This review of the literature on the "only child" indicates that the single child is likely to be oriented more toward adults than towards peers, to be subjected more to an adult culture, to be an achiever who strikes out on his own, and to have a heightened sense of responsibility compared with children who have siblings. Statistics show only children often grow up to be outstanding, but there is a long-standing prejudice against the only child; parents often feel that they have to have a second child to "save" their first. Advantages for parents who have one child are discussed in terms of (1) less financial strain, (2) more freedom, (3) ability to devote time and energy to the child, (4) contribution to zero population growth, (5) avoidance of sibling rivalry, and (6) ability of mothers to realize their own ambitions while enjoying the experience of motherhood. It is concluded that "Oneness" by itself is not a determining factor in how an only child behaves, affecting the child only in the sense that being the eldest, middle or youngest child would affect behavior. (GO)
THE ONLY CHILD

by

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B.S., Southern Illinois University, 1968

A Research Report Submitted in Partial Fulfillment of the Requirements for the Degree of Master of Science

Department of Child Development and Family Relations in the Graduate School
Southern Illinois University
April, 1975

BEST COPY AVAILABLE
TO THE GRADUATE DEAN:

I recommend that the paper by Marcia Ellen McGuire Allen titled The Only Child be accepted by the Graduate School as evidence of research competence on the part of one seeking the master's degree.

I understand that this paper is not being submitted as a thesis nor in lieu of a thesis, but simply as proof of a capacity for research and its reporting.

Signed

Department of Child Development and Family Relations

12/73
I want to give special thanks to Dr. Michael Zunich for his guidance and help through all my work on my Master of Science degree in the Department of Child and Family. Special thanks also go to the faculty and staff in the Department of Child and Family. A special commendation goes to my typist, Evelyn Haanstad, without whose help, deadlines would have never been made. A very special thanks goes to my husband, David, and our "only" child Kristina for their patience and understanding through the months of researching and writing this paper.
INTRODUCTION

Today, family planning is a much used practice in our society. The economic situation, overpopulation, energy crisis and the need for two breadwinners per family have all contributed to this need for family planning (Fawcett, 1970). So when a young couple begins to think about a family they are bombarded with all kinds of advice. Some tell them to have only two children to replace themselves. Others say to have at least three children. Still others say, don't have any at all. Seldom does a young couple ever get advice to have only one child (Hawke, 1974).

Justification

Perhaps a reason for this is that many people in the past believed that the only child was bound to grow up both spoiled and lonely. Parents considering only one child have had to defend themselves to well-meaning friends and relatives (Hawke, 1974). According to popular opinion, the child who grows up as an only child is likely to find it extremely difficult to make adequate social adjustment outside the home. In the minds of many people this opinion is so firmly established that the bare knowledge that an individual is an only child is for many people quite a sufficient basis upon which to account for any eccentricities of conduct which the only child may show (Goodenough, Leahy, 1927).

Very little research on the only child has been done in the past
fifteen years. Parents have had to rely on articles in lay magazines, beliefs from past decades, personal opinions and values, and fate, in making their decisions concerning the number of children to have.

Statement of the Problem

The problem of this study is to show through research which attributes contributed to only children are facts and which ones are fallacies. The purpose of this study is to help couples make informed choices when considering the number of children to have.

The major limitation of the study centers around the fact that approximately 25% of the research has been written in foreign journals and the investigator has relied heavily on translations and abstracts of these particular studies. Another limitation is that most of the research is dated with very few articles written since 1960.

What does research say about the only child? Do only children grow up both spoiled and lonely? Do only children have difficulty in social adjustments? How common are only children? Are only children overly dependent? A search through the experimental research of the past seventy-five years provides some of the answers to these questions.
REVIEW OF LITERATURE

Research on the only child goes back to 1898 when E.W. Bohannon studied 481 children; 381 children of whom were only children. The study was conducted at Clark University under C. Stanley Hall. Bohannon found that only children were below average in health and vitality and were more frequently afflicted with nervous and physical disorders; that they entered school later, were less regular in attendance and did below average work; that they did not usually join in ordinary group play; that they preferred adults and younger children; that many times their social relations were characterized by friction; that their home treatment had been one of indulgence; and that they were noticeable for peculiarities, procacies, selfishness, and affection.

The study was conducted by sending questionnaires to students in colleges and normal schools requesting information about twins, only children, or only boys or girls in a family composed of several members of the other sex. The information reported was not about the student himself but about someone known to him (Bohannon, 1898).

Such a questionnaire could be open to a psychological fallacy. Many times the child who stands out clearly enough to be reported on in a questionnaire may not be the average only child, but may be one who is different in one or more ways. Such a child makes a greater impression both favorable and unfavorable, than one who fits into the general group. With questionnaires, some students have a
tendency to give answers that they think will be most interesting for a research study. If the above criticisms of Bohannon's study are valid, then the study was made on a selected rather than on a representative group of only children (Ward, 1930).

Not much interest in studying the characteristics of only children followed Bohannon's study. The literature continued to warn of the dangers of being an only child. Studies on only children began to appear again in the 1920's.

In 1926, the Colgate Mental Hygiene Tests were given to 465 young men, 81 of whom were only children. On the responses to that test, the only children showed no variations from the group as a whole (Stuart, 1926).

Two studies on ordinal position which gives data about the only child were conducted by Goodenough and Leahy (1927). In the initial study, authors obtained data from the files of the Demonstration Child Guidance Clinic, two which had been conducted in Minneapolis-St. Paul during 1923-24. They studied 322 consecutive cases to determine (a) the proportion of children falling into the four groups which were oldest children in families of more than one, youngest children in families of more than one, only children, and children occupying intermediate positions in families of three or more called middle children; (b) whether or not clinic findings would reveal any significant difference in the characteristic behavior of the four groups. They found that the oldest children made up 30.4% of the group, middle children-31.7%, youngest children-25.2% and only children-12.7%.
The chronological ages ranged from 2 to 19 years and the IQ ranged from 25 to 156. Some came from extreme poverty, others from wealthy backgrounds. Some of the subjects' parents were completely illiterate while others held Ph.D.'s. The authors were not surprised that very few statistically reliable differences in the type's of characteristic behavior of the various groups could be established. They did find certain possible trends.

