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TITLE OF THESIS... THE QUALITY OF FATHERING AND ITS RELATION TO ACHIEVEMENT MOTIVES IN THE PRESCHOOL CHILD.

UNIVERSITY... UNIVERSITY OF ALBERTA

DEGREE FOR WHICH THESIS WAS PRESENTED... Ph.D.

YEAR THIS DEGREE GRANTED... 1971

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THE UNIVERSITY OF ALBERTA

THE QUALITY OF FATHERING AND ITS RELATION TO THE ACHIEVEMENT MOTIVES OF THE PRESCHOOL CHILD

by

ANDOR JOSEPH TARI

A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES AND RESEARCH

IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE

OF DOCTOR OF PHILOSOPHY

DEPARTMENT OF EDUCATIONAL PSYCHOLOGY

EDMONTON, ALBERTA

FALL, 1971

UNIVERSITY OF ALBERTA

FACULTY OF GRADUATE STUDIES AND RESEARCH

The undersigned certify that they have read, and recommended to the Faculty of Graduate Studies and Research for acceptance, a thesis entitled "THE QUALITY OF FATHERING AND ITS RELATION TO ACHIEVEMENT MOTIVES OF THE PRESCHOOL CHILD" submitted by Andor Joseph Tari in partial fulfilment of the requirements for the degree of Doctor of Philosophy.

Supervisor

October 6, 1971
Date

External Examiner

To my children
who have been father-absent
during the preparation of this study.

ABSTRACT

The purpose of the present study was to investigate an hypothesized relationship between fathers' child-rearing practices and achievement motivation in the preschool child. The major hypothesis stated that a statistically significant relationship existed between qualities of fathering--where fathering was viewed as process variables--and children's performance on achievement motivation tests. Specific hypotheses tested the significance of four dimensions of fathering, Maturity Demands, Control, Communication, and Nurturance, individually and in bi-dimensional interaction in relation to children's performance on achievement motivation tests.

The research method utilized involved observations of actual father-child interaction both in the home and in an experimental setting. The instruments investigating fathering behavior were objective-type multiple measures; the children's achievement was assessed by an objective instrument specifically designed to test children of preschool age.

The results supported the major hypothesis and found paternal Maturity Demands and Nurturance behaviors to have a statistically significant relationship with children's achievement-related motivation. Hypotheses related to the significance of the other two dimensions were not supported by the findings. Paternal Control behavior exhibited a random relationship and paternal verbal Communication a statistically significant negative correlation with children's achievement motivation.

ACKNOWLEDGEMENTS

The writer would like to sincerely thank the following people for their assistance in bringing this research and thesis to completion:

- The fathers in the sample for their inspiring help and continuous interest.
- Dr. W. H. O. Schmidt for suggesting the topic and for his continuous support and "independence-granting".
- Drs. L. A. Stayura, M. Gulutsan, and J. K. Bishop for serving as committee members.
- Members of the Institute of Human Development, University of California, Berkeley, Calif., especially Dr. W. Bronson for her critical and practical help in the planning stages of this study, and Dr. D. Baumrind for allowing me access to her research instruments and for her help and interest.

- Special thanks go to P. Hjatarscn my able and helpful chief editor, and to
- Julie Jordan for typing the thesis and for her patience.

- Last but not least, I would like to extend my thanks to my primary supporter and critic, my wife Joan.

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CHAPTER ONE

INTRODUCTION

This study has as its central objective the investigation of an hypothesized relationship between fathering behavior and achievement-related motives in the preschool child. It is immediately concerned with establishing a functional relationship between selected dimensions of fathering--with fathering viewed as process variables--and children's performance on achievement motivation tests.

The original aim of the present study was to examine the role of the father in child development. In the area of developmental and social psychology it has long been noted that if the father is not forgotten, he is certainly very much neglected (Nash, 1965; Ostrovsky, 1962; Sarason, 1966). His wife has not, however, suffered such neglect: the mother has been the prime focus of researchers concerned with the influence of the environment on the growing child. Both the paucity of evidence in this important area of child development and the poor quality of much of the research undertaken have rightly been deplored by McCandless (1967), by Biller (1970), but especially by Nash (1965). The present study makes no claim to being a panacea: it is nonetheless hoped that it will contribute towards an understanding of this long neglected "vestigial functor" of psychology.

An examination of the studies which have attempted to deal with this subject suggested that the effects of fathering on a child's development are diverse. The study of a significant number of these

papers, books, and abstracts permits at least a cursory look at the various foci of fathering's effects on child development. Reviews of the literature by Mussen (1960) and Nash (1965) have clearly established that father, or fathering, does indeed play a crucial role in child development. Individual studies found that children need a father figure both to identify with (Sears, Maccoby, and Levin, 1957; Kagan, 1958; Bronfenbrenner, 1960; Kohlberg, 1963) and to promote their personality development and functioning (Ostrovsky, 1962; Burton and Whiting, 1961; Heilbrun, 1965; Barclay and Cusumano, 1967; Westley and Epstein, 1969). Although some researchers found fathers to be "more important" in the personality development of sons than of daughters (Nash, 1956, 1965; McCandless, 1967), evidence suggests their importance in the personality development of daughters as well (Goodenough, 1957; Johnson, 1963; Mussen and Rutherford, 1963; Heilbrun, 1965; Biller and Weiss, 1970). Some evidence suggests that the availability and quality of fathering bears relationship to the child's intellectual development (Sutton-Smith, Rosenberg, and Landry, 1968; Lessing, Zagorin, and Nelson, 1970; Radin, 1971). There is, however, overwhelming evidence that fathering is an important, if not a crucial factor in the development and utilization of motivation, especially achievement-related motivation involving a child's performance in school and in later life (Tasch, 1952; Seder, 1960; Stodtbeck, 1958; Rosen and D'Andrade, 1959; Ostrovsky, 1962; McClelland, 1961; Mischel, 1961; Bradburn, 1963; Nuttal, 1964; Meredith, 1967; Biller, 1968; Almeida, 1969; Caplin, 1969; Granlund and Knowles, 1969).

A review of the more widely accepted views on the origin and

development of achievement motivation, especially those dealing with the effects of socio-cultural milieu and parental influences, makes it relatively easy to envisage why fathering or the father should be considered important. Achievement, or achievement motivation, is an important--if not a sacrosanct--concept in the industrialized Western societies. The capitalistic, democratic, competitive, and task-oriented culture demands that its members value achievement: it ensures compliance by instilling in individuals the need for achievement and by making related personality traits, such as impulse control and ability to delay gratification, central and essential if individuals are to compete effectively. It is suggested here that it is the father who, in his specific position as the nuclear family's primary provider and its Parsonean "instrumental leader" possesses these qualities, can translocate them to his offsprings via the processes of father-child interaction.

The present research limited its scope to the study of the "average" middle-class North American father who, in comparison to the lower-class father and to fathers in or from other cultures, finds competition and personal success to be important; he is ordinarily highly motivated towards success and achievement. To this end he generally strives for independence, suppresses dependent feeling, develops considerable ability to delay gratification, and, in general, is relatively highly motivated to achieve success in all areas of endeavor (Riessman, 1962; Mandler, Mussen, Kogan, and Wallach, 1967). Such a father, as a primary agent in the preschool child's social-

ization[1], transmits many complex variables, including achievement-related motives, which the child acquires. The nature of the interaction, especially with regard to the quality of father's behavior, is here viewed as contributing considerably to the observed individual differences in the development of children's achievement dispositions or motives.

On the basis of this assumption, the present study proceeded to investigate the hypothesized relationship using a methodology which emphasizes the empirical both by employing operational definitions and by keeping theory to a minimum. There was also an attempt to study objective facts in the form of actual behaviors discovered through both naturalistic observation and experimentation.

After considering some of the major problems of previous investigations into the parental effect on children's achievement motivation, it was decided to identify fathering in terms of process variables defined operationally and observed directly, recorded and decoded on the basis of an objective and reliable instrument. The children's achievement motivation was also defined, operationally, observed, recorded, and measured on an objective, reliable instrument: the data gathered was treated as indicating co-relation withough directional interpretation. If significant relationships between a child's measured achievement motives and their father's behaviors were noted, this was considered as an indication that longitudinal studies of observed paternal child-rearing practices might be fruitful in deter-

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[1]For definition see Mandler, G., Mussen, P., Kogan, N., and Wallach, M. A., 1967, p. 53.

mining the antecedents of achievement motive development in young children.

CHAPTER TWO

REVIEW OF THE LITERATURE

Although interest in achievement motivation dates back to the early part of this century, to the studies of Narziss Ach (1910) and to the research on motivation carried out by Kurt Lewin (1926), no scientifically "adequate" method by which this motive could be measured was then available. The pioneering work of McClelland and Atkinson provided the needed "break-through" in 1946. Every possible aspect of achievement motivation, including the effects of parental child-rearing practices on the development of achievement motivation (Atkinson and Feather, 1966) has since been researched; that is, every possible aspect other than the role of the father.

This is, of course, of no real surprise; studies specifically related to father-child relationships are not too numerous even today. The few that do appear are, with one or two exceptions, prototypes of methodological inadequacies. It seems that some of the earlier research on fathering set the tone for later ones, both with regard to methodology and approach. They studied the father "indirectly" and, not too surprisingly, found him exerting only an indirect influence on the development of his child's achievement motivation (Bartemeier, 1953; Bowlby, 1951). In one of the earliest studies Gardner (1943) investigated the role of the father by means of the personal interview: he found that while fathers "had ample time to do a lot of fathering", they did not use their opportunities. What is more important than the actual conclusion drawn by the experimenter, in this illustrative case, is the

fact that his use of such an approach can be said to have set a precedent for studying reported behavior rather than actual behavior, and for possibly, naively, equating the two. Gardner followed this up with a later study (1947) in which fathering was examined on the basis of children's opinions about their fathers' child-rearing behavior post facto. The findings, once again, are inconsequential; what is significant is the fact that again the father was studied indirectly, via inferences, and in retrospect. This approach has been used frequently ever since.

Due to disparities both in theoretical formulations and in research methods, the findings of much of the research on achievement motivation tend to be intricate if not, at times, contradictory. An examination of the studies which have attempted to clarify the relationship between achievement motivation and relevant dimensions of fathering reveals that while these studies differ in a number of ways, the greatest disparity appears in the experimental approach adopted. For example, independent, classification[2] variables compared include father-absence, father-presence, perceived paternal child-rearing practices, paternal attitudes, [illegible] achievement expectations of parents concerning their own personal endea[illegible] concerning the achievement behavior of their children, and more recently, a few actual observations of fathers' behavior.

The approaches taken towards dependent variables were almost equally as varied. The various researchers studied general and specific

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[2]For definition see Ferguson, G. A., 1966, p. 271.

achievement motives, that is, achievement motives of various kinds, including school achievement, intellectual and academic functioning, competencies, personality traits considered to be an integral part of achievement motivation (e.g. ability to delay gratification, independence), achievement strivings, approach and avoidance tendencies and test anxieties.

For heuristic purposes, the studies mentioned in the review of this literature presented below have been grouped according to the frequency with which independent variables were employed. Two major sections result from this grouping. In the first section several representative studies involving father absence are reviewed: the second considers a selection of significant studies investigating various parental--including paternal--child-rearing practices in relation to achievement motives in children. A review of the few studies which have utilized direct observation of father-child interactions concludes this chapter.

A considerable number of studies have investigated either the relationship of father absence to, or effects of father-absence on, children's achievement motives and performance. Some of the earliest studies by Bach (1946), Sears, Pintler, and Sears (1946), Tiller (1957), Lynn and Sawrey (1959) were concerned with the global effect of father absence on the development of children. Their findings, in general, indicated that the absence of a father is especially "damaging" to a boy's development, although Lynn and Sawrey (1959) found that it "affects" the development of girls as well. The findings of these earlier works were summarized by Bronfenbrenner (1969) as

follows:

> Father absence contributes to low motivation for achievement, inability to defer immediate for later gratification, low self-esteem, susceptibility to group influence, and juvenile delinquency. All of these effects are much more marked for boys than girls (p. 210).

The results of still other studies indicated that males who have been without a father in childhood generally exhibit lower achievement motivation and experience less career success than do males whose fathers have been present during childhood. One of the earliest studies to use this postdictive father-absence methodology was undertaken by Terman and Oden (1947): it described the mid-life adjustment patterns of members of a gifted study group. The findings of some later studies by McClelland (1961), Veroff, Atkinson, Feld and Gurin (1960), supported all the previous conclusions by suggesting that difficulties, both in children's personality development and functioning, and in their low motivation for achievement, in later life as well as in school, could be related to the absence of a father. The results of other studies suggests that father-absence has a deleterious effect on the development of daughters as well, although the negative effects are not as marked and diffuse (Lynn and Sawrey, 1959) as in the case of sons.

Interestingly enough, researchers have, from the beginning, tended to disregard this latter finding, possibly because such findings did not fit the frame of reference upon which the specific research was based. Because of the kind of theoretical approach selected, the father's effect on a daughter's development was often a priori disregarded or underestimated. This is mainly due to the fact that such

notions are contrary both to most theories of identification and to postulates of sex-role learning. Researchers have attempted to deal with such unexpected data in a number of fascinating ways. A case in point is Sears' (1970) research into the relation of early socialization experiences to self-concepts and to gender-role in middle childhood. Sears postulated that a father's "warmth" would be more closely related to a son's than to a daughter's self-concept. He found no evidence to support this expectation. A detailed study of his correlations between all gender role measures and father-mother warmth variables indicates that father warmth exhibits a higher average correlation with a daughter's measures of self-concept than does mother warmth. The study in question cited no statistically significant level for any of the data. However, even if the differences are not statistically significant, because of the consistency of directionality implied, the findings should warrant some comments or observations. To quote Sears:

> The fate of the second hypothesis (i.e., paternal warmth) is less clear ... future investigation should take note of the basic contamination in the so-called father measures (p. 2870)

In a series of father-absent and father-present studies employing cross-cultural comparisons, Mischel (1961 (a), 1961 (b), 1961 (c)), found that children's ability to delay gratification (Del R) is a crucial variable related very closely both to the need for achievement (1961 (b)) and to the presence (as opposed to the absence) of the father within the home (1961 (a)). The general hypothesis that there exists an inverse relationship between father-absence and the preference for delayed reinforcement (Del R) he tested in several different

cultures and sub-cultures. When subjects aged eight and nine were used Mischel found that there was a consistently significant relationship between the absence of the father and a greater preference on the part of children for immediate rewards. The same relationship was not found to exist when older subjects, aged 11 to 14, were tested. Mischel (1961) also tested for sex differences with respect to father absence by comparing the experimental choice preferences of father-absent children with those of father-present children. His findings revealed no differences of statistical significance, suggesting that the absence of a father tends to affect the daughter's as well as the son's ability to delay gratification. Mischel's research also indicated that cross and intracultural factors, in addition to the father-absent factor, affect the preference for reinforcement, a finding which had found ample support from other researchers (McClelland, 1961; Rosen, 1959; Bradburn, 1963).

