

1-1-1969

Father availability and academic performance in third grade boys.

Robert Walter Blanchard
University of Massachusetts Amherst

Follow this and additional works at: https://scholarworks.umass.edu/dissertations_1

Recommended Citation

Blanchard, Robert Walter, "Father availability and academic performance in third grade boys." (1969).
Doctoral Dissertations 1896 - February 2014. 3344.
https://scholarworks.umass.edu/dissertations_1/3344

This Open Access Dissertation is brought to you for free and open access by ScholarWorks@UMass Amherst. It has been accepted for inclusion in Doctoral Dissertations 1896 - February 2014 by an authorized administrator of ScholarWorks@UMass Amherst. For more information, please contact scholarworks@library.umass.edu.

UMASS/AMHERST



312066 0298 2803 6

FIVE COLLEGE
DEPOSITORY

ARCHIVES
THESIS

D
1969
B639

FATHER AVAILABILITY AND ACADEMIC PERFORMANCE
IN THIRD GRADE BOYS

A Dissertation Presented

by

ROBERT W. BLANCHARD

Submitted to the Graduate School of the
University of Massachusetts in
Partial Fulfillment of the Requirement for the Degree of

DOCTOR OF PHILOSOPHY

August, 1969

Major Subject: Psychology

FATHER AVAILABILITY AND ACADEMIC PERFORMANCE
IN THIRD GRADE BOYS

A Dissertation

By

Robert W. Blanchard

Approved as to style and content by:

Henry B. Biller
(Chairman of Committee)

Harold James
(Head of Department)

Harold James
(Member)

Castellano B. Turner
(Member)

August, 1969

ABSTRACT

The degree of father availability on the academic performance of young school children, particularly boys, has been of interest to educators for some time. Unfortunately most of the published studies have not controlled for such factors as socio-economic status, race, and intelligence in evaluating the academic achievement of boys with varying degrees of father availability.

The present study consists of 44 boys drawn from a third grade, small town school population of 297 male children. These boys were divided into four groups of eleven boys each; Group I consisting of boys who have been without a father in the home since age two; Group II consisting of boys who have been without a father in the home since age five; Group III made up of boys whose mothers reported that, although the father was present in the home, he had a very low degree of quantitative daily interaction with his son; and Group IV made up of boys whose mothers reported a very high amount of daily father-son interaction within the home. The four groups were closely matched for age, grade, race, socio-economic status, and intelligence. Academic performance was measured by teacher awarded grades and the scores the boys received on the Stanford Achievement Test. Intelligence was measured by the scores the boys obtained on the Otis-Lennon Mental Ability Test.

The results indicated that those boys who had high father availability scored significantly higher on academic achievement measures than boys who had been father absent since age two. Boys father absent since age five and those boys with low father availability scored close to the population mean on the Stanford Achievement Test, but resembled the group of boys father absent since age two in having significantly lower teacher awarded grades than the boys with high father availability. It was concluded that the presence of an actively interested father who has frequent quantitative interaction with his son will facilitate better than average academic performance in his child. Third grade boys who have been without a father in the home since age two will score significantly lower than the average on measures of academic performance.

TABLE OF CONTENTS

INTRODUCTION.....	1
METHOD.....	12
RESULTS.....	29
DISCUSSION.....	47
APPENDICES:	
I: Maternal Questionnaire.....	56
II: Raw Data, All Groups.....	61
REFERENCES.....	65

TABLES

1a. Descriptive Socio-Economic Status	19
1b. Numerical Socio-Economic Status	20
2. Number of Male Siblings	21
3. Amount of Parental Contact	22
4. Age	25
5. Intelligence	26
6. Group Comparisons for Academic Achievement Grade Equivalent Test Scores	29
7. Group Comparisons for Paragraph Meaning	30
8. Group Comparisons for Word Meaning	31
9. Group Comparisons for Spelling	31
10. Group Comparisons for Language Usage	32
11. Group Comparisons for Language Total	33
12. Group Comparisons for Science and Social Studies	33
13. Group Comparisons for Mathematical Concepts	34
14. Group Comparisons for Mathematical Problems	35
15. Group Comparisons for Math Total	35
16. Group Comparisons for Teachers' Grades	36
17. Means of Father Availability Groups on the Academic Performance Measure	37
18. Summary of Group Comparisons	38
19. Correlations Between Variables for All Groups	42
20. Correlations Between Variables for Group I	43
21. Correlations Between Variables for Group II	44
22. Correlations Between Variables for Group III	45
23. Correlations Between Variables for Group IV	46

24.	Raw Data, Group I	61
25.	Raw Data, Group II	62
26.	Raw Data, Group III	63
27.	Raw Data, Group IV	64

ACKNOWLEDGEMENTS

I would like to extend my gratitude to those persons who have supported me in this study. I would like to thank Dr. Harold Jarmon and Dr. Castellano Turner, as members of my Committee, for their help and understanding.

I am most thankful for the support of the staff of the Cape Cod Mental Health Center whose clinic routine was often complicated by the priority of this research. Particular appreciation is due Mr. Robert Vaillancourt, Public Service Intern, who assisted me in the clerical and statistical procedures and Mrs. Judith Harrington, who typed the manuscript. Mr. Paul Olenick, Assistant Superintendent of the Falmouth School System, who supported the study in its inception and served as an able spokesman to the school community as to the importance of such investigations, deserves my gratitude.

Finally, Dr. Henry Biller, Chairman of my Committee, a good friend and perceptive teacher, to whom I owe the most thanks for a productive and cooperative venture.

INTRODUCTION

A major category of referrals to the average child guidance clinic is that of the seven or eight year old boy who "seems unable to adjust to the classroom situation" and "is unable or unwilling to pay attention to school work". This type of boy also seems frequently to be without an effective paternal figure in the home. Poor academic performance in boys seems frequently linked with father absence or with lack of paternal involvement (Biller, 1969). Recent research suggests that, in general, male children tend to have more initial difficulty in adjusting to the school situation than do female children (Bronfenbrenner, 1967). Almost without exception, the teachers in the first four grades are women, with male teachers generally not making an appearance until the sixth and seventh grades. Boys who continue to manifest academic underachievement and/or disruptive classroom behavior are often referred to a child guidance clinic.

Theories of Personality Development and Academic Functioning

Intellectual performance in the elementary school aged child was related to the concept of "latency" by Freud (1910). Freud assumed that the ability of the average seven or eight year old child to forego instinctual gratification for the delayed rewards of academic accomplishment was a result of the diminution of hormonal activity. Social factors relating

to resolution of the Oedipal conflict were felt to play some part in setting the stage for academic development, but Freud views these as secondary influences. Bateson (1947), with biochemical evidence, argued against the notion of a physiological latency period by demonstrating that the hormonal secretions of androgen and estrogen in children age five to thirteen show a progressive rise throughout this period and into puberty without the diminution at age seven to age ten as predicted by Freud's theory of a physiological latency. However, the descriptive aspects of Freud's observations and their relationship to the nuclear family (presence of father, mother and child) continues to seem viable.

Later psychoanalysts, such as Bornstein (1951), Brunswick (1949) and Erikson (1945), still within psychoanalytic theory, postulated that the male child, in moving from the phallic stage through the resolution of the Oedipal conflict and then passing into latency, becomes ready for new learning. Libidinal energies are supposedly now released for meeting other demands of the culture such as school work. However, it would seem likely that a paternally deprived boy would have difficulty in both forming a secure masculine identification, and in actualizing his intellectual potential. Psychoanalytic theory predicts that the presence of the father in the household is essential for the normal resolution of the "Oedipal triangle".

Anna Freud (1965) views the failure to reach a latency phase as primarily a disturbance in the child's phallic period. In the phallic period, conflicts such as those relating to the fear of castration, and death lead to defensive operations and may create inhibitions, over-compensations, and/or passive or regressive behavior. However, the latency phase and the supposedly quiescent sexuality which it brings do not appear to be a universal phenomenon. For instance, Malinowski (1951) has found that certain societies have encouraged sexual behavior in children aged six through eleven and that these overt behaviors do not appear to be lessened or altered by the particular age of the child.

Kessler (1966) feels that early identifications with adults can play an important part in what she characterizes as the process of intellectual sublimation. She believes that the child who does not have a firm sex role identification is handicapped in his school functioning. Kessler (1966) defines academic underachievement as the discrepancy between the measurement of a person's potential (IQ test scores) and the measurement of their achievement (specialized achievement test scores). She feels there is one undisputed fact, that academic underachievement is predominantly a male problem. Shaw and McCuen (1960) emphasized that half of all males of above average ability may be considered underachievers and that these children become chronic school failures in the early elementary grades, while

females are not likely to demonstrate academic difficulties until the seventh or eighth grades. The high degree of male underachievement in the early school years may be related to difficulties encountered in the masculine identification process.