Only children showed high reports of negativism, disobedience in home and school and temper tantrums as these characteristics were reported for 71 percent of the only children. Poor sleep, nervousness, night terrors, and fear of various sorts, feeding problems and bed-wetting also seemed to be more characteristic of only children. Goodenough and Leahy did suggest that because of the nature of the data the amount of reliance which may safely be placed upon the findings is small.

In the second study a graphic rating scale was filled out for 293 children in ten public school kindergartens located in a superior residential section of Minneapolis. The teacher rated each child on the fourteen following traits: aggressiveness, self-confidence, suggestibility, demonstrativeness, gregariousness, social adequacy, attitude toward property, attitude toward facts, mood (type), mood (stability), emotional response, emotional stability, attention (type), attention (intensity). The ratings were indicated by means of a graphic scale where each of the fourteen traits was represented on a separate line. The center of the line represented the ideal norm and the ends of the lines indicated the undesirable extremes.
A separate chart was filled out for each child. All the children had been known to the teacher for a period of not less than five months and were for the most part between the ages of five and a half and six years. Intelligence tests were given to all the children and the results showed that the average intellectual level was distinctly above that of the general population as 75% had IQ's of 100 or above.

Forty six of the 293 cases were only children. In this kindergarten group, they found less undesirable behavior among the only children than among the group of the eldest group of only children. The only children were more aggressive and more self-confident than any of the other groups. Many of the onlyies showed an extreme fondness for affection. They were precocious in their social interests and displayed some instability of mood. The ratings also showed them to be easily excited with their attention being flighty and distractable. The authors concluded that it is not just the only child who is in danger of developing undesirable personality traits because there is probably no position in the family circle which does not involve certain problems of adjustment as a consequence of its own peculiar nature. In fact, the oldest child in the family is the child most likely to be subjected to conditions which render satisfactory adjustment particularly difficult according to the data of the study (Goodenough & Leahy, 1927).

Neal (1927) stated that some parents of only children interfere in everything the child does because they have such a desire to have him do things perfectly and to act in the correct manner. Therefore,
they constantly exert their authority to make him conform. This type of parent is either very efficient or a failure who wants the only child to realize all of his own unfulfilled ambitions. Whether the child becomes subservient and loses his initiative or whether he puts up aggressive opposition depends on his personality make-up.

Neal stated that the only child is more likely to present a special problem than the child of a larger family. Since the only child demands much attention and usually receives it, he is commonly found to be jealous, selfish, egotistical, dependent, aggressive, domineering, and quarrelsome. The only child was described as unpopular and spoiled. He also seemed to have difficulty fitting into life with others. She quoted Dr. S. Stanley Hall, the eminent psychologist, as having said, "Being an only child is a disease in itself."

Fenton (1936) studied two groups of individuals. The first group contained 193 children from kindergarten through grade 6 of which thirty-four were only children. The method used to study the children was to have each subject rated on a rating scale by one or two teachers who had known them for at least one semester. Fenton found that only children as a group are slightly more likely than other children both to be leaders and to be unpopular but the amount of difference is quite small. It was also found that, there was a little tendency for only children as a group to be more self-confident than other children; a little more likely than other children to be aggressive, to bully and to insist upon having their own way; a slight tendency to be happier and more optimistic as a group; to be more self-assured or conceited; and to be less obedient. Again the amount
of difference is quite small.

In addition to the rating scale, the teachers were asked to underline common nervous symptoms present in each child they rated. Only 32% of the only children showed any nervous symptoms which was a smaller proportion than the oldest, intermediate or youngest groups. However, the only children, who were noted as nervous, displayed a larger number of symptoms. The average number of symptoms for each child noted as having one or more nervous traits was 2.4 for the oldest, 2.0 for the youngest, 2.0 for the intermediate and 3.5 for the only child.

The second group Fenton studied consisted of two groups of university students totaling 512 subjects of which 73 were only children. The students were given 101 of the 116 questions of the Woodworth Questionnaire or Psychoneurotic Inventory as a group test. On the anonymous returns the students who were only children gave more responses indicative of psychopathic or neurotic tendencies than did the other students. However, on the returns containing names the findings were reversed with the only children giving fewer responses indicative of psychopathic or neurotic tendencies. This reversal provided much difficulty for the author in interpreting the meaning of the data.

The names on the questionnaire did allow the author to look up the scores on the intelligence test given when they were admitted to the university. He found the median percentile rank on the Ohio State University Psychology test for the students who were only children was 69.5 while for unselected students it was 50.0.
Case records of one hundred only children living at home with both parents were studied by Anne Ward (1930). The case records were from the Institute for Child Guidance in New York and five Commonwealth Fund Demonstration Child Guidance Clinics. The group included all the only children who were patients in the clinics up to June, 1929.

Seventy-three percent of the cases were boys while twenty-seven percent were girls. The mean age of children in the four clinics was 11.2 years, while the only children had a mean age of just 8.2 years. The greatest difference between the two groups occurred below seven when there were thirty-three percent of the only children and ten percent of the total group and between eleven and fourteen when there were thirty-seven percent of the latter and only eighteen percent of the former group. The author gave three possible explanations for the variation in age between the groups. The most obvious is that parents of only children are more apt to be overly concerned about the child's development and are thus more aware of problems when they first appear. Another cause is that the only children in the study come from economically well-to-do families where the parents would perhaps be more alert to difficulties appearing in the child. The third explanation Ward offered was the most interesting, but the least probable. Could it be that only children become more capable of adjustment as they get older, since he has been associating with adults quite continuously? She suggested that it would seem natural that he would learn by experience what behavior was socially acceptable and act in this particular manner.
The ability to adjust from eleven years onward would be heightened if the children were of superior intelligence since their ability to reason would more rapidly approach adult level. The intelligence test findings of the children in the clinic group showed that the only children were superior to the rest of the group and this fact could have helped account for some of the variation in the age group. The mean intelligence quotient of the only children was 109.3 while that of the total group was 103.3. The total group consisted of four hundred and sixty-three children which was the total number admitted to the Institute for Child Guidance during its first year.