From the differences found in the ability of the two age groups to delay gratification, Mischel suggested two different possibilities. He first considered the possibility of the father's absence being either a relatively recent occurrence among the older subjects of his study or of a shorter duration. His second postulate, and certainly the more reasonable of the two, was that, having had more wide-ranging (social) experiences, the older children were, therefore much more likely to have identified with other males within or beyond their immediate family (1961).

Research by Sutton-Smith, Rosenberg, and Landry (1968) designed to study the effects of father-absence on children's cognitive

functioning found that while the performance of children without a father was considerably and consistently lower than that of those with a father, there were also significant differences within the father-absent group. The differences within this group were related not to the length of the father's absence, but to the period of development (the subject's chronological age) during which the father was absent. According to their results, father-absence during the child's early (0-4 years) and middle (5-9 years) period of development produces the most deleterious effects (p .001) with the size of the family and the different sibling compositions further modifying the resultant negative effect. Findings indicated not only that children with older siblings were the least affected by father absence but also that, curiously enough, the only-girl families were more affected than the only-boy families, implying to Rosenberg and Sutton-Smith (1968) that there may be cross-identification during the early and middle period of child development.

What the last few studies reviewed seem to suggest is the need of considering further the role of surrogate fathers/male models in family research, especially in research concerned with the fathers' role in child development. The lack of a father in the home obviously does not rule out the possible presence of other male models. For the preschool child--who is the focus of the present study--brothers, uncles, grandfathers, and foster fathers may act as models. What is here being suggested is that fathering should not be viewed as a set of specific rules, obligations and privileges, but rather as a process in which a child and an adult male, preferably a concerned and loving

one, interact and very likely mutually affect one another. This particular notion receives support from the studies of Sutton-Smith, Rosenberg and Landry (1968), of Nash (1965), Biller (1968 (a)), and most recently, from the work of Lessing, Zagorin and Nelson (1970), who all suggest the importance of father surrogates--step-fathers, other adult males and older brothers--in the development of the young child. Lessing, et. al., (1970) suggested that the presence of a fa. .er surrogate affects not only the child, but the whole family constellation; his presence could be interpreted as "stabilizing the home and reducing stress, as well as providing a male model (for the child to identify with)" (p. 192).

The last few studies to be reviewed in this section are the work of Henry B. Biller (1968 (a), 1968 (b), 1969 (a), 1969 (b)). Biller's initial findings (1968), the first in a series of studies designed to look at the effects of father-absence on "children's" development and sex-role learning, suggest the crucial significance of the father-son relationship. He hypothesized that a father's absence in a child's preschool years produces deleterious effects "because of the son's limited or absent opportunity to interact with and imitate males in position of competence and power" (1968). This finding agrees with some traditional postulates in personality psychology, which emphasize the father's impact on facets of their son's development via processes of identification and of modeling. The important point to note here, however, is that all of Biller's subsequent attempts to study the effects of father absence on children in general are based on such an a priori premise: yet in each instance he limits himself

to the study of boys. In a recent review of the literature dealing with the effects of a father's absence on the development of his daughters (Biller and Weiss, 1970), it was suggested that empirical constructs were of more use than theoretical models in the study of this terra incognita, which apparently indicates that Biller is well aware of the limitations of his own approach. After reviewing the results of previous research conducted into this area (for example Tasch, 1952; Goodenough, 1957; Torgoff and Dreyer, 1961; Mussen and Rutherford, 1963; and Heilbrun, 1965, 1967), Biller and Weiss conclude that it is the quality characteristic of father-daughter relationships and not solely the father's presence which profoundly and lastingly affects the daughter's personality development and overall adjustment.

In general, results of Biller's father-absence studies suggest that there are "critical periods" in a child's development during which the absence of a father results in developmental shortcomings. The extent and intensity of these developmental deficiencies may be related to the length of father absence. Biller observed that the ages of three to five are probably most crucial from the point of view of the father's primary importance in the development of the child (1969).

Despite the serious methodological flaws inherent in the father-absence studies reviewed, there is contained within them a number of highly valuable observations. Firstly, they demonstrate that in the development of children, particularly the development of achievement-related motives and behaviors, the father is indeed an essential and not a vestigial factor. The studies cited are nearly unanimous in granting importance to the father in the development of his sons:

however, they are not so unanimous in accepting his role in the development of his daughters. They make it apparent that the father's importance in the development of his children is "age-specific". The results are not unanimous on the exact age period, but the general consensus points to the years of three to five or to six. Relative to this point is the frequent suggestion made by researchers--especially by those comparing father-absent and father-present groups--that the crucial difference is not father-absence or father-presence per se, but the availability and quality of a father-child relationship and the interactive processes within that relationship. The implication here is that the terms "father's role" and "fathering", used interchangeably so far in this study, should be viewed not as a set of specific role expectations or enactments, but rather as behavioral process parameters, that is, as observable, objectively measurable behaviors aimed at affecting a child's socialization. As some of the studies reviewed indicate, the processes of fathering may be successfully carried out by father-surrogates of various designations. This claim notwithstanding, the present writer is wary of hasty generalizations about the effectiveness of father surrogates and is in agreement with Biller (1968 (a)) when he states that the father may be a much more important factor in the family and his child's development than we now know. It is because so very little is known about fathering that extreme caution is necessary when generalizing research evidence.

As for the father's specific role in the development and utilization of achievement-related motives in children, the quoted research

results are clear on only three things. That achievement motivation should not be viewed as a variable, or as a conglomeration of closely related variables is clearly indicated in the findings. Achievement motivation should, in fact, be defined or described as a function of the total personality. Cognitive, temperamental and--what Cattell and Butcher (1968) call--dynamic traits must all be taken into account in its description. The findings, secondly, indicate that achievement motivation, or achievement related motivation, may not be a basically specific characteristic, as claimed by some schools of thought (See Crandall, 1963, for the view of the "Fels approach" in this regard), but rather a general or dispositional one behaving in a specific fashion across domains of achievement. Support for this notion comes from the quoted work of Terman and Oden (1947), McClelland (1961) and Veroff et. al. (1960) all of whom suggest that father-absent children who display low achievement motivation in school will continue to do so in later life. Thirdly, cross-cultural research on achievement motivation (McClelland, 1961) suggests that a very fundamental factor in the development of such motivation is the general pattern of child-rearing. Since father-absent children tend to be deficient in the area of achievement-motivation, the logical conclusion would seem to be that fathering does indeed affect the development of children's achievement motives.

Once it is acknowledged that the absence of a father affects a child's achievement-related motivation or performance, it is possible to begin asking "why". It should be obvious that the method of studying fathers indirectly, that is, by any means other than direct obser-

vation, can not possibly answer important questions related to the impact of fathers' actual child-rearing practices on the development of children's achievement-related motivation. In attempting to justify such methodology, Stolz (1954) and Mussen (1960) stated that "the father absence studies have left much less of a mystery concerning the processes by means of which parental absence is linked to the child's personality" (Mussen, 1960). It is a basic contention of the present study that it is precisely these processes that such methodological approaches can not possibly demonstrate. Stolz (1954) further suggested that there are some methodological advantages to studying fathers indirectly; it "allowed researchers more readily to study father separation as an isolated variable, i.e., by comparing families that are alike in most other respects" (p. 956-957). It is, of course, readily apparent that those who take such approaches, do not in fact examine an isolated variable but rather the interaction of intervening variables which are themselves involved in actions affecting the re-adjustment and the modification of the behavior of all, or nearly all, members of the father-absent family.

The second line of research to be reviewed is characterized by the use of quasi-empirical methodologies: the studies are all concerned with parental, especially maternal, child-rearing practices as antecedent to the development of children's achievement motivation. It is interesting to note that although most of these studies were concerned with children whose fathers were alive and living at home, the curious aversion to studying actual parental behavior, especially that of the father, continued until quite recently. The patterns of child-rearing,

the fundamental factor in the development of children's achievement motivation (McClelland, 1961) continued to be assessed by indirect means. Investigators used, among other things, questionnaires, rating scales, and interviews of adult subjects rating their parents' behavior and attitudes in retrospect. Parents' attitudes, values, belief-systems, and achievement-related expectations were also studied as independent variables. A few, very recent studies have looked at actual samples of father-child interactions.

Once again, the dependent variable (achievement motive or related behaviors) was defined and measured variously as the ability to delay gratification, as independence, academic achievement, intellectual functioning (often without ability being constant) or as such intervening or mediating processes as identification or modeling.

From the wide range of research available in this category--with the specific purpose of the present study in mind--only those studies of more recent origin were selected which attempted to demonstrate the function of specific parental behavior dimensions found consistently to be associated with children's achievement motivation.

In one of the first attempts to measure achievement motivation, McClelland (1951), who was searching for antecedents, declared:

> achievement motivation develops out of parents' concern that children "stand on their own feet" rather early in life and learn to do things for themselves (p. 412).

What McClelland is referring to is a hypothesis which states that the crucial antecedent to achievement motivation in children is the quality or severity of independence training which they receive during childhood. McClelland refers to the ethnographic studies reviewed by Whiting

and Child (1953) as indirectly supporting his notion, and goes on to remark:

> A more direct confirmation of this hypothesis was obtained by correlating Achievement scores of male American college students with their own ratings of their parents' behavior toward them on several different dimensions, namely, Democratic-Autocratic, Acceptance-Rejection, Indulgence, and Casualness. The correlation for Acceptance-Rejection dimension was significant, being .49 for the father, .33 for the mother, and .48 for both parents combined. In other words, the higher the n Achievement score the more the student tended to rate both parents, but particularly the father, rejectant. Again this suggests that the son was either forced to stand on his own feet by his parents or thought he was forced to stand on his own feet (and therefore "rejected"). The sons were also asked to rate their parents on several different personality characteristics, including the following: friendly, helpful, domineering, selfish, successful, clever, self-confident....again, the sons who rated their parents as unfriendly, unhelpful, and unsuccessful tended to have higher n Achievement scores. In reverse, the sons who found their parents (especially their fathers) to be helpful, nurturant, friendly, and successful tended to have low n Achievement scores. Again this makes theoretical sense. Apparently n Achievement develops out of an insistence on independence, or doing things for oneself, which is interpreted by sons later on during college as rejection and unfriendliness. Contrariwise, boys who are greatly helped by clever fathers and mothers never get a chance to want to achieve by themselves. There are other bits of evidence in our data on this general point, but they all support the same conclusion: n Achievement score is significantly related to severity in independence training in childhood (p. 412).

McClelland notes, however, that these findings were reversed for male high school students. After offering several plausible explanations for this he comes to the conclusion that whatever the reason,

> the fact remains that the way sons with high n Achievement perceive their parents varies from high school to college and cannot be taken as a very reliable index of how the parents actually behaved toward them (1953, p. 283).

Subsequent studies, by McClelland and his associates (1955), and by Friedman (1953), aimed at measuring the parental variable, indepen-

dence training, that is, pressures on the child to master various skills and tasks early so that he can do them independently of his parents, found evidence supporting the independence training hypothesis, although parallel studies by Child, Strom, and Veroff (1958), offered little similar support. A possible reason for the lack of supporting evidence seems to be that in the Child et. al., study other significant variables, namely nurturance, caretaking, and aggression control, appeared in addition to independence training.

One study in the McClelland tradition to be reported is by Winterbottom (1958). In her research into the various aspects of independence training she found high achievement motivation in children to be associated both with an early stress by mothers on independence and with the giving of frequent and intense rewards when children showed signs of achieving that independence. Such mothers, it was found, also placed fewer restrictions on the spontaneous efforts of their children toward independence.

Re-examining Winterbottom's subjects six years later in a follow-up study, Feld (1960) found that the achievement motivation of the then 14 - 16 year old boys correlated negatively with the value the mothers placed on independence in their sons at this age level. Feld also found that failure anxiety in this sample of boys was quite evident. Feld related this finding to the absence of early self-reliance training.

Additional questions about the Winterbottom findings have arisen. In a comparative study of different social classes and ethnic groups, Rosen (1959) found Winterbottom's findings to be relevant only when

middle-class samples were concerned. Early independence training and practices resulted in low achievement motivation in his lower-class group. Rosen's findings also suggest that a high achievement orientation may be created less by early independence training than by the successful transmission of achievement related values and attitudes by parents to their children via modeling and the use of reinforcements.

In a further study reported by Rosen and D'Andrade (1959) the concept of independence training was subjected to close scrutiny. Rosen and D'Andrade attempted to differentiate between independence training and achievement training. The former, they concluded, primarily involves developing self-reliance (See Feld, 1960) while the latter concerns competition in situations involving standards of excellence. Rosen and D'Andrade noted that independence training--possibly a developmentally earlier stage--contributes less to the development of achievement motivation than does achievement training.

This specific study by Rosen and D'Andrade (1959) may well be a milestone in achievement motivation research. Not only did Rosen and D'Andrade observe parental influences directly, but they studied how achievement-independence training and sanctions are related to children's achievement motivation as well. Their findings indicate that fathers, as compared with mothers, provide more independence training than achievement raining. They also found that fathers tended to let their sons develop self-reliance rather than to tell them "how to do it". Fathers were less likely to push their sons and more likely to give them a greater degree of autonomy in making decisions.

Rosen and D'Andrade also observed that while fathers of high achieving boys tended to allow independent functioning, the fathers of low achieving boys appeared to be more controlling, more dominant and more authoritarian. They also noted that both of the parents of high achieving boys displayed "warmth" more frequently than did the parents of children with low achievement scores. The study also found significant social-class differences, especially with regard to positive affect, "warmth", with middle class fathers significantly "warmer" and less controlling than lower class fathers.

The simultaneous appearance of parental, especially paternal warmth, and independence training variables associated with high achievement motivation in children appears to be difficult to explain: yet more and more researchers are finding this inter-relation. The McClelland notion of severe independence training as the prime antecedent to achievement motivation did not allow for this type of inter-relation between such polar opposites (See McClelland, 1951). Rosen and D'Andrade (1959) consider warmth to be "the basic factor determining the child's affective arousal to standards of excellence" (p. 395). This particular explanation, however, creates more questions than it explains. Are they suggesting that warmth is a stimulus which sets off the child's achievement-related motivation mechanism? Is warmth a temporary, situation-specific sanction variable manipulated by the parent as the situation requires, or is it a precondition or antecedent to the development of achievement motivation in children?

In a study designed to examine the relationship between compe-

tence[3] in preschool children and parental attitudes and behaviors, Baumrind and Black (1967) found "paternal warmth" to have a low, but a consistently positive, correlation with various dimensions of competence in children. While this finding is not significant, especially in comparison to the high positive correlations which independence measures obtained with children's competence measures, Baumrind suggests that "warmth may act as a precondition for the effectiveness of enforcement policy or of maturity demands (independence training and granting dimension)" (p. 319).

Heilbrun, Orr and Harrell, (1966) found that paternal love or warmth (described both in terms of the affection felt and in terms of the affection, approval and acceptance physically expressed) correlated positively with subjects' achievement behavior, while paternal control, especially verbal control, correlated highly with inferior academic performance. In a later study Heilbrun, Harrell and Gillard (1967) further examined the respective effects of parental-paternal control and nurturance dimensions on the academic performance of daughters and found that--with intelligence held constant--the daughters who perceived their fathers' attitude as one of rejection (a control dimension variable) performed poorest on academic tasks.

