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Effect of the mother on goal setting behavior of the asthmatic child

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BOSTON UNIVERSITY
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Dissertation

EFFECT OF THE MOTHER ON GOAL SETTING BEHAVIOR OF
THE ASTHMATIC CHILD

by

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TABLE OF CONTENTS

CHAPTER	PAGE
I. INTRODUCTION.	1
II. REVIEW OF THE LITERATURE.	3
Medical Background and Definition of Asthma	3
Psychosomatic Theory.	6
Evidence Concerning a Characteristic Mother-Child Relationship	13
III. DEVELOPMENT OF THE HYPOTHESES	18
Hypotheses	20
Predictions.	20
IV. METHODOLOGY	21
General Considerations	21
Apparatus.	23
Subjects	24
Procedure.	26
V. RESULTS	29
VI. DISCUSSION.	35
VII. SUMMARY AND CONCLUSIONS	44
REFERENCES.	49
ABSTRACT.	51
APPENDICES.	53

LIST OF TABLES

TABLE	PAGE
I. AVERAGES AND STANDARD DEVIATIONS OF EXPERIMENTAL AND CONTROL GROUPS ON AGE, INTELLIGENCE OF CHILDREN, AND REPORTED PARENTAL EDUCATION.	27
II. THE VARIANCES OF THE CHANGES IN LEVEL OF ASPIRATION FROM ONE SITUATION TO THE OTHER FOR THE ASTHMATIC GROUP.	30
III. THE LEVELS OF ASPIRATION OF THE ASTHMATIC CHILDREN WHEN THEY WERE ALONE, AND WHEN THEY WERE WITH THEIR MOTHERS	31
IV. LEVEL OF ASPIRATION CHANGES OF ASTHMATIC AND CONTROL GROUPS FROM THE "ALONE" SITUATION TO THE "WITH MOTHER" SITUATION.	31
V. PERFORMANCE SCORE OF EACH GROUP UNDER EACH CONDITION	33
VI. PERFORMANCE SCORE OF EACH GROUP IN THE FIRST AND SECOND EXPOSURES TO THE TASK, REGARDLESS OF EXPERIMENTAL CONDITION	34
VII. LEVEL OF ASPIRATION IN EACH GROUP IN THE FIRST AND SECOND EXPOSURES TO THE TASK, REGARDLESS OF EXPERIMENTAL CONDITION	34

CHAPTER I
INTRODUCTION

This is a study of the nature of the mother-child relationship associated with psychosomatic illness. The specific illness chosen for study was bronchial asthma.

Bronchial asthma as a medical health problem is widespread. Cooke¹ estimated its incidence at 1% of the general population, or, at this point in time, some 1.6 million cases. Another estimate, in 1947, stated that "more than five million people in this country have asthmatic symptoms or are potentially asthmatic."²

It has been known for many years that there is a relation between certain emotions and certain physical illness. Franz Alexander states that "there is a distinct correlation between certain emotional constellations and certain vegetative innervations."³ Specific emotional conflicts underlie specific psychosomatic illnesses. Alexander's position is that such specific emotional

¹R. A. Cooke, et al., Allergy in theory and practice. New York: W. B. Saunders, 1947.

²H. A. Abramson, Psychodynamics and the allergic patient. Saint Paul: Bruce, 1948, p. vii.

³F. Alexander, Psychosomatic medicine. New York: Norton & Co., 1950, p. 75.

conflicts develop from specific kinds of mother-child relationships. Applied to bronchial asthma, this theory states that there exists, in children with asthma, a characteristic relationship with the mother.

The specific conflict in children with asthma is said to concern fear of losing the mother's love and protection. The consequent relationship with the mother involves a struggle around dependency. Studies subsequent to Alexander's have indicated that mothers of asthmatic children are over-controlling of their children, and over-ambitious for them. Their children are said to be over-dependent on their mothers, particularly in the area of achievement.

This study was intended as a partial test of the proposition that there is a specific kind of relationship between asthmatic children and their mothers. A central postulate was that the mothers of asthmatic children are over-controlling of their children and over-ambitious for them, and that their children are overly dependent and conforming, particularly in the area of achievement. There were two hypotheses: (1) asthmatic child-mother pairs behave more like one another with respect to goal setting than do nonasthmatic child-mother pairs; (2) asthmatic children's levels of goal setting rise when the mother is present and participating in the activity.

CHAPTER II

REVIEW OF THE LITERATURE

Medical Background and Definition of Asthma

The asthma syndrome has a long history in medical literature, dating back to the time of Hippocrates. In a current medical text, bronchial asthma is defined as "a disease state characterized by paroxysmal attacks of wheezing dyspnea."¹ More specifically, the same text states:

In bronchial asthma, the chief allergic 'shock organ' is the mucosa of the bronchioles. The symptoms and signs of asthma can be explained by spasm and edema of the bronchioles together with mucous plugs in the bronchial tree. Autopsies on asthmatic patients generally show hyperdistension of the lungs, and the bronchial tree filled with tenaceous mucus. Microscopically, there is edema and eosinophilic infiltration of the bronchiolar mucosa with hypertrophy of the smooth muscle and bronchial glands in that area. The basement membrane is markedly thickened. The alveoli often are distended.²

There is some disagreement among medical authorities on the best formulation of the etiology of asthma. Rappaport and Hecht,³ writing in 1941, distinguished two kinds of

¹J. Sheldon, R. Lovell, and K. Mathews, A manual of clinical allergy. Philadelphia: W. B. Saunders, 1953, p. 54.

²Ibid., p. 54.

³B. Rappaport and R. Hecht, A discussion of asthma from the point of view of the allergist, in T. French and F. Alexander, Psychogenic factors in bronchial asthma. Part I. Psychosom. Med. Monogr., 1941, 1.

bronchial asthma, extrinsic and intrinsic, ascribing a different etiology to each. In extrinsic asthma it was felt that the wheezing syndrome was due clearly to atopens to which the sufferer was allergic. In effect the patient developed sensitivity to pollens, animal danders, dust, or some other allergen. Asthmatic symptoms developed as the allergic reaction. In intrinsic asthma, the authors state, "the etiological factors are more obscure."⁴ Such cases do not show positive reactions to skin tests with the usual atopens.

