FAMILY ENVIRONMENT AND CHILD DEVELOPMENT

Effects of parenting practices
and socioeconomic status on domains of child development

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Abstract

Forty two-parent families with a child 4 to 6 years old participated in this study on the effects of the family environment. Parents completed the Family Environment Questionnaire (FEQ) while children were administered the Development and Maturity Inventory for Preschool Children (DMIP). The Home Observation for Measurement of the Environment (HOME) was also administered to each family. Children from a more advantaged milieu, according to the FEQ, where the home environment was more stimulating, according to the HOME, received higher scores in the four developmental domains (motor, social, language and cognitive) of the DMIP in comparison with children from a less advantaged milieu. It was also shown that mothers have a significant influence on the child's language and cognitive development while the influence of fathers is more evident on the child's motor and social development. However, mothers have in general more influence than fathers on child development. The differences observed in the performance of children on the DMIP were interpreted in terms of the influence of each parent and of proximal variables (e.g., attitudes and parenting practices) and distal variables (e.g., education and socioeconomic status). A multiple regression analysis showed proximal variables to be the better predictors of child development as compared with distal variables. Finally, among children from a more advantaged milieu, girls outperformed boys in the areas of social and language development, a phenomenon which was related to the mothers' high professional status.
Introduction

There are two major theories which dominate the literature on the effects of the family environment on child development. On the one hand, researchers such as Jenks et al. (1972) and Bryant et al. (1994) emphasize the influence of distal variables such as socioeconomic status (SES), including parents' educational and professional achievement. On the other hand, researchers such as Pourtois (1979) and Bradley & Caldwell (1995) emphasize proximal variables such as parenting practices and attitudes. Also, some researchers analyse the influence of these variables on particular domains of child development, mostly in the area of cognition (Lautrey, 1980; Wilson & Matheny, 1983), sometimes in the area of language (Bruner, 1983), and, less often, in the area of socialization (Brophy, 1970; Decovic & Janssens, 1992).

Socioeconomic status and parenting practices

Most authors agree that the family's socioeconomic status has an influence on child development (Kohn, 1977; Kohn & Schooler, 1983; Erickson & Gecas, 1991). Research shows that high-SES parents are more actively involved in the education of their children than low-SES parents. It is not surprising that these different levels of parental involvement have consequences for a number of social and personal characteristics related to the child. In particular, several studies show that parents' SES has an influence on a range of cognitive and affective variables (Graham, 1984; Banks, 1988), as well as psychomotor (Hade, 1988) and social variables (Ogbu, 1981) in child development. In fact, middle and upper class parents have the means to provide toys, books and other educational materials that help children perform better on a full spectrum of behavioral tasks.
However, certain aspects of the family environment (such as the parent-child relationship as well as parental behavior and attitudes) are more strongly correlated with child development than global measures such as SES (Bradley et al., 1989). For example, Baumrind (1968, 1971) showed that authoritarian and authoritative parents have different values and attitudes which guide their parenting practices. Authoritarian parents tend to inculcate in their children conventional values, such as a liking for work and a respect for authority, while authoritative parents encourage liberal values, such as an appreciation for communication skills and self-expression. Baumrind (1968, 1971) also found that authoritative parents, who are more controlling and affectionate, have children who are more self-confident, autonomous and trusting. By contrast, authoritarian parents, who are more restricting, have children who are more dependent, less confident and more dogmatic.

There is also evidence that children from authoritative homes, who score higher than children from authoritarian homes on measures of social and instrumental competence, have more adaptive behavior (Lamborn et al., 1991; Steinberg, 1990). In addition, authoritative and authoritarian parenting styles have been found to reflect differences in the values and living conditions of different classes. Ojha and Sinha (1982) report that middle class people's living conditions are such that their values focus on endeavors and self-direction, whereas the living conditions of the working class are such that values focus on conformity and compliance.

Sex differences and parental behavior

Parenting practices also differ with respect to the sex of the parent and the sex of the child, influencing in different ways the child's development. Collins & Russell (1991) report that fathers place more emphasis on visuo-motor skills in their
sons and verbal skills in their daughters. The research literature also shows that mothers are more likely to use reasoning and nurturing behavior to achieve their parenting goals while fathers use more forceful techniques based on parental authority and power (Bentley & Fox, 1991; Volling & Belsky, 1992; Pruett, 1993).