The author offered the following explanations for the difference in intelligence quotients. One explanation was the economic superiority of the families involved which some psychologists believe to be associated with intellectual superiority. Another explanation was the age of the parents at the time of the child's birth. Forty-four children had an intelligence quotient of 110 and over and of these sixty percent had parents one or both of whom were over thirty years old. The third explanation was the constant adult association. When the child spends much time with adults he tends to have increased language ability which is a factor of some importance in the Stanford-Binet tests.

The problem behavior displayed by the only children was quite similar to that of all the clinic children living at home with their parents except for stealing, lying and truancy. However it must be remembered that the group of only children were younger than the total clinic group. Even in spite of this there was less enuresis. The age
factor alone could have accounted for the decrease in stealing, lying, and truancy since these are usually problems of older children. Another reason for the decrease in the factors was attributed to the only child living in a more sheltered environment where his wants were usually over-supplied and his contacts limited.

When compared to a control group of three-child families the only children showed a higher percentage of restlessness and over-activity, crying, nail-biting, and school difficulties.

One needs to keep in mind several facts when considering the conclusions from the Ward study. Personal bias may have influenced the findings. The case histories were written by a widely scattered group of social workers; the examinations were made by different experts and the original information had been obtained from a great variation of sources. Also many of the terms used in describing behavior could have varied because of interpretations. Since only one hundred cases were studied, this was really too small a number to make very general statements. Therefore, the author stated the results should not be considered conclusive (Ward, 1930).

Busemann (1929) studied 400 German children between the ages of ten and seventeen. According to teachers' judgments, in general the children with more siblings had better records in behavior, industry, attention and deportment. The only children were found to be characterized by self-dissatisfaction, wiggliness, reflectiveness, and poor success in school. He found that girls particularly benefitted from having brothers and/or sisters.

Typicality and atypicality in views on various questions were
measured by Vetter (1930). The author found that more than a chance number of the twenty-one only children fit into the atypical, reactionary and radical groups. The more extreme positions contained more only children. He stated that the only children had a reputation for more unusual emotional development.

Guilford and Worcester (1920) studied one hundred sixty-two children of grade 8 in a junior high school in Lincoln, Nebraska. The children were divided into two groups consisting of twenty-one only children and one hundred forty-one other children for the purpose of making a comparative study of the two groups.

The investigators obtained information on fifteen different characteristics or measurements for each child. The first measurement was the I.Q. determined by the Terman Group Test of Mental Ability. The test was given and corrected by trained individuals. The second measurement taken was each child's average of his school marks in English, history, science, arithmetic and junior business. The occupational status of the father of the child as rated by the Ban occupational scale was the third measurement. The fourth measurement was the student's participation in extra-curricular activities determined by the efficiency credits earned by the students. The remaining eleven characteristics for each student were rated by at least six different teachers. The items were courtesy, truthfulness, industry, initiative, self-control, cooperation, dependability, health attitudes and habits, personal orderliness and cleanliness, conformity to law and order, and fairness.
The investigators found that the only children are equal to or superior to non-only children in 14 of the 15 measurements considered. The authors came to the following conclusions:

1) The only child is definitely superior in (a) occupational status of the father, (b) marks received in his school studies, and (c) health attitudes and habits, with the chances being 1000 to 1 that this is the case.

2) The only child is quite certain to be superior in (a) initiative, (b) self-control, (c) personal orderliness and cleanliness, (d) industry, (e) truthfulness, (f) courtesy, and (g) dependability with the chances being 19 to 1 in his favor.

3) The only child rates higher in (a) I.Q., (b) cooperation, and (c) conformity to law and order, with the chance being 9 to 1 that he is superior.

4) The only child is slightly superior to the non-only child in fairness, with the chances being 3 to 1 in his favor.

5) The only child is either equal to, or slightly inferior to, the non-only child in voluntary participation in extra-curricular activities.

Worcester (1930) studied the schoolroom attitudes and achievements of only children. He pointed out that it seems to be an almost impossible task to classify adequately only and non-only children. Therefore, no investigation of traits of only children can claim high reliability. Since so much has been said and very little done on the subject he stated that it did seem worthwhile to investigate some of the traits of so-called only and non-only children, even though the classification is at best crude. It was decided to make the
the classification on the basis of onliness or non-onliness at the
time of the study. This had been the basic classification used by
previous investigators.

Worcester studied the school marks of both only and non-only
children in grades K-6B in a large school in Lincoln, Nebraska. The
report cards of the schools include both an estimate of a child's
achievement and a rating of his social and health traits. The cards
give a general rating and provide a scheme where special factors
which are in need of attention can be checked by the teacher. The
study took up the two types of ratings separately. The first part
reported an investigation of the final semester marks given to the
children in each of the traits for the year 1928-29. The second
portion summed up a count which was made of the check marks given at
the end of the first quarter of the school year 1929-30. All the
data was gathered after the marks had been assigned.

The average mark for only and non-only children was computed sep-
arrately for each trait or subject and for each grade. For the first
semester, in 103 out of 140 comparisons, the only children show super-
iority over the non-only children. In three more comparisons the
two groups of children showed no difference in their averages. In
114 out of 160 comparisons in the second semester, the only children
were superior with one group showing no difference. For 306 compari-
sions, for the whole year, 221 of these favor the only child.

The study also found that the only child was more consistently
superior in the lower grades. One hundred twenty-five of 152 com-
parisons were in his favor in the lower grades while only 96 of 154

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comparisons were thus in the upper grades. This was particularly noted in the social traits where in the earlier half of the grades the only child was superior in 58 of 72 comparisons while in the upper grades the only child was superior in only 38 of 66 comparisons.

In the second portion of the study, the records for the first quarter reports of 1929-30 of 99 only and 633 non-only children were investigated. The percentages of both only children and non-only children who received check marks opposite items were found. In 41 out of 50 comparisons (82%), the difference is in favor of the only child. From the investigation, Worcester surmises that it is very doubtful that many of the charges hurled at only children concerning cooperative success in school can be substantiated. He feels a few extreme cases have probably established the prejudice in the minds of observers.