Cooke⁵ uses the terms "non-infective" and "infective" asthma to refer to categories similar to those of Rappaport and Hecht, and is definite in his statement of the causes of both types. In both cases, he states, the central cause is allergic, but the types of allergy and allergic mechanism differ. In the non-infective type, inhalants, foods, drugs, and therapeutic serums are the allergens acting through a skin sensitizing anti-body. The infective or intrinsic type he finds to be a product of bacterial allergy. Glaser⁶ suggests that allergic etiology be included in the definition of the term bronchial asthma. In these terms, he discusses only what Cooke would define as non-infective asthma.

⁴Ibid., p. 4.

⁵Cooke, op. cit.

⁶J. Glaser, Allergy in childhood. Springfield: Thomas, 1956.

Tuft⁷ includes cardiac and thymic asthma in his definition of bronchial asthma, and states that this population can be divided into (1) allergic, and (2) non-allergic types. He, with the authors mentioned above, feels that the majority of asthma cases fall in the first category, where "the asthma is due to a specific allergic reaction and . . . the attack is apparently provoked by sensitivity to an allergic excitant."⁸

The theme of agreement among these several authorities is that in the great majority of cases that are diagnosed as bronchial asthma, the direct cause of the wheezing and dyspnea syndrome is an allergic reaction, due to seasonal or non-seasonal allergens, or to infection. This, then, was the basis of diagnosis for the bronchial asthmatic patients used in this study.

Cooke and Tuft cite, in addition, a variety of aggravating and predisposing factors in bronchial asthma. Cooke cites "worry, excitement, psychic trauma, and psychasthenia, vascular instability, autonomic imbalance, endocrine dyscrasia, exertion, fatigue, exposure to cold, dampness and irritating fumes and gases."⁹ He feels that they are not of basic importance, although any or all may predispose to sensitization or infection, and as such could be non-specific

⁷L. Tuft, Clinical allergy. Philadelphia: Lea and Febiger, 1949.

⁸Ibid., p. 299.

⁹Cooke, op. cit., p. 133.

causes of asthma. Tuft has essentially the same attitude toward endocrine disturbances such as puberty or menopause, bio-chemical alterations, especially in mineral metabolism, and nervous and psychic factors, including the presence of psychoneurosis.¹⁰

Both authors argue against an explanation of asthma on a purely psychological basis, but agree that "although nervous or psychic factors may precipitate allergic reactions, they usually do so only in individuals who are basically and primarily allergic."¹¹

Psychosomatic Theory

In general medical texts, there is little discussion of the nature of "nervous or psychic factors" in the development of asthma. However, considerable psychiatric and psychological literature has been published on this subject.

Knowledge of the effect of emotions on the development of asthma attacks is as old as the knowledge of the syndrome itself. For example, Sir John Floyer, writing in 1726, notes:

The passion of anger makes the spirits restless and apt to produce the fit (of asthma); and the asthmatics observe in themselves great restlessness of spirits the day preceding the fit; Hippocrates' Aphorism advises all asthmatics to abstain from anger and shouting.

¹⁰Tuft, op. cit.

¹¹Ibid., p. 65.

Fear, solicitude and much study, discomforts the spirits and produces a restlessness in them which may occasion a fit.¹²

Modern theoretical positions have gone somewhat further in their examination of emotional factors. One facet of this examination has been the recognition of the importance of the mother-child relationship in the development of psychosomatic illness. Gerard¹³ has indicated that the mother's personality, behavior and attitudes toward her child, especially in the early formative years, are the particularly important influences in the formation of the infant's personality. Grinker¹⁴ agrees that the central core of the problem of psychosomatic illness lies in this early infantile period. It is in the context of the mother-child relationship during this early crucial period that healthy, sick, or potentially sick organisms are formed.

A fundamental postulate in current theoretical systems is that many illnesses, not just asthma, result from the physiological effects of, or responses to certain

¹²Sir John Floyer, quoted in Abramson, op. cit., p. 8.

¹³Margaret Gerard, Emotional disorders of childhood, in F. Alexander and Helen Ross (eds.), Dynamic psychiatry. Chicago: Univ. Chi. Press, 1952.

¹⁴R. Grinker, Some current trends and hypotheses of psychosomatic research, in F. Deutsch (ed.), The psychosomatic concept in psychoanalysis. New York: Int. Univ. Press, 1953.

chronic, characteristic emotional tensions in the person who is affected. A second postulate is that the child's early relationship with his mother is crucial in the development of such tensions. The point at which theories diverge is the matter of degree of specificity that can be attributed to these tensions -- to what extent specific conflicts are associated with specific illnesses.

Ludwig¹⁵ asserts that all or nearly all psychosomatic patients present a common personality picture regardless of the type of illness. He describes this personality picture in part as "marked impairment of ego function, manifested by extreme dependence, insecurity, feelings of inadequacy, difficulty in the usual methods of coping with other people, and severe blocking of the external expression of emotion, with internalization of feeling and autonomic over-activity."¹⁶ Although loss of love or rejection are felt to be frequent precipitating causes of the outbreak of the illness, any disturbing emotional experience could similarly result in physical symptoms. The nature of the symptoms, the organ or organ system affected, would be determined by constitutional weakness in a given organ, by inherited tendencies toward particular diseases, or by essentially accidental factors.

¹⁵A. O. Ludwig, Rheumatic diseases. Philadelphia: W. B. Saunders, 1952.

¹⁶Ibid., p. 113.

Deutsch¹⁷ too feels that there are no specific emotional tensions or conflicts predisposing to a given disease. He suggests that there are many possible variables affecting organ choice. Organ disfunction with instinctual conflicts, the consistency of using a given organ as the preverbal expression of an instinctual conflict and its associated memories, the early symbolization and personification of important figures in the organ, the degree of (perhaps constitutional) ego weakness, the inability to use other solutions, the degree of the resulting ego defect and organic defect are only some of the variables that can interact in myriad ways to result in a given disease.

Although Deutsch demonstrates that one can trace the course of an illness anamnesticly, he does not find that one inevitably comes to an emotional conflict which is specific to each illness. Similarly, although both Deutsch and Ludwig would agree on the importance of the mother's influence in the development of psychosomatic illness, they would not agree with the position that each illness appears in the context of its own characteristic mother-child relationship.

Franz Alexander¹⁸ states that there is a specific emotional conflict that predisposes to specific psychosomatic

¹⁷P. Deutsch, Summary, op. cit.

¹⁸P. Alexander, Psychosomatic medicine. New York: Norton and Co., 1950.

illnesses. It is this theoretical position that the present study examined.