That a significant relationship exists between paternal love, as perceived by school-age children, and sons' achievement-related performance was noted by Almeida (1969). She found that average and overachieving boys rated their fathers' love significantly higher than

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[3]For definition see White, R., (1959), Baumrind, D., and Black, A., (1967).

low achieving boys, with perceived paternal control once again correlating with low achievement.

In the most recent observational study Radin (1971) attempted to look at paternal nurturance (defined as sensitivity to the needs of the child, consultation with the child and use of positive reinforcement) in relation to children's intellectual functioning and their sex-role preference. The underlying hypothesis--based on social learning theory--was that paternal nurturance would positively relate to children's sex-role preference, which in turn would positively relate to children's intellectual performance. She found that while paternal nurturance was positively associated with children's intellectual functioning, the sex-role preference had no relation to the father's nurturant behavior. Radin's data also indicated that paternal control or restrictiveness has a detrimental effect on children's "overall functioning".

From this brief survey of the second line of research it is evident that while there have been earnest attempts to identify and investigate the function of specific parental behaviors as antecedents to the development of achievement motivation in children, conceptual and methodological differences, inconsistencies and shortcomings have made the findings less than conclusive and the generalizations from the data of rather dubious value. There were, however, commonalities in the overall findings pointing to specific parental behaviors which need to be directly observed and longitudinally researched in order that their function and long-term effect can be clearly established.

For example, the research literature points to the child's

sense of "independence" as a crucial variable. It is therefore possible that the parental behaviors promoting independence may be functionally related to higher level achievement motivation and performance in children. On the other hand, parental "control", in general, was found to have a negative effect on children's exploratory, competence-seeking, and achievement-related performance. Nurturance, the dimension of parental love or warmth, which in earlier studies had an unclear, often nuisance value, has come to be associated with higher levels of achievement motivation in children.

There is, however, one area in achievement motivation studies--possibly an important area--which has not been adequately researched: it is the area of parent-child verbal communication. One possible reason for the relative lack of such research findings may be that parents seldom, if ever, are directly involved in achievement motivation studies: therefore no one has felt the need to examine verbal behavior. The review of the literature points to only one study (Rosen and D'Andrade, 1959) in which the parents were directly observed. And in this instance, the observation was restricted to parents' reactions to children struggling with a difficult task for the parents were "participant observers" only and not directly involved in the task at hand.

In order to come to an understanding about how achievement motivation is transmitted by fathers to their children it is necessary that consideration first be given to verbal interaction as a potential vehicle or mediating process. Psychological media, especially in developmental psychology, are replete with studies concerning maternal teach-

ing styles. The essence of maternal teaching styles is the characteristic mode of the communication, which itself determines the scope of the child's growth (Bernstein, 1961; Bing, 1963; Hess and Shipman, 1965; Levenstein, 1970). Consequently, if the father is important to the development of achievement motivation in children, it would appear reasonable to hypothesize that the nature and extent of father-child communication is related to a child's achievement motivation, especially if the father is made to function as the experimenter in the study proper.

While studying the effects of fathers' teaching styles on the cognitive performance of their young sons (the mean age being five years) Deal and Montgomery (1971) found significant differences between two groups of middle-class fathers (professionals and non-professionals) in terms of the frequency of verbalization, the amount and complexity of that verbalization, and the frequency of verbal rewards employed. Their results suggest that there exists a positive relationship between a high frequency of fathers' verbal behavior and children's cognitive performance (i.e., fewer errors in task performance), although this specific relationship was not emphasized in the study.

General Statement of the Problem

The focus of the current study is the dyadic interaction between father and child. The research method employed consists of the direct observation of child-rearing practices in action, both in the home and in an experimental situation. Select dimensions of paternal behaviors, found by previous research to be significant antecedents to individual

differences in children's achievement motivation are studied individually and in various combinations. Their relation to children's achievement motivation will be analyzed in order that the nature of the relationship hypothesized in Chapter One can be clearly delineated.

CHAPTER THREE

NATIONALE, DEFINITIONS, HYPOTHESES

Rationale

Uncertainties concerning the relationship between achievement motivation in children and the phenomenon of fathering leave room for a great many questions and hypotheses. Unlimited opportunities exist for future investigation.

Support for the value and importance of fathering in this area is, however, already well advanced, for almost every investigation which has been conducted in this field can be viewed as having found or implied some important relationship pattern.

The findings, however, are inconsistent due to what this and other writers consider to be the lack of clarity inherent in the conceptual frameworks and methodological approaches developed. This lack of clarity is itself attributable to the fact that no common frame of reference exists. To view the wide array of approaches, methodologies and daring conclusions all aimed at explaining the relationship between these two phenomena is to be reminded of the fable of the blind men and the elephant; regardless of what approach was used, the conclusions drawn were taken to be characteristic of achievement motivation in general. In view of the dearth and inconsistency of the previous relevant research, consideration was given to a number of questions which appeared to be important to the present study. These questions have to do with the two broad areas of concep-

tual frameworks and methodological approaches.

The Concept of Achievement Motivation

General versus Particular Achievement Motive(s).

Two major schools of thought, each having a somewhat different theoretical orientation, are involved in this dilemma. The Michigan School (Atkinson, Feather, Veroff and Smith)--in the McClelland tradition--puts forth the idea that achievement motivation is generalized and, as some claim, relatively constant across situations and over time. The Fels approach (represented by Crandall, Kagan, Moss and others) conceptualizes achievement motives as being specific to particular tasks or types of achievement. While it is beyond the scope of the present study to attempt to detail the far-reaching meaning and relative merits of the two contrasting views, it is essential to point out here that the diversity of conceptual approaches to achievement motivation may, to a great extent, be responsible for the inconsistencies in research findings.

A careful review of the relevant works of Crandall, Katkovsky, and Preston (1960, 1964, 1965) makes it apparent that amongst the Fels results there are ample indications that generalized expectations about achievement can exist across domains, especially in children. Considering the fact that achievement motivation has recently been variously conceptualized as "competence" (White, 1959; Bruner, 1971), as mastery strivings (Kohlberg, 1963; Baumrind and Black, 1967), and as general motivational dispositions (Veroff, 1965), it seemed most reasonable to accept, for heuristic purposes, Veroff's assumption of a generalized

orientation to achievement in children. Veroff (1969) states:

> the assumption ... is that to the extent that the person has a strong autonomous motive, he would generalize across domains of achievement (p. 62).

Veroff's notions regarding achievement motivation appear to be reasonably sound, especially when viewed in the context of his "developmental speculations". In putting forth these "developmental speculations" he distinguishes between autonomous achievement motivation which involves internalized personal standards of excellence, and social achievement motivation which involves external standards of excellence. Veroff's theory of the development of achievement motivation has three stages. The early, preschool period of childhood is described as being the critical stage in the development of autonomous achievement motivation. During the second stage, the elementary school years the child learns further to respond to standards of accomplishment set by others. In a third and final stage of development, which, Veroff suggests, takes place during adolescence, the two kinds of achievement orientations are integrated. A well balanced integration depends--according to Veroff--on the successful completion of the preceding stages.

The concern of the present study is, of course, with the development of autonomous achievement motivation in the preschool period. During this period of childhood the experiences intrinsic to exploration and coping give rise to feelings of competence. Veroff (1969) seems to be saying that the evaluation of these feelings of competence leads to further competency seeking and to the internalization of external norms, an action which can itself be said to further broaden

both the intensity and the scope of the competency search. This ongoing process is what is known as autonomous achievement motivation. The present study is in general agreement with this particular notion. It should be noted, nonetheless, that one of this study's basic postulates is that individual differences in the development of children's achievement motivation are related to particular child-rearing practices, specifically the father-child relationship.

Methodological Considerations

Measures of Achievement Motivation

Most measures of achievement motivation reviewed here and elsewhere can be assigned to one of two broad categories of assessment techniques, either to the projective methods or, to the subjective report measures category.

One of four projective techniques have been employed in most studies of achievement motivation: the TAT's McClelland system, the French Test of Insight, the incomplete stories method, and the experimental doll-play situation. Each of these techniques is based on the premise that fantasy or story-telling products are valid measures of individual differences in achievement motivation (McClelland and Atkinson, 1948).

The subjective method employs standard questionnaires containing sub-scales, including the Edwards' Personal Preference Scale and the California Psychological Inventory, which measure achievement motivation. A more recently developed method (Sarason, 1958) measures achievement related motives by assessing the subject's disposition to avoid failure. This measure, called the Test Anxiety Questionnaire, is also a subjective instrument; it asks the subjects to rate negative symptoms of test anxiety.

All, or most of these instruments have been found "useful" for research on achievement motivation with adult subjects. However, none of them has been specially adapted for use with children, particularly the preschool age group. In addition, of course, there are the disturb-

ing questions about the reliability and validity of these instruments.

The design of the present study called for the use of objective, reliable, and valid instruments especially adapted for use with children. The instrument chosen was Veroff's Autonomous Achievement Motivation Test specifically designed to assess children's achievement motivation from nursery school age to grade two. The instrument measures achievement motivation in a risk-taking situation. Its rationale, based on the theories of Atkinson (1958) and Veroff (1965, 1969), is that those who are interested in repeating tasks which they find relatively difficult, rather than tasks which they find easy or very difficult, are people who have a high positive motive to succeed relative to their motive to avoid failure. Both Veroff (1969) and Atkinson (1969) consider the instrument to be well standardized, reliable, and valid. The construct validity, as measured against achievement arousal, test anxiety, fantasy achievement motivation and underachievement, appears to be satisfactory (See Veroff, 1969, pp. 67 - 81). Prior to its utilization in the present study it was examined in a small pilot project (N = 14) correlating the obtained scores with performance on the Anton Brenner Developmental Gestalt Test of School Readiness with intelligence held constant. The results suggested a relationship between low achievement motivation and social-emotional immaturity, especially in the areas of "distractibility", "giving up easily", and "lack of interest". The findings corroborate Veroff's claim regarding the validity of the instrument.

Measure of Fathers' Behavior

As previously indicated, past methods of investigating the relevant patterns of child-rearing practices have been less than satisfactory. The father absence and ex post facto methods of investigating leave too many questions unanswered. Actual parent behaviors have seldom been observed, and in the few studies where both parents were observed (for example, Rosen and D'Andrade, 1959) no systematic attempt was made to exclude or account for the parents' effect upon each other's behavior. Finally, most studies measured behaviors, such as control, warmth, independence-training, as individual variables instead of as dimensions; consequently, they seldom included specific markers for the individual traits which make up any given parental behavior.

For the present study the method of direct observation with multiple measures was used. The purpose behind the use of multiple measures was to ensure internal validation of the results.

The multiple measures in question were devised by Baumrind (1967) and were adapted with modifications for the present study with the author's permission*. All aspects of the multiple measures are based on the Home Visit Sequence Analysis format (See Methods, Instruments) studying dimensions of parental behavior by different means.

The first measure utilizes the method of naturalistic obser-

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*All auxiliary materials of the multiple assessment procedure have been deposited by Dr. Baumrind as Document Number 9127 with the ADI Auxiliary Publications Project, Library of Congress, Washington 25, D.C. No part of the multiple assessment procedure (allocated as Appendix B) may be reproduced in any form by mimeograph or any other means, without permission in writing from the ADI Auxiliary Publications Project, Library of Congress, Washington 25, D.C.

vation. The fathers were observed in the home in interaction with their families. Following the observation period the fathers were interviewed regarding their child-rearing attitudes, beliefs, and actual child-rearing practices. Finally, the fathers were observed in a structured experimental setting directly involved with their children in a procedure designed to study the effects of fathers' behavior on the achievement-related motivation of their children.

All three measures studied four dimensions of parental behavior with the father as their primary focus. Three of these dimensions were found by the review of the literature to be related to children's achievement motivation. They are nurturance, control, and maturity (independence) demands. The fourth dimension, Communication, was hypothesized to be significant because the nature of the research design called for direct father involvement in the experimental tasks.

Within all four dimensions there were individual trait markers designed to allow the study of the interaction of related variables within each dimension and their relation to children's performance on the achievement motivation tests.

DEFINITIONS

For the purpose of this investigation the following concepts were employed as described and defined here in operational terms:

Fathering - Refers to the quality of involvement by the father, or father figure, in the actual child-rearing practices as measured by the multiple-assessment procedures, including Home Visit Sequence Analysis (HVSA), post-home visit interview, and Summary Ratings for the Structures Observation (SRSO), that is, father behavior ratings, in an experimental setting.

Intelligence - The child's level of intellectual functioning as measured by the Peabody Picture Vocabulary Tests (PPVT).

Occupational Class Score - The father's occupation scored according to the specifications of the Blishen Occupational Class Scale (1958).

Sequence - Refers to a goal-specific, dyadic interaction unit, consisting of two or more causally related acts or interchange initiated by one and ending with the other's compliance or noncompliance.

Autonomous Achievement Motivation - Refers to the quality and quantity of the

child's performance on the Autonomous Achievement Motivation Test. The test performance is considered to be the result of the child's internalized standards of excellence applied to his/her performance.

Maturity Demands - Refer to the pressures put upon the child to perform at least up to ability in intellectual, social, and emotional spheres (independence-training) and the leeway given the child to make his/her own decisions (independence-granting).

Variable a - Grants Independence: the percentage of child-initiated sequences where the child requests the right to make a choice or act autonomously and the father complies or offers an alternative (all positive paternal reactions).

Purpose: to measure the father's reaction to a child's active bid to act or decide autonomously.

Variable b - Respects Child's Decision: the percentage of father-initiated control sequences involving non-compliance where the father retracts a directive on the basis of the child's arguments.

Variable c - Independence Training, Control: the

percentage of father-initiated control sequences where the message concerns cognitive insight into cause and effect relations or factual knowledge about the world.

Purpose: to measure the extent to which the father's control efforts are integrated with information or rationale thereby increasing the child's ability to direct himself/herself in accordance with certain principles set forth by the father.

Variable d - Independence Training, Noncontrol: the percentage of father initiated nonpower sequences where the message concerns an exchange of information, an advancement of the child's cognitive/social skills, or a decision made by the child.

Purpose: to measure in non-disciplinary situations the same father behavior as in Variable c (control).

Control - Refers to the socializing functions of the father; that is, to those acts of "fathering" intended to shape the child's goal-oriented activity, to modify his/her expressions of dependent, aggressive, or playful behavior, and to promote internal-

ization of parental standards. Control as defined here is not a measure of restrictiveness, punitive attitudes, or intrusiveness; it includes such variables as consistency in enforcing directives, ability to resist pressure from the child, and willingness to exert influence upon the child.

Variable e - Positive Outcome: the percentage of father-initiated control sequences in which the child complies.

Purpose: to measure the father's ability to enforce directives.

Variable f - Positive Outcome by Persistence: the percentage of father-initiated control sequences in which compliance is achieved after repeated directive.

Purpose: to measure the father's ability to enforce directives when the child initially does not obey.

Variable g - Accepts Power Conflict with Child: the percentage of child-initiated sequences in which the father does not evade the child's request as a method of non-compliance.

Purpose: to measure the father's use of

evasion as a tactic when he does not wish to comply with the child's request.