Blonsky (1930) studied first grade children from a large school in Moscow which was considered to be an "average" school. There was a total of 193 children in six parallel classes in the first grade of which 33 (17%) were only children. Twenty were boys and thirteen were girls. On the basis of accomplishment, 20 of the only children ranked in the upper third of the class; eight in the middle third and five in the lower third. The intelligence of the only children also stands out as almost half of the only children are two or more sigma above the mean. The average IQ for the only children is one half sigma higher than the average for the rest of the group.

Blonsky concluded that the only child is an 'ultra-character'. 
either very introverted or extremely extroverted. He found the only child to be nervous and sometimes have poor motor control; he is intellectually advanced; his logical thinking is above age; he learns and comprehends easily; he is poor in practical intelligence, organizing and physical dexterity; and he has a high opinion of himself. He rarely wins the affection of his classmates because he is either domineering or shut-in. In school he either proves a disturbing element or remains bashfully in the background. Blonsky recommended education of the parents but much of the work to further social contacts and to forestall the development of excessive importunity or timidity would have to be done by the school.

The behavior problems of 725 Chicago school children were studied by Levy (1931). He compared the incidence of only children among a large group of clinic cases and among a control group of 35,000 non-problem children. He concluded that the distribution of children's behavior appeared to be independent of the size of the family. He did find a tendency toward maladjustment in a group of only children of wealthy parents.

A study of the only child at school was done by Hooker (1931). The investigator tried to discover whether the only child at school differs in social and emotional adjustment from one with siblings. Every effort was made to select cases which were free from the possible influence of broken homes, presence in the home of relatives other than the immediate family or any other factors which could have a bearing on the child's behavior. The homeroom teachers were asked to list the children in their rooms whom they knew to be only children.
From the names submitted, personal interviews were conducted and 30 children were selected who lived in homes where there were no relatives, except the father and mother and who had never had siblings.

The following criteria were used to match an only child with a child having siblings: (a) school grade within one-half grade, (b) sex, (c) chronological age within six months, (d) family organization, (e) not more than one child from any one family, (f) intelligence quotient within ten I.Q. points and (g) nationality when this could be fulfilled in addition to other criteria. The school files were used to determine what child matched a given only child in most of the factors.

Each child was interviewed alone and asked 17 questions from a questionnaire from Terman's adaptation of the Woodworth-Matthews Personal Data Sheet and one question added by the investigator. In addition to the questionnaire, two rating scales adapted from Wickman were used. Three teachers who had known the children at least four months rated each child and his match. The results of the questionnaire found that for only children, 81% of the answers were typical, 9% of the responses were atypical and 10% of the responses were scored uncertain while for the non-only children, 88% of the answers were typical, 6% of the responses were atypical and 6% of the responses were scored uncertain.

The investigator found that 42% of all the children in the grades used in the study and 57% of the only children were exceptionally well-adjusted, 41% of all and 40% of the only children presented minor behavior difficulties, 14% of all and 3% of the only children
showed difficulties of some importance while 3% of all and none of the only children were considered to present extremely serious behavior problems. She also found only children are slightly less likely to be negligent, forgetful or irresponsible in duties which they have been asked to or expected to perform, only children are less likely to become sullen or sulky, rude, impolite, or impudent to others, only children are less likely to be nervous and dishonest. They are more likely to show signs of being tomboys or sissies. The differences in all the other traits between only and non-only children were not significant.

A questionnaire concerning imaginary playmates was given to 701 high school and college students by Hurlock and Burstein (1932). The investigators found that the size of the family did not influence the creation of imaginary companions among the subjects. The only children were not found to be more subject to imaginary playmates than were the non-only children.

The Bernreuter Personality Inventory and Cason's Annoyance test were given to 200 college students by Campbell (1933). In the comparative study of only and intermediate children, the subjects were paired for high school grade record, college entrance examination score, sex and class in the university. A difference in mean scores of the two groups on the four measures of the Bernreuter Inventory indicated a slightly greater incidence of atypicality among the only children, especially the females, but in no case was the critical ratio significant. The scores of the only child group on these four
scales had greater variability than the paired group of intermediate children.

Witty (1933) studied a group of 153 only children five years of age in Kansas City, Missouri. The children came from families of better than average socio-economic status. Statistical comparisons were made between ratings and measurements of this group and various control groups. The only children were superior to other children in health, physical development, intelligence and character traits. On ratings of courtesy, truthfulness, self-control, initiative, orderliness, cooperation and dependability the number of only children reaching or exceeding the median of the control group was somewhat greater than 50 percent. It was found that a relatively large percentage of only children were subject to specific fears.

Witty (1933) also selected one hundred only and one hundred intermediate children from the eleventh and twelfth grades of two Chicago high schools. Parents provided health and developmental histories and socio-economic information and data concerning physical growth and development were secured. The children were asked to report their activities and interests. The home-room teachers administered the Otis Intelligence Test and Bernreuter Personality Inventory and also rated each child on character traits and provided subject marks.

The means and standard deviations were studied and revealed that the groups were approximately equal in 18 measures and ratings of physical development, socio-economic status, test-intelligence, school marks, and in 21 comparisons relating to social or emotional adjustment.
Even though the groups differed in mean scores on the personality measures, the critical ratio was significant in no instance.

DeCampos (1934) studied four case histories and concluded that the only child suffers from the extreme watchfulness and care of the parents and the fact that he has no young companions and learns to imitate adults. Therefore, he lacks the normal joys of childhood and must live a life of day dreaming and vain imagining. He suggested that the best way to treat the only child is to live in a neighborhood where playmates for the child are available. If this is impossible, he then recommends adoption of another child and the education of the only child outside the home.

Wülker (1934) reported on the single-child group in a girl's high school in a big city. Of the total group of 527 students, 146 or 27.5% were only children. The work of all the pupils were rated above average, average and below average. For the total group 18.9% had work rated above average, 68.7% had work that was average and 13.3% had work rated below average. For the only children the figures were 18.5%, 68.0% and 13.5% respectively. The investigator stated that the slight difference between the two groups seemed to disprove the often advanced theory that single children usually place above average due to more favorable home conditions or to special attention received from anxious parents. He also found that behavior in school and participation in school activities of the only-child deviated very little from that of the total group of students.