Parenting practices in turn contribute to the development of sex differences in the child. According to Block (1984) children as young as 3 years old were found to have a clear concept of their sexual identity and showed well established differences in patterns of play and emotional expression, with boys displaying more extrinsic and agentic behavior (e.g., competition in the form of aggression, self-reliance, and independence) and girls showing more intrinsic and communal behavior (e.g., cooperation, nurturance and greater emotional expression). These behaviors have repercussions for both boys and girls on their future relationships with others, their social development and their skills.

*Evaluation of the effects of family environment*

The family environment, being educational and structured, has an effect on the development of the child. However, the covariation between socioeconomic variables and parenting practices in different areas of child development could be studied further in order to better define the impact these variables have on the various areas of child development. It was therefore the goal of this study, on the one hand, to differentiate distal from proximal variables, and, on the other hand, to study their impact on different areas of child development. Previous research in the field has limited the study of the effects of these variables to a single domain, mainly that of cognitive functioning. This study was also new in that it studied the effects of sex differences in parenting practices while the majority of previous research in the field focused on the behavior of mothers.
To achieve the goals of this study, two new measuring instruments were used: the Family Environment Questionnaire (FEQ) (Terrisse & Dansereau, 1990; Dansereau & Terrisse, 1991) and the Development and Maturity Inventory for Preschool Children (DMIP) (Terrisse & Dansereau, 1992). The FEQ was used to determine the quality of the child's environment based on sociometric variables (distal variables) which are known to foster or hinder child development. As most of the inventories for the measurement of child development center on intellectual processes and give little information about motor or social functioning, the DMIP was used as it attempts to overcome this limitation by evaluating several aspects of development (psychomotor, social, language and cognitive).

It was predicted that the child's performance on the DMIP would vary according to parenting practices (measured by the HOME) and family environment (measured by the FEQ). Furthermore, distal variables (e.g., parents' education and family income) as measured by the FEQ and proximal variables (e.g., parenting practices and attitudes) as measured by the HOME (Caldwell & Bradley, 1986) were expected to have a differential impact on domains of child development. The sex roles of parents were also expected to influence domains of child development. Finally, it was predicted that proximal variables would be the best predictors of child development.
Method

Subjects

Forty children (20 boys and 20 girls) and their parents (French Quebecers) participated in the study. Only biparental families were used so that sex differences in parental variables could be studied. The sample therefore included 80 parents; i.e., 40 fathers and 40 mothers. Ages of children ranged from four to six years ($M = 4.68$), and that of parents from 20 to 40 years ($M = 33.29$).

Families were referred by social agencies or CLSCs (Centre Locaux de Services Communautaires), and were selected on the basis of SES; that is, according to educational level, occupational status and family income (see Conseil de l'Île de Montréal, 1989). Parents (and children) were divided into two groups (more vs. less advantaged family environment) by median split according to family income. Advantaged parents made over $40,000 (CAN.) per year while less advantaged parents earned below $25,000. More advantaged parents also had more education ($\chi^2(4, N = 40) = 6.86, p < .01$) and occupational status ($\chi^2(4, N = 40) = 3.88, p < .05$).

Measuring instruments

In this study, three instruments were used, two of which were recently constructed, being: (1) the Development and Maturity Inventory for Preschool Children and (2) the Family Environment Questionnaire in addition to (3) the French version of the HOME preschool test (Home Observation for Measurement of the Environment).
Family Environment Questionnaire (FEQ)

The FEQ (Terrisse & Dansereau, 1990; Dansereau & Terrisse, 1991) is a measuring instrument conceived to highlight children at risk (i.e., for the development of maladaptive behavior) according to the sociological and psychological characteristics of their family environment. It should be noted that the children in this study were not found to be at risk. The FEQ consists of twenty variables that are drawn from American and European research and are highly interrelated on the one hand with socioeconomic factors and on the other hand with child development. These variables, including gross family income and parents' educational level and occupational status, were weighted by academics and health care workers. The FEQ variables can be regrouped, such as into mothers' and fathers' variables and parents' individual and common variables, individual variables representing characteristics specific to each parent (e.g., level of education and occupational status) and common variables representing what parents share (e.g., family income and leisure activities).