In a decided move away from classical analytic theory towards learning concepts, is the belief of psychoanalyst Forrest (1967) that the intensity and duration of the symbiotic mother-child relationship is influenced by the presence of the father from the very beginning. She feels it is the father's function to create a family unit, to stabilize the mother and to penetrate the infant's symbiosis with the mother and introduce the pleasurable stimulation and interest of the outside world. The father is seen as counterbalancing the child's and the mother's needs to gratify emotions and to place the weight of his support on the side of restraint and depth of feelings. By contrast, she sees the unrelating father for the child as a prototype of the cold, alien and unmanageable world where the child will feel ineffective, undesirable and isolated from the familiar symbiosis with mother. Active physical encounters with the father are felt to give the male child particularly a sense of survival, power and competence.

White (1959) defines competence as the ability of an organism to interact effectively with its environment. He feels "competence" to be a motivation and not a drive, a focal attention on a particular goal over which to seek active mastery, an interest which can be

pursued only at such times as the major needs are in abeyance. This is similar to the psychoanalytic concept of the neutralization of instinctual energy in a successful resolution of the Oedipal triangle. The boy who becomes competent in mastery of the environment and in problem-solving seems facilitated if he has an actively involved father.

Social theorists such as Parsons (1955, 1958) conceptualize the role of the father in the home as the proponent of instrumental learning. It is he who gives to both the male and female child their conception of work competence and the necessary skills to profitably interact with the outside world. By contrast, the mother is felt to be an expressive person who makes no marked distinction between the needs of her male and female children and, in general, tends to treat all her children as asexual persons in terms of their sex role development. Johnson (1963), elaborating on Parsons' theory, suggests that, without a father in the home, the male child has no opportunity to experience the withdrawal of tangible privileges and the physical punishments that foster an instrumental approach to the outside world in comparison with a "love oriented" or feminine approach that restricts outward environmental aggression and active mastery, and fosters guilt and dependent solutions to environmental challenges.

In the behaviorist tradition, Bandura and Walters (1963) and Krasner and Ullman (1965) view "latency phenomena" as the

result of reinforcement contingencies; that is cultural influences with no biological determinants. This is also the consensus of elementary school teachers with whom this writer has talked. These teachers do not consider temporal reinforcement as contributing as much to the overall behavior as do the "habits" that the child brings to the classroom from his home. It is this "habit pattern" that is often evoked by the frustrated third grade teacher as an explanation as to why a particular boy has not "settled down". They usually describe the boy with academic problems as being less able to grasp the concepts of abstract and integrative thinking.

Parental Absence or Inadequacy and Academic Functioning

There is considerable data indicating that father absence and/or lack of the father's involvement in the family can interfere with the boy's development of a masculine identification (Biller, 1969; Biller and Borstelmann, 1967). There are also a few studies suggesting a link between inadequate fathering and difficulties in intellectual functioning. In an early study, Sutherland (1930) tested Scottish children, many of whom had been deprived of a father since birth. Compared with father present children, the father absent children scored significantly lower on a somewhat primitive IQ test. However no attempt was made to control for the length of father absence or the selection factors involved when lower class, disrupted families are compared with middle class, stable homes. Deutsch and Brown (1964)

similarly observed that father absent children usually score below father present children on standardized intelligence tests and Sutton-Smith, Rosenberg and Landy (1968) found that males who lost their fathers early in life, generally had lower college aptitude test scores than did males whose fathers had not been absent.

Grunebaum et al (1962) studied elementary school boys with "normal IQ's" who scored one to two years below expectation on standard achievement tests. The fathers of the underachieving boys were reported to feel generally inadequate and to consider themselves failures. They viewed their wives as being superior to them and their wives generally shared this perception. The degree of paternal "failure", however, was adjudged from clinical interview data and represents, to some degree, the interpretation of the examiner. The implication from this study, however, is that males in this type of family are inadequate and expected to fail; the father does not present the boy with an adequate model of male competence.

Kimball (1952) investigated the relationship between poor father-son relationships and scholastic performance. He studied adolescent boys in a residential preparatory school in terms of a fifty item sentence completion test. All the subjects in his study had high levels of intelligence, although the group was failing in their school work. He compared a group of underachievers with a group of boys randomly selected from the total school

population. Significantly more of the underachieving adolescent boys appeared to have negative relationships with their fathers than did the control group.

Barclay and Cusumano (1967) utilized Witkin's rod and frame test of field dependence to study the effects of father absence on cognitive functioning in children. They assumed that field dependent persons are less differentiated, or less analytically oriented in their cognitive functioning and more passive in their life styles and approach to the environment than are field independent persons. They found that father absent adolescents were more dependent on external cues to determine their behavior than were father present boys, although both groups appeared similar in many manifest aspects of masculinity. Other research has also suggested that, among father present boys, poor father-son relationships are associated with boys' difficulties on certain cognitive tasks, particularly those involving analytical thinking (Dyk & Witkin, 1965).

Success in academic endeavors may be strongly related to the ability to delay gratification. Mischel (1961) examined the relationship between father absence and impulse control. Eight and nine year old West Indian children were studied in terms of their preference for immediate reward or delayed gratification. Father absent children manifested a greater preference for immediate gratification than did father present children; they more frequently chose a small piece of candy rather than waiting

a week for a larger candy bar. No attempt was made to control for the motivational role of the mother in this study.

Such studies point to the father performing an important function in the development of certain facets of the boy's cognitive development. Carlsmith (1964) found that father absent adolescent males were similar to females in the patterning of their aptitude test scores; father absent boys tended to have relatively higher verbal functioning than mathematical ability, suggesting a "feminine cognitive style". The aptitude test scores of these adolescent males were compared with female test score norms taken from actuarial tables. Females are usually more facile verbally than quantitatively and were similar to father absent males. Maccoby and Rau (1962) speculated that such findings were principally due to a higher anxiety level in father absent children. They assumed that the ability to utilize mathematical concepts requires attentional skills free from the disruption of anxiety. This notion was tested by Nelson and Maccoby (1966) on a sample of fifth grade children. They found that dependency conflicts, anxiety concerning aggressive behavior and father absence were common among highly verbal boys, while boys with a high numerical ability tended to have been father present, be extroverted, independent and, generally, had a higher acceptance of the male role.

Purpose of the Present Study

Previous research concerning the importance of father absence and the quality of the father-son relationship on the boy's academic performance is very provocative but, many potentially important factors have not been systematically taken into account. Biller (1969) pointed out that, in the great majority of studies concerning father absence and personality development, no attempt was made to control for difference in IQ, socio-economic status, sibling distribution, age of onset of father absence, and degree of father availability of the father present children.

In the present study, early father absent boys (father absent before the age of two), late father absent boys (father absent since the age of five), father present boys with low father availability and father present boys with high father availability were compared. The boys were matched as closely as possible on a number of variables (e.g., age, IQ, socio-economic status, sibling distribution) and, in general, it was predicted that degree of father availability would be positively related to academic achievement and to grades.

The following were some of the more specific major hypotheses:

- (1.) Father present boys generally function at a higher level on academic achievement tests than do father absent boys.
- (2.) Father present boys function at a significantly higher level on achievement tests related to verbal performance than do father absent boys.

- (3.) Father present boys function at a significantly higher level on academic achievement tests related to science and social studies than do father absent boys.
- (4.) Father present boys function at a significantly higher level on academic achievement tests related to mathematical performance than do father absent boys.
- (5.) Father present boys receive higher grades from their teachers than do father absent boys.
- (6.) The degree and length of father absence is an important variable in academic performance; late father absence is less debilitating than early father absence.
- (7.) The amount of father availability in father present homes is positively related to academic performance; boys with high father availability perform more adequately than boys with low father availability.

METHOD

The population in the present study consisted of 297 boys enrolled in 23 third grade classes in the Falmouth, Massachusetts school system and 4 third grade classes in the Bourne, Massachusetts school system. The boys were tested in their regular classes by their third grade teacher. The intelligence and achievement testing occurred during the first two weeks of May when the childrens' grade level was 3.8 years.

Measurement of Father Availability

Once the population of 297 boys was tested, a class roster was obtained and each boy was requested to bring home to his mother an explanatory letter and the questionnaire (See Appendix I). Although, in general, the response was good, there were 27 mothers who refused, or were unable to return the questionnaire in spite of repeated efforts to gain the mother's cooperation. The children whose mothers did not return the questionnaires were not used as subjects in the study.

The maternal questionnaire contained 21 questions, but only three questions pertained to the quantity of father-son interaction and three questions referred to the quantity of mother-son contact. Items relating to the quantity of father-son interaction were:

Question 12: How many hours does your husband usually spend playing with and talking with his third grade child on an average day?

Scoring: 0 hrs = 0, $\frac{1}{2}$ hr = 1, 1 hr = 2, 2 hrs = 3,
3 or more hrs = 4.

Question 16: On weekends and during the summer, how much time is your husband able to spend with your child?

Scoring: 0 hrs = 0, $\frac{1}{2}$ hr = 1, 1 hr = 2, 2 hrs = 3,
3 hrs = 4, 4 hrs = 5, 5 hrs = 6, 6 or more hrs = 7.

