness and the assertion of power to achieve compliance.

In the present study, which focused on the relations between family interactions and children's competence in preschool, parental warmth and control were assessed by home observations, observer ratings, and self reports, while children's competence was assessed by teacher ratings. In addition, a

number of demographic variables were collected: parents' occupation, education, and vocabulary, as well as family size and income. Thus it was possible to compare a wide set of social class indices with detailed sets of variables assessing parenting and competence in families where both parents had careers.

## Method

### Subjects

Thirty-five two-parent families with a preschool-aged child volunteered for the study in response to letters distributed through day care centers and preschools in the metropolitan Vancouver area. Among the 30 families who completed the study, the average age of the 19 girls and 11 boys was 4.3 years (range, 3.0 to 5.8). 21 of these children had at least one sibling, usually younger. Fathers' mean age was 34; mothers, 32 (range for both, 24 to 45).

### Procedures

Each family was seen four times. Parents' self report instruments were dropped off on the first visit and retrieved on the second, when demographic data were collected. Home observations comprised the third visit, while child measures described elsewhere (Roberts, 1986; Roberts and Strayer, in press) were administered during the fourth.

### Demographic measures

Data on mothers' and fathers' education (in years), occupation, and income (at \$2,000 intervals) were collected by self report. Socioeconomic status, based on occupation, was assessed by the Duncan Socio-Economic Index, as recommended by Mueller and Parcel (1981). Parents' vocabulary was assessed by the Vocabulary Subtest from the WAIS-R. Finally, family size was determined by both self report and observation.

### Family measures

Major constructs (warmth and control) were assessed across three methods: home observations, observer ratings, and parents' self reports.

(1) Home observations lasted approximately three hours, from supper time until the child's bed time. Initiator and target individuals as well as behaviors were recorded on a small computerized encoder. A focal individual sampling strategy was used (Altmann, 1974), with 10-minute sessions alternating between the child and each parent. This strategy permitted measures of social responsiveness (the variables Father Responsive and Mother Responsive) and firmness (Father Firm and Mother Firm) to be derived by lag analyses. (Thus these variables represent the conditional probabilities that certain events immediately followed certain other criterion events.) An average of 847 events were recorded for each family (range, 605 to 1,228), over a mean of 128 minutes of actual sampling time (range, 83 to 181 minutes).

The intention of the coding scheme was to provide a comprehensive running record of family interactions. Activities (e.g., "watches TV", "reads") were coded, along with social initiations (e.g., "non-verbal bid for attention or physical contact", "speaks") and social responses (e.g., "hugs, holds", "ignores, no response"). Categories for coding agonistic exchanges (e.g., "hits", "threat gesture") were adapted from Strayer and Strayer (1976). Affective categories (e.g., "cries"; "anger voice, yells") were also included.

Three reliability sessions totaling 300 minutes of observation time were conducted by two observers. Percent agreement and Kappa were calculated by comparing categories coded at each second in the two records, thus placing a premium on inter-rater timing as well as agreement. Under these stringent conditions, agreements divided by agreements plus disagreements equaled 79% (Kappa=.72).

(2) Observer ratings. Following the home observation session, the observer completed 46 Parent Rating Scales (Baumrind, 1970a, 1970b), rating both parents jointly (average inter-rater correlation was .88). These scales were aggregated into four variables, following Baumrind (1971): Firm (e.g., "Willingly exercises power to obtain obedience"), Directive (e.g., "Regimen set for child"), Warm (e.g., "Remains open and accessible"), and Responsive (e.g., "Has empathic understanding of child", "Encourages verbal give and take"). The

variable Responsive was called by Baumrind "Encourages Independence and Individuality".

(3) Parent self reports. Both mothers and fathers completed the Child Rearing Practices Q-Sort (Block, 1965), a 91-item set distributed across 7 categories ranging from "least descriptive" to "most descriptive" of their own parenting practices. Since factors reported by Block for families with older children had low inter-item correlations in this sample, two new scales for each parent were assembled rationally and tested empirically. The two scales Mother Strict and Father Strict contain items such as "I have strict, well-established rules for my child", while Mother Warm and Father Warm contain items such as "I express affection by hugging, kissing, and holding my child". Item-total correlations were .40 or better; Cronbach alphas ranged from .74 (Father Warm) to .78 (Father Strict).

#### Competence measures

Competence was assessed by having each child's preschool or day care teacher complete the Preschool Behavior Q-Sort (Baumrind, 1968), a 72-item set distributed across 9 categories, from "extremely characteristic" to "extremely uncharacteristic" of the child. For five cases this measure was completed individually by two teachers who knew the target child well. Their average correlation (.69) was almost identical with the reliability reported by Baumrind

(1971).

Seven variables were derived from the Q-Sort. Four were taken from Baumrind (1971): Friendly (vs. Hostile to Peers), Cooperative (vs. Resistive with Adults), Purposive (vs. Aimless), and Achievement Oriented. Two were taken from Waters, Wippman, and Sroufe (1979): Peer Competence and Ego Strength. Finally, a criterion Q-sort for competence was developed by having four child psychologists complete the sort for an ideally competent preschooler. (Although based on each individual's own understanding of that construct, the four sortings were quite consistent. For all items, placement in the individual sorts never differed from final placement in the criterion sort by more than adjacent categories.) The teachers' Q-Sort was correlated with this criterion as a measure of each child's overall competence.