Alexander writes that psychosomatic illnesses, or "psychogenic organic disorders," as he names them, develop in two phases. The first phase, a functional disturbance of a vegetative organ, is caused by a chronic emotional disturbance. This may gradually lead to tissue changes (the second phase) and to irreversible organic disease. He goes on to state that these psychogenic disorders fall into two general groups, depending on whether the chronic emotional disturbance has centered around the wish to express anger, to be active and aggressive, or has centered around the wish to be dependent.

In the first group, symptoms develop in those organs that are activated by the sympathetic nervous system, the system that alerts the body for fight or flight. In effect, the heart, blood vessels, etc., remain in a chronic state of readiness. The strains inherent in this readiness can lead to disorders such as migraine, hypertension, and arthritis. A specific kind of psychic conflict is, in each case, one of the factors leading to the development of a specific disorder.

In the second group, where the conflict is centered on a wish to be dependent, symptoms develop in those organs that are activated by the parasympathetic system -- organs having to do with the intake and processing of food and oxygen. These organs are kept inappropriately in action,

leading to organic changes the end result of which may be such disorders as peptic ulcer, colitis, and bronchial asthma. Here, too, a specific kind of psychic conflict is one of the factors predisposing to a specific disorder.

Of asthma, Alexander says:

The psychological component in bronchial asthma represents a retreat from action into a dependent, help-seeking attitude.¹⁹

Likewise the nuclear conflict in asthma cases is well-circumscribed and distinct: fear of separation from the mother or her substitute.²⁰

Alexander points out that the central factor is a conflict over excessive unresolved dependence on the mother. This conflict is elaborated in a specific way. The conflicting wishes are: (1) the wish to remain dependent, and (2) the wish to avoid crying out for the mother. The wish to remain dependent is not only the wish to be fed, but the wish to be protected and encompassed by the mother or mother substitute. Anything threatening to separate the patient from the mother is apt to precipitate an asthmatic attack.

In his original formulation, Alexander wrote:

The asthma attacks, like a hysterical conversion symptom, express both opposing tendencies: the protest against separation and the protest against wanting to reestablish a dependent relationship to the mother by crying. This conflict seems to be the deepest and most primitive substratum of the asthma attack.

¹⁹Ibid., p. 63.

²⁰Ibid., p. 74.

According to this assumption, this symptom would develop in children who have a hereditary deficiency in adaptability and at the same time were exposed to the influence of rejecting mothers, or to mothers, who for some reason or other prematurely require independence of their children. Probably they were also exposed to premature sexual temptations, which they experienced as a threat to their dependent attachment to their mother. This sexual impulse is an internal separating force, and parallels the maternal rejection, which is an external separating factor.²¹

He further suggested several possible ways in which allergy might then interact with this characteristic emotional pattern: (1) accidental exposure to allergens might occur at the height of the dependence-independence struggle; (2) the threshold for allergic sensitiveness might be lowered by the presence of an emotional problem which calls forth the same organic reaction -- contraction of the bronchioles; (3) hereditary defective adaptability might be the basis of both the severity of the emotional conflict and the allergic sensitiveness.

Alexander thus sees the specific emotional conflict in asthma in the context of a characteristic relationship between the mother and the asthmatic child. The mother rejects her child, asking that he achieve independence at an early age, and not depend on her. The child longs for dependence and protection, fears further rejection, hence suppresses the open

²¹T. French, F. Alexander, et al., Psychogenic factors in bronchial asthma. Part II, Psychosom. Med. Monographs, 1941, 2, (1), p. 75.

dependency of crying, and the forbidden sexual impulses which also threaten separation. Alexander suggests several ways in which allergy might then enter the picture, with the final resultant of the bronchial asthma syndrome.

Evidence Concerning a Characteristic
Mother-Child Relationship

There have been several studies having reference to the question of whether a characteristic relationship exists between a mother and her asthmatic child. Rogerson, Hardcastle and Duguid,²² interviewed a group of children with asthma, eczema, and prurigo and found no distinguishable differences in the psychological components of the three disorders. They found the children to be irritable and aggressive while at the same time over-anxious and insecure. The mothers, quite frequently, were both rejecting and over-protective of their children. The authors felt that the children needed both to dominate and to demand protection from their mothers, needs that the mothers apparently could not sufficiently fulfill.

In a psychoanalytic study of 27 asthmatic adults and children at the Chicago Psychoanalytic Institute, French²³ found a similar characteristic relationship, and reported it somewhat more fully. He agreed with Alexander's formulation, above, and added:

²²G. H. Rogerson, D. H. Hardcastle and K. Duguid, A psychological approach to the problem of asthma, Guy's Hosp. Report, 1935, 85.

²³French and Alexander, op. cit.

Especially frequent are childhood situations in which the patient was more or less rejected by the mother or by both the mother and father. In a number of our cases the mother was too much pre-occupied with her own ambitions or her own neurotic emotional problems to give adequate love to her child, although she often over-compensated for this unconscious rejection by an overprotective attitude toward the child. . . . In a few cases the mother's rejection took forms still more calculated to aggravate the conflict that we have described, in that the mother would demand of the patient attitudes of independence and self-sufficiency far in advance of his years.²⁴

In many cases, French stated, the child's anxiety about losing the mother's love had an additional source -- her inhibition of sexual expression by her child. In boys, the typical conflict was between sexual urges toward the mother and fears of losing her love. Characteristically, the mother over-protected the boy and made him dependent on her -- but rejected and punished his stirring sexual interest in her. He was required to renounce his own impulses to remain under her protection.

In girls, frequently it was the beginning of forbidden sexual interest in the father that threatened separation from the mother. Here too, the mother required that sexuality not be shown, but bound the girl to follow her (the mother's) wishes.

Mohr, Gerard and Ross,²⁵ dealing specifically with their observations of the eight children in the same study,

²⁴Ibid., p. 60.

²⁵Ibid., p. 87.

reported that the mothers of the children, with remarkable uniformity, were highly narcissistic, ambitious for themselves and their children, were not nurturant, but presented ambivalent and rejecting attitudes toward their children.

Of the central conflict and its aggravation, they wrote:

It is not so clear . . . that the threat to the security of retaining the mother's love is necessarily a sexual temptation. . . . It would appear that any sort of threat to the relationship with the mother, whether a sexual temptation or not, is a major consideration for these children and is conducive to the precipitation of asthma attacks. Maternal rejection, found so commonly in mothers of asthmatic children, seems to be one of the important threats to the feeling of security in these children.²⁶

Miller and Baruch,^{27, 28, 29} who studied a large number of allergic children, stressed the problem that asthmatic children had with the handling of hostility toward the mother, but still found the theme of the over-protective, ambitious, and especially rejecting mother.