Question 17: How often does your husband and his third grade child go on trips together, such as swimming, ball games, bowling, etc?

Scoring: Never = 0, Seldom (less than once a month) = 1,
Sometimes (once or twice a month) = 2, Often
(once a week) = 3, Usually (two or more times
a week) = 4.

Items relating to the quantity of mother-son interaction were:

Question 3: How many hours do you usually spend playing with or talking with your third grade child on an average day?

Scoring: 0 hrs = 0, $\frac{1}{2}$ hr = 1, 1 hr = 2, 2 hrs = 3,
3 or more hrs = 4.

Question 14: How many hours per day do you help your child with his homework?

Scoring: 0 hrs = 0. 5 minutes = 1. 15 minutes = 2,
30 minutes = 3, 60 minutes or more = 4.

Question 15: On weekends and during the summer when your child is not in school, how much time on an average day are you able to spend with him?

Scoring: 0 hrs = 0, $\frac{1}{2}$ hr = 1, 1 hr = 2, 2 hrs = 3,
3 hrs = 4, 4 hrs = 5, 5 hrs = 6, 6 or more = 7.

The possible range of scores for both amount of father-son interaction and amount of mother-son interaction was zero to fifteen. For the 270 returned questionnaires, the mean score for amount of father-son interaction was 7.8 points and the mean score for amount of mother-son interaction was 8.1 points.

Measurement of Background Variables

Intelligence: The Otis-Lennon Mental Abilities Test, Form J (1967) is primarily a picture presentation type of intelligence test. Results are indicated in the form of deviation IQ scores with a mean of 100 and a standard deviation of 16. The reliability coefficients for grade three (N=13, 460) average about .92 (Harcourt, Brace and World, Inc 1967). This test, in its content, appears to answer Kessler's (1966) criterion that an intelligence test attempt to measure as wide a range of cognitive abilities as possible in comparison with the relatively restricted coverage of an achievement test which is concerned with the specific subject matter taught in the formal classroom.

Socio-Economic Status: The winter population of Cape Cod, primarily a summer resort area, is practically without a middle

class. From September until the following June, the population is made up of wealthy, retired persons, without small children and the labor force that maintains the summer properties and provides the services for such a resort community; i.e., carpenters, stone masons, waitresses, gas station workers, landscape laborers, small business men and motel operators and a contingent of USAF personnel from a nearby military installation. Hollingshead (1958) devised a seven point occupational scale of family social position, based on the occupation of the major wage earner in the family.

This scale is as follows:

High Socio-Economic Status

- I Higher executives, proprietors of large concerns and major professionals.
- II Business managers, proprietors of medium-sized businesses and lesser professionals.
- III Administrative personnel, proprietors of small, independent businesses and minor professionals.
- IV Clerical and sales workers, technicians and owners of little businesses.
- V Skilled manual employees.
- VI Machine operators and semi-skilled employees.
- VII Unskilled employees.

Low Socio-Economic Status

The actual numerical scoring for these occupational levels is multiplied by a Factor Weight of seven points. The seven levels

then have the following distribution:

<u>SES Class</u>	<u>Score</u>
I	7 - 13
II	14 - 20
III	21 - 27
IV	28 - 34
V	35 - 41
VI	42 - 48
VII	49 -

The sample of third grade children in the present study was from SES Classes V and VI (See Tables 1a and 1b).

Presence of Male Siblings: It has been suggested that the presence of male siblings, particularly older brothers, facilitates the development of masculine competence (Biller, 1969). For this reason, a five point index was used to arithmetically represent the male siblings in each child's household. Five points was given to a child who had both older and younger brothers, four points for a child with older brothers, three points for a child with one older brother, two points for a child with a younger brother and, one point for a child who had no male siblings in the home. (See Table 2).

Subjects: After the matching procedure was completed, the subjects were 44 lower middle class and upper lower class third grade boys. Excluded from consideration were all Negroes, Indians, Orientals, children of professional parents, sons of well-to-do fathers, and those children whose mothers did not return the

maternal questionnaire. The 44 subjects were divided into four groups, consisting of eleven boys each. Group I consisted of those boys who had been father absent since at least age two; Group II was made up of those boys who had been father absent since age five; Group III was composed of those boys whose mothers had reported on the maternal questionnaire that their husbands had little quantitative interaction with their sons; Group IV was filled with those boys whose mothers reported a very high amount of father-son interaction.

To determine the degree of father absence in Groups I and II, all the mothers, after returning the maternal questionnaire, were contacted directly through various community resources such as: school nurse, welfare director, school principal, etc. as to the amount of time their third grade child had been without a father in the home. The degree of father availability for Groups III and IV were assessed from the maternal questionnaire data.

An analysis of the amount of quantitative time the mothers reported spending with their third grade sons was done to control for the possibility that differences in academic performance between the boys was not a function of the degree of father availability, but the degree to which the individual mother interacted with her third grade son. The data on the mother's interaction was evaluated by a t-test for independent samples and it is important to note that there are no significant differences

between the four groups in terms of the amount of mother-child interaction (See Table 3).

A total of less than five points on the questions relating to the amount of father-son interaction was used as the criterion for low father availability; high father availability was defined as a score of more than eight points.

TABLE 1a

DESCRIPTIVE SOCIO-ECONOMIC STATUS

<u>SUBJECT</u>	<u>GROUP I</u>	<u>GROUP II</u>	<u>GROUP III</u>	<u>GROUP IV</u>
1	USAF Enlisted Widow	Clerk Separated	USAF Enlisted	Garage Manager
2	Waitress Divorced	USAF Enlisted Widow	Welfare Unemployed	Stone Mason
3	AFDC* Divorced	USAF Enlisted Divorced	Truck Driver	Shoe Salesman
4	USAF Enlisted Separated	USAF Enlisted Separated	Rug Salesman	Electric Lineman
5	Oiler Divorced	USCG Enlisted Divorced	House Painter	Truck Driver
6	Laborer Divorced	Laborer Divorced	Laborer	Handyman
7	Waitress Divorced	Fireman Divorced	Barber	Auto Mechanic
8	Salesman Divorced	AFDC* Illegitimate	Laborer	Mason's Tender
9	AFDC* Illegitimate	AFDC* Mason	USAF Enlisted	Helper Dump
10	Fisherman Divorced	Heater Repair Divorced	Engine Mechanic	Barber
11	AFDC* Separated	AFDC* Illegitimate	USAF Enlisted	Laborer

TABLE 1b

NUMERICAL SOCIO-ECONOMIC STATUS

<u>SUBJECT</u>	<u>GROUP I</u>		<u>GROUP II</u>		<u>GROUP III</u>		<u>GROUP IV</u>	
	<u>Score</u>	<u>SES</u>	<u>Score</u>	<u>SES</u>	<u>Score</u>	<u>SES</u>	<u>Score</u>	<u>SES</u>
1	42	VI	28	IV	42	VI	28	IV
2	42	VI	42	VI	49	VII	35	V
3	49	VII	42	VI	42	VI	28	IV
4	42	VI	42	VI	28	IV	35	V
5	42	VI	42	VI	35	V	42	VI
6	49	VII	49	VII	49	VII	49	VII
7	42	VI	35	V	35	V	35	V
8	28	IV	49	VII	49	VII	49	VII
9	49	VII	35	V	42	VI	49	VII
10	49	VII	35	V	35	V	35	V
11	49	VII	49	VII	42	VI	49	VII
<u>TOTAL</u>	<u>43</u>	<u>VI</u>	<u>40</u>	<u>V</u>	<u>40</u>	<u>V</u>	<u>39</u>	<u>V</u>

TABLE 2

NUMBER OF MALE SIBLINGS

<u>SUBJECT</u>	<u>GROUP I</u>	<u>GROUP II</u>	<u>GROUP III</u>	<u>GROUP IV</u>
1	1	1	1	1
2	4	3	4	5
3	1	1	1	1
4	3	5	3	3
5	5	2	2	2
6	5	5	4	5
7	3	3	4	3
8	3	5	5	3
9	4	5	3	3
10	2	2	2	1
11	<u>2</u>	<u>2</u>	<u>2</u>	<u>1</u>
	3.0	3.3	2.8	2.6

TABLE 3

SUBJ	AMOUNT OF PARENTAL CONTACT							
	GROUP I		GROUP II		GROUP III		GROUP IV	
	FATHER	MOTHER	FATHER	MOTHER	FATHER	MOTHER	FATHER	MOTHER
1	0	7	0	2	0	11	14	11
2	0	14	0	8	0	10	13	4
3	0	13	0	2	3	11	10	8
4	0	4	0	6	1	3	9	10
5	0	2	0	10	3	9	11	9
6	0	2	0	8	0	7	10	11
7	0	11	0	11	0	4	9	11
8	0	9	0	9	0	6	10	4
9	0	10	0	9	0	6	9	8
10	0	6	0	5	0	10	9	7
11	0	8	0	13	4	15	10	5
TOTAL	0	7.8	0	7.5	1.0	8.4	10.3	8.0

The group matching was done by three individuals (Public Service Interns, college students) assigned to the Cape Cod Mental Health Center during the summer of 1969, who did not know the boys' achievement test scores or class grades. The individual subject matching was based upon the characteristics of the early father absent group; boys who had been father absent since age two were the most difficult group to locate and consisted of 11 boys. Each boy in the early father absent group was matched with a boy who became father absent after age five. There were 23 boys available for selection for this second group. Boys from these groups were then matched individually with father present boys who had low father availability. There were 43 boys available for selection for this third group. Boys from the three groups were then individually matched with father present boys who had a high father availability. There were 68 boys available for selection for this fourth group.

