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ABSTRACT

This paper presents research findings on differences in the social and cognitive behavior of first born and only children at 3, 12, and 24 months of age as observed at home and in a free play laboratory setting. The sample consisted of 21 only children (children who did not acquire a sibling for at least the first 48 months of life) and 35 first born children (children who acquired a sibling between the ages of 24 and 36 months). Results indicated that differences in only and first born children were related to three possible sources of variation: (1) the birth of a sibling for first born children; (2) child characteristics; and (3) parent characteristics. The birth of a sibling was noted to change the cognitive performance of first born children and was related to a drop in skill performance. This finding suggests that first born children are different from only children as a result of experiencing the entrance into the family of a new infant. Possible differences in the temperament characteristics of first born and only children were reflected in the tendency of only infants to cry more and smile less at 3 months of age than did first born infants. Finally, parents of only and first born children may be different: mothers of only borns were more involved in their infants, expressed the desire for less children, were older at the birth of their first child and experienced a more difficult pregnancy than mothers of first borns. (Author/MP)

Children, Parents, and Siblings: Possible Sources of Variation in the Behavior of First Born and Only Children

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Although birth position has been a topic of recurrent interest to psychologists for almost a century (cf. Galton, 1874), the increased interest in the systematic study of birth order effects was provided by Schachter (1959). Schachter observed that under anxiety provoking conditions, first born females were more likely to seek out the company of others than were later born females. Speculating on the origin of these differences, Schachter suggested that through initial experiences as the sole focus of parental love and attention, the first born comes to associate the reduction of needs with the presence of others. Later borns do not enjoy this experience of being the exclusive and constant focus of parental attention. Since Schachter's original publications, research on the effects of family constellation has been characterized by a failure to examine only children separately from first borns and by a reliance on adult undergraduates as subjects (cf. Greenberg, 1967; Hogt & Raven, 1973; Toman & Toman, 1970). Recently, Thompson (1974) has argued that a greater research effort is needed to distinguish the behavioral outcomes for only children from those for children with siblings. Thompson suggests that since first borns experience many events (in particular, dethroning) which only children do not, it is likely that these groups differ in behavioral patterns. This view is supported by the work of Dunn and Kendrick (1979) which examined the changes in first borns after the birth of a sibling as well as changes in maternal behavior. It was found that after the birth of a sibling, first borns behaved differently toward their mothers, that mothers changed their behavior toward the first born, and that interaction between first borns and the new sibling was complex, varied, and different from parent-child interactions. The view that only children and children with siblings need to be studied

separately is also suggested by Eiduson (1976) who asserts that the most salient feature distinguishing the only child's socialization is that there is only one child to absorb parental interest and attention. The focused attention of parents to their children has been demonstrated by Gewirtz and Gewirtz (1965) who found that mothers of only children interacted with their child twice as much as mothers of last borns.

Falbo (1977) has postulated that the only child's uninterrupted relationship with parents might enhance achievement. Several investigators have found greater academic achievement among only and first borns as compared to later borns (Oberlander & Jenkins, 1967; Skouhalt, Moore, & Wellman, 1973). Breland (1974) found achievement differences between only and first borns similar to those reported for intelligence (cf. Zajonc & Markus, 1975) such that only borns scored less well than first borns of 2-, 3-, and 4-child families but higher than later borns of four or more child families. Schwartz and Lewis (1979) also found IQ differences as a function of birth order in the first 3 years of life.

Although recent research efforts in the area of family constellations have addressed some issues relevant to the behavior of first borns and only children, relatively little empirical information regarding the early differences between children with and without siblings is available. Since a clearer understanding of the sources of differences between families with only and first born children can emerge particularly through observation of the very young in interaction with their parents, our interest emphasizes the differences between only and first born children in the context of the mother-child relationship.

In examining our data on the social and cognitive behavior of first born and only children and their mothers, we postulated that observed differences

could be due to three sources of variation. The first source of possible difference between only and first born children has to do with the birth and presence of a second child. In other words, first born children may be different from only born children in that they experience the addition of another child into the family in which they had previously been the only child. While only children may experience uninterrupted parental focus, first borns must give up their parents' undivided attention upon the birth of a second child. For example, research by Dunn and Kendrick (1979) indicates that after the birth of a second child, first borns show an increase in sleep disturbances as well as in behaviors reflecting autonomic growth.