Variable h - Does Not Accept Power Conflict with Child: the percentage of child-initiated sequences in which the father does not comply with the child's request.

Purpose: to measure the extent to which the father is coerced into complying with the expressed wishes of the child.

Variable i - Uses Incentive and Reinforcement: the percentage of father-initiated control sequences and father-initiated non-control sequences involving the use of incentive or reinforcement.

Purpose: to measure the father's use of reinforcement, either positive or negative.

Communication - Refers to the extent to which the father uses verbal reasoning either to obtain compliance or to solicit the child's opinions and feelings; that is, the extent to which he uses verbal (open) rather than other manipulative techniques of control.

Variable j - Uses Reason to Obtain Compliance: the percentage of father-initiated control sequences in which the father uses reason with the directive.

Purpose: to measure how often the father offers a reason for a directive prior to the child's objection.

Variable k - Encourages Verbal Give and Take: the percentage of control sequences in which, in order to handle a parent-child divergence, the father uses power or reason, or responds with power or reason to the child's demands; that is, the percentage of control sequences in which the father engages the child in argument, generally altering his/her course of action as a result.

Purpose: to measure the extent to which the father responds to divergence by the use of reason and argument rather than power.

Variable l - Source of Power Not Disguised: the percentage of father-initiated control sequences involving power wherein the father does not disguise the source of power.

Purpose: to measure the extent to which the father manipulates the child without disguising in his act that he is attempting to control the child.

Nurturance - refers to the caretaking functions of the father, that is, to those attitudes and acts of "fathering" that express love and are directed at guaranteeing the child's physical and emotional security. Nurturance is expressed by warmth and involvement. By warmth is meant the father's love and compassion for the child expressed by means of sensory stimulation (glances, mutual glances), verbal approval, and tenderness of expression and touch. By involvement is meant pride and pleasure in the child's accomplishments as manifested in words of praise and in the interest shown.

Variable m - Satisfies Child: the percentage of child-initiated sequences in which the interaction produces satisfaction for the child. Purpose: to measure the extent to which the father succeeds in satisfying the child in child-initiated sequences.

Variable n - Supports Child: the percentage of child-initiated sequences involving the child's request for support to which the father complies. Purpose: to measure the father's tendency

to react affirmatively to the child's bids for support and affection.

Variable o - Uses Positive Incentive and Reinforcement: the percentage of father initiated sequences involving the use of positive incentives and reinforcement.

The general hypothesis of the present study states that there is a statistically significant relationship between qualities of fathering and children's autonomous achievement motivation.

HYPOTHESES

Hypothesis I	Paternal Maturity Demands are positively correlated with children's overall scores on Autonomous Achievement Motivation Tests.
Hypothesis II	Paternal Control is negatively correlated with children's overall scores on Autonomous Achievement Motivation Tests.
Hypothesis III	Father Communication is positively correlated with children's overall scores on Autonomous Achievement Motivation Tests.
In addition (i)	High scores on Paternal Nurturance and Father Communication are positively correlated with children's overall scores on Autonomous Achievement Motivation Tests.
(ii)	High scores on Paternal Control and Father Communication result in no relationship (random relationship) with children's overall scores on Autonomous Achievement Motivation Tests.
(iii)	High scores on Paternal Maturity Demands and Father Communication are positively correlated with children's overall scores

on Autonomous Achievement Motivation Tests.

Hypothesis IV	Paternal Nurturance is positively correlated with children's overall scores on Autonomous Achievement Motivation Tests.
Hypothesis V	High scores on Paternal Nurturance and Maturity Demands are positively correlated with children's overall scores on Autonomous Achievement Motivation Tests.
Hypothesis VI	High scores on Paternal Nurturance and Control are positively correlated with children's overall scores on Autonomous Achievement Motivation Tests.
Hypothesis VII	High scores on Paternal Control and Maturity Demands are positively correlated with children's overall scores on Autonomous Achievement Motivation Tests.
Hypothesis VIII	There are no significant sex differences in children's overall scores on Autonomous Achievement Motivation Tests.
Hypothesis IX	Intelligence level (I.Q.) is not related to differences in children's overall scores on Autonomous Achievement Motivation Tests.

CHAPTER FOUR

METHODOLOGY

THE SAMPLE

The 1969 City of Edmonton census data were examined and the total number of families with five year old children were drawn from the south-west area of the city, the area of Edmonton described by Kupfer (1967) as being representative of middle-class families. Three hundred families were randomly drawn from this purposive sample and solicited by means of an introductory letter describing the research, indicating its significance and explaining the nature of the involvement required of the participating families (see Appendix A). Seventy-three families indicated willingness to participate in the study. In order to exclude as much of the confounding effects of extraneous variables as possible a number of variables were controlled for at various stages of the selection before the final sample size of 45 families with 47 father-child dyads was established, two families in the final sample having twin five year olds. The inclusion of the two sets of twins in the final sample was not thought to contaminate the resultant data significantly.

(1) Only preschool children between the ages of five to six were considered, as it was felt that up until this age group the parent continued to be the primary socializing agent. We attempted to control for kindergarten experiences as well; however, this was not feasible because most children in this age group have some form of preschool education experience.

(2) The child to be selected had to be the oldest among the siblings. By this control the aim was to exclude families in which older sibs might affect the child's development, often substituting or compensating for the lack of, or inadequate, fathering.

(3) The child's intellectual level was also estimated in order to exclude children with "sub-normal" (below the I.Q. of 90) intelligence.

(4) The design of the experiment called for the inclusion of only those children who were related to the father by birth. Foster and adopted children were excluded from the study proper, as it was felt that the quality of fathering might be different from the representative "average" in cases when the child was intellectually subnormal and where the child was not related to the father by birth.

(5) The hospitalization of the child, and other various traumatic experiences were also recorded. Initially the plan was to exclude such cases from the sample as it was felt that such experiences would affect the father-child relationship.

The experimental design had called for the sample to be homogeneous with regard to the parents' cultural, ethnic, social and socio-economic background and experience as well.

(6) The sample was confined only to families with Anglo-Saxon background, since the review of the literature indicated wide ranging cultural differences in defining and enacting the role of the father.

(7) The study was to examine fathering behavior in the average middle-class family. Consequently, such variables as

(a) Socio-economic status,
(b) Father's Occupation,

(c) Father's Education, and
(d) Father's Income were controlled and

only families within the "middle-class" category (Blishen Scale, 1958) were included in the final sample.

(8) The father's intelligence was also to be controlled. It was felt that there might be a relationship between the father's intelligence and the child's intelligence and achievement motives. After meeting considerable father resistance in this regard a small sample of 12 out of the total of 45 fathers were tested on the Wechsler Adult Intelligence Scale.

(9) The mother's education was also considered and those on either end of the educational scale (below grade eight or in post-graduate studies) were excluded from the final sample.

(10) Mothers employed full-time, and mothers with "extreme" child-rearing attitudes[4] were excluded from the study as well. It was felt that mothering too had to be representative of the "average" because factors such as the mother's working or her having extreme child-rearing attitudes might well affect (or be responsible for) the quality of fathering if the mother thereby became the main mediating agent in the socialization process of the child.

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[4]Only mothers with "average" PARI scores were included.

TABLE I

SAMPLE CHARACTERISTICS

DESCRIPTIVE DATA

Variable	Mean	Range
Soci-Economic Status (Blishen Index)	56.9	49.2 - 73.6
Father's Education (in years)	14.2	9 - 19
Father's Income	$9600	$5000 - $14,500
Father's Occupation*	2.7	1 - 6
Father's I.Q.**	121	104 - 138
Mother's Education (in years)	11.0	8 - 15
Mother's Occupation	hswf.	-
Age of Child (in months)	65	58 - 71
I.Q. of Child (PPVT)	106.9	92 - 132
Birth Order of Child	1st	-

N = 47

Note: *Occupational Code (1-executives and professionals, 7-unskilled worker) is that used by Hollingshead and Redlich (1958) with graduate student coded as Occupation 3.

**Only 12 fathers' I.Q. was tested.

INSTRUMENTS

Peabody Picture Vocabulary Tests (PPVT). The instrument provides an estimate of the subject's (S's) verbal intelligence. It is easily administered and scored. Alternate form reliabilities reported range from .67 to .97 (Buros, 1965) and validity studies have found correlations in the .70 to .80 ranges when compared with Stanford-Binet (L-M) and WISC for predictive validity (Buros, 1965).

Wechsler Adult Intelligence Scale (WAIS). The "Vocabulary" and "Information" dyad short form was selected to estimate the level of intellectual functioning of the fathers. This specific short form correlates at the .90 level with the "Full Scale" scores of the WAIS (Silverstein, 1970). The WAIS has adequate reliabilities for all age groups (.88 to .97) and validity studies report correlation coefficients ranging from .69 to .86 (Wechsler, 1955).

Parent Attitude Research Instrument (PARI). The "maternal" form of this bidimensional attitude scale developed by Schaeffer and Bell (1958) was utilized as a control for "extremes" in maternal child-rearing attitudes. Internal consistency measures ranging from .34 to .77 for the various subscales and test-retest reliabilities from .44 to .79 (Pearson Product-Moment Correlation Coefficients) have been reported.

Home Visit Sequence Analysis (HVSA). The HVSA was initially developed as an ad hoc instrument by Baumrind (1961) and was later utilized with some modifications by Levenstein (1970) in various family

interaction research projects. With the permission of Baumrind (1971) the instrument was adapted for the present study.

HVSA was designed to measure in detail those parent-child interactions in which one member (in this case, the father) attempts overtly to influence the behavior of another (the child), or vice versa. The major interaction unit is called sequence[5]: its length depends upon the time elapsed between the initiation of an act and its outcome. The following is a sequence offered here to illustrate the system.

> Mark gets up from the table.
>
> Father: "What do you say, Mark?"
>
> Mark: "I wanna go."
>
> Father: "What do you say, Mark?"
>
> Mark: "Excuse me, please."
>
> (Baumrind, 1970, p. 9)

The reliability of HVSA codings as reported by Baumrind (1967) range from .76 to .90 on four kinds of reliability measures computed on derived scores. In the present study the following reliabilities were obtained:

Reliability 1 - one transcript, two coders, both visited home - $\bar{x}$ = .82.

Reliability 2 - one transcript, three coders; all visited home - $\bar{x}$ = .70.

Reliability 3 - one transcript, two coders; neither visited home - $\bar{x}$ = .78.

The instrument measured four dimensions of parental behavior identi-

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[5]See Definitions p. 34.

fied as maturity demands, control, communication, and nurturance. These dimensions of parental behavior were assessed during parent-child interactions on two occasions in different circumstances: first, during home visits and parental interviews, second, during the structured experiment.

Parent Interview. This bi-dimensional instrument was designed by Baumrind (1967) to investigate both parents' beliefs and attitudes regarding child-rearing practices and their actual child-rearing performance. Within the interview schedule the questions are grouped in sections with each section focused on a different dimension of parent-child interaction. Fifty-six five-point scales were used to rate the interview transcript, with "5" representing the high extreme rating. The interview schedule and the scales for the parent interview are attached as Appendix B. The parent interview data was utilized as supplementary and as an additional check on the reliability of the HVSA findings.

Autonomous Achievement Motivation Test (AAMT). This technique was devised and adapted by Veroff (1969) for research with young children: it is based on Atkinson's (1966) theory of achievement motivation. Basically, this test examines the child's behavior in risk-taking situations. The measures used require the child to perform a series of tasks reflecting different skills.

> The child is presented with an easy version of each skill and then steps of that skill in increasing difficulty until he fails two in a row. At that point the administrator turns to the child and says, "Let's do just one more. Which one of these would you like to do again? This one here, (pointing to the

> first one) which was easy for you; this one here (pointing to the test that the child was able to do right before the first failure) that was not so easy for you, but you did OK; this one here, that was hard for you (pointing to the first failure); or this one here that was very hard for you (pointing to the second failure)?" The tasks were so arranged that all children could pass the first two items. The subject then said which one he preferred to repeat and then repeated his particular choice (p. 61-62).

Veroff (1969) assumed that the subject's choice would reflect autonomous achievement strivings. The number of such choices across the series of tests was assumed to be the measure of resultant achievement motivation.

Adapted for this research, the AAMT consisted of three types of scaled tasks sampling somewhat different types of skills: visual memory, memory span, and copying ability. The intention was to measure a general achievement orientation by sampling skills from different domains.

The three types of scaled task were:

1. Visual Memory Task. The technique required the reproduction of different strings of "snap-it" beads from memory. Six strings of beads of varying number, shape, and color were presented to the child, one by one, as models or stimuli until the child twice failed the task of reproducing the strings from memory. (Appendix B contains the description and instructions of AAMT)
2. Picture Memory Task. This measure required the recall of names of various, easily identifiable pictures from memory. The materials consisted of eight sheets of paper with two, three, five, seven, nine, thirteen, sixteen, and twenty pictures of objects pasted on them.

3. Drawing Task. Seven cards with designs were presented to the child, one by one, in increasing order of difficulty. For this task the Bender-Gestalt cards were used. The selection was based on the Kopitz criterion of "reproduction deviations common to all children" between the ages of five to six (Kopitz, 1964, pp. 15-32). The cards selected were numbers A, 6, 5, 1, 3, 7, 2 and once again, were presented to the child in this order, one by one, until he twice failed the task.

According to Smith (1969), Veroff's Autonomous Achievement Motivation Test has adequate norms for children of various ages. The instrument was tested on representative groups of children from pre-school-kindergarten groups through grades one to six and the reported criterion-related validity was found to be significant at the p .05 level. Our own test-retest method of determining reliability resulted in a coefficient of .78 (N = 19). Such low reliability does not invalidate the instrument for drawing valid inferences (Ferguson, 1959), since the low reliability score can often be compensated for simply by increasing the sample size.

ADDITIONAL INSTRUMENTS

Socio-Economic-Status (SES)

Blishen's (1958) Socio-Economic-Index for occupations in Canada was used to assess the Ss' SES. Only families with ratings falling into the "average" category were included in the study.

Distracting Stimuli (Toys)

In order to observe how a father controls the behavior of his child, several attractive and colorful toys were placed on two tables around the father and child dyad. The toys were the commercially available kinds selected specifically for children between the ages of five and six. Colored crayons, clakkers, puppets, a mechanical monkey and a frog were provided for both boys and girls. In addition, a pistol and a mechanical parachute for the boys and a doll and some play dishes were available for the girls.

TECHNICAL EQUIPMENT AND ARRANGEMENT

The technical equipment required both for the home visits and for the experiment was provided by the Audio-Visual Media Department of the University of Alberta.

For the home visits the interviewers were equipped with cassette tape-recorders. With the parents' permission, all of the verbal interaction during the visit, including the father's responses to the post visit Parent Interview, were recorded. These cassettes were found to be especially useful in recording some of the comments fathers made at the conclusion of the Parent Interview.

For the videotaping of the father-child interaction during the experiment, portable television cameras with zoom lenses and a videotape recorder were provided by the Audio-Visual Department.