Development and Maturity Inventory for Preschool Children (DMIP)

The DMIP (Terrisse & Dansereau, 1992) is an instrument which allows the measurement of four domains of child development: psychomotor, social, language and cognitive. Each domain has several sectors or subscales, with eight for the psychomotor domain, eight for the cognitive, five for the social and four for the language domain. Each sector covers four age brackets ranging from two to five years, and each has one or two test items except for body schema (psychomotor domain) and vocal articulation (language domain) which have one test item each for all age brackets. This inventory of 161 items permits the plotting of the child's developmental curve in relation to his chronological age. The DMIP was
standardized on 1200 children of French Canadian origin, ranging in age from two to six years, and representing a heterogeneous population characterized by different levels of socioeconomic status. In terms of reliability, the internal consistency coefficient of the total inventory is .91 (Phan, 1987). Empirical validity, estimated by correlating DMIP scores with children's scores on the Denver Development Screening Test (Frankenburg, Dodds, & Fandal, 1973), was .90 for a sample of 88 children. The correlation coefficients for the Denver Development Screening Test and the domains of the DMIP ranged from .90 to .93.

**Home Observation for Measurement of the Environment (HOME)**

The HOME (Caldwell & Bradley, 1986) was used to assess the quantity and quality of social, emotional and cognitive support available to the child in the home environment through parenting practices. It was administered to mothers (with the father present) and with the child awake since two-thirds of the items refer to observations of the child and mother with the remainder involving parental reports. A shortened preschool version of the HOME, adapted for a French population, was used in this study (Palacio-Quintin & Lavoie, 1986). The inventory contained 32 items clustered into six subscales: 1) stimulation through toys, games, and reading materials; 2) language stimulation; 3) expression of love, affection and warmth; 4) stimulation through academic behavior; 5) modeling and encouraging of social maturity; and 6) variety of stimulation. The standardization data for the HOME was based on a sample of 246 children and their families. Overall reliability of the scale was .90, while internal consistency coefficients for the subscales ranged from .60 to .92. The HOME is correlated with the child's IQ and seven socioeconomic variables (welfare status, maternal education and occupation, presence of father in the home,
paternal education and occupation, and crowding in the home) (see Caldwell & Bradley, 1986).

Procedure

The FEQ was administered to parents in their homes following which a semistructured interview collected information about personal history and parenting practices. The DMIP was administered individually to each child at a daycare or kindergarten by graduate students trained by the developers of the inventory. Afterwards, the HOME inventory was also administered to parents and child in the home by graduate students trained to achieve a 90% level of agreement on test items. Each of the questionnaires takes about half an hour to administer.
Results

Children's performance on the DMIP

An analysis of variance (ANOVA) was performed on children's scores on each of the domains of the DMIP. Children were divided into two groups determined by median split on parents' overall score on the FEQ; that is, according to type of family environment (i.e., more or less advantaged). Table 1 shows that the scores of children from a more advantaged milieu were significantly higher than the scores of children from a less advantaged milieu, and this was true of the four developmental domains (psychomotor, social, language and cognitive).

A second analysis of variance (ANOVA) was also performed on children's scores obtained on each of the sectors of the DMIP. Table 1 shows that family environment had a differential impact on specific sectors within each domain. Results showed that there were no substantial differences in performance of activities requiring gross motor skills; e.g., climbing, jumping and running --with the exception of walking-- while significant differences were found on tests measuring fine-motor skills and hand-eye coordination. Children from a more advantaged milieu were also found to have a more positive self-image according to the body schema test. It should be noted that the largest effects for family environment were found in the domains of language and cognition where all sectors, except that of vocal articulation, were affected and with more advantaged versus less advantaged children performing better on all tasks.

Insert Table 1 about here
Effects of parents' individual and common variables of the FEQ

A 2 x 2 multivariate analysis of variance (MANOVA) was conducted on children's scores on the DMIP and proceeded according to parents' individual variables (characteristics specific to each parent) and common variables (what parents share). The parents were divided according to their scores on the FEQ into four groups: fathers from more and less advantaged milieus and mothers from more and less advantaged milieus. The MANOVA showed a significant main effect for mothers (Wilks' $\lambda = .7687$, $F(4, 33) = 3.74, p < .05$) and for fathers (Wilks' $\lambda = .7493$, $F(4, 33) = 2.75, p < .05$). The interaction between mothers and fathers was not significant.

The univariate effects for the MANOVA in table 2 shows that mothers from a more advantaged milieu, compared with mothers from a less advantaged milieu, had a significant effect on the child's language and cognitive development. On the other hand, fathers from a more advantaged milieu, compared with fathers from a less advantaged milieu, had a significant effect on psychomotor and social development in their children. It should be noted however that a multiple regression analysis which controlled for the age, sex and birth order of the child as well as the size of the family, showed that mothers in general ($\beta = .66$, $F(4, 35) = 6.06, p < .001$) had a stronger influence than fathers on child development ($\beta = .24$, $F(4, 35) = 2.21, p < .05$). This model can account for 58% of the variance.