The second possible source for difference in only and first born children concerns the characteristics of the children themselves. That is, first born and only children may be different due to variations in temperament or personality factors. The model of the passive child who is socialized by responding to its environment, in particular, the young child responding to its parents, has been fairly well refuted (cf. Bell, 1971; Lewis & Rosenblum, 1974). The effect of the child on the parent-child interactions has been observed to vary with such factors as sex of child (Lewis, 1972; Parke & Sawin, 1975), age of child (Harper, 1975), and child temperament (Carey, 1970; Chess, Thomas, & Cameron, 1976; Feiring, 1975). Thus, it may certainly be the case that children who will remain onlies as compared to children who will acquire a sibling may be different in ways that influence their parents' decisions concerning family planning and whether (and when) to have more children.

The third possible source for differences in only and first born children is related to parental characteristics and behavior. The effect of parents on children has been a major theme in child development since its beginning (cf.

Hartup, 1978; Lewis & Goldberg, 1969). Parents have been shown to influence their child's social (cf. Clarke-Stewart, 1973, 1978; Lamb, 1976; Lewis & Rosenblum, 1979) as well as cognitive development (cf. Lewis, 1976). Consequently, differences in only and first born children may be due to their parents' beliefs about such issues as family planning, values, and child rearing practices as well as being due to differences in patterns of parent-to-child interaction.

In the discussion to follow, we shall present our data on only and first born children in light of these three possible sources of variation; that is, differences in only and first born children are due to: (1) the birth and presence of a second child; (2) the characteristics and behavior of the child; and (3) the characteristics and behavior of the parent. Our data consist of observations of mother and children at 3 months in the home and at 12 and 24 months in a free play laboratory setting. The sample consisted of 21 only children (children who did not acquire a sibling for at least the first 48 months of life) and 35 first born children (children who acquired a sibling between the ages of 24 and 36 months). It should be noted that all analyses comparing only and first born children at 3 and 12 months were retrospective in nature. That is, in reality, all children were only borns at 3 and 12 months while by 24 months, 10 children had become first borns (for a more complete description of the procedures and methods used in the collection of this sample, see Lewis, 1980).

Differences in First and Only Born Children Related to the Birth of a Second Child

Figure 1 shows the scores on the Bayley MDI at 3, 12, and 24 months for three groups of children: only borns, children who will become first borns by the age of 24 months, and first borns who did not acquire a sibling by 24

Insert Figure 1 about here

months, but will do so by 36 months. As can be seen in Figure 1, those children who acquired a sibling between 12 and 24 months performed lower on the Bayley MDI than any of the other children ($p < .05$, Mann-Whitney U-test). This is in particular contrast to their 12-month data in which they scored the highest on the Bayley MDI ($p < .05$, Mann-Whitney U-test). Our findings are consistent with the work of Zajonc (1976) who would predict a lower intelligence score for those first born children who have a very young sibling where the average intelligence over all family members is lowered by that infant sibling's presence. That the first born's experience of "dethroning" (cf. Thompson, 1974) may have an impact on the child's cognitive growth is suggested by our data while previous work (Dunn & Kendrick, 1977) indicates that the first born's loss of maternal attention upon the birth of a second child is related to changes in social behaviors as well.

Differences in First and Only Born Children Related to Child Characteristics

The data suggest that at 3 months of age, only and first born children are different even though neither group has acquired a sibling (i.e., in reality, they are all only children). Only children show a tendency to cry more than first borns (number of 10-second intervals in which Onlies Cry is 83.5 while for Firsts Cry it is 63.2; $p < .10$, Mann-Whitney U-test) while first borns show a tendency to smile more than only born children (Onlies Smile = 34.5, Firsts Smile = 55.2; $p < .10$, Mann-Whitney U-test). However, by 12 and 24 months, first born and only children do not show any reliable differences in their social behavior observed in a free play lab setting.

