Two studies are reported: one examines stereotypes about only children and the other examines stereotypes about mothers of only children. A sample of 150 college students were the subjects for the first study which utilized the Prisoner's Dilemma Game, the NASA exercise, and a questionnaire to test the hypotheses that only children are selfish, lack social skills, are autonomous and suffer as a result of being only children. The only hypothesis that held up was that only children appear to be more autonomous. The second study interviewed 76 mothers of college undergraduates through a mail survey, providing information as to why mothers of only children have one child. Answers were given relevant to age, education, birth complications, and folklore beliefs. (MS)
Folklore and The Only Child: A Reassessment

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Most Americans can readily enumerate the characteristics of the only child. They're supposed to be selfish, lonely, and maladjusted. Recent research (Pinner & Thompson, in Thompson, 1974) has documented the negative stereotype of the only child. Only children are described as "generally maladjusted, self-centered and self-willed, attention seeking and dependent on others, temperamentally and anxious, generally unhappy and unlikeable, and yet somewhat more autonomous than a child with two siblings" (Thompson, 1974, 95-96).

Belief in the stereotype is based on the notion that sibling interaction is necessary for the development of social skills. Since only children lack siblings, they are, therefore, expected to lack social skills.

Furthermore, the apparent stigma associated with being an only child also applies to having an only child. Research (Kiesler, Notel; Rainwater, 1967) indicates that married women with one child, like women with no children, are described by others in predominantly negative terms. This is not surprising when one considers that the choice to have one child violates a powerful norm—the norm that all married adults have children. Thus, if one follows folkloric theories about only children, one would posit that the characteristics of only children
are a result not only of lacking siblings, but also of having undesirable mothers.

Given this belief about only children and their mothers, it is not surprising that one of the most frequently cited reasons for having a second child is to prevent the first from becoming an only (Solomon, Clare, & Westoff, 1956). Indeed, Census (U. S. Bureau of Census, 1970) estimates of the number of one child families suggest that they represent a minority in the American population, about 18%.

Yet, despite the negative stereotype about only children and their mothers, there are indications that the number of women choosing to have one child is increasing. According to the Census surveys, the percentage of women expecting to have one child nearly doubled from 6% in 1955 (Freedman, 1959) to 11% in 1975 (U. S. Bureau of Census, 1976). Although birth expectations are an imperfect index of fertility, this shift in birth expectations is considered by many demographers to signal an increase in the percentage of Americans having one child families (Gibson, Note 2).

"Thus, because more people are choosing to have one child families, and because it is desirable for population stabilization that more people take this option, it is important to examine the folkloric beliefs about only children and their parents. Are the presence of siblings essential for the development of social skills? Are only children selfish? More autonomous? Lacking in social skills? Furthermore, are mothers of one child different from mothers of two or more children? The following two studies were conducted as preliminary investigations to answer these questions."
Subjects and Experimenters

To insure the stability of the only child and birth order status of the research subjects, adult subjects were selected. This subject selection procedure for studying birth order effects was suggested by Adams (1972). The first study consisted of a one-hour experiment in which 150 college students from Wake Forest University in Winston-Salem, North Carolina, participated for course credit. One of the three experimenters was an undergraduate; one, a graduate student; and the third, the author. Each of the three experimenters (2F, 1M) ran approximately one-third of the subjects.

Procedure

To prevent the only child stigma from influencing the results and to attract a large number of only children, two studies--the main experiment plus a secondary study--were conducted. The secondary study was merely a means of recruiting only children for the main experiment. It was entitled "Only Child Survey" and required that the participants be only children. The secondary study was scheduled 15 minutes ahead of the main experiment and consisted simply of writing a paragraph about "How I get my way." Most students finished this task in about 10 minutes. Then the experimenter, with a worried look, asked the only children to participate in another study (the main experiment) because only five subjects had shown up and the experimenter needed six to proceed. All only-child subjects agreed to participate in the other, main
experiment and received additional course credit for their efforts. Thus, each session of the main experiment consisted of one only and five nononly "children" of the same sex. Postexperimental interviews confirmed that: (1) the only children were unaware that their participation in the main experiment was a result of their being an only child, and (2) the nononly children did not know that these last-minute subjects were only children.