The subjects were matched in terms of age, IQ (Otis-Lennon, Form J), socio-economic status, and sibling distribution. Because of the number of variables that were matched, there were only three instances where possible matching alternatives existed and these were settled by random selection procedures.

The initial subject pool consisted of 297 boys. The final groups did not differ from one another more than 3 months in age, 2 IQ points, and were similar in sibling distribution

and socio-economic status. The subjects had a mean age of 9 years, 4 months; a mean IQ of 102; and were from working-class and lower-middle class backgrounds. Father absence was due primarily to divorce and separation. The mean age of onset of father absence for the early father absent group was 9 months, the mean length of father absence was 7 years, 8 months. The mean age of onset of father absence for the late father absent group was 5 years, 4 months; the mean length of father absence was 2 years, 10 months. The low father present group had infrequent interaction with their fathers (average of less than six hours per week), while the father present, high father availability group had very frequent interaction with their fathers (average of more than two hours daily).

The 44 boys had an average age of 111.2 months (population age was 112.0 months), their mean IQ was 102.3 (population IQ was 105.6) and the father absence was primarily due to separation and divorce with only three incidences of the father's death by trauma.

As can be seen from Tables 2 to 5, the subjects were closely matched in terms of age, intelligence, socio-economic status and availability of male siblings.

TABLE 4

AGE

<u>SUBJECT</u>	<u>GROUP I</u>	<u>GROUP II</u>	<u>GROUP III</u>	<u>GROUP IV</u>
1	104	113	121	105
2	105	113	109	123
3	105	120	109	111
4	105	106	110	109
5	115	109	108	113
6	111	118	104	111
7	115	111	111	105
8	114	113	120	121
9	106	114	112	114
10	111	111	117	115
11	124	114	104	109
<u>TOTAL</u>	<u>110</u>	<u>112</u>	<u>111</u>	<u>112</u>

TABLE 5

INTELLIGENCE

<u>SUBJECT</u>	<u>GROUP I</u>	<u>GROUP II</u>	<u>GROUP III</u>	<u>GROUP IV</u>
1	116	116	118	116
2	114	113	110	112
3	109	104	102	101
4	108	106	110	110
5	107	109	101	108
6	101	111	108	106
7	98	110	109	110
8	96	85	83	94
9	95	99	105	95
10	86	94	95	91
11	82	83	82	89
<u>TOTAL</u>	<u>101.1</u>	<u>103.2</u>	<u>102.1</u>	<u>103.0</u>

Measurement of Academic Achievement

Each child in the third grade was administered the group form of the Stanford Achievement Test (Form W, 1964) by their classroom teacher in the late spring. The test covers academic achievement in seven areas: paragraph meaning, word meaning, spelling, language usage, science and social studies, mathematical concepts, and mathematical problems. There are total scores for verbal and quantitative skills and an overall grade equivalent. Each subtest score is represented on a ten month school year, so that a child one month from graduation in the third grade, who is achieving at an average level, would have a subtest score of 3.9 years. In the present study, in order to simplify the statistical analyses, all the subtest scores were multiplied by a factor of 10 so that a grade score of 3.90 was scored as 39.00.

Measurement of Teacher Grades

The school systems on Cape Cod have a generally standardized grading system and grades are awarded in reading, language, arithmetic, and social studies. Each grade was given a numerical value (A=4.00, B=3.00, C=2.00, D=1.00, and F=0.00), and a grade point average was computed. Thus a child achieving a score of 2.00 would have a C average; in data analyses, all grade point averages were multiplied by a factor of 10; a grade point average of 2.00 was scored 20.00. It must be remembered that individual student grades are an achievement test of a kind. While indicating

academic performance, they also represent an amalgam of classroom behavior, objective test performance and teacher bias. However, in the present school systems, the grades given by the teachers are independent of the achievement test scores such as the Stanford Achievement Test. The Stanford Achievement Test is scored commercially by machine, outside the school system and the test scores are not available to the teachers until after the close of school in June; therefore, the scores are not available to the third grade teachers at the time they determine final grades.

RESULTS

Since the groups had been matched on several variables (i.e. age, IQ, SES, sibling distribution), they were compared by means of t-tests for matched pairs (Bruning & Kintz, 1968).

Academic Achievement Grade Equivalent Test Scores

The high father present boys had significantly higher academic achievement grade equivalent test scores than did the three other groups (See Table 6). Their scores were at a much higher level than the other three groups, particularly when compared to the early father absent boys. However, no other significant group comparison differences in terms of grade equivalent scores emerged.

TABLE 6

Group Comparison for Academic Achievement

Grade Equivalent Test Scores

<u>Group</u>	<u>Mean</u>	<u>Comparison</u>	<u>t</u>	<u>p</u>
I Early Father Absent	31.00	I vs II	1.38	n.s.
		I vs III	1.40	n.s.
II Late Father Absent	35.64	I vs IV	5.18	.001
III Low Father Present	35.27	II vs III	< 1	n.s.
		II vs IV	3.53	.01
IV High Father Present	47.18	III vs IV	3.21	.01

Paragraph Meaning Achievement Test Scores

The high father present group functioned at a significantly higher level on the paragraph meaning subtest than did both the father absent groups, but no significant differences were found for any of the other comparisons (See Table 7).

TABLE 7

Group Comparisons for Paragraph Meaning

<u>Group</u>	<u>Mean</u>	<u>Comparison</u>	<u>t</u>	<u>p</u>
I Early Father Absent	29.64	I vs II	< 1	n.s.
II Late Father Absent	31.36	I vs III	1.10	n.s.
		I vs IV	3.86	.01
III Low Father Present	35.27	II vs III	1.32	n.s.
		II vs IV	3.20	.01
IV High Father Present	42.45	III vs IV	1.46	n.s.

Word Meaning Achievement Test Scores

The high father present group was significantly higher than the father absent groups in terms of scores earned on the word meaning subtest (See Table 8). There was a tendency for the high father present group to score higher than the low father present group, but this and other comparisons pertaining to paragraph meaning did not yield significant results.

TABLE 8

Group Comparisons for Word Meaning

<u>Group</u>	<u>Mean</u>	<u>Comparison</u>	<u>t</u>	<u>p</u>
I Early Father Absent	32.64	I vs II	< 1	n.s.
II Late Father Absent	34.91	I vs III	< 1	n.s.
		I vs IV	3.88	.01
III Low Father Present	35.36	II vs III	< 1	n.s.
		II vs IV	3.26	.01
IV High Father Present	47.55	III vs IV	2.11	.10

Spelling Achievement Test Scores

For the spelling subtest, the only significant finding involved the relative superiority of the high father present group to the other three groups (See Table 9).

TABLE 9

Group Comparisons for Spelling

<u>Group</u>	<u>Mean</u>	<u>Comparison</u>	<u>t</u>	<u>p</u>
I Early Father Absent	34.00	I vs II	< 1	n.s.
		I vs III	< 1	n.s.
II Late Father Absent	35.36	I vs IV	2.92	.05
		II vs III	< 1	n.s.
III Low Father Present	33.73	II vs IV	3.01	.05
		III vs IV	3.08	.05

Language Usage Achievement Test Scores

The high father present group performed significantly better on the language usage test than the early father absent group (See Table 10). There was a tendency for the high father present group to score higher than the low father present group, but this and other comparisons for language usage did not reach statistical significance.

TABLE 10

Group Comparisons for Language Usage

<u>Group</u>	<u>Mean</u>	<u>Comparison</u>	<u>t</u>	<u>p</u>
I Early Father Absent	27.64	I vs II	1.59	n.s.
		I vs III	1.39	n.s.
II Late Father Absent	35.09	I vs IV	3.44	.01
III Low Father Present	33.55	II vs III	< 1	n.s.
		II vs IV	1.69	n.s.
IV High Father Present	44.27	III vs IV	2.02	.10

Language Total Achievement Test Scores

The high father present boys had significantly higher language total test scores than did the other three groups, particularly the early father absent group, but the remaining comparisons did not yield statistically significant results. (See Table 11.)