The data indicate that at least as infants, first born and only children may be different in their behavior although these differences are not apparent later. First born children who are less fussy and smile more may have an impact on their parents' decision on whether or when to have another baby. It is possible that only born children are as infants more "difficult" in temperament (i.e., cry more, smile less, more irregular, less adaptive) and proved a more demanding task for new parents and thus delayed the parents' decision to have a second child or affect their subsequent decision. An important theme in recent research on only children is the admonishment to avoid negative stereotyped notions that only children are characterized by selfishness, loneliness, or maladjustment (Falbo, 1977; Pinner & Thompson, 1974; Thompson, 1974). Thus, a word of caution: while onlies may be temperamentally more fussy at earlier ages, these differences are not apparent by 12 to 24 months.

Differences in First and Only Born Children Related to Differences in Parents

Parents of only and first born children may be a source of differences in their offsprings' behavior. Parental differences may take many forms such as differences in demographic characteristics, personality, and beliefs as well as parenting styles. Our data suggest that only and first born mothers may be different in their demographic characteristics and beliefs. Data from 3-month maternal interviews show that mothers of first borns report a significantly higher ideal family size compared to mothers of onlies (2.75 for firsts vs. 2.16 for onlies, t (48) = 2.66, $p < .01$, Mann-Whitney U-test) and tend to feel better about becoming pregnant (94% vs. 76% for mothers of firsts and onlies respectively were happy or very happy). For mothers of first borns, 89% of their pregnancies and deliveries were normal whereas this percentage is somewhat lower for mothers of onlies (71%). Mothers of onlies tended to

be older at the birth of their child than mothers of firsts ($\bar{X}$ = 27.9 and 26.3 for mothers of onlies and firsts respectively, t (50) = 1.65, $p < .10$, Mann-Whitney U-test).

Parents of only and first born children also show a difference in parenting behavior. At 3 months, parents of onlies are more proximal in their behavior, rocking (onlies = 51.1, firsts = 15.6) and kissing (onlies = 20.2, firsts = 10.1) their infants significantly more than mothers of first borns ($p < .01$ and $p < .05$, Mann-Whitney U-test) respectively. At 12 months, mothers of onlies are still more proximal in their behavior ($p < .01$, Mann-Whitney U-test). Mothers of onlies also play more with their children at 12 months ($p < .05$, Mann-Whitney U-test). At 24 months, mothers of onlies tended to show more approval than mothers of firsts ($p < .10$, Mann-Whitney U-test). In general, mothers of onlies appear more attentive to their young child in terms of proximal behavior at 3 and 12 months and with more play and approval at 12 and 24 months. Eiduson (1976) suggests that the most salient feature distinguishing the only child's socialization is that there is only one child to absorb parental interest and attention is supported and broadened by our findings. The fact that mothers of onlies were more attentive to their children compared to mothers of first borns (who in fact were mothers with only one child at the time of observation) suggests that only children may be the recipient of even more parental attention due to the special nature of their parents even beyond the phenomena of the "over concerned primaparous parent." At this point, it should be noted that at 3 months, only borns tended to cry more than first borns and mothers of onlies showed more proximal caretaking activities. The nature of our data (small sample size and collection procedure) make it impossible to determine whether parents are causing child

differences in crying or whether parents are responding to differences in their children. It may in fact be the case that both parent and child differences in only and first born groups are operating in interaction.

In conclusion, our data suggest that all three sources of variation, (1) birth of sibling, (2) child characteristics, and (3) parent characteristics, may operate in affecting differences in only and first born children. The birth of a sibling was noted to change the cognitive performance of first born children and was related to a drop in skill performance. This suggests that first born children are different from onlies as a result of experiencing the entrance into the family of a new infant who diverts parental attention. Differences in the temperament characteristics of first born and only children may be reflected in the tendency of only infants to be more fussy and less happy than first born infants. This tendency may affect parents' discussion of whether or how soon to have another child. Finally, parents of only and first borns may be different themselves and consequently treat and engender differences in their children. Mothers of only children were older at the birth of their first child, expressed the desire for less children, and indicated a less positive attitude toward pregnancy and delivery as compared to mothers of first borns. In terms of parental behavior, mothers of onlies were more involved in their infants. As a whole, our data indicate that all these sources of variation may contribute to differences observed in only and first born infants and children. Further research into the relative contribution of these sources of variance is important for both practical as well as theoretical reasons. Family planning information concerning the decision of whether to have one or more children is needed. On the one hand, growing concern about over-population in addition to personal economic and social role concerns create

pressure to produce fewer children. The persistent negative stereotype of having and being an only child creates pressures to produce more than one child. Study of first born and only children in the context of their social relationships should provide information on the course of child socialization as well as much needed information for family planning.