Delinquency was studied by Sletto (1934). He found that delinquent boys in the only child position did not differ much from
other delinquent boys in the types of offenses committed. He did find a larger proportion of only boys were charged with being ungovernable which supports the view that parental control over the only boy breaks down more often than it does for boys in other positions. He also found that a greater proportion of only girl offenders was charged with theft and a much lower proportion was charged with sex offenses than for offenders from other size families.

Two hundred high school juniors and seniors were studied by Witty (1937). He wanted to ascertain whether the typical only child in the high school is physically underdeveloped, mentally reported, educationally handicapped and socially maladjusted. One hundred students were only children who had never had siblings and the other 100 were intermediates. A short case history of physical development and health, records from the Otis Self-Administering Test of Mental Ability, the educational record and academic history, interest questionnaires filled in by both parents and the child, the Bernreuter Personality Inventory and teacher ratings on nine character traits were assembled for each child.

The bulk of the evidence indicated that the onliness factor is of little significance in the development and adjustment of senior high school students. Little difference in health and physical development and intellectual development was shown by the data. The Bernreuter scale did not discriminate between the only children and intermediates. In the rating of traits, only girls showed some superiority over only boys and intermediate girls and boys, suggesting that the only girls were somewhat better adjusted in school than
their classmates, but in no case did the superiority have high and reliable statistical significance.

Stott (1939) studied children in city homes, small town homes, and farm homes with respect to the following personality traits, (a) rationality of thinking, (b) personal adjustment, (c) honesty, (d) ethical judgement, (e) personal independence, (f) group resourcefulness, and (g) personal responsibility. The investigator found that only children in farm homes differed little from non-only children. In the city home, the only children appeared to be superior to the non-only children in personal adjustment, independence, and personal responsibility but were inferior with respect to rationality of thinking. The author stated that any conclusions regarding the effects of onliness or non-onliness can be drawn only in terms of the particular environmental setting and the particular culture in which the study was made.

Hart and Axelrod (1941) charted the behavior traits of 37 only children and 133 boys from families of five children or more in the New York State Training School for Delinquents. The traits were also submitted to statistical treatment by the Hollerith technique. They found the only child tended to be more neurotic, non-social, less aggressive, immature, and addicted to lying, running away and staying out while the large family child was more often anti-social, revengeful, suspicious, predatory, subject to nostalgia and temper outbursts and more likely to take part in gang activities. It was concluded that the factors which make for delinquency were not those that distinguish the only child from the child from a large family, but rather those that were common to both which were neglect, rejection,
instability, inadequacy and inconsistency of discipline and a lack of understanding on the part of the parents or parent substitutes.

A study concerned with the relationships between social success and three other factors: family size, socio-economic home background and intelligence was conducted by Bonney (1944). The third, fourth, and fifth grade pupils of three schools in Denton, Texas were the subjects for the study. Social success was measured by pupil choices where some of the choosing situations were used in actual classroom situations while others were obtained for research purposes only. 

The data showed that there was a strong tendency for the more popular children to come from the smaller family units in each of the grades studied. The figures on the only children were very consistent in showing the greater social success of the only child. Only child families made up approximately twenty-five percent of the total third grade population. Consequently it would be expected that twenty-five percent of the family-size representation in each social acceptance quartile would consist of only child families but in the highest popularity group, thirty-nine percent were only children. At the fourth grade level only child families made up fifteen of the total population while the highest popularity group consisted of twenty-nine percent only children. At the fifth grade level, only child families made up sixteen percent of the total population while the highest fourth in social acceptance consisted of nineteen percent only children.

Dexter (1949) found evidence contrary to Bonney's findings. The investigator formulated a brief questionnaire and administered it
to approximately two hundred college students. The questionnaire secured information on nicknames, number of brothers and sisters and homesickness. The last item of information secured was a rating of popularity which was defined rather loosely as merely how well the student was liked by his associates and to what extent he was well-adjusted socially with people his own age. The social dean's office furnished this information and it included campus life and activities, dates and all other pertinent aspects of behavior. Checks were made in every case about which there was any doubt.

Dexter found the only child turned out to be unpopular to a definitely greater extent than the non-only child. No statistically reliable differences were obtained for the only and the non-only group concerning homesickness but the only child tends to be less subject to homesickness than is the non-only child.

Case histories of only children were studied by Taylor (1945) over a period of some years. The case histories consisted of the individual's life history recorded in his own words, accounts from family and friends and supplementary material drawn from the author's own observations. When possible, control histories of members of large families were used. The case histories of the only children were classified on the basis of normal social adjustment.

The author found a group of cases where the social adjustment was apparently normal, a group where there was almost no social adjustment as the individual was completely unassertive and a group where the individuals tended toward such aggressive exhibitionism as to be antisocial. The author predicted the increase of the day nursery
socializing influence. With the increase of the day nursery, the author suggested that many of the children who do not attend these nurseries would be confronted with adjustment problems when they reach school age. The problem is the same as the only child which is an adjustment to a secondary group whose members are activated by a scheme of reference not their own. The child whose behavior is derived from a scheme of reference unlike that of members of the secondary group is faced with a problem he cannot solve. Therefore, social maladjustment or the development of personality disorders may be expected.

One hundred only and 100 non-only college freshman were paired according to chronological age, socioeconomic background, educational and occupational levels of their parents, home locality and high school activities. Dyer (1945) gave the Bell Adjustment Inventory to the students. The only children appeared to be well adjusted as the other children. The only children showed somewhat better adjustment than the other children in both the Home Area and Emotional Area parts of the inventory. In academic adjustment, no differences were noted between the two groups.

B'rakhyahu (1948/49) administered a questionnaire to teachers and social workers dealing with the behavior of only children who were pupils in the secondary schools. The author did not find the traits characteristic of only children in the Palestinian youths. The kindergarten was said to be the pedagogical agency which was most successful in improving the negative influence of being an only child. He found only child girls to be more helpful, more social, less anxious and more obstinate than only child boys.
Although various investigators have agreed that only children are more inclined towards psychoneuroses than non-only children, opinions have differed as to time of onset, frequency of occurrence and the special form of the illness. Van Krevelen (1949) gathered material on 2,400 children from surveys made in schools, in a psychiatric clinic for children and in a psychiatric clinic for adults. Teachers reported that the only child appeared to be more nervous than the other children, especially in the younger age groups. The author suggested that the teacher's opinions might have been influenced by the theories of the times. He concluded that there is no evidence to suggest any special predisposition to neuroses for the only child, either from a psychiatric, psychoanalytic or psychopathologic standpoint.