TABLE 11

Group Comparisons for Language Total

<u>Group</u>	<u>Mean</u>	<u>Comparison</u>	<u>t</u>	<u>p</u>
I Early Father Absent	31.09	I vs II	1.82	n.s.
II Late Father Absent	36.09	I vs III	< 1	n.s.
		I vs IV	4.16	.01
III Low Father Present	34.91	II vs III	< 1	n.s.
		II vs IV	2.39	.05
IV High Father Present	46.18	III vs IV	2.53	.05

Science and Social Studies Achievement Test Scores

The high father present group earned a higher science and social studies subtest score than did the other three groups; the difference between the high father present group and the early father absent group was particularly large. The low father present group scored higher than did the early father absent group on this subtest (See Table 12).

TABLE 12

Group Comparisons for Science and Social Studies

<u>Group</u>	<u>Mean</u>	<u>Comparison</u>	<u>t</u>	<u>p</u>
I Early Father Absent	28.64	I vs II	1.91	n.s.
		I vs III	2.48	.10
II Late Father Absent	37.09	I vs IV	5.04	.001
III Low Father Present	36.64	II vs III	< 1	n.s.
		II vs IV	2.89	.02
IV High Father Present	48.82	III vs IV	2.41	.05

Mathematical Achievement Test Scores

In terms of the mathematical concepts subtest, the high father present group significantly out-performed the other groups, particularly the early father absent group (See Table 13). These, however, were the only significant comparisons concerning the mathematical concepts subtest.

TABLE 13

Group Comparisons for Mathematical Concepts

<u>Group</u>	<u>Mean</u>	<u>Comparison</u>	<u>t</u>	<u>p</u>
I Early Father Absent	31.82	I vs II	2.06	n.s.
II Late Father Absent	41.45	I vs III	< 1	n.s.
III Low Father Present	36.18	I vs IV	4.19	.01
IV High Father Present	51.00	II vs III	1.90	n.s.
		II vs IV	1.91	.10
		III vs IV	2.99	.02

Mathematical Problems Achievement Test Scores

The only significant group comparisons pertaining to mathematical problems involved the high father present group attaining a higher score than either the early father absent or the low father present groups (See Table 14).

TABLE 14

Group Comparisons for Mathematical Problems

<u>Group</u>	<u>Mean</u>	<u>Comparison</u>	<u>t</u>	<u>p</u>
I Early Father Absent	28.00	I vs II	1.91	n.s.
		I vs III	1.37	n.s.
II Late Father Absent	37.64	I vs IV	3.73	.01
III Low Father Present	34.00	II vs III	1.67	n.s.
		II vs IV	1.27	n.s.
IV High Father Present	43.36	III vs IV	2.98	.02

Mathematical Total Achievement Test Scores

The high father present group received a significantly higher math total score than did either the early father absent and the low father present groups. There was a tendency for the late father absent group to score higher than the early father absent group, but this and the other remaining comparisons for math total were not significant (See Table 15).

TABLE 15

Group Comparisons for Math Total

<u>Group</u>	<u>Mean</u>	<u>Comparison</u>	<u>t</u>	<u>p</u>
I Early Father Absent	31.55	I vs II	2.70	.10
		I vs III	1.02	n.s.
II Late Father Absent	39.73	I vs IV	3.47	.01
III Low Father Present	35.27	II vs III	2.13	n.s.
		II vs IV	1.53	n.s.
IV High Father Present	46.45	III vs IV	3.54	.01

Teachers' Grades

In terms of the grade point average index, the high father present boys scored significantly higher than both of the father absent groups; however, other comparisons were not significant (See Table 16).

TABLE 16

Group Comparisons for Teachers' Grades

<u>Group</u>	<u>Mean</u>	<u>Comparison</u>	<u>t</u>	<u>p</u>
I Early Father Absent	24.00	I vs II	1	n.s.
		I vs III	1	n.s.
II Late Father Absent	25.18	I vs IV	3.87	.01
III Low Father Present	24.00	II vs III	1	n.s.
		II vs IV	3.00	.05
IV High Father Present	32.36	III vs IV	4.08	.01

A summary of Achievement Test Score means and Teacher Grade means can be found in Table 17. A summary of statistical comparisons between the four groups for Achievement Test Scores and Teacher Grades can be found in Table 18.

TABLE 17

Means of Father Availability Groups on the Academic Performance Measure

	Population Norms	Early Father Absent	Late Father Absent	Low Father Present	High Father Present
Grade Equivalent Scores	38.92	31.00	35.64	35.27	47.18
Paragraph Meaning	37.54	29.64	31.36	35.27	42.45
Word Meaning	38.71	32.64	34.91	35.36	47.55
Spelling	37.06	34.00	35.36	33.73	49.27
Language Usage	39.02	27.64	35.09	33.55	44.27
Language Total	36.40	31.09	36.09	34.91	46.16
Science & Social Studies	40.56	28.64	37.09	36.64	46.82
Mathematical Concepts	40.92	31.82	42.45	36.16	51.00
Mathematical Problems	36.94	28.00	37.64	34.00	43.36
Math Total	36.91	31.55	39.73	35.27	46.45
Teachers' Grades	25.20	24.00	25.18	24.00	32.36

Summary of Group Comparisons

<u>Measures</u>	<u>Groups I vs II</u>		<u>Groups I vs III</u>		<u>Groups I vs IV</u>		<u>Groups II vs III</u>		<u>Groups II vs IV</u>		<u>Groups III vs IV</u>	
Grade Equivalent Scores	1.38	1.40	5.18*****	<1	<1	3.53*****	3.21*****					
Paragraph Meaning	<1	1.10	3.86*****	1.32	3.20*****	1.46						
Word Meaning	<1	<1	3.88*****	<1	3.26*****	2.11*						
Spelling	<1	<1	2.92**	<1	3.01**	3.08**						
Language Usage	1.59	1.39	3.44*****	<1	1.69	2.02*						
Language Total	1.82	<1	4.16*****	<1	2.39**	2.53**						
Science & Social Studies	1.91	2.48*	5.04*****	<1	2.89****	2.41**						
Mathematical Concepts	2.06	<1	4.19*****	1.90*	1.91*	2.99****						
Mathematical Problems	1.91	1.37	3.73*****	1.67	1.27	2.98****						
Math Total	2.70*	1.02	3.47*****	2.13	1.53	3.54*****						
Teachers' Grades	<1	<1	3.87 *****	<1	3.00**	4.08*****						

I=Early Father Absence, II=Late Father Absence, III= Low Father Present, IV=High Father Present

*= .10, **=.05, ***=.02, ****=.01 *****= .001

Intercorrelations Among Academic Variables

The expected significant correlation between IQ scores and Achievement Test scores were found for the total sample. The correlation between Teachers' Grades and all sections of the Achievement Test battery were highly significant ($p < .01$). Since the teachers did not know at the time of awarding final grades, what the boys' Achievement Test Scores were, the independent Teachers' Grades serve to further support the validity of both measures. The subtest scores on the Achievement Test were all highly correlated with each other ($p < .01$), with the lowest correlation being .42 and the highest .91 (See Table 19).

Correlation Among Variables for the Early Father Absent Group: There was only one significant correlation between IQ test scores and the subtest of Science and Social Studies on the Stanford Achievement Test for the early father absent boys. The Achievement Subtest Scores do not tend to correlate as highly with one another as they did for the total sample. This finding suggests that early father absent boys are erratic in their academic functioning (See Table 20)

Correlation Among Variables for the Late Father Absent Group: There were no significant relationships between IQ and the Achievement Test Scores for the boys who have been father absent since the age of five. Grades were not significantly correlated with the Achievement Test Scores and the inter-correlations were even lower for this group than they were for

the early father absent boys. In general, there appeared to be a similar inconsistency among the various indices of academic performance as found for the early father absent group of boys (See Table 21).

Correlation Among Variables for the Low Father Present Group: Similar to the early and late father absent groups, there was an absence of significant correlations between IQ and Achievement Test Scores. As with the late father absent boys, Grades did not show a significant correlation with Achievement Test Scores. As with the early and late father absent groups, the low father present group also shows an inconsistency among measures of intellectual functioning (See Table 22).

Correlation Among Variables for the High Father Present Group: All but four correlations between IQ and Achievement Test Scores were significant. This is the highest number of significant correlations between IQ and Achievement Test Scores for any group. This suggests that boys from homes where the father is highly available seem to be able to utilize their intellectual abilities as indicated by their functioning on standardized achievement tests. Grades were significantly and positively correlated with Language Usage, Math Total and Composite Grade Equivalent Scores, while several other Achievement Test Scores approached significance. This is a much higher rate of significant

correlations than for the other three groups. This again suggests that boys who have high father availability can better utilize their intellectual potential in productive academic work than can father absent boys or boys who come from homes where the father is low in availability (See Table 23).