An assortment of nononly children participated in the main experiment. This experiment was entitled "Simulation Study" and consisted of a two-play Prisoner's Dilemma Game (Deutsch, 1960); the NASA exercise (Pfeiffer & Jones, 1969), and a questionnaire composed of items relevant to hypotheses about only children and filler items.

Upon arrival at the experimental room, students were taken individually to a private cubicle and prevented from communicating with others. When the last person arrived, the written Prisoner's Dilemma Game (PDG) instructions were handed to each participant. After each read the instructions, the experimenter answered any questions that the individuals had about the game. The instructions told each participant that he/she would be playing a bargaining game with a fellow participant. The game was described as consisting of two plays: an initial move, to which the other player would respond; and a response move, in response to the initial play of the other player. Each of these two plays required the players to choose between making a cooperative or a competitive move. The experimenter encouraged the belief that participants were playing with fellow subjects by dividing the participants into two groups and conducting the PDG in two stages. Group 2 players waited
while Group 1 players were given the play sheets upon which they indicated their first move. After the experimenter collected these initial plays from Group 1, she/he gave the remaining half (Group 2) the supposed first play of their fellow subjects. In fact, all players made their response move in response to the same initial move, the cooperative choice, which had been marked by the experimenter before the experiment. When Group 2 had made their response moves, they were given another play sheet and asked to make their initial play. During this time, Group 1 players sat alone in their cubicles waiting for their opportunity to make their response plays. After the initial plays were collected from Group 2, Group 1 players were given play sheets to make their response moves. Thus, each player made an initial and response move, and their response move was always to a cooperative initial play.

After the PDG and while still in their cubicles, participants were given the written instructions to the NASA exercise. The NASA exercise is a group exercise frequently used to study leadership, group processes, and conformity. In the instructions, the participants were asked to imagine that they were astronauts who have crashed on the moon and their survival depends on making a trek across the surface to the mother ship. Before embarking on this expedition, the participants are required to decide what equipment they need. The subjects were then confronted with a list of 15 items of equipment and asked to rank order them in terms of their importance for their survival.
After the first rating was completed, the participants were brought out of their cubicles and seated around a conference table. Participants were introduced to each other as subjects number one through six, numbering consecutively, counter-clockwise starting from the experimenter. To facilitate their remembering the subject numbers, a 3 x 5 card with the numbers one through six was pinned to their clothes. Then the experimenter told the participants that they had 20 minutes to arrive at a group decision regarding the rating of the 15 items of equipment. During this time, the experimenter left the room so that she/he would not be expected to lead the group discussion.

When the subjects finished their group decision, each was asked to return to his/her individual cubicle and make a second personal rating of the 15 items. After this, they were asked to fill out the standard postNASA exercise questionnaire which involves rating the group experience as well as fellow participants.

Finally, the subjects were given a 33-item questionnaire entitled "Questionnaire Survey" to complete. This questionnaire is referred to in this paper as the Only Child Questionnaire.

Data Analysis

The data were analyzed by several two-way analyses of covariance. One independent variable was called Birth Category and consisted of three groups: only children (N = 30), first borns (N = 30), and last borns (N = 17). The latter group was defined as those to be born last in their family and consisted of the second of a two-child family, third, of a three-child family, and fourth of a four-child family.
Seventy-seven (47 males, 30 females) out of the 150 subjects fit into this categorization. Since the number of children in a family has been demonstrated to influence birth order results (Zajonc & Markus, 1975), the total number of children in the subject's family was covaried.

Sex was included as the second independent variable to account for the variance expected from differences in the ways that males and females responded to the various dependent measures.

This system of categorizing subjects was selected because the total sample was of an inadequate size and sex composition to have large numbers of males and females in standard birth order categories (for example, first, second, third, etc.). By categorizing subjects into first, last, and only born groups, one can examine not only the effects of having siblings, but also the effects of being in a particular birth order situation. Furthermore, this category system allows the investigation of the ways only children (who are simultaneously the first and the last in their family to be born) resemble actual first and last borns.

**Results**

The results will be presented in terms of the hypotheses.