The experimental area consisted of two rooms separated from each other by a wall-to-wall one-way mirror (See Figure 1). The experiment was carried out in a room in which two television cameras

were placed, the lenses pre-focused to take in all activities in the testing area. The experimenter operated both the cameras as well as the videotape recording equipment from the next room while following the experimental activities via the one-way mirror. The positioning of the cameras could not be made inconspicuous and they proved to be additional distracting stimuli in some cases.

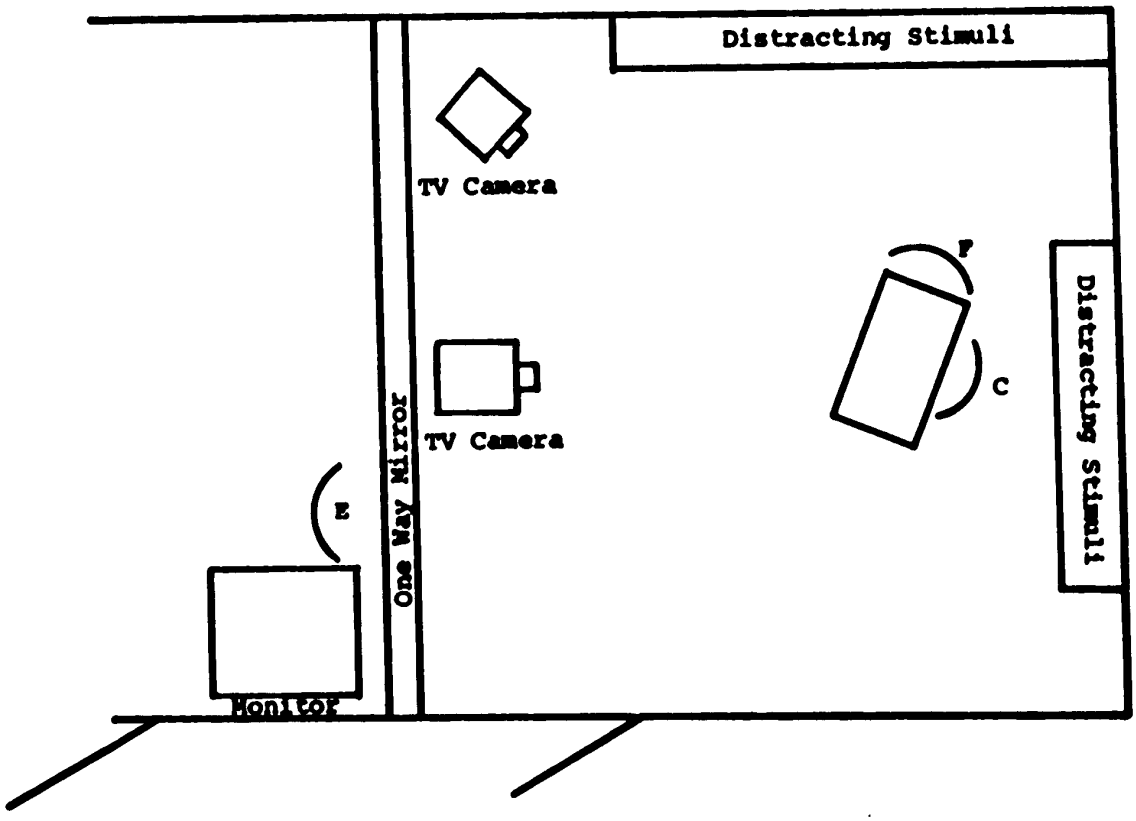

FIGURE 1

THE FLOOR PLAN OF THE EXPERIMENT AREA

PROCEDURES

To permit internal-validation of the results on fathering, multiple measures were used. Because it was intended that these measures supplement each other in validating the findings there is some overlap. For example, the Home Visit Sequence Analysis (HVSA) Home-Visit measured the father and family interaction directly and discretely. The data obtained from this measure were objective, without much halo effect, mainly because all interactions were taped and coded after each visit, using a pre-established scoring system. The post-home visit Father-Interview, a bi-dimensional instrument, was aimed at obtaining additional information, first, about paternal beliefs and attitudes regarding child-rearing practices and, secondly, about the father's actual child-rearing involvement and performance. Home Visit Sequence Analysis (HVSA) dimensions were studied away from the home in one-to-one or two-to-one relationship in a structured experimental setting as well. This was a further attempt to check both the fathers' consistency and the validity of the findings.

At first glance one could reasonably consider the use of such multiple measures redundant. However, looking at the fathers' behavior in terms of the intercorrelations obtained from the data suggests something significant:

N = 45

HVSA Home Visit - Interview - Attitudes -- r = .62

HVSA Home Visit - Interview - Practices -- r = .96

HVSA Home Visit - HVSA Experiment -- r = .92

Interview-Attitudes - Interview - Practices -- r = .71

HVSA-Experiment - Interview - Attitudes -- r = .68

HVSA-Experiment - Interview - Practices -- r = .89

Although all correlations are significant at better than .01 level, the correlations involving Interview-Attitudes leaves 61.56%, 49.59%, and 53.76% of the variance unexplained in the respective correlational relations. In addition, studies into the significance of differences between the given correlation coefficients also indicate that Interview-Attitudes differ significantly from all others at the .01 level. These findings suggest that what fathers say and what fathers do in relation to child-rearing practices may be unrelated.

Selection and Training of the Interviewers and Coders

The interviewing was carried out by three female workers all of whom were experienced psychiatric workers pre-trained in the procedures involved in the home-visits: all were good participant-observers and intruded little into the normal flow of the family interaction pattern. They were trained to carry out the post-visit father interviews and to ask additional questions related to such areas as the child's hospitalization or other traumatic experiences, the effect of in-laws, parents, and other males on child-rearing practices. They were also trained in administering the Peabody Picture Vocabulary Test to the children and to provide the mothers with whatever help they needed to fill out the PARI mother form. The use of females as interviewers was found to be a significant factor: fathers responded to male workers with some reservations and co-operated less willingly with them. In addition,

the spontaneous verbalizations which occurred after an interview when female workers were used, an occurrence which provided much additional, invaluable information, was entirely missing when male workers were used.

In the decoding of the experiment's videotape material three psychologists were involved, all three trained in HVSA and Sequence-Analysis. They were trained by viewing several experimental study tapes which were not included in the study proper.

Home Visits

In order to achieve a standardized situation the home visits were structured identically for each family. The visits occurred shortly after the dinner hour and usually lasted about one hour. This specific period is known to produce instances of parent-child verbal exchanges and divergences (Bernstein, 1961) and was selected for observation in order to code a wide range of critical interactions.

The home visits usually began with the interviewer's asking the parents' permission to tape the whole session. Following the initial period during which the interviewer acted as a participant observer, the mother was given the PARI to fill out (the aim here was to neutralize the mother for the duration of the visit) while the father was interviewed. The visit was concluded with the administration of the PPVT to the child. After the first few visits it was found necessary to discontinue the attempt to administer the PARI to the mother during the visit, and especially during the father-interview, mainly because the mothers were more interested in the interview than in completing

the PARI and often responded to the questions randomly without reading them first.

Experimental Procedure

During the first few minutes of the experiment the children were encouraged to become familiar with the surroundings and equipment. They were allowed to explore and play with the toys used as distracting stimuli. At the same time the father was given verbal instructions regarding his task: he was also provided with written verbatim instructions[6] for all tasks involved in the study. The father was told that he would be the experimenter and his child the subject. He was asked to study the instructions until he understood fully the tasks involved and was encouraged to begin on his own as soon as he was ready. He was casually informed that the whole study would take about 20 minutes to complete. He was then left alone with the child. The fathers were no doubt aware that their performance, as well as the child's would be evaluated. Under such stressful conditions we were able to observe and videotape the fathers' ways of enforcing rules, their methods of teaching and their ability to motivate the child in order to secure his co-operation and compliance.

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[6] See Appendix B for Instruments.

STATISTICAL ANALYSIS

Reliability Checks

(a) To insure the reliability of Home Visit Sequence Analysis coding, three kinds of measures were computed:

(1) Reliability 1 - one transcript, two coders: both visited the homes. The mean correlation via Fisher's z transformation was .82.

(2) Reliability 2 - one transcript, three coders: all three visited the homes. The mean correlation via Fisher's z transformation was .70.

(3) Reliability 3 - one transcript, two coders, none of whom visited the homes. The mean correlation via Fisher's z transformation was .78.

(b) In measuring the reliability of the Autonomous Achievement Motivation Test, with an N of 19, utilizing the test-retest method, a reliability coefficient of .78 was obtained.

(c) Inter-Coder Reliability Measure - HVSA - Home Visits. Twenty-five percent of the cases were visited by two interviewers, while ten percent were visited by three interviewers. From their protocols the following inter-coder reliabilities were computed:

(1) Between interviewers X and Y -- r = .86 p .05

(2) Between interviewers X and Z -- r = .82 p .05

(3) Between interviewers Y and Z -- r = .90 p .05

(Computation methods: Ferguson, 1966, 7.2 and 12.10)

(d) Inter-Coder Reliability Measure - HVSA - Structured Observation.

The data of 20% of all father-child dyads video-taped in the experimental setting were analysed by three psychologists trained in HVSA decoding. From their data the following reliability coefficients were calculated:

(1) Between psychologists A and B -- r = .91 p .001

(2) Between psychologists A and C -- r = .86 p .001

(3) Between psychologists B and C -- r = .80 p .01

Analysis

In the analysis of the results "fathering" is represented by the sequence scores obtained via the HVSA Structured Observation method during the experiment proper. The total sample was divided into four groups according to the individual father's predominant mode of relating to the child during the experiment: these four groups represent the paternal dimensions of Maturity Demands, Control, Communication, and Nurturance.

To test the general hypothesis that a statistically significant relationship exists between qualities of fathering and autonomous achievement motives in preschool children, the method of one-way analysis of variance was employed. To test the significance of differences between group means the Scheffé method was utilized. The significance levels were established at the .05 and .10 level respectively.

The hypotheses were tested through the use of a correlational method. Since the data were treated as cluster domains and not as single-factor (trait) scores, the "correlation of composites[7] between

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[7]See Ghiselli (1964), p. 173-174 for definition.

two averaged composites" method, reviewed by Ghiselli (1964), was used. An alpha level of .05 was used to determine the significance of correlations. The alpha of .05 is generally considered as an acceptable level of making a Type I error (Ferguson, 1966).

CHAPTER FIVE

RESULTS

The major hypothesis of the present study proposed that a statistically significant relationship exists between dimensions of fathering and children's scores on the Autonomous Achievement Motivation Tests.

To ensure the reliability of the findings and to better facilitate their understanding, a one-way analysis of variance, followed by an a posteriori Scheffé, was applied to the data to observe the significance of the overall differences. The levels of significance for the analysis of variance was set at .05 and for the Scheffé at .10 (Ferguson, 1966).

Due to the relatively small sample size the first assumption underlying the analysis of variance, that is, the normality of distribution, was not tested. Although there were no reasons to suspect an extreme departure from normality, a more rigorous level of confidence was employed to avoid problems which would result from such departures. To test the second assumption, the homogeneity of variance, the Hartley Test (four groups, unequal N's) was applied to the data: the results supported the null hypothesis. It is therefore felt that the major requirements needed to justify the use of an analysis of variance have been met in the present study.

TABLE II

SUMMARY OF ANALYSIS OF VARIANCE:
ONE-WAY CLASSIFICATION OF AUTONOMOUS ACHIEVEMENT
MOTIVATION TEST SCORES OBTAINED BY MEMBERS OF
THE FOUR GROUPS

Source of Variation	S.S.	d.f.	M.S.	F.	P.
Between	13.1970	3	4.3990	11.4408	.01
Within	16.5376	43	0.3843		

Decision: Reject null hypothesis ($p<.001$).

The major hypothesis has been supported in as much as the differences are significant at better than a .01 level. It can therefore be stated that the various forms of fathering had an effect on children's performance on achievement motivation tests.

Scheffé test of significance of differences between each pairs of the four group means:

Significance level = .10

df = for F .10 (d) (2.225) = 6.6675.

TABLE III

SCHEFFÉ SUMMARY

Groups	F	Significance
I. II,	17.72	p .01
I, III,	29.18	p .01
I, IV,	8.38	p .10
II, III,	0.93	n.s.
II, IV,	3.18	n.s.
III, IV,	8.46	p .10

Codes: Group I Maturity Demands

II Control

III Communication

IV Nurturance

The group means are arranged below in the order of the hypotheses: those underlined with a common line do not differ from each other significantly.

(1)	(2)	(3)	(4)
Maturity Demands	Control	Communication	Nurturance

The results indicate that the group mean "Maturity Demands" differs significantly from all other means, that is, from Control, Communication, and Nurturance. In fact, Maturity Demands differs from Control and Communication at better than a .01 level on the Scheffé.

The Nurturance group mean differs significantly from the Communication group mean at the .10 level. These results tend to signify the importance of Maturity Demands and Nurturance as paternal behavior

dimensions related to children's performance on the Autonomous Achievement Motivation Tests.

Since the data yielded by the procedures outlined previously are composites made up of the sum, or average, of the scores on a series of component variables, the "correlation between two average composites" (Ghiselli, 1965) was used to test the hypotheses.

The correlation between two average composites is

$$r_{\bar{x}\bar{y}} = r\left[\frac{(x_1 + \ldots + xk)}{k}\right]\left[\frac{(y_1 + \ldots + ym)}{m}\right]$$

(Ghiselli, 1964, p. 203)

The level of significance was set at .05.

To test the hypotheses of I.Q. and sex differences as related to the children's performance on the Autonomous Achievement Motivation Tests, a single factor analysis of variance method was employed with the level of significance set at .05.

Hypotheses

Hypothesis I. Paternal Maturity Demands are positively correlated with children's overall scores on Autonomous Achievement Motivation Tests (AAMT).

TABLE IV

CORRELATION BETWEEN FATHERS' MATURITY DEMANDS AND CHILDRENS' SCORES ON AAMT.

N = 14	r = .648	p .012

This hypothesis was substantially supported. In addition,

significant intra-test differences in children's performance on the three AAMT subtests were also observed, with the correlations pointing to directionality. The correlations between the children's performance on the first, second, and last AAMT subtest and Paternal Maturity Demands were .203, .553, .784, respectively ($p < .05$).

Hypothesis II. Paternal Control is negatively correlated with children's overall scores on Autonomous Achievement Motivation Tests (AAMT).

TABLE V

CORRELATION BETWEEN FATHERS' CONTROL BEHAVIOR AND CHILDREN'S SCORES ON AAMT.

N = 9	r = -.028	p .939	n.s.

The hypothesis was not supported. The probability was within extremely high chance levels: there were no significant intra-test trends with subtest correlations of .386, -.033, and -0.28, suggesting random intra-test relationships between Paternal Control and children's performance on the various AAMT tasks.

Hypothesis III. Father-Communication is positively correlated with children's overall scores on the Autonomous Achievement Motivation Tests (AAMT).

In addition,

(i) Scores on Paternal-Nurturance and Father-Communication are positively correlated with children's overall scores on AAMT.

(ii) Scores on Paternal-Control and Father-Communication result in no relationship (random relationship) with children's overall scores on AAMT.