TABLE 19

CORRELATION BETWEEN VARIABLES FOR GROUPS I, II, III, & IV

	IQ	GRD	PAR	WRD	SPEL	LANGU	LANGT	SCI	MATC	MATP	MATT	COMGRD
IQ	1.0											
GRD	.19	1.0										
PAR	.30	.43	1.0									
WRD	.11	.52	.70	1.0								
SPEL	.14	.62	.57	.66	1.0							
LANGU	.30	.57	.63	.64	.64	1.0						
LANGT	.17	.60	.79	.81	.86	.86	1.0					
SCI	.45	.43	.69	.67	.53	.74	.72	1.0				
MATC	.46	.57	.59	.62	.62	.71	.73	.75	1.0			
MATP	.24	.46	.42	.55	.47	.59	.60	.50	.59	1.0		
MATT	.39	.63	.57	.62	.70	.74	.77	.68	.91	.79	1.0	
COMGRD	.38	.63	.79	.81	.77	.84	.91	.88	.86	.67	.87	1.0

p = .05 when r .31 p = .01 when r .39

TABLE 20

CORRELATION BETWEEN VARIABLES FOR GROUP I

	IQ	GRD	PAR	WRD	SPEL	LANGU	LANGT	SCI	MATC	MATP	MATT	COMGRD
IQ	1.0											
GRD	.21	1.0										
PAR	.16	.37	1.0									
WRD	.13	.60	.84	1.0								
SPEL	.20	.63	.56	.71	1.0							
LANGU	.21	.53	.71	.72	.60	1.0						
LANGT	.22	.51	.84	.88	.87	.80	1.0					
SCI	.61	.39	.39	.34	.28	.61	.40	1.0				
MATC	.59	.74	.59	.71	.77	.77	.79	.52	1.0			
MATP	.49	.12	.32	.50	.07	.43	.35	.27	.50	1.0		
MATT	.58	.68	.51	.70	.77	.70	.78	.45	.96	.57	1.0	
COMGRD	.53	.61	.67	.76	.78	.82	.86	.75	.90	.46	.87	1.0

p = .05 when r .60 p = .01 when r .73

TABLE 21

CORRELATION BETWEEN VARIABLES FOR GROUP II

	IQ	GRD	PAR	WRD	SPEL	LANGU	LANGT	SCI	MATC	MATP	MATT	COMGRD
IQ	1.0											
GRD	.27	1.0										
PAR	.23	.47	1.0									
WRD	-.15	.45	.67	1.0								
SPEL	-.35	.36	.66	.83	1.0							
LANGU	.23	.40	.76	.22	.28	1.0						
LANGT	-.32	.34	.77	.59	.82	.66	1.0					
SCI	.24	-.19	.42	.18	.22	.43	.32	1.0				
MATC	.42	.29	.51	.12	.31	.45	.39	.72	1.0			
MATP	.13	.55	.80	.80	.80	.45	.64	.47	.57	1.0		
MATT	.29	.47	.74	.55	.65	.49	.59	.66	.87	.91	1.0	
COMGRD	.09	.45	.84	.72	.75	.43	.75	.56	.69	.91	.91	1.0

p = .05 when r .60 p = .01 when r .73

CORRELATION BETWEEN VARIABLES FOR GROUP III

	IQ	GRD	PAR	WRD	SPEL	LANGU	LANGT	SCI	MATC	MATP	MATT	COMGRD
IQ	1.0											
GRD	-.12	1.0										
PAR	.54	.16	1.0									
WRD	.20	.09	.66	1.0								
SPEL	-.06	.15	.51	.71	1.0							
LANGU	.26	.27	.64	.52	.56	1.0						
LANGT	.22	.33	.80	.75	.83	.88	1.0					
SCI	.58	-.01	.86	.62	.36	.70	.70	1.0				
MATC	.39	-.08	.84	.62	.54	.77	.80	.72	1.0			
MATP	-.24	.07	.44	.30	.20	.39	.40	.43	.53	1.0		
MATT	.21	-.03	.80	.57	.47	.73	.75	.70	.95	.76	1.0	
COMGRD	.47	.07	.94	.75	.58	.80	.87	.92	.91	.54	.88	1.0

$p = .05$ when $r = .60$ $p = .01$ when $r = .73$

TABLE 23

CORRELATION BETWEEN VARIABLES FOR GROUP IV

	IQ	GRD	PAR	WRD	SPEL	LANGU	LANGT	SCI	MATC	MATP	MATT	COMGRD
IQ	1.0											
GRD	.52	1.0										
PAR	-.23	.17	1.0									
WRD	.12	.18	.44	1.0								
SPEL	.77	.59	.27	.22	1.0							
LANGU	.56	.68	.28	.54	.70	1.0						
LANGT	.58	.58	.58	.72	.76	.89	1.0					
SCI	.60	.55	.43	.67	.59	.74	.81	1.0				
MATC	.65	.50	.11	.37	.33	.56	.48	.73	1.0			
MATP	.35	.48	-.13	.41	.50	.69	.57	.22	.30	1.0		
MATT	.60	.67	.05	.33	.53	.73	.61	.52	.79	.75	1.0	
COMGRD	.67	.68	.41	.66	.70	.90	.92	.90	.90	.76	.57	.80

p = .05 when r .60 p = .01 when r .73

DISCUSSION

In terms of most comparisons, the results indicated that the academic performance of the high father present group was very superior compared to the other three groups (See Table 18). The differences between the high father present and the early father absent groups were especially striking; in every major comparison, the high father present group performed at a significantly higher level than did the early father absent group, and particularly wide gulfs in functioning were found in terms of grades, overall achievement test grade equivalent scores, and achievement test scores covering language usage, science and social studies, and mathematical concepts. The high father present group also scored higher in every comparison with both the late father absent and low father present groups; the differences were significant in all but four cases for each group (i.e., language usage, math concepts, math problems, math total in comparisons involving the high father present and late father absent groups; paragraph meaning, word meaning, language usage, mathematical concepts in comparisons involving the high and low father present groups).

Although results of individual comparisons were not statistically significant, the late father absent and low father present groups also had consistently higher academic performance

scores than did the early father absent group. Only in one of the comparisons involving the low father present and the early father absent groups was there a slight difference favoring the early father absent group.

The achievement test subscores indicated that the early father absent boys were clearly underachievers; their mean scores varied from a high second grade level to a low third grade level. In terms of academic achievement test scores, both the late father absent and low father present boys generally functioned three to five months below grade level, although, in a few instances (math concepts, math total), the late father absent group functioned at, or slightly above, grade level. Teachers' grades pointed to a marginal academic performance for the early father absent, late father absent, and low father present groups.

In contrast, the high father present group received superior grades and performed above grade level on every academic achievement indicator; they averaged about eight months above grade level, with a range of three months to slightly more than one year above grade level.

In terms of the specific hypotheses, it was not found that low father available boys did significantly more poorly on academic measures than did high father available boys, nor that high father interaction, in comparison with low father availability, facilitated intellectual competence. The presence

of a highly available father, however, did prove significantly more facilitating than no father at all, particularly if the boy had been father absent since age two. The significant variable appears to be early father absence for some forms of academic underachievement and high father availability for some forms of superior academic functioning.

The present findings are consistent with previous studies suggesting that father absence or father unavailability can interfere with academic performance (Biller, 1969). Kohlberg (1966) had speculated that some of the differences between father absent and father present children might be primarily a result of intelligence, but the fact that IQ matching was done in the present study suggests that the father absent subjects were not suffering from a general intellectual ability deficiency. It is interesting to note (See Table 23) that only in the high father present group was there a significant correlation ($r=.67$, $df=10$, $p .05$) between IQ and academic achievement test grade equivalent scores. In addition, the correlation ($r=.52$, $df=10$, $p .10$) between grades and IQ was also highest for the high father present group. Such findings may be interpreted as suggesting that boys from high father present families are most likely to actualize their intellectual potential.

In the main, the present data suggest that variation among boys differing in father availability may be largely a function

of motivational differences. There are some scattered findings pointing to differences between father absent and father present boys in terms of anxiety level and achievement motivation (Biller, 1969). Highly available fathers seem to afford their sons models of perseverance and achievement motivation.

The data do not generally point to specific types of cognitive abilities or deficiencies being associated with membership in a particular father availability group. For example, lower verbal performance was found among the early father absent and low father present groups, as well as lower quantitative functioning suggested by some research (Carlsmith, 1964) to be related to father absence. It is interesting to note the tendency for the late father absent groups to be less handicapped in mathematical functioning than the early father absent and low father present groups.

The present study, as have studies covering the sex role development process (e.g., Biller, 1969b; Hetherington, 1966), suggested that children who become father absent early in life are more handicapped than those who become father absent after the age of five; although individual comparisons did not reveal significant differences between these two groups, the late father absent group scored higher in every case. The results were also in line with other data suggesting a general depression of academic functioning associated with early father absence (Sutton-Smith, Rosenberg and Landy, 1968).

Although low father presence does not appear to have as disruptive an effect on academic performance as does early father absence, the differences between the high father present and low father present boys are also intriguing. It should be remembered that the two father present groups in the current study were extremely different in terms of amount of father availability; smaller differences in degree of father availability may not be very important. There is some research suggesting that the quality of the father-son relationship is more important than the quantity of father-son interaction (Biller, 1968b). A few hours a week of active, positive father-son interaction would seem much more facilitating to the boy than many hours of being with a consistently critical and frustrating father.