²⁶Ibid.

²⁷H. Miller and D. Baruch, Psychosomatic studies of children with allergic manifestations, Psychosom. Med., 1948, 10.

²⁸H. Miller and D. Baruch, Psychosomatic symptoms resulting from the impact of war: Observations in civilian medical practice, Amer. J. Dis. Child., 1949, 77.

²⁹H. Miller and D. Baruch, Maternal rejection aspects in the treatment of bronchial asthma, in H. A. Abramson, Somatic and psychiatric treatment of bronchial asthma. Baltimore: Williams and Wilkins, 1951.

Treuting and Ripley³⁰ found many of their 51 asthmatic adults admitted feeling closer to the mother than to any other member of the family, but that the relationship was not a warm one. The typical asthmatic patient felt angry toward the mother who kept him tied to her without sufficient affection and protection in return.

Jessner, et al.,³¹ emphasized the fear of being smothered, yet need for protection and shelter on the part of the child, and a great need to keep the child dependent, yet to deny this, on the part of the mother. A frequent defense the mothers used against their own "smothering" wishes was to push their children toward premature independence and achievement. Jessner also found that the mother's emotional conflicts had value in explaining her characteristic relationship with her child. Often the mother regarded the child as a phallic extension of herself, and tried to repeat a past symbiotic relationship with her own mother. The child's achievements were for the mother's narcissistic satisfaction, as the mother's had been for her mother. Coolidge³² also stressed the mother's desire for indivisible unity with her

³⁰T. Treuting and H. S. Ripley, Life situations: emotions and bronchial asthma, J. Nerv. Ment., Dis., 1948, 108.

³¹Lucie Jessner, et al., Emotional impact of nearness and separation for the asthmatic child and his mother. Psychanal. Stud. Child, 1955, 10.

³²J. Coolidge, Asthma in mother and child as a special type of intercommunication, Am. J. Orthopsychiat., 1956, 26.

asthmatic child. Often there was little struggle, but rather a considerable neurotic satisfaction with the symbiotic relationship on the part of both mother and child.

There is very little in the literature that would question the presence of this close, over-protecting relationship between the asthmatic child and his mother. What has been questioned is whether this kind of a relationship is specific to asthma. This issue has been the cause of considerable controversy in the last 20 years. For example, Sperling,³³ discussing Coolidge's article, made the explicit point that the relationship discussed was not specific to asthma, but was characteristic of a wide variety of psychosomatic disorders.

However, the literature delineated a relationship between the asthmatic child and his mother which was distinguishable from relationships between other kinds of children and their mothers. The next chapter describes the construction of a theory from this literature, and the derivation of testable hypotheses from this theory.

³³Melitta Sperling, Discussion of J. Coolidge, Am. J. Orthopsychiat., 1956, 26.

CHAPTER III

DEVELOPMENT OF THE HYPOTHESES

From the literature reviewed in the previous chapter, it was possible to construct the following formulation of the nature of the mother-child relationship in asthma. The mother is said to be unconsciously rejecting of her child, while being consciously overprotective and controlling. She is over-ambitious for him, wants him very early to become an achieving little adult, to gratify her own, usually narcissistic, needs. The child has his normal need for nurturance greatly increased by the mother's frustrating controls. He becomes angry, but is unable to express this anger for fear of losing the gratifications he has. The mother, at one and the same time, keeps him dependent, and pushes him to accomplish excessively. He wants to grow and to be independent, but needs the mother's protection, because she has never given enough to satisfy his early dependent needs.

The child partially resolves this conflict by developing a hostile-dependent relationship with the mother and conforming, as well as he can, to her conscious wishes. This fulfills one object of the conflict -- it gains a kind of independence, and it keeps a minimum of mother's protection. An attack of asthma occurs when this defensive structure

threatens to break down. The asthmatic attack represents a suppressed attempt at fulfilling the other object of the conflict, symbiosis with the mother, by crying out for her.

It was possible to derive testable hypotheses from this theory. We begin by noting that, since the child tries to conform to the mother's wishes, he allows her to exert influence on a specific set of ego functions. He allows the mother to interpret reality for him, to shape his behavior to a greater extent than would be so in a normal mother-child relationship.

Furthermore, the theory implied that a crucial part of reality, for the mother, is that of the child's ability to achieve. We saw that she perceives this in a specific way. She is over-ambitious for the child, so she perceives his ability to achieve as higher than it actually is. She communicates this judgment of reality to the child; he attempts to conform by setting his goals correspondingly high.

This was a testable consequence of the theory. One other premise was necessary before formulating hypotheses which could be tested experimentally. That premise was that a child's relationship to reality is still developing during latency. As support for this premise there was data both from psychoanalytic investigations and from descriptive studies such as that of Gesell.¹ Both sources indicate

¹A. L. Gesell, The child from five to ten.
New York: Harper, 1950.

that latency is a period of increased and developing attention to reality.

Hypotheses.--At this point, it was possible to formulate two hypotheses. The first followed from the fact that there existed sufficient consistent evidence regarding the asthmatic child-mother relationship to justify a theory about its nature and a theory of one of its specific aspects, the child's goal setting. The second hypothesis concerned itself with the content of these theories.

Hypothesis 1: Asthmatic child-mother pairs behave more like one another with respect to goal setting than do nonasthmatic child-mother pairs.

Hypothesis 2: Asthmatic children's levels of goal setting rise when the mother is present and participating in the activity.

Predictions.--Three predictions were formulated by which to test these hypotheses.

Prediction 1: The presence and participation of the asthmatic children's mothers in the goal setting will have effects on the level of aspiration more similar to one another than the effects of the mothers of nonasthmatic children.

Prediction 2: Asthmatic children's levels of aspiration will be higher when their mothers are present and participating in the goal setting than when the children perform the task alone.

Prediction 3: The difference in level of aspiration of the asthmatic children from the alone situation to the situation where their mothers are present and participating in the goal setting will be greater in a positive direction than the corresponding difference for the nonasthmatic children.

CHAPTER IV
METHODOLOGY

The general hypotheses of this study concerned the effect of the mother on the goal setting behavior of the asthmatic child. The following presents an experiment designed to investigate these hypotheses.