## Results

This section begins with descriptive data for the demographic measures and then examines the relations between these variables. We then turn to the central empirical focus of this paper: the relations between demographic measures and parenting, and between demographic measures and children's competence. These last relations are examined first in their zero-order form, and then with the variance attributable to parenting partialled out.

### Descriptive trends

Although this sample was, on average, middle class, with some university education, and roughly 20% above the national mean in terms of income, it incorporated a great deal of diversity on these demographic indices, as shown in Table 1.

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The majority of mothers in this sample (73%) were employed, either full time (40%) or part time (33%). However, mothers were more likely than fathers to be unemployed (23% vs. 3%;  $Z= 2.28, p < .014$ , one-tailed), perhaps in response to child care demands, since 4 of these 7 women had infants and 2 had young preschoolers, in addition to the preschool child participating in this study. Only one mother listed her occupation as "housewife".

As expected, the demographic variables formed a heterogeneous group, with most intercorrelations low and nonsignificant. Exceptions were education and vocabulary (for mothers,  $r = .67, p < .001$ ; for fathers,  $r = .52, p < .01$ ) and family income and occupation (for fathers,  $r = .46, p < .05$ ; for mothers,  $r = .39, p < .05$ ).

Mothers and fathers showed different patterns in relation to socioeconomic status. For mothers, Duncan S.E.I. scores were associated with

both maternal age ( $r = .41, p < .05$ ) and age of child ( $r = -.37, p < .05$ ). Thus older women with younger children tended to have higher status jobs. For fathers, the respective correlations of Duncan S.E.I. scores with paternal age and age of child were  $-.02$  and  $.07$  ( $Z = 1.67, p < .05$  and  $1.64, p < .051$ , respectively.) In addition, education accounted for 31% of the variance in socioeconomic status for fathers, but only 5% of the variance for mothers ( $Z = 1.44, p < .075$ ).

#### Demographic variables and parenting

The most consistent relations to parenting were shown by socioeconomic status. Duncan S.E.I. scores were positively associated across methods with parental warmth and negatively associated with observer ratings of firmness. For mothers, Duncan S.E.I. scores correlated with the home observation variable Mother Responsive ( $r = .50, p < .01$ ), the self report variable Mother Warm ( $r = .42, p < .05$ ), and the observer rating variable Responsive ( $r = .38, p < .05$ ). For fathers, Duncan S.E.I. scores correlated with the home observation variable Father Responsive ( $r = .41, p < .05$ ) and the self report variable Father Warm ( $r = .32, p < .10$ ). For both parents, Duncan S.E.I. scores correlated  $-.41$  ( $p < .05$ ) with the observer rating variable Firm.

For fathers, a similar pattern was shown by education. Father's education was positively correlated across methods with warmth (with the self report variable Father Warm,  $r = .39, p < .05$ ; with the home observation variable

Father Responsive,  $r = .34$ ,  $p < .10$ ) and negatively correlated with the observer rating variable Firm ( $r = -.46$ ,  $p < .05$ ).

Family size was associated with home observation variables assessing parental attention and vigilance. As family size increased, mothers more often ignored their children's social initiations (for family size and the home observation variable Mother Responsive,  $r = -.56$ ,  $p < .01$ ), while fathers became less likely to enforce directives (for family size and the home observation variable Father Firm,  $r = -.37$ ,  $p < .05$ ).

In contrast to these findings, vocabulary, income and maternal education showed no consistent patterns of association.

#### Demographic variables and competence

In order to simplify the presentation of results, the seven Q-sort measures of competence were grouped on the basis of a cluster analysis and aggregated using  $z$ -scores. The cluster analysis yielded two groups (see Roberts, 1986). The first, General Competence, contained the correlation to the criterion sorting, Baumrind's scale Purposive, and the scales developed by Waters et al., Ego Strength and Peer Competence. The second group, Cooperative-Task Oriented, contained Baumrind's scales Friendly, Cooperative, and Achievement Oriented. The two aggregates showed moderate convergence ( $r = .42$ ,  $p < .05$ ).

Paternal variables had the most consistent relations with children's

competence. Fathers' socioeconomic status and General Competence were positively correlated ( $r = .48, p < .01$ ), while father's education was positively associated with both General Competence ( $r = .40, p < .05$ ) and Cooperative-Task Oriented ( $r = .35, p < .06$ ).

In contrast, relations with maternal demographic variables were all nonsignificant.

Finally, family size was significantly associated with Cooperative-Task Oriented ( $r = .38, p < .05$ ), suggesting that social interactions in large families may contribute to more harmonious relationships with peers and teachers.

Partial correlation analyses. Because many demographic measures stand as proxy variables, partial correlation analyses were done to assess the extent to which the associations between demographic measures and competence could be accounted for by parenting.