**Hypothesis one.** Only children are selfish.

Although there are many ways of operationally defining the concept of "selfish," the definition selected here involves cooperative and competitive moves made in a form of the Prisoner's Dilemma Game (Deutsch, 1960). The Prisoner's Dilemma Game involves two moves: (1) the initial play and (2) the play made in response to another player's cooperative
play. No differences were found in the initial move, but an analysis of the response moves yielded a significant chi square, $X^2 (2) = 6.36$, $p < .01$. An examination of the contingency table indicates that only children chose more trustworthy (cooperative) moves than first or last borns.

**Hypothesis Two:** Only children lack social skills.

This hypothesis was tested by measuring a variety of social skills. Most of these involved answers to items in the only child questionnaire. First, the subjects were asked how many friends they had, and also how many close friends they had. Only children claimed to have a smaller number of friends than last and first borns, $F (2, 66) = 3.45$, $p < .04$. However, there was no significant main effect in the number of close friends claimed by respondents, $F (2, 66) = 2.20$, $p < .16$. As the third and fourth measures of social skills, respondents were asked the amount of time they spent alone daily and how popular they felt. No significant main effects for the Birth Category variable were found.

Other questions asked the subject to list the clubs and extracurricular activities to which he/she belonged, and the second question asked how many offices he/she held in these organizations. The results indicated that only children belonged to significantly fewer clubs than first and last borns, $F (2, 66) = 7.88$, $p < .001$, but that there was no significant difference in the total number of offices held, $F (2, 66) = 2.32$, $p < .105$.

Finally, only children were selected as often as nononlies as the most influential person during the NASA group discussion.
Hypothesis Three. Only children are autonomous.

There is one measure of the term "autonomy" available in this data set. This involves the extent to which people deviate from the group ratings in making their second personal decision in the NASA exercise. The results of analyzing this data indicated that only children ($X = 16.8$) did deviate significantly more from the group ratings than last ($X = 11.2$), or first ($X = 9.6$) borns, $F (2, 66) = 4.57, p < .01$.

Hypothesis Four. Only children suffer as a result of being only children.

On the Only Child Questionnaire, subjects were asked to rate how much they thought only children suffered. The results indicated that only children thought that only children suffered significantly less than did non-only children, $F (2, 66) = 5.62, p < .006$. Consistent with this finding, another question asked respondents to estimate how many children they wanted. Of those who said they wanted one child, 56% were only children, 29% first borns, and 14% last born.

Other findings. In order to obtain preliminary information about the relationship between only children and their parents, the only child questionnaire contained the following item: "In terms of making me the person I am today, who was the most influential person?" The selections following this question were: (1) close friend, (2) teacher/authority figure, (3) parents, (4) well-known person, such as a celebrity. Given the nature of the data, only a percentage comparison of the responses of only, first, and last borns was possible. This comparison reveals that a higher percentage of only children (40%) chose parents than did first borns (3%), or last borns (7%).
The Sex Variable. There were no significant interactions between the variables Sex and Birth Category. Sex provided two significant main effects. These indicated that the females reported spending more time alone and deviated more from the NASA group decision than males.

The Covariate. The covariate, the number of children in each subject's family, failed to account for a significant amount of the variance, $F(7, 60) = .595$, $p < .68$.

Discussion

Overall, the findings of this preliminary study provide little empirical support for the negative stereotype of the only child. In fact, what these results demonstrate is that to the extent that only children are different from people of other birth categories, they differ in a desirable direction.

In terms of generating information about only children, the hypotheses generated from folklore were quite productive. All of these hypotheses concerned the social skills of only versus nononly children. For example the results of this study suggest that only children are more autonomous than nononly children. That is, only children claimed to belong to fewer clubs, had fewer friends, and deviated from the NASA group decision more than did nononly children. However, this interpretation should be qualified by other findings made in these studies. Only children claimed to have as many close friends, claimed to spend as much time alone, felt as popular as nononly children and held as many leadership positions. Taken together, the results suggest that only children are more autonomous than others, but not so autonomous as to be social isolates or loners.
The PDG results have important implications for theories concerning the effects of having siblings. The finding of no difference in initial PDG plays suggests that only and nononly children do not differ in terms of a general predisposition to take a competitive or cooperative stance vis-à-vis others. However, the finding that only children are more likely to make a cooperative move in response to the initial cooperative move of a fellow player suggests that only children are more trustworthy than nononlys. In other words, this finding means that people with siblings are more likely to take advantage of the cooperation of others than are only children. This finding represents one instance in which having no siblings is an apparent asset. Perhaps because only children lack the experiment of "sibling rivalry," they acquire the behavioral predisposition to respond cooperatively to the cooperative moves of others.