(iii) Scores on Paternal Maturity Demands and Father-Communication are positively correlated with children's overall scores on AAMT.

TABLE VI

CORRELATIONS BETWEEN FATHER COMMUNICATION AND CHILDREN'S SCORES ON AAMT.

N = 10	r = -.747	p .021

The results did not support the hypothesis. In fact, Father-Communication was found to have a negative correlation with children's overall scores on the AAMT. The correlation was significant at a .02 level. In addition, there were significant intra-test trends with various AAMT subtest correlations of .218, -.372, and -.812 respectively, suggesting an increasingly negative relation between Paternal Communication and children's performance on the three AAMT tasks.

TABLE VII

CORRELATIONS BETWEEN BI-DIMENSIONS
OF FATHER BEHAVIOR
AND CHILDRENS' SCORES ON AAMT.

Fathering Dimensions	N	r	p	
Paternal Nurturance and Communication	13	.4714	.10	n.s.
Paternal Control and Communication	9	.2187	.46	n.s.
Maturity Demands and Communication	7	.5147	.20	n.s.

The data summarized in TABLE VII failed to support Hypothesis III - i, and iii. All correlations were in the positive direction, but none of them obtained the required level of significance.

Hypothesis IV. Paternal-Nurturance is positively correlated with the children's overall scores on Autonomous Achievement Motivation Tests (AAMT).

TABLE VIII

CORRELATION BETWEEN FATHERS' NURTURANCE BEHAVIOR
AND CHILDRENS' SCORES ON AAMT.

N = 14	r = .539	p .046

Hypothesis IV was confirmed. In addition, the intra-test trend analysis suggested very little difference, none statistically significant, between Paternal Nurturance and children's AAMT sub-scores. The correlations were .499, .463, and .566.

Hypothesis V. High scores on Paternal-Nurturance and Maturity Demands are positively correlated with children's overall scores on Autonomous Achievement Motivation Tests (AAMT).

TABLE IX

CORRELATION BETWEEN THE DIMENSIONS OF PATERNAL NURTURANCE AND MATURITY DEMANDS AND CHILDRENS' SCORES ON AAMT.

N = 10	r = .8167	$p<.01$

Hypothesis V was confirmed. In fact, the probability level was better than .01. Intra-test trend analysis suggested uniformly high correlations with directionality; the differences, however, were not statistically significant. The correlations between the dimensions of fathering and children's scores on the three AAMT tasks were .789, .80, .83.

Hypothesis VI. High scores on Paternal Nurturance and Control are positively correlated with children's overall scores on Autonomous Achievement Motivation Tests (AAMT).

TABLE X

CORRELATION BETWEEN THE DIMENSIONS OF PATERNAL NURTURANCE AND CONTROL AND CHILDRENS' SCORES ON AAMT.

N = 3	r = .5147	p 0.5	n.s.

Hypothesis VI was not supported. The correlation was positive between the hypothesized dimensions of fathering and children's overall

scores on the AAMT, however, the chance level was considerably over the confidence level established for the study. The intra-test trend analysis indicated random relationship with correlations of .382, .561, and .448 between the dimensions of fathering and the children's scores on the AAMT sub-tests.

Hypothesis VII. High scores on Paternal Control and Maturity Demands are positively correlated with children's overall scores on Autonomous Achievement Motivation Tests (AAMT).

TABLE XI

CORRELATION BETWEEN THE DIMENSIONS OF PATERNAL CONTROL AND MATURITY DEMANDS AND CHILDRENS' SCORES ON AAMT.

N = 5	r = .854	p .10	n.s.

Although the correlation obtained is quite high, the data did not support the hypothesis. Once again, the intra-test trend analysis indicated random relationship between the hypothesized dimensions of fathering and children's performance on the AAMT tasks. The correlations were .766, .734, and .882 for the respective sub-tests.

Hypothesis VIII. There are no significant sex differences in children's overall scores on Autonomous Achievement Motivation Tests.

TABLE XII

SUMMARY OF SINGLE FACTOR ANALYSIS OF VARIANCE:
ONE-WAY CLASSIFICATION
OF AUTONOMOUS ACHIEVEMENT MOTIVATION TEST SCORES
OBTAINED BY MALE AND FEMALE MEMBERS
OF THE SAMPLE.

(1) Source of Variation	(2) Sum of Squares	(3) d.f.	(4) Mean Squares	(5) F	(6) Signif-icance	
Between	704.000	1	704.0	0.11	p .745	n.s.
Within	29664.200	45	6592.04			
N = 47						

Decision: Accept H_o.

The difference between the male and female group's AAMT. scores is not significant at the .05 level. In fact, a difference as large as this could occur by chance 75 times out of 100 if random samples were taken.

Hypothesis IX. Intelligence level (I.Q.) is not related to differences in children's overall scores on Autonomous Achievement Motivation Tests.

TABLE XIII

SUMMARY OF SINGLE FACTOR ANALYSIS OF VARIANCE:
ONE-WAY CLASSIFICATION
OF AUTONOMOUS ACHIEVEMENT MOTIVATION TEST SCORES
OBTAINED BY "HIGH" AND "LOW" I.Q.
GROUPS WITHIN SAMPLE.

(1) Source of Variation	(2) Sum of Squares	(3) d.f.	(4) Mean Squares	(5) F	(6) Signif-icance	
Between	5306.7	1	5306.7	0.9547	p .2504	n.s.
Within	155622.	28	5557.92			
N = 30						

Decision: Do not reject H_o, $p>.05$.

The results suggest that there are no intellectual, ability-based significant differences in children's AAMT performance.

CHAPTER SIX

DISCUSSION AND IMPLICATIONS

Discussion

The present study has had as its primary objective the investigation of an hypothesized relationship between fathering behavior and achievement-related motives in the preschool child. It has been immediately concerned with establishing a functional relationship between selected dimensions of fathering--with fathering viewed as process variables--and children's performance on achievement motivation tests. The intent was to examine some of the actual interpersonal processes between a father and his child in an achievement related, task-specific setting with the father's behavior as the primary focus.

In as much as results supported the major hypothesis it is felt that the immediate objective has been met. The level of achievement motivation was found to be significantly different amongst groups of children divided in accordance with their fathers' predominant use of specific types of behavioral dimensions. In addition, a very rigorous Scheffé further implied that some paternal behaviors were more markedly significant than others. The significance of these findings is discussed below.

Although the overall differences were highly significant the results can not be viewed as having demonstrated causality. Causal inference is a very complex problem and the present writer tends to agree with Blalock (1964) who states: "it is quite correct that one

can never demonstrate causality from correlational data, or in fact from any type of empirical information" (p. 62).

The following discussion of the findings is divided into two major sections. The first part is devoted to an examination of the patterns of support and non-support of the hypothesis with emphasis on single dimensional and bi-dimensional function analysis and variable significance in order to explicate unexpected and unusual findings. The second and concluding section consists of a more integrated examination of the results as a whole in which the meaning, possible significance and implication of the findings are considered.

The findings clearly demonstrated that the paternal dimension of Maturity Demands was associated with the highest level of achievement motivation in children (Hypothesis I, Table V). Within this dimension the variable associated with the highest motivation level was "independence granting". This particular finding tends to support the notions of McClelland (1951), Whiting and Child (1953), Winterbottom (1958), and others, who emphasize the primary importance of independence in the development of a child's achievement motivation. As the individual variables within the dimension of Maturity Demands were further analyzed it became apparent that it was independence granting as opposed to independence training that was the variable related to higher level achievement motivation in children of this particular age. McClelland (1951), Friedman (1953), Winterbottom (1958), and Rosen and D'Andrade (1959) emphasized the importance of early independence training and the present results could also imply this. However, on the basis of the present findings it would seem reasonable to think of a

possible ammendment to Rosen and D'Andrade's (1959) proposed independence and achievement notion. In an ontogenetic paradigm one would proceed from early independence training to parallel and later independence granting, followed by achievement training and so on. The inclusion and importance of independence granting cannot be overemphasized; it is via actual practices of independent action and exploration that a child becomes increasingly self-reliant (Feld, 1960), competent, and develops higher levels of autonomous achievement motivation (Veroff, 1969).

With regard to the children's achievement motivation, it is significant that with one or two exceptions the children in this group did not attempt to repeat the most difficult tasks, although their averaged achievement motivation scores were the highest of all groups. This seems to suggest that while their achievement motivation was relatively high, their aims were realistic and reasonable. Equally as significant is the fact that the children in this group generally started out by choosing a moderately difficult task to repeat in the first test and steadily increased the degree of difficulty of their successive choices on the second and third tests with the differences reaching statistical significance at the .05 level. This particular finding is of considerable significance especially in view of the fact that the individual tests were arranged so as to place the most tedious last. Because of the relatively short attention span of the five-six year olds it was thought that this arrangement would result in a general decrease in the child's achievement motivation.

One additional individual dimension which was hypothesized to

bear a significant positive correlation to children's achievement motivation was supported. This is the dimension of paternal Nurturance (Hypothesis IV, Table VIII). It is worthwhile to note that while the hypothesis was supported, the level of significance was close to marginal with a p of .046. Nurturance itself was not associated with any discernible intra-test trend although the last test trial choices of the group were their most difficult. There appeared to be a decline in motivation on task two.

Looking at the variables within Nurturance and their relation to the children's achievement motivation within the group suggests that variable o, using positive incentive and reinforcement, was the primary factor responsible for the statistical significance of the relationship of this dimension to the children's achievement motivation. The paternal behavior associated with this variable was characterized by a "judicious" metering out of nurturant behaviors in forms of mutual glances, smiles and physical contact when and if the child showed initiative and upon success. The other two variables, that is, variables m and n, satisfying and supporting the child, obtained considerably lower correlations; both were below the level of significance.

However, the marginality of the significance of the dimension Nurturance all but disappeared when viewed in a bi-dimensional combination with Maturity Demands. It is necessary to point out that out of the five bi-dimensional combinations hypothesized to have a significant positive correlation with children's achievement motivation only this combination obtained the criterion level of significance.

Interestingly, with these two dimensions as joint primary modes

of relating to the child, the intra-test correlations with the children's achievement motivation scores were almost uniformly high and nearly even, the respective correlations being .79, .80, .83. The children within this group attempted, and very frequently succeeded at repeating some of the most difficult tasks with ease and confidence. This particular finding is not in agreement with Veroff's (1969) basic postulate stating that children "who are interested in repeating tasks that are moderately difficult for them, rather than tasks that are relatively easy or very difficult, are people who have a high positive motive to succeed" (p. 61).

In the interaction of these two dimensions more variables became functionally significant, including the Maturity Demands--independence training variable and Nurturance variables m and n, that is, satisfies and supports the child. These three variables frequently functioned together: they were utilized primarily by fathers who in the single dimensional analysis belonged to Nurturance with an emphasis on attempts, using methods of reinforcement, to train the child to function independently.

Several hypotheses related to individual dimensions and bi-dimensional functioning failed to obtain support from the data. One was the paternal dimension of Control: it was hypothesized to have a significant negative correlation with children's performance on the achievement motivation tests (Hypothesis II, Table IV). Not only did the data fail to support this hypothesis but, furthermore, intra-test trend analysis suggested a random (no relationship) phenomenon. A plausible explanation for this finding may be provided by the following

variable analysis within the dimension of paternal Control. The results tend to suggest that most fathers who utilized Control as the primary mode of relating to the child in the test situation did so by relying primarily on such control behaviors as variables g and i, that is, accepting power conflict with the child and utilizing positive and negative reinforcements as methods of attempting to obtain compliance. Quite frequently the fathers within this group utilized verbal communication variables such as "using reason to obtain compliance" and "encouraging verbal interaction" with the child in order to camouflage the controlling effect of this dimension. Fathers in this primarily control utilizing group seldom employed such behaviors as "gaining positive outcome by persistence" (variable f) found by Baumrind and Black (1967) to be significantly related to various measures of children's competence. It appears, in short, that the fathers who were primarily Control oriented utilized a mixture of behaviors from other dimensions as well, quite unsuccessfully, to obtain compliance.

In the present study the dimension of Communication was to be examined first as an individual dimension as it was hypothesized to have a significant positive correlation with children's achievement motivation. This hypothesis was based on the premise that verbal behavior is a primary mode of shaping children's behavior (Luria, 1960; Vygotsky, 1962; Bernstein, 1961). The results did not support the hypothesis (Table VI). As a matter of fact, the findings indicated that there is a statistically significant negative correlation between the dimension of verbal Communication and children's performance on the

achievement motivation tests. The intra-test trend analysis further suggested that the increase in verbal communication by the fathers was associated with progressively declining achievement motivation in children. The correlations of .218, -.372, and -.812 signify an especially sudden decline in the third and final task. This particular finding is not easily explained. Variable checks within the dimension suggested that in a number of cases fathers began their verbal relationship with a heavy emphasis on using reason to obtain compliance (variable j). When this method did not lead to success they used verbal communication as a control mechanism with "power not disguised" (variable l). In short, it appears that the behavioral dimension of Communication may have often been utilized as a control mechanism.

Table VII contains the bi-dimensional correlations of verbal Communication paired with each other dimension in relation to the children's achievement motivation performance. The aim here was to look at Communication not as an independent dimension of socialization but as a mediating process or vehicle, transmitting maturity demands, control, and paternal nurturance via verbal channels. While the results support hypothesis III - ii, indicating no significant relationship between Control and Communication, the other two hypotheses were not supported. It is essential to note, however, that in all three cases the combination of the three dimensions with Communication resulted in positive correlations. It is possible that only the low N is responsible--at least in the case of the Maturity Demands and Nurturance combinations with Communication--for the results being

statistically insignificant. In view of the changes in directionality it may be worthwhile to study the role of verbal communication as a mediating process, despite the statistically insignificant correlations.

Two additional hypotheses concerning sex and I.Q. differences in relation to differences in children's achievement motivation were also tested. Hypothesis VIII (Table XIII) found no sex differences in children's performance on the achievement motivation tests, nor were there any intellectual ability related differences (Hypothesis IX, Table XIII). This latter finding may simply be looked upon as further supporting the validity of Veroff's instrument. That is to say, autonomous achievement motivation may well be an overall tendency to behave in relation to achievment goals and irrespective of reasonable intellectual differences. On the other hand, the matter of the lack of sex differences may require closer scrutiny. Crandall and Rabson (1960) suggested that girls are less likely to repeat failed tasks than boys (p. 166). This generalization can hardly be accepted, however, since their study of children's repetition choices utilized intellectual achievement tasks and not tasks of generalized competence or achievement motivation. Veroff (1969) also found "marked" sex related differences amongst the children's performance on the achievement tests during his initial standardization attempts. He observed that "boys start out higher than girls on this measure of autonomous achievement motivation" (p. 77). The data he offers to illustrate his point, nonetheless, indicates that, except for the kindergarten year measured, girls are higher than boys on autonomous achievement motivation (p. 75, Table 8). Furthermore, a review of the sizes of the respective samples

makes it apparent that the smallest and least representative sample was the kindergarten age group, a fact which reduces considerably the validity of his argument.