Insert Table 2 about here
**Additional analyses on specific FEQ variables**

Further analyses of variance (ANOVAS) proceeding from specific parental variables were conducted on the children's scores on the DMIP. Parents were again divided into four groups by median split on their scores obtained on the FEQ variables. A first analysis indicated that the educational level of mothers from a more advantaged milieu had a significant effect on the child's language skills \( (F(1, 39) = 12.26, p < .001) \) and cognitive abilities \( (F(1, 39) = 14.40, p < .001) \). A second analysis revealed that occupational status of fathers from a more advantaged milieu had a significant effect on psychomotor development \( (F(1, 39) = 6.88, p < .01) \) and social skill development \( (F(1, 39) = 7.23, p < .01) \). Occupational status of mothers from an advantaged milieu also had a significant effect on the child's social skills \( (p < .05) \), language ability \( (p < .01) \) and cognitive functioning \( (p < .001) \).

Analyses of variance (ANOVAS) with educational level and occupational status of parents as factors, also showed that children from a more advantaged milieu had more autonomy-related behavior and better peer relationships. Leisure activities, which were more varied for these children, had a significant influence on all four developmental domains, as did family income which had a significant effect on psychomotor \( (F(1, 39) = 8.98, p < .01) \), social \( (F(1, 39) = 4.65, p < .05) \), language \( (F(1, 39) = 19.18, p < .001) \), and cognitive domains \( (F(1, 39) = 26.70, p < .001) \).

Significant interactions were observed between parents' scores on the FEQ and the sex of the child. These interactions were due to the fact that boys from a less advantaged milieu outperformed girls from the same milieu in language and cognitive domains, while girls from a more advantaged milieu outperformed boys from both more and less advantaged milieus in language and cognitive domains.
An analysis of variance proceeding from children's scores and specific parental variables revealed that occupational status of mothers from advantaged milieus had a significant effect on girls' social ($F(1, 35) = 4.19, p < .05$) and language skills ($F(1, 35) = 4.32, p < .05$). That is, girls who had mothers holding prestigious jobs outperformed boys in social and language domains.

*Effects of family environment as measured by the HOME*

An analysis of variance (ANOVA) was performed on children's scores for each domain of the DMIP to assess the influence of environmental stimulation as measured by the HOME. Children were divided into two groups: more vs. less stimulating family environment by median split on the scores of the HOME. Results in table 3 show that children from a more stimulating environment where parents are more affectionate and encouraging, have higher scores in all four domains (psychomotor, social, language and cognitive).

An analysis of variance (ANOVA) performed on children's scores in each of the sectors of the DMIP, with level of environmental stimulation as the independent variable, (i.e., more or less stimulating according to the HOME) produced results which were very similar to those obtained by the FEQ. Such results are scarcely surprising since the correlation between the HOME and the DMIP is high ($r = .72, p < .01$).

Insert Table 3 about here
Predictors of children's scores on the DMIP

A multiple regression analysis which controlled for age, sex and birth-order as well as for the size of the family, showed that the FEQ ($F (5, 34) = 2.28, p < .05$) and the HOME ($F (5, 34) = 4.33, p < .001$) can predict children's performance on the DMIP. An analysis of regression coefficients revealed however that the HOME ($\beta = .59$) is a better predictor of children's performance than the FEQ ($\beta = .35$). In other terms, the parenting practices of parents have a stronger influence on the development of the young child than SES factors. This model accounts for 63% of the total variance. It should be remembered however that parents' parenting practices are themselves interrelated with SES factors.
Discussion

The purpose of this research was to examine the relative influence of family environment variables on different domains of child development as measured by the DMIP, and this with respect to both fathers and mothers and the sex of the child. The family environment was evaluated in terms of proximal variables, as measured by the HOME, and distal variables, as measured by the FEQ.

Parenting practices and child development

The superior development of fine motor and social skills, language and cognitive abilities among children from a more advantaged or stimulating background can be attributed to parenting practices associated with the social milieu of the parents. This is a reflection of the fact that parents from a more advantaged milieu are exposed to educational, social and professional environments which demand a high degree of independence and intellectual skill. It is these...
parents perform better on a great number of standardized tests measuring language and cognitive development (see Smith & Cowie, 1991, for a review).