The finding that late father absent boys, in contrast to low father present boys, function adequately on mathematical tasks, and the general tendency for the late father absent group to perform slightly above the low father present group, suggests that the latter group may have had a relatively positive father-son relationship during early childhood. The quality of the father-son relationship at different periods of the child's development may have particularly strong ramifications at specific age periods. The impact of the father-son relationship may vary as a function of the child's age; for example, academic performance may be more depressed in high school as compared to elementary school.

Forrest (1967) and Parsons (1958) have emphasized the important role of the father in facilitating independence and instrumental competence. The principal "job" of the third grade child is to do well in school and factors that facilitate this effort seem positively related to the functioning of the nuclear family. Those families that report the presence of an involved and interacting father, appear to produce the more competent sons. There are, of course, many exceptions that can be cited but, when population averages are considered, it is the "fathered son" who manages the best, not only academically, but most probably in the establishment of his own home and in the successful raising of his children.

It should also be noted that some of the boys who were father absent, or who had low father presence, performed quite adequately in terms of academic achievement. Biller (1969) reviewed data suggesting that, because of differing reinforcement patterns, middle-class father absent children are less handicapped in intellectual pursuits than are lower-class father absent children. Social class was controlled for in the present study, but in homes where the father is absent or relatively unavailable, the mother seems to assume a more primary role in terms of dispensing reinforcements and emphasizing certain values. In fact, one could predict that a father absent boy strongly identified with an intellectually oriented mother, would be at an advantage in school adjustment, since he might find the

transition from home to the typically feminine oriented classroom quite comfortable; there is some rather impressionistic data (Hilgard, Neuman, & Fisk, 1960; Levy, 1943) which suggests that father absent, maternally over-protected boys and/or boys with academically striving mothers, do well in school, particularly in tasks where verbal skills and conformity are rewarded.

The data indicated that the groups did not differ significantly in terms of amount of mother-son interaction. There were two boys in the early father absent group who had both high mother contact and adequate academic performance, but there were no significant relationships between amount of mother-child interactions and academic performance measures for any of the groups.

As previous research has suggested (Levy, 1943; Hilgard, 1960), the quality of the mother-son relationship is probably much more important than the degree of the mother's availability to the boy: in future studies concerning academic performance, it would be interesting to systematically take into account the effects of both the quality of the mother-son relationship and the father-son relationship. Another intriguing area of research would be to examine the influence of parent-child interaction on academic performance as a function of sex of child, as well as sex of parent.

Other research could be in the direction of examining the effects of sex of teacher on the father absent child. There is some data suggesting that father absent children are particularly responsive to adult males, and an appropriately behaving male teacher might do much to raise the academic performance of father absent boys (Biller, 1969; McCandless, 1967). The present investigator is currently working on a cooperative program with a school system to assess the possible impact of children having male teachers in the first three years of elementary school.

The present investigator also has the informal impression from working with groups of mothers of "Head Start" children that, once value system discrepancies are confronted, much can be done to strengthen maternal attitudes towards the positive aspects of education, as well as giving them specific suggestions about ways in which they can get their husbands to become more involved with their children or facilitate their children's meaningful contact with adequate adult males. The present findings also support the need for other types of community mental health programs to combat the potentially negative effects of the child who is father absent or has a relatively unavailable father.

SUMMARY

This present study explored the relationship between amount of father availability and academic performance, both on teacher awarded grades and scores on a standardized achievement test, for third grade boys. The four groups of boys, comprising eleven boys per group, were matched on the variables of IQ, socio-economic status, age and presence of male siblings within their families. It was found that those boys with a high degree of father contact, quantitatively determined, scored significantly higher on both teacher awarded grades and the subtests of a standardized achievement test than did boys from either low father available households, or boys who had been father absent from two to seven years. There were no significant differences between boys who had been father absent and boys who had had a very low quantitative level of contact with their fathers on the teacher awarded grades or the achievement test scores.

APPENDIX I

MATERNAL QUESTIONNAIRE

Letter to Mothers

Questionnaire

Dear Mrs. _____

The Cape Cod Child Guidance Center is cooperating with your school department in conducting a survey of children in the third grades. The purpose of this study is to try to understand how best to aid children who have difficulty in reading and spelling. To do this, it is necessary to give a brief test to all of the children in each third grade.

_____ will be given this paper and pencil test in his/her class with the other children. The test takes less than thirty minutes and has nothing to do with your child's grades or promotion. Enclosed with this letter is a brief questionnaire that we would like to ask you to fill out and have _____ bring back to his/her teacher.

We realize how difficult it will be for you to answer some of these questions. Please answer them all as well as you can. Please do not skip any.

This survey in no way suggests that your particular child is having reading or spelling difficulties. Thank you for your cooperation.

Very truly yours,

Robert W. Blanchard
Director
Cape Cod Child Guidance Center
Pocasset, Massachusetts

QUESTIONNAIRE

1. How many hours per evening does your child spend doing his homework?
 0 hrs. 15 minutes $\frac{1}{2}$ hr. 1 hr. $1\frac{1}{2}$ hrs. 2 or more hrs.
2. Does your child play any musical instruments? If so, how often does he practice each day at home?
 0 hrs. 15 minutes $\frac{1}{2}$ hr. 1 or more hrs.
3. How many hours do you usually spend playing with or talking with your child on an average day?
 0 hrs. $\frac{1}{2}$ hr. 1 hr. 2 hrs. 3 or more hrs.
4. When is the whole family together the most?
 Saturday Sunday Weekdays Saturday & Sunday
5. How long does your child spend playing with his brothers and sisters after school on weekdays?
 $\frac{1}{2}$ hr. 1 hr. 2 hrs. 3 hrs. 4 or more hrs.
6. Do you work away from home on Saturdays or Sundays?
 YES NO Saturdays Sundays Saturday & Sunday
7. Does your husband work away from home on Saturdays or Sundays?
 YES NO Saturdays Sundays Saturday & Sunday
8. Have there been any further births of brothers or sisters in the last three years or since your child's registration in the first grade? Please give dates and sex of the child born.

9. Have you had any illness that has meant hospitalization away from home for a period longer than one month in the last five years? If yes, please give approximate dates.

Has your husband?

10. Has your husband been away from home for long periods of time because of military service, business reasons, etc? Please give approximate dates.
11. How much time does your child like to spend watching T.V. on school nights?
- 0 hrs. $\frac{1}{2}$ hr. 1 hr. 2 hrs. 3 hrs. 4 or more hrs.
12. How many hours does your husband usually spend playing with or talking with his third grade child on an average day? Please include stepfathers.
- 0 hrs. $\frac{1}{2}$ hr. 1 hr. 2 hrs. 3 or more hrs.
13. Has your husband served in the armed forces overseas? Please give dates.
14. How many hours per day do you help your child with his homework?
- 0 hrs. 5 min. 15 min. 30 min. 60 min. or more
15. On weekends and during the summer when your child is not in school, how much time on an average day are you able to spend with him?
- 0 hrs. $\frac{1}{2}$ hr. 1 hr. 2 hrs. 3 hrs. 4 hrs. 5 hrs.
6 or more hrs.
16. On weekends and during the summer, how much time is your husband able to spend with your child?
- 0 hrs. $\frac{1}{2}$ hr. 1 hr. 2 hrs. 3 hrs. 4 hrs. 5 hrs. 6 or more hrs.

17. How often does your husband and his third grade child go on trips together, such as: swimming, ball games, bowling, etc.

Never, Seldom (less than once a month)
Sometimes (once or twice a month)
Often (once a week)
Usually (two or more times a week)

18. Has your child had any illnesses that kept him out of school for more than one month in the last three years? If yes, please give approximate dates.

19. How often does your boy play sports in a week?

0 - 1 hr. 2 hrs. 3 hrs. 4 hrs. 5 or more hrs.

20. Does your husband play sports with his third grade son?

0 - 1 hr. 2 hrs. 3 hrs. 4 hrs. 5 or more hrs.