However, clinical studies did show that psychoneurosis of only children stems from one source in spite of a variety of symptoms. The source is the fear to grow up. As the children recoil from maturing, their emotional growth requires a prolonged period and they do not feel at par in the daily struggle for life. Biographies of only children have shown their need to lean others for support. Even after they reach adulthood, they may feel dependent and lack self-assurance.

Wattenberg (1949) studied the fairly detailed information available on 2000 juvenile offenders in Detroit. He indicated that a review of studies of delinquency revealed contradictory findings concerning the effects of being an only child as generalizations usually overlook factors of age, socioeconomic status, broken home or selective criteria of delinquency. From his study it appeared that only children are only half as likely as non-only children to become offenders.
However, only children are just as likely to belong to gangs. He contended that cultural factors are so important that onliness or non-onliness appear to be much less important than psychoanalysts contend.

Kallmann, J. DePorte, E. DePorte, & Feingold (1949) studied twenty-seven twin pairs with suicide in one member. To eliminate the likelihood of sibling rivalry as a factor in suicide, suicide in only children was also studied. It was found that the incidence of suicide in only children does not differ significantly from the general population.

Even though there is no psychoneurosis peculiar to only children and only a small percentage of children brought to the Child Guidance clinic are only children, Van Krevelen (1951) indicates that certain conditions exist in the family situation of the only child that favor psychoneurotic developments. The author stated that the Oedipus complex is particularly intensified and it makes for subsequent difficulty in marriage and marital adjustment. The only child suffers from solitude and takes refuge in the world of fantasy. He also suffers from the fear of development, growth and maturity due to overprotection of his parents.

Mauco and Rambaud (1951) studied two hundred children brought to a clinic for behavior problems. The children were examined for the effects of birth order. The authors found 33% were only children, 27% were the eldest, 20% were intermediates and 19% were the youngest. The authors discovered that the fathers of only children tended to exhibit poorer health than the fathers of other children. The mothers of only children had more difficult pregnancies. The eldest children revealed the Oedipus conflict, suffered heavier responsibilities and
enjoyed the confidence of his parents. The intermediate children presented speech problems and the youngest children exhibited nervousness and demands for attention.

Brachjahu (1956) indicated that only children are frequent among the Israeli. He attributed the early group life and lack of excessive parental concern to the fact that the only children in Israel do not suffer from the customary effects of the situation.

Forty psychiatric clinic patients who were only children were reviewed by Clark and Capparell (1954). The patients ranged in age from eighteen to sixty-two. Thirteen were women and twenty-seven were men. They had many problems of the type found in any series of psychiatric patients. A varying degree of isolation from children their own age was a frequent finding which appeared to be largely due to onliness. Isolation was accentuated by such factors as over-protection, differences from the average in health and appearance, early and prolonged illness, and frequent changes in school and neighborhood. Dependencies and resentments were intensified by being a member of a small closely knit family group. Frequent difficulties in group identification and acceptance played a significant part in the development in late adolescence and early adulthood, of neuroses, psychoses, sexual deviations, and maladjustments in school, career, and marriage.

The authors termed the adult only child with a psychiatric condition as a "peripheral person", who has great difficulty in feeling accepted in any group. They encouraged early and healthy social contacts for only children and indicated that psychotherapy for the adult only child helped many patients in clarifying their relations
with their close relatives and their peers at school and work.

Valentiner (1954) studied 2000 children in an institute of vocational guidance. He found forty-three per cent of the children who were only children possessed character traits not favorable to scholastic or professional progress or to social life. He blamed the presence of these traits on situations peculiar to one-child families.

Three of the original twenty-three hypotheses from the Study of Social and Psychological Factors Affecting Fertility were analyzed by Solomon, Clare, and Westoff (1956). They were: (1) the desire to insure against childlessness is an important reason for having a second child; (2) the belief that an only child is handicapped is an important reason for having a second child; and (3) the interest of children in and their desire for brothers and sisters affects the size of a family.

The data to test the three hypotheses were collected in 1941 by a structured questionnaire distributed to 1,440 relatively fertile couples.

The main focus for the 1956 study, was on specific motivations for wanting and having the second child. The analysis was restricted to the 239 couples who deliberately planned their second child by interrupting contraception to have the child. Hypothesized factors were compared in their importance in motivating couples to have a second child by distributing replies of husbands and wives to a multiple choice listing of the three most important reasons for planning the second child. Not wanting an only child ranked second as the most important reason for encouragement in having the second child only being outranked by a strong liking for children.
The desire to avoid having an only child was by far the most important reason for having a second child among the three hypotheses under consideration. The authors indicated a recent public opinion poll showed that seventy-five percent of the general public considered being an only child to be a disadvantage. Socio-economic status was also considered. The investigators found that parents in the upper socio-economic group were the most concerned with avoiding an only child. This was thought to be due to the fact that there is a higher incidence of one child families among the higher socio-economic groups and one might assume that families who had more contact with one-child families would be more conscious of the attendant liability. Another factor could be a manifestation of a greater awareness through education of the problematic potential of one child families.

The authors found that wives and husbands who themselves were only children do not consider this factor a great handicap; at least the proportions influenced very much in having their second child for this reason are not greatly affected by whether or not they themselves were only children. The proportions, however, are greater for those whose spouses were only children. Although the differences were not statistically significant, the authors reasoned that individuals who were only children themselves do not consider the situation a great handicap with respect to feeling toward their own offspring, but individuals who were not only children might attribute faults perceived in their spouses to the fact that the spouse was an only child.

Fifty white female college undergraduates, twenty-five of whom were
only children and twenty-five who were non-only children were selected from a larger group of 2,200 University of Pittsburgh students by Burke (1956) by means of a questionnaire and a personal interview. Care was taken to eliminate subjects whose family background was in any way abnormal or unusual. Pairs of only and non-only subjects were closely matched in regard to scores made on the American Council on Education Examination; religion of subjects, level of education of parents, national origin of parents, and socioeconomic status of the family. Generally speaking, the two groups were representative of the population of the university.