General Considerations.--There was a technique available that was peculiarly adapted to the study of goal setting behavior: the level of aspiration technique. This technique is a test of goal setting behavior in which a person is given a task to perform, usually consisting of a series of trials, with a range of possible scores for each trial. After he performs each trial, he is asked what he expects to get on the next trial, and so on, through a given series. The measure which is most often used as the index of goal setting behavior is the discrepancy between each performance and the succeeding estimate of performance on the next trial. This technique originated with Hoppe¹ and

¹F. Hoppe, Erfolg und Misserfolg. (Untersuchungen zur Handlungs- und Affectpsychologie: IX Ed. by Kurt Lewin.) Psychol. Forsch., 1930, 14. Cited by K. Lewin, et al., Level of aspiration, in J. McV. Hunt (ed.), Personality and the behavior disorders, vol. I. New York: Ronald, 1944.

Dembo² in 1930 and 1931, and has been extensively investigated and used since then, both with adults and with children, including asthmatic children.

In 1951, Little and Cohen³ administered a dart-board aspiration task to asthmatic children from age 4 to 12, with the children's mothers present and independently estimating the child's performance in each trial. Their procedure was to ask the mother to write her guess as to the child's next performance on a score sheet, prior to the child's spoken guess. Then the child performed on the trial. He was then told his score, and whether he succeeded or failed. Interaction between mother and child was not controlled or dealt with systematically. The mothers could and did make comments to the children about their performance. With this procedure, the authors found that both the mothers and their children had significantly higher levels of aspiration than did a control group composed of nonasthmatic patients, their siblings and their mothers.

It was the reasoning of the present study that the presence of the mothers was the crucial variable in the production of high levels of aspiration in the asthmatic

²T. Dembo, Der Arger als dynamisches Problem. (Untersuchungen zur Handlungs- und Affectpsychologie: X Ed. by Kurt Lewin.) Psychol. Forsch., 1931, 15. Cited by K. Lewin, in Hunt, op. cit.

³Sue Little and L. Cohen, Goal setting behavior of asthmatic children and of their mothers for them, J. Pers., 1951, 19.

children. By this reasoning, one would not expect latency age asthmatic children to have significantly higher levels of aspiration when their mothers were absent than when they were present. The present methodology allowed examination of this point.

In a subsequent publication, Cohen⁴ reported a replication of the 1951 Little and Cohen experiment. In the replication he found no differences between asthmatic and nonasthmatic groups with respect to level of aspiration. It was the reasoning of the present study that the lack of systematic control over the type and purpose of interaction between mother and child led to inconsistent results between the replication and the original study. By this reasoning, if a particular kind of interaction with an explicit purpose is specified for the mother and child, the results would be consistent and predictable. The present methodology allowed examination of this point. The details of this methodology are presented below.

Apparatus.--The instrument used to measure level of aspiration was the Rotter Aspiration Board.⁵ This apparatus consists of a 38" x 2" x 4" board with a groove 1 1/16" wide 1/2" deep running lengthwise in the center of the top 4"

⁴L. Cohen, A note on the repetition of experiments, Psychiat. Res. Rep., 1956, 3.

⁵J. B. Rotter, Level of aspiration as a method of studying personality: II Development and evaluation of a controlled method, J. Exp. Psychol., 1942, 31.

width, a steel ball 1" in diameter, and a 14" x 1/2" dowel which serves as a cue stick. The complete specifications are given in Appendix I. The procedure is to roll the steel ball along this groove, aiming at a series of holes bored at 3/4" intervals at the other end. These holes are numbered from 1 through 10 to 1 in such fashion that the center hole is highest in value (10) and the holes decline in value as they get more distant from the center hole. The task set for the subject is to try and get the highest score possible in whatever series of trials is given.

In evaluating this instrument's adequacy as a controlled, reliable and valid method of measuring level of aspiration, Rotter⁶ pointed out that the performance scores showed little improvement after a short initial practice period, and that the instrument allowed for a large number of trials and provided adequate quantitative results in a relatively short period of time. In addition, it seemed an interesting and novel task both for children and adults, and a task for which they had no pre-formed attitudes and standards.

Subjects.--The majority of the subjects were drawn from the population of clients of the Pediatric out-patient department of The Boston City Hospital. The Boston City Hospital is a large general medical and surgical hospital

⁶Ibid.

situated in the South End of Boston. The patients which it serves are almost exclusively of lower to lower-middle socio-economic status. About one-third of this population is negro.

The hospital's Pediatric out-patient department receives a wide variety of medical problems and either treats or refers to other departments of the hospital. One such department is the Allergy out-patient department, to which children with allergic disorders such as rhinitis, pollinosis and asthma are referred.

Another source of subjects was the Allergy out-patient department of The Boston Dispensary. This hospital is situated about a mile from The Boston City Hospital and serves a similar population.

From these sources, an experimental and a control group were drawn. The experimental group consisted of 20 asthmatic⁷ children between the ages of 5 and 10, and the mothers of these children. These subjects were unselected consecutive admissions to the allergy clinics of The Boston City Hospital (15 mother-child pairs) or The Boston Dispensary (5 mother-child pairs). All subjects who were asked to participate in the study cooperated.

The control group consisted of 20 children who were being treated at the General Pediatric out-patient clinic

⁷The established diagnoses of the asthmatic children are given in Appendix II.

of The Boston City Hospital for a variety of complaints,⁸ and the mothers of these children. None of the children had asthma at the time of the study, nor did they have a history of asthma. These subjects were unselected consecutive admissions also. All subjects who were asked to participate in the study cooperated.

We gathered information on several variables that we felt might have an influence on level of aspiration behavior. These were age, intelligence, and socio-economic status. The index of socio-economic status used was the mother's and father's education, as reported by the mothers. The Vocabulary and Block Design subtests of the Wechsler Intelligence Scale for Children were used as an estimate of intelligence. Both subtests correlate highly with full-scale scores.

There were no significant differences between the experimental and control groups with respect to age, intelligence, or stated education of either parent. The averages and standard deviations of the groups on each of the variables are given in Table I. Complete tabulated information on these variables is given in Appendix II.

Procedure.--Each child was seen alone by the experimenter, who administered the intelligence measure and a

⁸The diagnoses of the complaints for which the children were being seen are given in Appendix II.

series of five practice trials and eleven experimental trials with the Rotter Aspiration Board. In instructing the child on the task, the following four points were made:

1. This is a test of your ability and judgment.
2. The idea is always to aim for the 10; to get as high a score as possible.
3. Before you start each time, though, I want you to tell me what score you expect to get.
4. Then you should try to get as high a score as possible; that is, aim at the ten, because that way you have the best chance of hitting what you guess, or better.