This study's hypotheses with regard to intelligence and sex related differences in children's achievement motivation were formulated on the premise that if autonomous achievement motivation is to be viewed as a generalized striving for competence then marked ability and sex related differences in the children's performance should not be expected. It was further assumed that we will find no sex differences in the children's achievement motivation mainly because via the processes of cross-sex identification during early childhood (Burton and Whiting, 1961; Barclay and Cusumano, 1967; Sutton-Smith, Rosenberg, and Landry, 1968) fathers may affect the development of achievement motivation in their daughters at least as strongly as in their sons.

So far, the results have been considered in terms of the hypotheses and in relation to the significance of both the individual dimensions and their bi-dimensional combinations: an attempt has been made to look at and elucidate their support and non-support by means of analyzing sequence frequencies of variables within and between dimensions.

From a methodological point of view it is apparent that examining hypothesized behaviors as dimensions with well delimited variables, objectively defined, observed, and recorded, and not as individual variables is a useful way of securing reasonable interpretations without having to resort to speculative analysis of various kinds. Although the analysis of variables within and between dimensions

may appear to be overly complicated or even tedious, the results quite clearly point to an important reason for the support and nonsupport of the proposed hypotheses. The key term would have to be consistency. Baumrind and Black (1967) have previously found the variable "Paternal Consistent Discipline", and, in general, firmness and consistency to be positively related to various aspects of competence in preschool children. One could reasonably generalize their findings and hypothetically suggest that the consistency of parental and paternal behavior is of a primary significance in determining children's behavior.

With regard to fathers' consistency in staying within individual dimensions, it was quite evident, for example, that the paternal dimensions of Communication and Control were often interchanged by the fathers as their primary mode of relating to the child. Most frequently these interchanges occurred as the consequence of a child's non-compliance or manipulation of the father to permit non-compliance. On the other hand, the fathers utilizing Nurturance and Maturity Demands by and large stayed with their primary mode of relating to the child and utilized behaviors from other dimensions only as secondary means; for example, as occasional reinforcements or rewards as the situation required. This is not to imply, of course, that the lack of paternal consistency is viewed here as the sole reason for the nonsupport of the hypotheses related to the dimensions of Control and Communication. Previous research, as indicated in the review of the literature, has consistently found parental and paternal control behavior to have a negative correlation, or no relation, to children's achievement related motivation. Control, in general, tends to delimit

the child's sphere of exploration and of competence seeking (Veroff, 1969), hence the negative relationship. The highly significant, negative relationship between verbal communication and children's achievement motivation is not so readily explicable. It is possible, however, to attempt an hypothesis or to suggest a way of looking at the function of verbal language in the present study. Hypothetically the ontogenetically earliest modes of relating to the child, that is, nurturance and verbal communication can be placed on a continuum as parts of a dichotomy. Utilizing the thesis and model of Werner and Kaplan (1967) it is possible to look at nurturance as a functional residuum of the primordial sharing stage in which interindividual relationship occurs primarily in sensory-motor-affective terms. This period may also be visualized as the period of primary and secondary attachment relations between a mother and child and, later, at a developmentally more advanced level, between child and others including the father. On the other end is symbolic language: it is the primary mode of relatedness resulting in and from increasing polarization of the persons involved in symbolization--that is--from an increase in interpersonal distance.

Werner and Kaplan's thesis pertains to developmental changes in general. It should be kept in mind when the father-child relationships in which fathers utilized either nurturance or communication as the primary mode of relating to the child are viewed. Utilizing some of the methods employed by Hore (1968) and Brady (1969) in their respective studies of mother-child relationship in experimental situations, the tapes of a small random sample of five dyads from each the present study's Nurturance and Communication groups were re-examined. Signif-

icant differences between the group were found at the .05 level in such measures as mutual glances, physical proximity, physical contact, verbal interaction, especially in the areas of the fathers' use of verbal reinforcement and reward. Although this finding itself may not be viewed as conclusive, however, it could be looked at as a potential way of studying the function of these two dimensions in future research.

This chapter concludes with a final, brief, integrated view of the effects of the two dimensions found to have significant positive relationship with children's achievement motivation. The findings are placed into an ontogenetic paradigm with the stages described in terms of the father's prominent modes of relating to children.

Fathers increased involvement with their children begins toward the end of the period of "infant helplessness", at a time when the primary mother-specific attachment behavior[8] wanes. Fathers may become the subsidiary attachment figures as focal point of the children's attention. During this specific period in which the inter-individual interaction still occurs mainly in--what Werner and Kaplan (1967) called--"sensory-motor-affective" terms with sharing of experiences, fathers may become involved in a nurturance like relationship. According to McCandless (1968) nurturance is an important socializing antecedent because it is the "climate of nurturance or comfort giving, love power, that makes many of the other types of (socializing) power effective" (p. 160).

> There are, however, qualitative differences between maternal and paternal nurturance. Mothers' nurturance stems from and

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[8]For detailed study of attachment behavior see Ainsworth (1969), and Bowlby (1969).

> may be described as the close physical relationship and the shared personal experience provided to the infant and mother by the feeding from her body constitute a degree of contact and intimacy which creates a new kind of bond with durable characteristics (Kaufman, 1970, p. 5).

With its deep affective potential this bond--what Ainsworth (1969) and Bowlby (1969) term "attachment" behavior--is primarily mother-specific. When father becomes the potential subsidiary attachment figure the nurturant behavior takes on a different quality, developmentally and socially of a higher level. Hoffman (1960) describes the essence of the difference:

> The mother's love and attention make a boy feel warm and cozy, but fathers equip the boy to face the world. Both lead the boy to a feeling of being loved and accepted, but a positive relationship is associated in the boy with a high degree of self-confidence in his own abilities (p. 132).

Concerning the quality of paternal nurturance the data revealed, as stated previously, that variable o, the use of nurturance as positive incentive, was the most prominent positive variable primarily responsible for the significant positive correlation between paternal nurturance and children's performance on the achievement motives tests. What this observation further implies is that paternal nurturance--as utilized by the fathers in this study--had a social power: used to ensure the appearance of the desired behavior in the child it had a controlling, almost conditional quality about it.

When Nurturance was associated with the developmentally higher level, Maturity Demands, the bi-dimensional analysis suggests that nurturance became a relatively low, but consistently present, dimension acting as if it provided the foundation or "energetique" of the relationship between the father and child. The Maturity Demands group data

further indicated that in nearly all cases where Maturity Demands were associated with high, or relatively high, achievement motivation in children, Nurturance was nearly always a significant second in the order of importance. On the other hand, even the developmentally highest level, independence granting behavior, suffered when paired with dimensions or variables of Control or Communication.

The results of the present study, then, have supported the major hypothesis. The findings, examined in terms of the individual hypotheses, indicated that two dimensions of fathering behavior, namely Nurturance and Maturity Demands were correlated with children's achievement motivation at a pre-established level of statistical significance. The implications of the present study for further research in child development, social learning theories and identification, and child-rearing practices are outlined in the following section.

Implications

The implications of the present study are discussed in relation to future research in child development, social learning and identification theories, and in child-rearing practices.

Research in Child Development

In reviewing the available research evidence concerning the relationship between fathers and their children in 1965, Nash noted that most of the scientific literature in this field was sociological rather than psychological. The ensuing six years have changed matters very little; the area of the father's relationship with his children remains even today a terra incognita. In general psychological literature the term "father" is seldom to be found in the index of texts, and although some father-related research has appeared of late a great deal of resistance to studying this forgotten or ignored member of the family still exists amongst psychologists.

Despite psychologists' tendency to generally undervalue the father's importance in the family, evidence, often obtained as findings additional to mother specific research, clearly indicates that the father is of considerable importance in the development of his children. Unfortunately, the most prevalent modes of studying fathers up-to-date have been the father absence studies, inferential studies, often in retrospect; and as such they could not examine actual samples of father behavior in order to identify significant child-rearing practices and processes.

The present study was designed with the specific aim of studying

actual samples of father behavior. Because of the total lack of previous observational/experimental studies of fathers the research was designed to be of exploratory nature, taking in a range of paternal dimensions as independent variables which researchers have found previously to be of significance in child-rearing practices.

With the dependent variable, achievement motivation, selected by the process of elimination, a very rigorous research design was utilized to exclude as much of the extraneous variables as possible. The results have proven to be much more significant than expected. A parallel study is needed to test the findings of the present research. A longitudinal follow up would be invaluable to the slowly growing body of knowledge about fathers and their roles.

The general applicability of instrumentation could also be further tested and especially the Home Visit Sequence Analysis. The very intricate variable functions should possibly be analyzed in greater detail. And most importantly there should be more actual observational/experimental studies conducted with fathers as the primary focus because their functions are multifarious in the development of the child.

Social Learning and Identification Theories

The concerns of social learning theory and concepts of identification are apposite in this study. As indicated in the Discussion section, the results of two of the paternal dimensions that is, of paternal Nurturance and Maturity Demands, and their intricate interrelatedness tend to lend support to either or both of the theories of social learning and identification.

According to Sears (1957) "identification, in part, at least,

depends upon a warm identificand" (p. 392). In agreement with Sears' statement social learning theorists Bandura and Huston (1961) suggested that a warm and friendly model is more likely to be imitated by the child. The results of the present study tend to lend support to these notions. It supports as well, the argument of Maccoby (1959), and Mussen and Distler (1959) that a model who possesses social power, or control over resources important to the child in addition to nurturance is likely to be more successful in his attempts to bring about the internalization of desired behaviors.

In addition to lending support to the tenets of social learning theory and identification the methodology applied, especially the measures of the independent variable, parental behavior, could also be of significance in social learning and identification research. It is well known that in addition to the problems associated with measuring the dependent variable the assessment of antecedents is also highly unreliable (Purcell, 1962). The multiple assessment procedure utilized in the present study could conceivably be of value in this regard.

Child-Rearing Practices

There has been a great deal of reported research on the importance of all aspects of "mothering" (Nash, 1965). Some sociologists and psychologists who have examined child care in industrialized western societies claim that it is mother-centered. Gorer (1948) called the American society "motherland" where mother has the dominant role in child-rearing while father has become vestigial. Kluckhohn (1949) describes American men as being "so wrapped up in the pursuit of success that they largely abdicate control over their children's upbring-

ing to their wives". Josselyn (1956) suggested that the problem lies in social expectations:

> Since society does not recognize fatherliness as a male counterpart of motherliness, the father who shows tenderness and nurturance towards his children is regarded as effeminate; regarding child care as emasculating, the father is handicapped in achieving a proper relationship with his children (p. 268).

Such generalizations may no longer be applicable. Marked changes in family styles and roles have been depicted, for example by Seeley et. al., in Crestwood Heights (1956). According to today's role expectations the father is expected to participate in the whole child-rearing process. And, according to the findings of Tasch (1952) fathers do participate.

The present study has observed the new style fathers in interaction with their children in the home and in an experimental setting. The results suggest the importance of father involvement in child-rearing practices at a very early age of the child with the establishing of a "climate of nurturance or comfort giving, love power" to be of paramount importance in later socialization, as such antecedents make later attempts of socialization more effective (McCandless, 1967).

Over and above an enduring, warm and positive relationship between father and child the most significant paternal relatedness involves training the child to function independently.

The interrelatedness of fatherly warmth or nurturance and independence measures were viewed in the implications as a pre-requisite for the child to identify with or utilize the father figure as a role model to imitate. It was suggested that the degree or extent to which paternal values, attitudes, beliefs and achievement related motives

are transmitted to the child depends largely on the availability and quality of the paternal dimensions of nurturance and independence allowances.

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APPENDIX A

INTRODUCTORY LETTER AND

QUESTIONNAIRE TO FATHERS

February 11, 1971

Dear Mr.

We are writing to you in the hope that you will agree to cooperate with us in research into child development and the modern family which we are carrying out.

In the past most of the studies have been concerned with the role of the mother in her interaction with the young child. We now want to look at the role of the father: how does he see his role and what does he do in carrying it out? Has the role of the father changed or is it in a process of change? On these and many other related questions we sorely need some reliable information, and we can only get it by asking fathers such as you, and by observing what fathers actually do in interaction with their children.

We are approaching you also because we understand that you have a child aged 5 - 6 years, and in this study we are interested primarily in children of that age range. We very much hope that you will agree to participate. If you do, then this is what would be involved for you and your child of 5 - 6 years and your family:

1) Fill out the attached questionnaire.

2) Allow a specially trained worker to visit your home at your convenience for a brief interview with you and your wife, and to observe your family's interaction.

3) Your son/daughter and you would be brought to the University of Alberta for a 20 minutes TV taping session, sometime during the second half of March, at a mutually convenient time which could include evenings as well.

In return we would be ready to discuss any related questions you may have and we will inform all participants about the findings of the study.

We realize that your available time is very limited. For this reason we are willing to schedule all activities at your convenience.

We can assure you that all information given and all aspects of your involvement will be held in confidence, in accordance with the ethics of responsible research.

May we extend our thanks in anticipation of your co-operation.

One of us (Andor Tari) will contact you by telephone in order to obtain your reply and, hopefully, to make arrangements for the next steps in the research.

Yours sincerely,

Andor Tari, M.Ed.,
Ph.D. Candidate
Canada Council Fellowship Holder

Dr. W. H. O. Schmidt,
Professor of Educational Psychology
Chairman of Supervisory
Committee for Research

AT/WHOS/lml

I wish to participate in the research. Yes _____ No _____

PROJECT "FATHERS"
CHILD AND FAMILY QUESTIONNAIRE

Directons: This questionnaire is designed to help us plan this research project. We have tried to make the form brief and uncomplicated. All information you provide will be treated confidentially.

Please fill in or place a check mark opposite the statement which best represents your home and family.

THANK YOU

* * *

Questions about your child:

Name of child who is between five and six years of age _____

Child's Birthdate: Year _____ Month _____ Day _____ Sex _____

Questions about your family:

Highest grade father completed in school.

Elementary School	(Grades 1 - 6)	_____
Jr. High School	(Grades 7 - 9)	_____
High School	(Grades 10 - 12)	_____
College or University		_____

Highest grade mother completed in school.

Elementary School	(Grades 1 - 6)	_____
Jr. High School	(Grades 7 - 9)	_____
High School	(Grades 10 - 12)	_____
College or University		_____

Language or languages spoken in the home: Italian _____ Ukrainian ___

French _____ German _____ English _____ Other _____

If more than one language which is spoken most often? _____

Your name: _____ Address _____

Telephone _____

APPENDIX B

HVSA - PARENT INTERVIEW SCHEDULE

AAMT INSTRUCTIONS

Parent Interview Schedule

Beliefs and Attitudes

Control

1. What do you think are the best ways of managing the behavior of children:
   Do you think children's behavior ought to be managed?
   (Probes--ways of managing behavior)
   (a) spanking; (b) completely disregarding; (c) letting him know you are hurt; (d) behaving coldly; (e) sending to room; (f) depriving him of privileges (like watching TV or playing with a favorite toy).

2. Do you believe that parents know what is best for their children by and large? Do you think that children should obey their parents? Why?
   (If parent replies affirmatively the following probes are appropriate)
   (a) respect for parents; (b) higher morality (religious sanctions); (c) parent's rights and conveniences; (d) child's immediate safety and welfare; (e) conformity to what is expected; (f) consideration for others; (g) child's best interests in the long run.
   (If parent replies negatively the following probes are appropriate)
   (a) child's right to make own decisions; (b) parent's uncertainty as to what is right; (c) parent's reluctance to enforce own standards.