The better social skills of children from a more advantaged milieu as well as their more positive self-image and relationship with peers is linked to socialization factors within the parent-child system; in particular, with two dimensions of parental behavior (i.e., firmness and warmth) as described by Baumrind (1968, 1989). On the one hand, authoritative parenting practices were shown to be associated with better social skills (Decovic & Janssens, 1992), and, on the other hand, children whose parents were authoritative (i.e., warm and firm) performed better intellectually and later attained higher professional status (Lamborn et al, 1991; Steinberg, Elmen & Mounts, 1989). This finding has been confirmed by the differences found in parenting practices such as are measured by the HOME: children from more stimulating environments were found to have better social skills because their parents showed more affection and encouraged them in their development of social, language and cognitive skills.

It is important to note that the aptitudes and attitudes found in parents from a more stimulating family environment are not exclusive to an advantaged milieu. In post-industrial societies of knowledge, parents from a less advantaged social milieu or from distinct cultural groups can also possess the behavior and parenting practices favorable to the development of the young child (Baumrind, 1971; Palacio-Quintin & Jourdan-Ionescu, 1991). This point of view is also supported by the present research, since it shows that it is not the parents' SES or education, as evaluated by the FEQ, (i.e., distal variables) which most influences the development of the child, but the behavior of parents and parenting practices, such as are measured by the HOME (i.e., proximal variables).
Of interest here is the notion that parents making up different family environments differ in their attitudes, values and beliefs regarding education, work, social institutions, and interpersonal relationships. These values and beliefs, acquired in childhood and now guiding parents' behavior, would account for the differences observed in child rearing practices (see Sigel, McGillicuddy-DeLisi & Goodnow, 1992). Indeed, it is the parents from a more advantaged milieu, who were more involved in their sons' and daughters' education and whose children scored higher on the developmental domains, who will most likely have children who will attain higher education and occupational status.

**Sex differences in parenting roles and child development**

Parenting roles also influenced child development. Mothers had in general a greater influence than fathers on children of both sexes. Nevertheless, it is the fathers with higher occupational status from more advantaged milieus who were found to have a greater impact on psychomotor and social development, while mothers with a high level of education from more advantaged milieus had a greater influence on the child's language and cognitive development.

The above sex differences and the differences found in children's language and cognitive performance (with boys from a less advantaged milieu outperforming girls from a similar milieu) can be explained in terms of sex roles associated with social class beliefs and values. For example, lower SES families are more likely to be traditional in sex role training compared with higher SES families which tend to be liberal (Carr & Mednick, 1988; Lackey, 1989).

It is interesting to note that the daughters of mothers from a more advantaged milieu and with higher professional status were found to have better social and language skills than sons of the same milieu. This finding supports the research of
Hoffman (1988) who reported that the daughters of mothers who work or who possess higher socioeconomic status are more autonomous and competent than the daughters or sons of mothers who remain at home or who have lower socioeconomic status. It is possible, then, that the more independent role model along with greater maternal involvement of the mothers contributed to the daughters' development of better social and language skills.

To summarize, the results of this study show that there is a close link between distal and proximal variables, parental sex roles and a range of developmental domains. All these variables are pertinent; however, the proximal variables appear to have the greatest influence on child development. It is suggested that a study of parents' schemas or belief systems would lead to a better understanding of these variables, since parenting practices and attitudes are guided by knowledge structures acquired within the family and social milieu.

To conclude, the use of the FEQ and the DMIP have been shown to produce findings which are quite consistent with recent theorizing and empirical investigations. These inventories are not only capable of highlighting differences in child development, but also of pointing out global and specific variables in a child's environment which facilitate or slow down development. Such variables are important for both researchers and professionals whose concern is with prevention and the design of early intervention programs. The results of this research also show that parents' education, based on the evolution of proximal variables (attitudes and parenting practices) could be crucial to the success of intervention programs designed for less advantaged families or less stimulating home environments.
References


Table 1: Children's mean scores for each developmental domain and sector of the DMIP and significance levels according to family environment as measured by the FEQ