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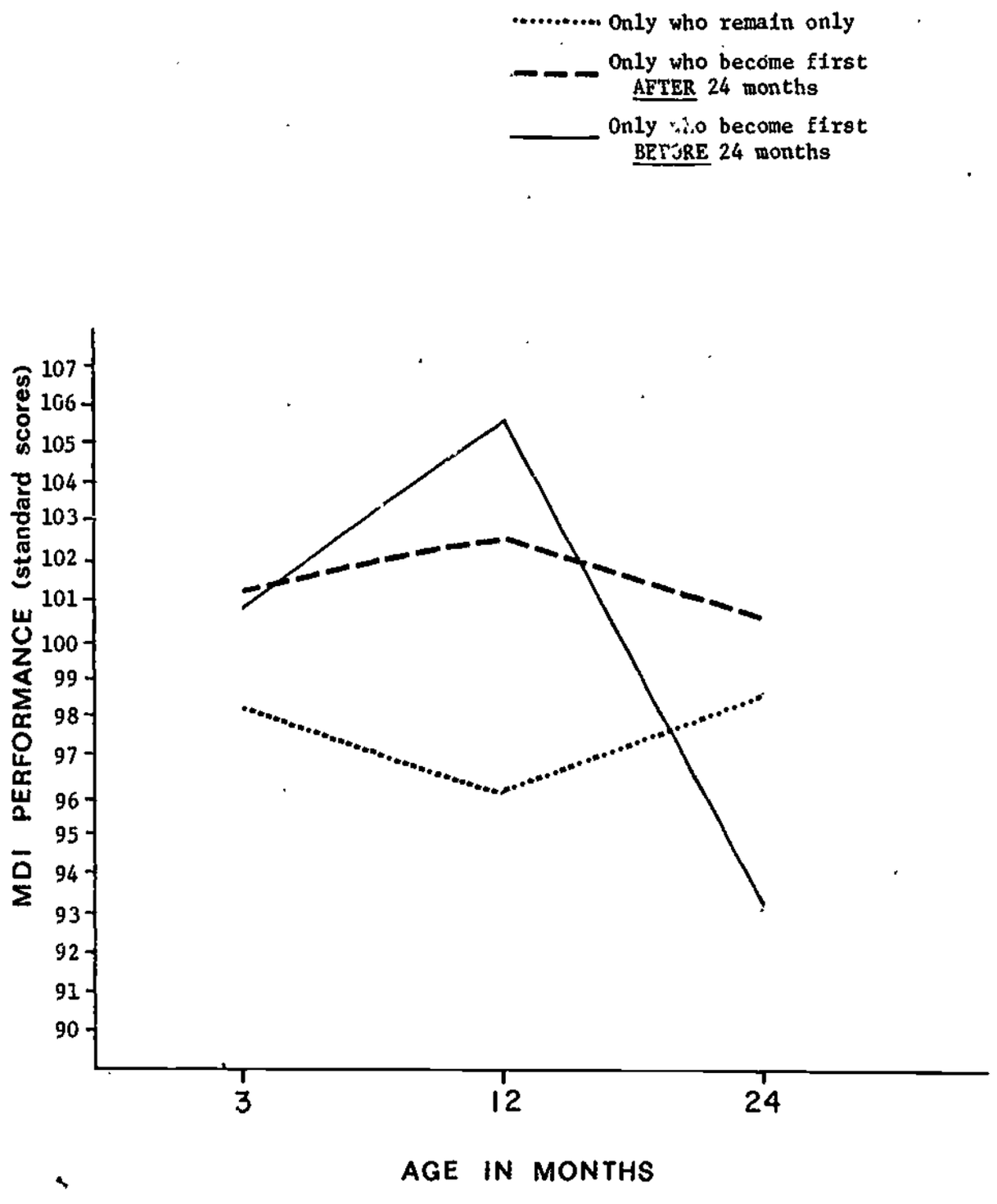
Figure Caption

Figure 1. Cognitive differences in first and only born children related to the birth of a second child.


Only who remain only
Only who become first AFTER 24 months
Only who become first BEFORE 24 months
MDI PERFORMANCE (standard scores)
107
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AGE IN MONTHS