It is interesting to note that nononly children thought that only children suffered more as a result of being an only child than did only children themselves. This is bolstered by the additional finding that a disproportionate number of only children claimed to want only one child. Two possible interpretations, both based on a cognitive dissonance framework, are suggested. First, this finding could mean that the amount of suffering only children are believed to experience is exaggerated by those who are not only children. Second, this finding could also mean that only children underestimate their suffering. Further research investigating these two interpretations would be valuable for those interested in a self-justification approach to attitudes towards family size.
One of the findings provides a possible explanation for this enhanced trustworthiness and autonomy of only children. This finding is that a greater percentage of only children than nononlys cite their parents as most influential in "making me the person I am today." It is possible that the relationship between parents and only children fosters the development of more adult-like behaviors. Likewise, it is possible that the absence of siblings allows for the development of trustworthiness and autonomy.

Note that the covariate of number of children in the family failed to influence the effects associated with Birth Category. This finding indicates that in this sample, at least, Birth Category effects are stable across sex and family size groups.

The results of this first study suggest that the presence of siblings does influence the development of social skills, but in ways that are not necessarily beneficial. That is, these results suggest that having a sibling can lead to the development of undesirable characteristics, such as untrustworthiness. Furthermore, the results suggest that the absence of siblings can result in the development of positive characteristics, such as autonomy. Further research comparing only and nononly children should be conducted to evaluate more fully the relative costs and rewards of having siblings on the development of social skills.

The second study focuses on characteristics of mothers who have one, two, three or more children. It represents a preliminary exploration into the characteristics of women who have one child. Specifically, the study was designed to uncover clues about why mothers of one child stop at one.
Study II

Method

Subjects and Experimenters. Seventy-six mothers of college undergraduates participated in a mail survey. All were mothers of students enrolled at Wake Forest University. Most of the students (N = 58) participated in a study entitled "Family Study" for course credit. The remainder (N = 18) were only children who were paid for their participation in a study entitled, "Only Child Study." The student data will not be reported here. The experimenters were four (2M, 2F) undergraduates enrolled in a personality research course.

Procedure. With the exception of the only child status prerequisite for the "Only Child Study," the procedure for the "Family Study" and "Only Child Study," were identical. One requirement for participation in both studies was the students' expectation that their mothers would be willing to spend one hour filling out questionnaires, etc. that the experimenter would mail to them. A statement regarding this requirement accompanied the sign-up sheets for both studies.

During the first session, the students filled out a permission form which explained the studies to the mothers and sought their agreement to participate in the study. These forms were mailed to the mothers. The purpose of the study was presented to both students and mothers as an attempt to determine "how similar are the attitudes and values of parents and their college-aged children." In the permission form, the parents were offered $5 for their participation and assured that their
responses to the questionnaires and other forms would not effect their child's academic evaluation. The students were told that in order for the student to participate in the second session of the study, their mothers had to have returned the signed permission form indicating their willingness to participate as well as the subsequently mailed survey materials. All mothers contacted agreed to participate and all returned their survey materials. Of the total sample of 76 mothers, 28 were mothers of one child; 21 mothers of two; 19 mothers of three; and eight were mothers of four and five children.

The data collected on the mothers included an IQ test, a personality scale, and a questionnaire. Only the results of the 38 item questionnaire will be reported here.

Results

Because there were no differences in the questionnaire response between the only child mothers participating in the "Family Study" and those participating in the "Only Child Study," these two samples were combined in the following analyses.

Why do mothers of only children have one child?

Age. Several questions on the mother's questionnaire were designed to provide information relevant to this question age. Mothers of only children were significantly older at the birth of their child than the other mothers, $F(3, 76) = 9.21, p < .01$.