Each child was also administered a series of five practice and eleven experimental trials with the mother present and participating in the goal setting. The same instructions were given in this situation, with the additional statement that we were also interested in how her child worked with another person on this task. The mother was told that for the next 15 trials we would like her and her child to agree on a guess as to what the child was going to get on each shot.

TABLE I

AVERAGES AND STANDARD DEVIATIONS OF EXPERIMENTAL AND CONTROL GROUPS ON AGE, INTELLIGENCE OF CHILDREN, AND REPORTED PARENTAL EDUCATION

	Experimental		Control	
	Ave.	S.D.	Ave.	S.D.
Age (in years)	7.74	1.33	7.73	1.50
Intelligence Quotient	94.1	12.6	92.7	15.5
Reported Parental Education (in grades)	10.3	2.2	10.7	1.7

In order to control for the possibility of changes in performance or level of aspiration as a function of habituation with the task, there were four orders of presentation. Five subjects in each group were tested in each of the four orders:

1. Intelligence measure - Alone - Together
2. Alone - Intelligence measure - Together
3. Together - Alone - Intelligence measure
4. Together - Intelligence measure - Alone

For each child under each condition ("Alone" and "Together"), there were 10 discrepancy scores -- the differences between each performance on a given trial and the estimate of what the next performance would be. The mean of these 10 discrepancy scores was, operationally, the level of aspiration measure.

CHAPTER V

RESULTS

The general hypotheses of the study were that (1) asthmatic child-mother pairs behave more like one another with respect to goal setting than do nonasthmatic child-mother pairs, and, (2) asthmatic children's levels of goal setting rise when the mother is present and participating in the activity. The results supported these hypotheses.

The first prediction was that the presence and participation of the asthmatic children's mothers in the goal setting will have effects on the level of aspiration more similar to one another than the effects of the mothers of nonasthmatic children. In terms of operations, this meant the variance of the distribution of changes in level of aspiration from the alone situation to the situation with mother would be smaller for the asthmatic group than for the nonasthmatic group. A test of the difference between these two variances yielded an F of 2.46, with the nonasthmatic variance being the greater. This value of F , for 19 and 19 degrees of freedom is significant beyond the .05 level of probability. The first prediction was therefore confirmed. The findings for this prediction are summarized in Table II.

TABLE II

THE VARIANCES OF THE CHANGES IN LEVEL OF
ASPIRATION FROM ONE SITUATION TO
THE OTHER FOR THE ASTHMATIC GROUP

	<u>Asthma gp. variance</u>	<u>Nonasthma gp. variance</u>	<u>F</u>	<u>p</u>
Changes from "Alone" to "With mother"	1.0299	2.5375	2.46	.05

The second prediction was that the asthmatic group's level of aspiration would be higher with the mother present and participating than when she was not present. A test of the difference between the mean level of aspiration when the mother was not present and the mean level when she was present produced a t of 4.447. This value is significant beyond the .001 level of probability for 38 degrees of freedom. The second prediction was therefore confirmed. The findings for this prediction are summarized in Table III.

The third prediction dealt directly with the change of level of aspiration of the asthmatics from the alone situation to the situation with the mother present in relation to the corresponding change in the nonasthmatic group. The prediction was that the change would be greater in a positive direction for the asthmatics than for the nonasthmatics. A test of the difference between the mean change for the asthmatic group from the alone to the together situation

and the corresponding mean for the nonasthmatic group produced a t of 2.240. This value is significant beyond the .02 level for 38 degrees of freedom. The third prediction was therefore confirmed. The findings for this prediction are summarized in Table IV.

TABLE III

THE LEVEL OF ASPIRATION OF THE ASTHMATIC CHILDREN
WHEN THEY WERE ALONE, AND WHEN
THEY WERE WITH THEIR MOTHERS

	Asthma	
	Ave.	S.D.
Alone	-0.010	1.045
With Mother	+1.155	0.899
t_{38}	4.447	
p	.001	

TABLE IV

LEVEL OF ASPIRATION CHANGES OF ASTHMATIC AND
CONTROL GROUPS FROM THE "ALONE" SITUATION TO
THE "WITH MOTHER" SITUATION

Asthma		Control		t_{38}	p
A1-B1		A2-B2			
Ave.	S.D.	Ave.	S.D.		
+1.165	1.015	+0.195	1.593	2.240	.02

Thus all the predictions of the study were confirmed and the general hypotheses supported. One additional substantive finding appeared. On inspection it appeared that the level of aspiration of the asthmatic group in the alone situation was significantly lower than that of the nonasthmatic group. The mean level of aspiration of the asthmatic group in the alone situation was -0.010 , with a S.D. of 1.045 . The mean level of aspiration of the nonasthmatic group in the alone situation was $+0.895$, with a S.D. of 1.785 . A two-tail test of the difference between these two means produced a t of 1.901 . This value has a probability of approximately $.06$ for 38 degrees of freedom. Although this does not quite reach the conventional significance level of $.05$, the finding indicates that, in the alone situation, the levels of aspiration of the asthmatics strongly tended to be lower than those of the nonasthmatics.

At this point, it is pertinent to discuss that there were two artifacts which might have had some influence on the results of the study. These artifacts were studied to determine if, in fact, they had influenced the findings. The first artifact was the possible differences between groups and between situations in performance or actual achievement on the task. We discovered that the findings were not influenced by differences in performance or actual achievement on the task. There were no such differences. The findings with respect to performance on the task are summarized in Table V.

None of the four means given in the table differed significantly one from another. Performance scores for each individual subject are entered in Appendix III.

The second artifact was the possible differences between groups and between situations due to habituation with the task. We found that there were no changes in performance or level of aspiration due to habituation with the task. The findings for performance with respect to first exposure vs. second exposure to the task are summarized in Table VI. None of the four means given in the table differed significantly one from another.

The results are similar for the effect of habituation on level of aspiration. These findings, for level of aspiration measures with respect to first vs. second exposure to the task, are summarized in Table VII. None of the four means given in the table differed significantly one from the other.

Thus the findings of the study were not attributable to these two experimental artifacts. Each of the three predictions was confirmed. Both hypotheses were supported.