The selection of the fifty students was made to test a number of loosely formulated hypotheses regarding certain personality and behavioral characteristics in which the "normal" only child might on the average be expected to differ from the "normal" non-only child which had been deduced from the thinking and research of certain largely psychoanalytically-oriented students of personality. The individual Rorschach Test, the Minnesota Multiphasic Personality Inventory, and a specially devised questionnaire termed Data Sheet which was designed to give a rough estimate of the general life style of the subjects during their high school and college years were selected to test the hypotheses.

The investigator found that the instruments as applied failed for the most part to reveal the hypothesized differences between the two groups of "normal" only and non-only subjects. The few significant differences which did emerge along with certain patterns that were non-significant, but favored the hypotheses, suggested the desirability
of replication. Further it was judged possible that the use of other methods, techniques or instruments might show differences where this particular study had failed to do so.

Two hundred forty Duke University male freshman were studied by Weitz and Wilkinson (1955-56) to determine the influence, if any, of home organization and secondary school organization upon academic success. The authors found that only children, military academy graduates do significantly poorer work in college than do other students.

In 1953, Lees and Stewart (1957) administered questionnaires to the boys in four large modern schools and two grammar schools in a Midland City. The questionnaire was designed to elicit grade in school, age, size of family and position in the family. The findings suggested that scholastically only boys are the most able but are almost equalled in ability by eldest boys. In 1955, the authors were able to test the tentative conclusions by obtaining and analyzing returns which were completed by all the boys and girls age eleven and over in attendance at all the secondary schools in two local authorities areas designated Small City and Midland Borough. The classifications were the same as in the Midland City study.

The authors found that the school populations of both Small City and Midland Borough were almost identical in regard to proportions contributed by the size of family, the two sexes, the family-position groups of only, eldest, intermediate and youngest children, and the average size of family from which the sex and family-position groups were drawn. The only and eldest children were most able scholastically and significantly more able than either the youngest or intermediates.
The authors stated that only children tend to have experiences opposite those of intermediates because they are only, lonely, children, surrounded by adults. They become more assimilable to and assimilate more from adults than from children to whom they are liable to feel superior and of whom they are liable to be suspicious. For many only children, they have to face many things alone and they come to depend on their mothers. By adults they are liable to be more pushed, and protected, and more praised and blamed. They are also more likely than other children to regard themselves as important because in the home they have a stage on which they often are the central figure.

Four studies of only children were contained in a book written by D'espalier (1957). The studies all reviewed previously dealt with an examination of the files of a medico psychological clinic, use of the Bernreuter Personality Inventory, use of the Rorschach test, and use of a sociometric study. D'espalier's main conclusion was that being an only child influences behavior but that there is not an only child personality pattern. Each child reacts to his isolation as an only child according to his sex, his heredity, his character, and his environment.

Handlon and Gross (1959) conducted an experiment to study the sharing behavior in children as it is affected by age, sex, and only or non-only status. Eighteen nursery and kindergarten children and twenty-five children from the fourth, fifth and sixth grades of a public school were the subjects. The children were grouped into two separate groups and were put into a situation where they were to share with a momentarily absent partner, in the presence of an adult, an
unevenly divisible reward earned by performing a cooperative task. The study yielded the following results: (1) a significant variable in sharing behavior was age. Giving the partner the greater share of an unequally divisible number of objects increased with age, (2) the highest degree of selfishness was demonstrated by the pre-school group, (3) the transition between selfishness and generosity began between the fourth and fifth grades and was complete by the sixth grade, (4) the sex of the child did not influence sharing behavior, (5) the sharing behavior of children was not affected by the fact that a child was an only child or had siblings.

D’espallier (1960) reported on four separate studies concerning only children. Case histories from a medico-psychologal Antwerp Clinic of fifty only children and fifty non-only children with a mean age of 12 years were compared. Forty-six only boys were compared with forty-six non-only boys (age range for both groups 17-20 years) using the Bernreuter Personality Inventory. The Rorschach was used to compare 100 only children with 100 non-only children in the age range of 17-20 years. Fifty in each group were male and fifty were female. Sociometric data on sixty only and non-only boys chosen at random from 587 pupils of an elementary, technical and secondary school were also studied. The author came to the following conclusions: (1) Being an only child in a family does affect children, (2) each child reacts toward isolation in the family according to his own disposition, there is no invariable type of only child, (3) the influence of being an only child is different for both boys and girls, (4) only children tend to go from one extreme to another in regard to different traits.
of character, (5) during the years between seventeen and twenty, the influence of being an only child is clearly visible in the findings.

Matsubara (1964) administered a 180-item questionnaire to mothers of 3000 nursery school, kindergarten, and elementary school children ages four to eight. The questionnaire was designed to assess social maturity. The author found that urban children were superior to rural children in social competence, but there were no significant sex differences. It was also found that social competence developed more rapidly among children who had siblings than in those who were the only child.

Rosenberg (1965) stated that the perils and problems of being an only child are abundant. However, as far as self esteem is concerned, the advantages seem to outweigh the disadvantages. Fifty-one percent of the only children had high self-esteem while this was true for only forty-four percent of children with siblings. It is the male only child rather than the female only child who are especially likely to have high self-esteem. Fifty-four percent of the only boys had high self-esteem while only forty-four percent of the boys with siblings had high self-esteem. For the only girl, apparently there is no general self-esteem advantage as forty-seven percent of the only girls had high self-esteem compared to forty-four percent of the girls with siblings. For the only boys, it was the Jewish only boys who had conspicuously high self-esteem. Rosenberg indicated that the child's birth order in the family has little association with self-esteem. The difference in self-esteem is whether the child has any brothers or sisters.
Newsweek (1969) reported that of the twenty-three astronauts who have traveled in space, at least twenty-one were either only children or first-born children. The three members of the Apollo crew, Borman, Lovell and Anders were all only children. The authors stated that the unique only-child syndrome of the astronauts seemed to be due to either first-born and only children being better able to survive the vigorous mental and physical training required of the astronauts or to the fact that the judges of candidates for the team unconsciously believe this is the case and consequently discriminate against younger brothers.