Education. There were no differences in the amount of education between the one, two, three, and four and five children mothers.
Birth Complications. Four items on the mothers questionnaire dealt with the mother's remembrances concerning the birth of her child. These items were designed to elicit information about the incidence of birth complications. These questions asked about whether forceps were used, whether the mother suffered depression or severe weight changes after the birth, and whether a caesarian had been performed. Combining the responses to all four questions, the results were: 50% of the one child mothers reported yes to at least one of these items, compared to 30% of the two child, 10% of the three child, and 37% of the four and five child mothers.

Age X Birth Complications. Since one might expect the incidence of birth complications to be related to the age of the mother, a one-way analysis of variance was performed comparing the ages of mothers reporting birth complications with the ages of those who had not. No significant difference was found.

Folkloric Beliefs. One item on the questionnaire asked the mothers how much they thought only children suffered. Mothers of one child rated the amount of suffering lower than mothers of two or more children. F (3, 76) = 5.15, p < .05.

The mothers' estimates of ideal family size were also measured in the questionnaire. Not surprisingly, the number of children mothers had was found to be significantly related to the number they considered to be ideal, r = +.71. The means indicate that the mothers' estimates of ideal family size closely conformed to their actual family size—with one exception. Mothers of one child indicated that they thought the ideal family size was 2.2.
Mothers who were themselves only children (N = 11) also rated the amount of only child suffering as significantly lower than women who had siblings, F (1, 76) = 4.45, p < .05. However, these same women did not differ from women who had siblings in the number of children they had.

A multiple regression was performed to determine whether the ratings of only child suffering were predictive of the number of children the mothers had. The results, F (3, 76) = 5.04, p < .05, indicate that attitudes about only child suffering accounted for 12% of the variance associated with the number of children the mothers had.

Discussion

The conclusions justified by the results of this study are severely limited by the smallness and highly select nature of the sample.

Keeping this caveat in mind, let us proceed to discuss the results. These suggest three reasons why women stop childbearing after one child. First, these mothers have their first child at an older age. This may impose biological limitations on their fertility. Furthermore, this finding suggests that such women have postponed childbearing. One obvious possible reason for the postponement is education. However, in this sample no overall educational differences between the mothers of one, two, or three or more children were found. Second, mothers of one child are more likely to report experiencing birth complications. These experiences may make the prospect of having a second child either unattractive, or, in some cases, unadvisable. Third, the belief that only children suffer appears to be related to fertility. The results
of this study indicate that mothers of one child as well as mothers who were themselves only children rate the amount of suffering only children experience as less than mothers of two or more children or mothers who had siblings. This finding is consistent with the results of Study 1. The neatness of this consistency, however, is challenged by other findings made in this study. These are that mothers who have one child still regard the two child family as ideal. Also, mothers who were themselves only children were no more likely to have one child than mothers who had siblings. These discrepancies suggest that folkloric beliefs about only children serve more of a self-justification function than a fertility planning one.

These results should be viewed as a preliminary exploration to motivate future research. Further research is needed to describe the characteristics of one-child mothers in order to determine what, if any, consequences these have for the development of their children.
Footnotes

1 The author wishes to thank Susan Hofmann and John Haigwood for serving as experimenters.

2 The procedure for determining the nononliness of the other subjects involved comparing the list of known only children in the subject pool with the names on the sign-up sheets for the Simulation Study. The list of known only children was acquired by the author by going into each introductory psychology class and asking only children to identify themselves. No only children signed up for the Only Child Survey or the Simulation Study at the same time slot because as far as the prospective subjects knew, these two studies overlapped in time. If a conflict occurred, then it was of two types. First, if an only child signed up for the Simulation Study on a day before he had signed up for the Only Child Survey, then the other only child was called by the experimenter and rescheduled. In this case, an additional nononly subject was recruited to fill out the total six needed for the Simulations Study. Second, if the only child signed up for the Only Child Survey on a day before the Simulation Study, the only child, who had also participated in the Simulation Study, was afterwards asked to scratch his name off the later-data sign-up sheet for the Simulation Study. When the only child did this, other subjects were then able to sign up for this time slot. Only six such conflicts actually occurred.

3 Membership in the last born category stopped at fourth of four because this was the highest last born category available in this sample.
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Reference Notes


References