21. How has your child felt about his year in the third grade?

Liked it most of the time
Liked it sometimes
Liked it seldom

COMMENTS:

TABLE 24

GROUP I

HIGH FATHER ABSENCE

<u>SUBJ</u>	<u>AGE</u>	<u>IQ</u>	<u>SIB</u>	<u>GRD</u>	<u>PAR</u>	<u>WRD</u>	<u>SPEL</u>	<u>LANGU</u>	<u>LANGT</u>	<u>SCI</u>	<u>MATC</u>	<u>MATP</u>	<u>MATT</u>	<u>COMGRD</u>
1	104	116	1	27	38	38	40	31	37	50	38	28	33	40
2	105	114	4	20	25	27	24	31	27	42	33	39	36	35
3	105	109	1	20	24	21	20	19	21	21	28	22	25	22
4	105	108	3	18	37	40	50	30	44	22	42	43	42	37
5	115	107	5	40	34	44	52	42	43	36	59	46	53	44
6	111	101	5	25	33	26	29	24	24	26	31	30	31	28
7	115	98	3	20	16	25	20	12	18	17	14	27	21	19
8	114	96	3	27	43	40	34	36	38	28	36	30	33	33
9	106	95	4	30	27	30	52	25	34	26	34	34	34	32
10	111	86	2	17	26	28	30	33	29	28	21	19	20	29
11	124	82	2	20	30	33	23	21	27	19	14	24	19	22
<u>TOTAL</u>	110	101.1	3.0	24	30	33	34	28	31	29	32	28	32	31

TABLE 25GROUP IILOW FATHER ABSENCE

<u>SUBJ</u>	<u>AGE</u>	<u>IQ</u>	<u>SIB</u>	<u>GRD</u>	<u>FAR</u>	<u>WRD</u>	<u>SPEL</u>	<u>LANGU</u>	<u>LANGT</u>	<u>SCI</u>	<u>MATC</u>	<u>MATP</u>	<u>MATT</u>	<u>COMGRD</u>
1	113	116	1	25	35	31	29	46	33	32	42	34	38	34
2	113	118	3	30	42	41	50	40	44	47	53	59	56	46
3	120	104	1	23	27	35	31	31	31	37	33	36	35	34
4	106	106	5	20	31	33	33	45	36	53	49	37	43	44
5	109	109	2	33	25	33	30	28	29	23	36	30	33	28
6	118	111	5	18	25	30	22	24	28	41	47	23	35	32
7	111	110	3	33	38	38	36	49	40	38	45	43	44	41
8	113	85	5	20	30	37	46	26	40	30	33	34	34	34
9	114	99	5	27	29	35	38	25	32	38	49	46	48	39
10	111	94	2	20	28	35	28	26	29	30	24	29	27	29
11	114	83	2	28	35	36	46	46	52	39	45	43	44	41
<u>TOTAL</u>	112	103.2	3.3	25	31	35	35	35	36	37	41	37	39	36

TABLE 26

GROUP III

LOW FATHER AVAILABILITY

<u>SUBJ</u>	<u>AGE</u>	<u>IQ</u>	<u>SIB</u>	<u>GRD</u>	<u>PAR</u>	<u>WRD</u>	<u>SPEL</u>	<u>LANGU</u>	<u>LANGT</u>	<u>SCI</u>	<u>MATC</u>	<u>MATP</u>	<u>MATE</u>	<u>COMGRD</u>
1	121	118	1	23	43	40	36	51	43	55	43	34	39	44
2	109	110	4	23	69	47	46	54	54	64	63	43	53	57
3	109	102	1	20	24	21	24	25	24	31	31	37	34	30
4	110	110	3	30	40	31	35	40	39	33	41	30	36	36
5	108	101	2	20	18	23	15	27	21	27	26	27	27	25
6	104	108	4	23	33	34	32	21	30	22	34	30	32	30
7	111	109	4	30	40	38	29	26	33	44	23	31	27	35
8	120	83	5	25	27	28	26	20	26	27	27	40	34	28
9	112	105	3	20	36	48	32	28	32	40	42	36	39	39
10	117	95	2	20	30	40	52	29	38	32	32	28	30	33
11	104	82	2	30	27	40	44	47	44	28	36	38	37	35
<u>TOTAL</u>	111	102.1	2.8	24	35	35	34	34	35	37	36	34	35	35

TABLE 27

GROUP IV

HIGH FATHER AVAILABILITY

<u>SUBJ</u>	<u>AGE</u>	<u>IQ</u>	<u>SIB</u>	<u>GRD</u>	<u>PAR</u>	<u>WRD</u>	<u>SPEL</u>	<u>LANGU</u>	<u>LANGT</u>	<u>SCI</u>	<u>MATC</u>	<u>MATP</u>	<u>MATT</u>	<u>COMGRD</u>
1	105	116	1	33	39	37	57	45	45	44	63	49	56	48
2	123	112	5	40	34	37	63	58	48	60	63	45	54	54
3	111	101	1	35	46	64	48	56	54	61	75	52	64	60
4	109	110	3	30	53	47	63	52	54	56	53	39	46	52
5	113	108	2	30	41	64	46	46	49	65	67	39	43	52
6	111	106	5	37	48	64	63	70	62	55	44	62	53	57
7	105	110	3	33	46	44	48	32	43	43	49	43	46	44
8	121	94	3	30	44	47	52	28	43	44	28	35	33	40
9	114	95	3	30	30	42	33	38	41	45	42	30	36	41
10	115	91	1	33	41	40	35	32	37	37	45	37	41	38
11	109	89	1	25	25	37	34	30	32	27	32	46	39	33
<u>TOTAL</u>	112	103.0	2.6	32	42	48	49	44	46	49	51	43	46	47

REFERENCES

- Barclay, A.G. & Cusumano, D. Father absence, cross-sex identity, and field dependent behavior in male adolescents. Child Development, 1967, 38, 243-250.
- Biller, H.B. A multiaspect investigation of masculine development in kindergarten age boys. Genetic Psychology Monographs, 1968b. 76, 89-139.
- Biller, H.B. Father absence and the personality development of the male child. Developmental Psychology, 1969, 1 in press.
- Biller, H.B. & Borstelmann, L.J. Masculine development: an integrative review. Merrill-Palmer Quarterly, 1967, 13. 253-294.
- Bornstein, B. Clinical notes on child analysis. The Psychoanalytic Study of the Child, 1945, 1, 151-166.
- Bronfenbrenner, U. The psychological cost of equality and quality in education. Child Development, 1967, 38, 909-925.
- Bruning, J.L. & Kintz, B.L. Computational Handbook of Statistics, Scott, Foresman & Company, Glenview, Illinois, 1968.
- Brunswik, E. Psychoanalysis and personality research. Journal of Abnormal & Social Psychology, 1940, 35, 176-197.
- Carlsmith, L. Effect of early father absence on scholastic aptitude. Harvard Education Review, 1964, 34, 3-21.
- Deutsch, M. & Brown, B. Social influences in negro-white intelligence. Journal of Social Issues, 1964, 20, 24-35.

- Dyk, R.B. & Witkin, H.A. Family experiences related to the development of differentiation in children. Child Development, 1965, 30, 21-55.
- Erikson, E.H. Childhood and Society, New York: W.W. Norton, 1950.
- Forrest, T. The paternal roots of male character development, The Psychoanalytic Review, 1967, 54, 81-99.
- Grunebaum, M.G. et al., Fathers of sons with primary neurotic learning inhibition. American Journal of Orthopsychiatry, 1962, XXXII, 462-473.
- Hetherington, E.M. Effects of paternal absence on sex-typed behaviors in Negro and White pre-adolescent males. Journal of Personality and Social Psychology, 1966, 4, 87-91.
- Hilgard, J.R., Neuman, M.F., & Fisk, F. Strength of adult ego following bereavement. American Journal of Orthopsychiatry, 1960, 30, 788-798.
- Hollingshead, A.B. & Redlich, F.C., Social Class and Mental Illness, New York: John Wiley & Sons, Inc., 1958.
- Johnson, M.M., Sex role learning in the nuclear family, Child Development, 1963, 34, 319-333.
- Kessler, J.W. Psychopathology of Childhood, Prentice Hall, Inc., Englewood, New Jersey, 1966.
- Kimball, B. The sentence completion technique in a study of scholastic underachievement. Journal of Consulting Psychology. 1952, 16, 353-358.
- Kohlberg, L. A cognitive-developmental analysis of children's sex role concepts and attitudes. In Eleanor E. Maccoby (Ed.), The Development of Sex Differences, Stanford: Stanford University Press, 1966, 82-173.

- Levy, D.M. Maternal Overprotection, New York: Columbia University Press, 1943.
- Maccoby, E.E. & Rau, L. Differential cognitive abilities. Cooperative Research Projects, # 1040, U.S. Department of Health, Education and Welfare, 1962.
- McCandless, B.W. Children: Behavior and Development, New York: Holt, Rinehart & Winston, 1967.
- Mischel, W. Father absence and delay of gratification. Journal of Abnormal and Social Psychology, 1961, 63, 116-124.
- Nelsen, E.A. & Maccoby, E.E. The relationship between social development and differential abilities on the scholastic aptitude test. Merrill-Palmer Quarterly, 1966, 12, 286-309.
- Parsons, T. Social structure and the development of personality: Freud's contribution to the integration of psychology and sociology. Psychiatry, 1958, 21, 321-340.
- Parsons, T. & Bales, R.F. Family Socialization and Interaction Process, Free Press, 1955.
- Shaw, M.C. & McCuen, J. The onset of academic underachievement in bright children. Journal of Educational Psychology, 1960, 103-108.
- Sutherland, H.E.G. The relationship between IQ scores and the size of family in the case of fatherless children. Journal of Genetic Psychology, 1930, 38, 161-170.
- Sutton-Smith, B., Rosenberg, B.G., & Landy, F. Father absence effects in families of different sibling compositions. Child Development, 1968, 39, 1213-1221.

White, R.W. The concept of competence. Psychological Review,
1959, 66, 297-333.