TABLE V
PERFORMANCE SCORE OF EACH GROUP UNDER EACH CONDITION

	Alone		With mother	
	Ave.	S.D.	Ave.	S.D.
Asthmatic	5.95	.86	5.69	.67
Nonasthmatic	5.83	.75	5.79	.84

TABLE VI

PERFORMANCE SCORE OF EACH GROUP IN THE
FIRST AND SECOND EXPOSURES TO THE TASK,
REGARDLESS OF EXPERIMENTAL CONDITION

	First exposure		Second exposure	
	Ave.	S.D.	Ave.	S.D.
Asthmatic	5.96	.88	5.75	.66
Nonasthmatic	5.65	.80	5.96	.72

TABLE VII

LEVEL OF ASPIRATION IN EACH GROUP IN THE
FIRST AND SECOND EXPOSURES TO THE TASK,
REGARDLESS OF EXPERIMENTAL CONDITION

	First exposure		Second exposure	
	Ave.	S.D.	Ave.	S.D.
Asthmatic	0.58	1.24	0.56	1.02
Nonasthmatic	1.22	1.61	0.76	1.56

CHAPTER VI

DISCUSSION

The present study used an experimental approach and methodology in the field of research on psychological factors in bronchial asthma. The most important and perhaps the most numerous of the previous studies have been clinical descriptions of the asthmatic personality. The original monograph by French and Alexander¹ was one such clinical contribution. This served as an extremely valuable starting point for further study of asthma. Thereafter, investigations began to appear, oriented primarily around psychiatric interviews of varying depths with asthmatic adults,² and occasionally with the mothers of asthmatic children.³ Sometimes the presence of the mother was more or less systematically varied,⁴ and observations made on the effect on the

¹T. French, F. Alexander, et al., Psychogenic factors in bronchial asthma. Part I and II, Psychosom. Med. Monogr., 1941, 1 (4), and 2 (1).

²T. Treuting and H. S. Ripley, Life situations: emotions and bronchial asthma, J. Nerv. Ment. Dis., 1948, 108.

³H. Miller and D. Baruch, Maternal rejection aspects in the treatment of bronchial asthma, in H. A. Abramson, Somatic and psychiatric treatment of bronchial asthma. Baltimore: Williams and Wilkins, 1951.

⁴Lucie Jessner, et al., Emotional impact of nearness and separation for the asthmatic child and his mother, Psychoanal. Stud. Child, 1955, 10.

asthmatic child. Occasionally, these observations were supplemented by interviews with both mother and child.^{5,6}

While these studies expanded and clarified the French and Alexander findings, the objection that arose again and again was that the findings were not specific to asthma. The child's dependence on the mother, her rejection of the child, screened by overprotection, and the subsequent hostile-dependent relationship said to be established, were felt by many authors to characterize other diseases in addition to asthma. Very rapidly, the specificity-non-specificity of this complex and broadly described relationship became a controversial theoretical issue. Articles were written for and against the principle of specificity as a phenomenon in itself.^{7,8}

Different approaches to the phenomena were sought, in an effort to resolve this theoretical dilemma. The present study was an attempt at a different approach, albeit not primarily focused on the specificity dilemma. It was developed in the following way. First, the question was asked: were there discriminable aspects to this mother-child relationship? Second, were there theoretical

⁵Ibid.

⁶J. Coolidge, Asthma in mother and child as a special type of intercommunication, Am. J. Orthopsychiat., 1956, 26.

⁷F. Alexander, Psychosomatic medicine. New York: Norton and Co., 1950.

⁸D. M. Lipshutz, Some observations upon specificity in psychosomatic medicine, Amer. J. Psychotherapy, 1952, 6.

statements allowing predictions concerning any of these aspects? The answer to both questions was affirmative.

One aspect of the relationship where theoretical statements appeared to be clear was that of the mother's feelings and attitudes toward achievement by her asthmatic child. Since other theoretical statements stressed maternal over-protection and control in the asthmatic child-mother relationship, the implication of maternal influence in this area was clear. In brief, the theory predicted that the mother would set high goals for the child and that the child would accept these goals -- eventually as his own. In other words, the asthmatic's mother had a specific influence on certain of his ego functions -- the reality testing or judgment functions -- in a certain sphere, that of his own ability to achieve.

An experiment was designed that required the direct interaction of mother and child on this important theoretical issue. In asking the mother and child to discuss and agree on a goal for the child, we had, in a controlled experimental design, a theoretically important issue, and could gather direct observational data about the mother and child relating on this issue. Little and Cohen,⁹ using a somewhat different theoretical approach, constructed a very similar experimental

⁹Sue Little and L. Cohen, Goal setting behavior of asthmatic children and of their mothers for them, J. Pers., 1951, 19.

design. Without their work, the present step would probably not have been taken. Beyond having the mothers simply in the room and independently estimating the child's goal, as Little and Cohen did, the present study set the explicit experimental task of repeatedly struggling over and resolving the problem of what the child could achieve. The findings of both studies help clarify some of the theoretical issues noted above.

The findings of the present study supported the hypothesis that asthmatic children and their mothers relate in a characteristic way with respect to at least one aspect of their relationship -- the child's goal setting. One of the two major findings indicated that this aspect of the relationship is consistent. That finding was the greater homogeneity of changes in level of aspiration in the asthmatic group. Asthmatic child-mother pairs behave significantly more like one another than do the nonasthmatic child-mother pairs. We concluded that goal setting is an area of functioning that is handled more consistently among asthmatic children and their mothers than among the general population of nonasthmatic children and their mothers. A regular, consistent phenomenon is operating.

The nature of this phenomenon was made explicit by the other major finding. That finding was that while the mothers of the nonasthmatic children have no consistent effect on their children's levels of aspiration, the mothers of the asthmatic children do have a consistent effect on

their children. When these mothers are present and participating, the child's level of aspiration rises. We concluded that the asthmatic child is dependent upon the mother for help with a specific kind of reality testing -- the assessment of his ability to achieve -- and the mother influences this assessment consistently in an upward direction.

However, while there is consistency in the results of the asthmatic child and his mother interacting around goal setting, the theory allowed two distinguishable interpretations of this interaction. One ascribed the rise in level of aspiration to the impact of the mother's high aspirations for her child. The second ascribed it to the support afforded to the child by the presence of the mother. The statistical data did not permit a definitive choice between these two alternatives, but behavioral observations gave some clues. Although in some cases there was an open struggle over how high the goal should be set, more frequently it was the mother who set the goal, with the child passively agreeing. Usually there was a good deal of warmth and understanding apparent between mother and child. This kind of behavior was more consistent with the interpretation that the mother imposes her assessment of achievement reality and the child accepts this without challenging with his own assessment.