3. Some parents expect their children to obey immediately when they are directed to do something. Others do not think it's terribly important for a child to obey right away. How do you feel about this? How does your husband (or wife) feel about strict obedience?

4. Do you think that parents should supervise the activities of their children rather closely or do you think that the reins should be held rather loosely?
   (Probes--types of supervision)
   (a) knowing who the child's friends are and censoring the choice of friends; (b) knowing whereabouts of the child--how often does parent check; (c) checking on homework (in the case of school age children); (d) checking to see that parental directives are carried out.

5. Would you say that you have a position about child-raising, a way of bringing up children which helps to guide you? Is this position related to a broader philosophical or religious position?
   (Probe for:)
   (a) permissiveness contrasted with directiveness as a general

position; (b) source of values (religious, philosophical, practical day-to-day, welfare of the community, social conformity).

Maturity Demands

6. In what areas, if any, do you think children between 3 - 6 should be able to make decisions affecting their own behavior?
(Probe for:)
(a) choice of clothes; (b) choice of bedtime; (c) how much and what kind of food.

7. Do you think that a child should learn to be self-sufficient in an area as soon as he is able?
(Probe for age when:)
(a) child is expected to dress self; (b) child is expected to do some chores.

8. Do you think that a child should be asked to share in the work of the household?
(Probe)
(a) chores expected at age 3, 5, 7 years; (b) chores expected at age of parent's own children.

9. How much would you expect in the way of conscience development from a 5 - 6 year old?
(Probe)
(a) injury to another child; (b) not telling the truth.

Communication

10. Do you believe that a child should be allowed to disagree openly with his parents? Should he be encouraged to be forthright about his likes and dislikes about such things as:
(Probe)
(a) what has been prepared for dinner; (b) his parent's appearance; (c) how his parents treat him.

11. Do you believe that parents should express their negative feelings to the child just as he feels them or should he control what and how he communicates to the child?
(Probe)
(a) regarding the conduct of the child; (b) regarding how the actions of the child make him feel; (c) regarding his feelings about the child in general.

Nurturance

12. How about their positive feelings? How openly affectionate should parents be?
(Probes)
(a) appropriateness of physical expression--hugs and kisses;

(b) verbal approval.

13. How much do you think parents ought to put themselves out to provide special comforts and pleasures for their children?
(Probes--examples)
(a) to please them with gifts or amusement; (b) to keep them constructively occupied; (c) to bring them places--e.g., dance class; (d) to read to them, play with them.

14. There are always times when the needs of children seem to conflict with the parent's welfare. Are there times when that happens in your house?
(Probes)
(a) conflicts with father's wishes, such as quiet when he comes home; (b) parent's own need to rest; (c) what should happen when the child wants to do something that the parent does not enjoy.

Performance

1. Could you describe _____ to me? Give me a picture of what he is like?
(Probes)
(a) what parent likes and would like to preserve, dislikes and would like to change about child; (b) what child's own interests and aversions are; (c) child's peer relations; (d) child's behavior with adults.

2. What sorts of things do you talk about with _____?
(Probes)
(a) What kinds of questions does he ask? (b) Do you like to answer his questions? (c) How much of what you say does he understand?

3. Do you allow _____ to argue with you if he disagrees with you when you tell him to do something?
(a) Do you let him speak angrily to you? (b) Do you allow him to use insulting language, call you "stupid" or such names?

Control

4. What do you do to get _____ to behave as you want him to behave? What works best?
(Probes)
(a) send to room; (b) deprive him of privileges such as watching TV; (c) scolding (What kinds of things do you say?); (d) making him feel silly or ashamed; (e) spanking.

5. How much do you try to explain things to him and reason with him?

6. What do you do if he is unusually good? Do you let him know you are pleased? How?

(Probes)
(a) special privileges; (b) material rewards.

7. We would like to get some idea of the sort of rules you have for _____, the sort of things he is allowed to do and the sort of things he is not allowed to do. What are some of the rules?
(Probes)
(a) bedtime--hour he is to be in bed, leniency about deviating;
(b) making noise in the house; (c) comportment away from home;
(d) time he may spend listening to radio or watching TV;
(e) marking on walls and jumping on furniture; (f) quarreling with siblings; (g) fighting with other children.

8. When _____ has to be disciplined, who usually takes care of it, you or your husband (wife), assuming that both of you are there? How well do you agree on the means of discipline?

9. Do you keep track of exactly where _____ is and what he is doing most of the time or do you let him watch out for himself quite a bit? How often do you check?

10. How often do you tell _____ that you're going to have to punish him and then for some reason you don't follow through? What kinds of things might keep you from following through? If he doesn't do something you ask him to do, perhaps not put his toys away, what do you do then?

11. Would you say that _____ has been a difficult child to raise? Does he tend to be strong-willed or is he easy to manage? Does he ever downright refuse to obey?

Maturity Demands

12. Does _____ have any regular chores to do? How is he about doing them?
(If difficulty is mentioned) How do you go about getting him to do them?

13. Is _____ a child who likes to do things for himself or does he still like to be helped a good deal? Does he dress himself?

14. Does _____ like to visit with next-door neighbors without you? With whom does he play when he's not at nursery school?

15. Are there any adults _____ is especially fond of beside his parents?
(Probe)
(a) With whom and what kind of relationship?

Nurturance

16. What sorts of things do you most enjoy doing with _____?

17. Was _____ fun to take care of when he was a baby? Is he fun to be with now?

18. Do you enjoy holding _____ at times? Does he still sit on your lap at times or do you think he is becoming too big?

19. (For the father) How much time does _____ spend with you? What do you do together? How much do you think _____ knows about what you do at work?

20. Is there anything else you would like to tell us about _____?

AUTONOMOUS ACHIEVEMENT MOTIVATION TEST

Test Instructions

Basic Instructions:

In this study you are the experimenter and your child is the subject. Please read this brief instruction carefully and upon finishing it read the individual instructions to the tasks as well before you begin the experiment. While reading allow your child to get used to the setting, to explore the room, or play with the toys, etc...

There are three tasks in this study for you to do. All three are very much similar, in fact they are almost identical in the procedures and the rules involved. The only main difference between the three tasks is the materials used. The first task uses "snap-it" beads, put together in a pre-arranged form to be copied by the child. The second task has sheets of paper with pictures pasted on the front. Here the child is asked to recall the pictures he saw. The third task involves copying some designs.

The main principle in this study is that you are to present the individual items in each task in a pre-arranged order, ask the child to make one like it, recall what he saw, or draw the model. You continue until two failures at which time you take the first item, the last success, the first failure, and the last failure, pointing out the nature of difficulties involved and ask the child to choose one he would like to try again.

The whole study should take about twenty minutes to complete. You could take five minutes for the reading of the instructions and five minutes for each of the three tasks in the study.

Task 1, Instructions:

To your right under the cover you find some "snap-it" beads put together in a pre-arranged form and sequence to serve as stimuli or models. As you note, they vary in color, shape, and the number of beads in the sequences ranging from 2 to 9.

To your left there is an assortment of beads in a box for your child to make designs the same or similar to the models you will present. After the presentation and comparison of the individual models and the child's work replace your models intact into the box to your right and take apart the child's beads and replace them in his box.

Actual verbal instructions to follow. This you may utilize either by reading the actual verbal instructions to your child while doing the

experiment, or read the instructions over a few times, get the essence of the tasks and limits involved and work on your own using a methodology of your own.

Verbal instructions:

The first thing we're going to do is with these beads. You see they are all different colors. Also they are different otherwise. Some of them are round, others have lines like an accordion, and still others look like lanterns. Now we can put them together and make different things out of them. This is the game: I will show you something put together already. You will look at it carefully, because I am going to hide it behind my back and then you will make one just like mine. And then we will see whether yours looks like mine.

(Show Item 1 and say) Look at this carefully. (After 5 seconds hide it behind your back and say) Now make one just like mine.

(Wait for the child to show his work. If it is the same as the model continue to the next set of beads. If his work is wrong point out the difference between his product and the model. Afterward continue to the next set of beads until the child fails twice at which time you take the first model, the model of the last success, of the first failure and the last failure. Pointing to the individual models say)

Now let's make one more string of the beads. You may try one of these things. Remember, this first one was very easy for you; this one was not so easy, but you got it right; this one was hard for you, and this last one was very hard for you. Now, which one would you like to try again?

(After the child chooses let him try after which you should continue to the next task)

Task 2, Instructions:

Materials: Eight sheets of paper with two, three, five, seven, nine, thirteen, sixteen, and twenty pictures of readily identifiable objects pasted on them.

Instructions:

Now let's play a different game. On the other side of each paper there are pictures of different things. When I turn the paper over, you look at the pictures carefully, and try to remember them, because soon I am going to turn the paper so you can't see the pictures. Then you tell me what pictures you saw. Okay? Let's look at this paper first.

(Point to the pictures individually on the paper, say) This is a .....
(Let the child finish the sentence. If he hesitates, supply the name.

After he has named all the objects, say) Now look carefully, because soon I am going to turn the paper over.
(After five seconds do so)

Now tell me what you saw.

(After the child finished his listing of pictures turn the card over for the child's evaluation. If he failed to name all the pictures point out the misses)

Continue to the next paper, and say: Now let's try this one.

(After two failures show the child the first item, the last success, the first failure, and the second failure and say)

Let's try one more of these again. Remember, these pictures were easy for you to remember; this one was not so easy, but you got it right. This third one was hard for you, and this last one was very hard for you. Which one would you like to try again?

(After the child chooses, let him try as before and continue to the next task)

Task 3, Instructions:

Materials: Blank paper, pencils and china marker, and seven designs to draw. The designs are arranged in the order of presentation; you take the top card and present it to the child to copy. Before the presentation of the first card you may say

Here is something children like to do when they are learning about things. Children who are your age learn to draw, make pictures, and all kinds of things with crayon and pencil on paper. I would like to see what kind of things you do with pencil on paper.

(Show the first model and say) Can you draw this one? Try to make one just like mine.

(After the child finished and presented his product compare it with the model. If his work is acceptable continue to the next card. If you consider his work unacceptable indicate this and point out the mistakes. Afterward continue until the child has failed twice at which point you take the first card, the last success, the first failure, and the last failure and pointing to the individual cards say)

Now let's make one more drawing. You may try one of these that you have done. Remember, this one was quite easy for you. This one was not so easy, but you got it right. This one was hard for you, and this one

was very hard for you. Now, which one of these drawings would you like to try again?

(As before; after the child chooses a card let him try to draw it again)

End of your task. Thank you for your cooperation.

APPENDIX C

RAW DATA

Person	HVSA Structured Observation Variables															AAMT Variables		
	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	1	2	3
01	4	4	6	2	1	3	0	3	3	2	2	0	1	2	2	3	3	4
02	3	6	4	6	3	0	4	2	3	3	1	1	3	6	6	3	3	5
03	4	2	3	3	2	3	0	3	2	3	2	1	0	3	4	3	2	3
04	5	3	3	3	3	1	0	3	1	5	4	2	2	3	2	3	2	3
05	5	2	3	3	2	2	1	0	2	3	6	1	1	3	2	2	3	3
06	4	6	4	5	2	1	4	0	3	4	7	2	7	4	6	3	3	5
07	6	5	2	4	0	4	3	2	4	2	6	0	6	2	7	3	4	4
08	3	6	4	6	2	1	6	1	4	4	4	1	5	3	8	3	3	4
09	2	5	1	2	0	2	0	1	4	2	0	3	2	4	4	2	4	3
10	3	6	4	4	2	4	4	0	3	7	6	2	5	4	3	3	4	2
11	4	4	3	3	1	2	7	0	1	2	7	3	1	3	1	3	2	3
12	2	6	4	5	0	2	4	1	0	4	6	3	2	2	4	2	4	3
13	4	7	2	6	0	2	3	1	1	3	0	0	4	4	6	3	3	5
14	6	4	3	4	1	3	1	3	0	7	3	4	4	2	5	4	3	4
15	4	0	0	1	8	6	0	5	2	7	0	5	0	2	2	2	1	1
16	2	1	2	4	8	8	1	3	4	1	1	3	0	2	1	3	3	2
17	0	3	0	5	9	4	1	2	3	2	3	4	5	4	6	2	1	3
18	4	2	3	4	4	6	2	2	4	7	6	1	1	4	1	3	2	2
19	3	3	0	1	3	4	1	4	1	4	2	5	0	3	1	2	2	2
20	2	0	0	1	5	0	0	5	0	3	0	4	0	1	2	2	1	1
21	4	0	1	2	7	4	2	4	0	2	0	3	2	4	0	3	3	4
22	4	3	2	4	4	5	3	4	2	4	2	6	2	6	4	1	3	2
23	2	0	2	1	2	2	3	0	3	1	3	1	3	2	1	1	2	2
24	1	2	2	2	1	0	1	0	2	9	6	4	3	6	4	2	2	1
25	5	2	2	3	2	1	5	2	4	5	9	3	4	2	9	2	2	2
26	3	1	1	3	0	4	2	6	1	6	3	7	2	3	3	2	1	2
27	4	0	2	2	2	2	0	0	1	7	7	8	4	7	3	2	1	2
28	2	2	2	2	0	2	0	4	3	4	2	0	1	2	1	2	2	2
29	3	1	0	3	3	1	3	1	1	5	6	1	1	3	3	1	2	1
30	3	0	3	1	3	0	3	1	1	7	9	2	4	2	5	2	2	1
31	2	1	1	0	2	4	1	0	3	6	3	6	2	1	3	2	1	3
32	2	2	2	2	3	1	2	0	1	4	6	3	3	4	2	2	1	2
33	4	4	3	1	0	3	2	0	2	6	9	3	2	2	5	3	2	1
34	3	0	2	2	1	3	0	1	2	5	6	3	6	7	3	2	3	2
35	2	0	2	5	2	0	5	2	0	3	8	3	6	9	9	1	2	2
36	6	1	2	0	3	3	2	1	1	3	7	9	4	8	9	1	3	2
37	2	2	3	1	1	3	0	4	4	4	0	2	3	4	6	2	2	3
38	2	4	2	2	2	1	3	2	0	2	4	0	6	5	9	3	4	3
39	3	3	0	1	0	2	2	0	1	4	4	1	6	3	7	1	2	2
40	3	1	5	4	3	0	4	2	2	2	4	4	2	7	8	2	2	4
41	2	1	3	3	1	3	3	0	2	6	6	0	4	6	6	2	1	2
42	3	3	4	6	2	0	3	1	1	4	3	1	9	6	5	5	4	6
43	2	1	2	4	1	2	0	1	2	4	6	3	6	3	6	3	4	3
44	0	2	4	3	1	0	5	0	2	6	5	0	1	6	2	2	3	3
45	2	2	1	3	1	2	0	1	3	2	6	1	2	4	5	2	2	3
46	3	4	2	5	1	2	3	0	3	4	2	2	6	2	7	2	3	3
47	2	0	3	4	3	2	4	1	2	4	7	3	5	6	8	3	3	4