The authors cited the work of Norma Cutts and Nicholas Moseley, co-authors of The Only Child, who interviewed several hundred only children and their parents. Cutts and Moseley also talked with school principals and studied the educational achievements of only children attending Yale. Their research revealed that only children develop a greater sense of independence and are often more creative and self-reliant than those children who have siblings. The only child is alone more and has a room of his own and, therefore, learns not to be afraid and to tolerate a certain amount of loneliness. But when the only children marry, their family patterns are revealing as many only children have two or more children. Astronauts Borman has two children, Lovell, has four, and Anders has five.

Sharryl Hawke (1974) interviewed more than two hundred children and parents of one-child families and also many adults who were only children. Hawke found that only children are not rare. Only children comprise about twenty percent of our population. One child in every five is an only child and one family in every six is a one-child family.
The author also found that only children were not spoiled. The interviews showed that only children were not overly dependent. Many felt being an only child had helped them develop self-confidence. Only children were not unpopular. Hawke suggested this was due to the fact that only children had to go out and make friends while children with siblings always had instant companions. The interviews also revealed that more than sixty percent of the parents of only children would recommend the one-child family to others. Little research has been done on only children as adults, but the author reported on two studies. Burgess and Cottrell found only children have no better or worse chance of a successful marriage than any other group. Cutts and Roseley found in their records on hundreds of only children that there was no indication of poor vocational adjustment. Hawke found that the primary advantage of being an only child was to grow and develop in an uncompetitive atmosphere.
CONCLUSIONS

The subject of the only child has through the years stimulated a great deal of experimentation which reveals that pertinent experiments began even before the turn of the century. If in an effort to summarize the studies over the past seventy-five years, a tally of the findings with respect to all of the various traits were made, it would be found that, while occasional significant trait differences arise between groups of only and non-only children, the studies as a whole tend to weigh against the existence of differences (Burke, 1956).

By 1930, most of the research was not supporting the theory that the only child was somehow "different" in psychological make-up from children who had siblings (Campbell, 1934). However, the theory persisted and was more widely held by the public at large than by the members of any selected group. How much of its sustenance came from the wellsprings of folklore and tradition and how much from first-hand observations of behavior is impossible to say.

In reviewing the many studies done in the past, several of the studies have a number of flaws which make their findings questionable. Many of the experimenters have measured purely arbitrary and very vague traits. Some of the traits have been selected without rationale. The measuring instruments employed have sometimes been coarse and superficial. In spite of the limitations, the experimental evidence does contribute to the research on the only child (Burke, 1956).

Most researchers agree there is an only child syndrome made up
of both positive and negative characteristics of the only child. The child has his parents' complete attention. He is never slighted in favor of a brother or sister (Messer, 1968). The extra attention can be an overindulgence of whims or it can mean an enrichment of the child's environment. This extra attention can make the only child and even the oldest child who remains an only child for several years feel very special (Kramer, 1972).

The only child is more oriented toward adults than toward his peers. This is natural as he has just his parents to respond to (Kramer, 1972). This association with adults explains the evidence that only children have larger vocabularies (Loomer, 1967). The association with adults leads to more companionship with parents. There is also less likelihood that the personality will be distorted by competition with brother and sisters.

The only child is subjected to an adult culture more than to a peer culture. If the parents' social goals are peer oriented and they want their child to think and act as a member of the group, they are more likely to get that type of child in a multiple-child family, whereas the only child is more likely to be an achiever and a doer who strikes out on his own (Kramer, 1972).

The only child tends to have a heightened sense of responsibility. Many parents feel children give them a second chance at life so that the parents have certain expectations for their children. When there are two or three children, these aspirations can be divided between them, but when there is only one, the only child feels he alone must meet his parents' expectations.
Only children can and do develop into wholesome and well-adjusted individuals. Only children as well as first-born rank high on any roster of important scientists and creative artists (Messer, 1968). There is also a disproportionately high number of the two groups in such groups as National Merit Scholars, Westinghouse science-prize winners, astronauts, doctors, and those listed in such directories of distinguished individuals as Who's Who in America.

Despite the statistics that show only children very often grow up to be outstanding, there has been a long-standing prejudice against the only child. Parents have come to feel that they had to have a second child to save their first (Kramer, 1972).

There are also advantages for parents in having only one child. They have less financial strain. They are less restricted than parents with two or more children. They can devote more time and energy to the one child. They can contribute to zero population growth (Hawke, 1974). They are also spared the wear and tear of dealing with sibling rivalry (Messer, 1968). One child families also permit mothers to realize their own ambitions in life and still enjoy the experience of motherhood (Kramer, 1972).

Onliness by itself is not the determining factor in how an only child behaves. It does affect a child but not to any greater degree than being the eldest, middle, or youngest child. There are potential problems in the one-child family, just as there are in any family size. The dangers are different, but they are not worse.
It is time that theory and research come together on the subject of the only child. Research has shown there is basically nothing wrong with having only one child if the parents so desire. It is time for well-meaning friends and relatives to become informed on the subject of only children and quit pressuring people about having a second and third child. A second child can be a valuable learning experience, but parents should not have children in order to provide certain experiences for those which they already have. A child is not a tool, but an end in itself.

Parents can have a happy, well-rounded and successful only child. A couple does not have to have two children to have a rich family life. People should not feel that they have to have either no children or two as a minimum which is what many people feel today. One-child families need to be added to the range of possibilities of family size, because one-child families can better meet the needs of some people. The pressure to conform to the two and three child families of the past should be changed.

The one-child family is a very good solution to the population problem. Dr. Margaret Mead (Kramer, 1972) recommends that people should either remain childless, have one child or have many children because in the two-child family, one always suffers because the competition is so intense.

In the one-child family, parents should provide opportunities
for the only child to have close contacts with children his own age and children of other ages. The only child can also profit from nursery school experiences. Parents can also make sure they have personal lives aside from their child.

Throw out the old myths about only children. Revolutionize the thinking concerning family size in general and the one-child family in particular. Choosing to have only one child can be a positive, rewarding experience for both the parent and the child.

Future research concerning the only child is recommended in the area of vocational adjustment in adulthood. Most of the previous research has dealt with the only child from birth through age 20. There has been only one study dealing with vocational adjustment and it was done prior to 1954.
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