<table>
<thead>
<tr>
<th>Family environment as measured by the FEQ</th>
<th>More advantaged</th>
<th>Less advantaged</th>
<th>F Domains</th>
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<tbody>
<tr>
<td></td>
<td>(n=20)</td>
<td>(n=20)</td>
<td>(df = 1, 39)</td>
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<tr>
<td>Domains of the DMIP</td>
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<td></td>
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<tr>
<td>Sectors of the DMIP</td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
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<td>Psychomotor development</td>
<td>6.75 (.68)</td>
<td>6.08 (.74)</td>
<td>7.89**</td>
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<td>Climbing</td>
<td>7.38 (.75)</td>
<td>6.28 (1.24)</td>
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<td>Hand-eye coordination</td>
<td>6.94 (1.00)</td>
<td>6.00 (1.32)</td>
<td>5.81*</td>
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<tr>
<td>Fine-motor skills</td>
<td>6.50 (.99)</td>
<td>5.38 (1.46)</td>
<td>7.16**</td>
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<td>Walking</td>
<td>6.11 (1.13)</td>
<td>4.89 (1.56)</td>
<td>7.19**</td>
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<td>Balance</td>
<td>6.55 (.92)</td>
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<td>Running</td>
<td>6.55 (1.25)</td>
<td>6.38 (1.88)</td>
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<td>Jumping</td>
<td>7.05 (1.39)</td>
<td>6.72 (1.17)</td>
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<td>5.35 (1.84)</td>
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<td>7.01 (.65)</td>
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<td>Language development</td>
<td>7.30 (.63)</td>
<td>5.96 (1.23)</td>
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<td>Comprehension</td>
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<td>Temporal orientation</td>
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<td>Visual perception</td>
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<td>2.94 (2.03)</td>
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<td>Auditory perception</td>
<td>6.77 (1.18)</td>
<td>3.11 (2.06)</td>
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Family environment and child development

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<td>4.67 (1.19)</td>
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<td>6.78 (1.62)</td>
<td>4.83 (1.72)</td>
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<td></td>
<td>23.61***</td>
<td>12.10***</td>
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*p < .05.  **p < .01.  ***p < .001.
Table 2: Children's mean scores on each of the domains of the DMIP and levels of significance for mothers' and fathers' developmental influence

<table>
<thead>
<tr>
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<th>More advantaged</th>
<th>Less advantaged</th>
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<tbody>
<tr>
<td><strong>Domains of the DMIP</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Psychomotor development</td>
<td>6.51 (.85)</td>
<td>6.11 (.63)</td>
<td>0.88</td>
</tr>
<tr>
<td>Social development and autonomy</td>
<td>7.40 (.70)</td>
<td>6.95 (.65)</td>
<td>0.13</td>
</tr>
<tr>
<td>Language development</td>
<td>7.11 (.95)</td>
<td>5.70 (1.18)</td>
<td>4.73*</td>
</tr>
<tr>
<td>Cognitive development</td>
<td>6.21 (1.46)</td>
<td>4.22 (1.31)</td>
<td>7.20*</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>More advantaged</th>
<th>Less advantaged</th>
<th>†Univ-F (df = 1, 36)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Psychomotor development</strong></td>
<td>6.54 (.77)</td>
<td>5.97 (.68)</td>
<td>6.76*</td>
</tr>
<tr>
<td>Social development and autonomy</td>
<td>7.42 (.67)</td>
<td>6.82 (.62)</td>
<td>5.75*</td>
</tr>
<tr>
<td>Language development</td>
<td>6.94 (1.12)</td>
<td>5.73 (1.14)</td>
<td>1.10</td>
</tr>
<tr>
<td>Cognitive development</td>
<td>6.02 (1.18)</td>
<td>4.15 (1.48)</td>
<td>3.76</td>
</tr>
</tbody>
</table>

*p < .05.
†Univ-F: Univariate-F tests.
Table 3: Children's mean scores on domains measured by the DMIP and levels of significance according to family environment as measured by the HOME

<table>
<thead>
<tr>
<th>Family environment as measure by the HOME</th>
<th>More stimulating (n=20)</th>
<th>Less stimulating (n=20)</th>
<th>F (df = 1, 39)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Domains of the DMIP</td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
</tr>
<tr>
<td>Psychomotor development</td>
<td>6.60</td>
<td>.74</td>
<td>5.92</td>
</tr>
<tr>
<td>Social development and autonomy</td>
<td>7.40</td>
<td>.68</td>
<td>6.89</td>
</tr>
<tr>
<td>Language development</td>
<td>7.07</td>
<td>.97</td>
<td>5.61</td>
</tr>
<tr>
<td>Cognitive development</td>
<td>6.14</td>
<td>1.48</td>
<td>4.08</td>
</tr>
</tbody>
</table>

*p < .05. **p < .01. ***p < .001.