The significant relation between General Competence and paternal socioeconomic status was largely removed by partialling the self report variable Father Warm. Before partialling, fathers' Duncan S.E.I. scores accounted for 22.6% of the variance in General Competence; after partialling, they accounted for only 2.5%. In a similar way, the relation between paternal education and General Competence was also largely removed by partialling Father Warm. Before partialling, paternal education accounted for 15.9% of the variance in

General Competence; after partialling, for only 2.8%. Similar results for education and Duncan S.E.I. scores were obtained when the observation variable Father Responsive was partialled from General Competence.

In contrast, the association between family size and Cooperative-Task Oriented was unaffected by partialling parental variables, suggesting that different causal factors (such as sibling interactions) may be operative for this measure of competence.

### Discussion

Several points are worth emphasizing from this intensive assessment of family interactions and social class indices. These bear on descriptive findings and their implications for theoretical models of demographic variables, family interactions, and child outcomes.

In families in which both parents have careers, socioeconomic status is more strongly associated with family factors for mothers than for fathers. The correlations between age of mother and child and maternal socioeconomic status are consistent with reports that women who aspire to careers (i.e., to high status occupations) often postpone child-bearing. In contrast, no such pattern emerged for fathers. In addition, maternal unemployment seems linked to child bearing as well, since the majority of these women had infants or young preschoolers. The pattern of part time maternal employment and full time

paternal employment seen in this sample is consistent with patterns seen over the last century for families with young children (Alter, 1984). Thus when to have children and how to care for them are issues that seem to affect the careers of mothers to a much greater extent than they affect the careers of fathers.

The present research indicates that the Duncan S.E.I. is a very robust proxy for parenting. That these relations are so consistent for both mothers and fathers suggests that socioeconomic status reflects ongoing processes that link job and home. There is evidence in the research literature that persons with higher sociometric status receive more friendly attention from others (Hartup, 1983). Thus it may be that higher socioeconomic status is associated with greater behavioral responsiveness from others, and that this experience is transposed to the family environment, where it facilitates the behavioral responsiveness to children observed here. In addition, it may be that higher status is associated with greater job satisfaction, and that this satisfaction and sense of well being is carried into the family setting as affection. Both these suggestions are consistent with the results of the partial correlation analyses, which indicated the mediating role of warmth between paternal socioeconomic status and child competence.

While fairly complex models for socioeconomic status and parenting have

been presented incorporating some of these factors (e.g., Gecas, 1979), present results imply that such models need to be more differentiated with respect to measures of parenting and child outcomes. For example, current results suggest that demographic, parenting, and child competence measures are linked differently for mothers and fathers, with father measures being more important. This is in contrast to research involving other child outcomes, in which maternal variables have been reported to be stronger. Given this heterogeneity, we should be developing sets of related models, rather than single models whose components contain disparate and undifferentiated elements.

It also seems probable that not all the factors that should be incorporated into such causal models have been identified. Sibling interactions, for example, have received little attention in the demographic research literature. Their possible importance, however, is suggested by the association between family size and scores on Cooperative-Task Oriented. While family size showed some associations with parenting – mothers were more likely to ignore children's social initiations as family size increased (presumably because they were more likely to be distracted), while fathers were less likely to enforce directives (perhaps for the same reason) – neither of these aspects of parenting was significantly related to children's competence, and the association between

family size and Cooperative-Task Oriented was unaffected by partialling family measures. Thus the connection between family size and this aspect of competence may turn on other factors, among which sibling interactions are an obvious candidate for investigation.

In summary, it appears that models of demographic measures, family interactions, and child outcomes need to be more differentiated in order to deal with the heterogeneous nature of each domain. The results reported here suggest some specific links between the three areas. For children's competence in preschool, paternal variables (Duncan S.E.I., education) were more important than maternal measures. However, the effects of these paternal variables were largely mediated by paternal affection. The effects of family size, in contrast, were direct; but the possibility of underlying mediating mechanisms (such as sibling interactions) merits further attention. Thus while research in demographic factors has tended to employ large samples and global measures of family interactions and child outcomes, the development of adequate theoretical models will require more intensive, detailed information of the type reported here.

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Table 1.

Demographic measures: descriptive statistics

Variables	Mean	S.D.	Range
Fathers' Education (years)	15.8	3.2	9 - 21
Mothers' Education (years)	14.5	2.7	9 - 20
Fathers' Vocabulary <sup>a</sup>	14.5	3.1	8 - 19
Mothers' Vocabulary	13.9	2.7	10 - 19
Family Size	3.9	.8	3 - 6
Family Income (thousands) <sup>b</sup>	35.9	12.9	14 - 77
Fathers' Duncan S.E.I.	61.2	16.8	16 - 84
Mothers' Duncan S.E.I.	56.1	19.2	11 - 92

<sup>a</sup> Scores are scaled scores from the WAIS-R Manual. As standardized, these scaled scores had a mean of 10, a standard deviation of 3, and ranged from 1 to 19 (Wechsler, 1981).

<sup>b</sup> Mean income for a family with two children under 16 years of age is 29.6 (Statistics Canada; 1981 data).