There are several theoretical points that these observations help to corroborate. The children's acceptance

of higher verbal goals in the absence of higher performance supports French's conclusion that, for the asthmatic, maintaining protective contact with the mother through verbal means is of great importance. The absence of struggle against the mother's high standards suggests that the anger against the mother's controlling ways is repressed. It might be turned inward, as Miller and Baruch have written. Finally, the result of these psychic maneuvers is an apparent excessive closeness between mother and child. They often act as one in the decision of what the child can achieve. This relationship might truly be called symbiotic, as were the relationships Jessner and Coolidge observed between asthmatic children and their mothers; the relationship which we observed was certainly a very close one.

A comparison of the present study with that done by Little and Cohen makes the issue even clearer. Little and Cohen found, when both mother and asthmatic child were present but independently setting goals for the child, that both mother and child had significantly higher levels of aspiration than did control mothers and children. The present study found that asthmatic children, when alone, tend to have lower levels of aspiration than nonasthmatics, and that the presence and participation of the mother raises the asthmatic's levels to those of the nonasthmatics. These findings emphasize that the asthmatic child's achievement is a function of the mother's setting the standards higher than

the child does. The resultant of forces from mother and child around his level of goal setting is equal to the level to which the nonasthmatic child aspires with or without his mother's influence. One would speculate, still following the same theoretical lines as above, that neither party has really satisfied his own needs with this result.

One final feature of the findings of the present study, therefor, is the sharp outlining of the situation of the asthmatic child. In this relationship with his mother, the typical latency age asthmatic child is almost completely unable to aspire unless his mother is present to tell him how and how much. One can speculate that on passing through latency, the asthmatic completes the process of internalizing the mother's standards and integrating them into the rest of his reality-testing functioning. Thereafter, his mother's needs for his having high goals along with his own reluctance to aspire, become relatively permanent aspects of his personality. This also implies that the mother's influence has tremendous importance in the asthmatic's development of self-esteem, or in his development of any kind of confident self-image.

The research process does not properly end at this point. In respect to clarifying further the nature of the asthmatic child-mother relationship, as well as its specificity to asthma, there are several questions that now should be posed.

The first is whether there are other aspects which form a consistent part of that relationship. For example, one could ask how widespread the mother's effect is on the child. Are there other ego functions that she influences in a characteristic way? Other kinds of stimuli, perhaps projective material, might be used within the same general experimental design to determine the consistency of the mother's influence in other life areas. The theory suggests separation and independence as areas of importance in asthma.

Another important question that should be asked is whether, within a given family, the asthmatic child is the only child that has such a relationship with his mother. An experimental design with the siblings of asthmatic children as controls would be the direct method of determining this.

Finally, the question of whether the dependent-overprotective relationship (or any aspect of it) is necessarily specific to the disease of asthma must be raised. The present study was not designed to answer this question, but to provide a first step on the way to an answer. It was proposed that some aspects of the relationship might be specific to asthma. It was then demonstrated that a certain kind of behavior could differentiate asthmatic child-mother pairs from a general population of nonasthmatic pairs. The logical next step is to determine whether an asthmatic group will differ in the same consistent way from groups of children with other psychosomatic illnesses. Specificity theory states

that there are consistent differences in the mother-child relationships in different psychosomatic disorders. Comparison of different psychosomatic mother-child pairs on this aspect of their relationship would be a possible partial test of that theory.

CHAPTER VII
SUMMARY AND CONCLUSIONS

This study examined the influence of the mother on the goal setting behavior of asthmatic children of latency age. The goal setting behavior was studied through a level of aspiration procedure. Mothers of asthmatic children were said to be over-controlling of their children, and over-ambitious for them. This study examined directly the mother-child interaction in the setting of goals during the tasks. Our hypotheses were (1) that asthmatic child-mother pairs behave more like one another with respect to goal setting than do nonasthmatic child-mother pairs, and (2) that asthmatic children's levels of goal setting rise when the mother is present and participating in the goal setting.

The study was developed in the following way. From the writings of French and Alexander, Miller and Baruch, Treuting and Ripley, Jessner, et al., Coolidge, and others, a theoretical formulation of the characteristic relationship said to exist between the asthmatic child and his mother was constructed.

According to these reports, the mother is unconsciously rejecting of her child, while being consciously overprotective and controlling. She treats him unconsciously

as a sexual object, and is unconsciously seductive towards him. To keep her own sexual impulses out of consciousness, she projects them onto the child, and punishes him for them by withdrawing her love and protection. In order to regain them, he is required to act as a narcissistic extension of the mother, to be relatively asexual and achieving.

The child has his normal need to be nurtured greatly increased by the mother's imposed frustrations. He becomes angry at her, but is unable to express this for fear of losing the gratification that he does get from her. He develops, instead, a hostile dependent relationship with the mother and conforms, as well as he can, to her conscious wishes. This fulfills one object of the conflict: it gains a kind of independence, yet keeps a minimum of mother's protection. An attack of asthma is theoretically understood as a breakdown of this solution, and an attempt at fulfilling the other object of the conflict, symbiosis with the mother, by crying out for her.

In developing testable consequences of this theory, we began by assuming that one part of the process of dependence and conformity of the child was the necessity of his allowing the mother to interpret reality for him, to shape his behavior to a greater extent than would be so in a normal mother-child relationship.

Furthermore, the theory implied that a crucial part of reality, for the mother, was the child's ability to achieve.

This she perceived in a specific way: she wished him to be a high achiever, consequently she perceived his ability as higher than it actually was. She communicated this judgment of reality to the child; he attempted to conform by setting his goals correspondingly high.

This was a testable consequence of the theory. One other premise was necessary before formulating hypotheses which could be experimentally tested. That premise was that a child's relationship to reality was still developing during latency. By using children of latency age we would be able to observe the relationship process about which we hypothesized in active operation -- before maternal standards had been completely introjected by the children and made their own.

Two hypotheses were then formulated: (1) asthmatic child-mother pairs behave more like one another with respect to goal setting than do nonasthmatic child-mother pairs, and, (2) asthmatic children's levels of goal setting rise when the mother is present and participating in the goal setting.

As the experimental group, we had 20 asthmatic children between the ages of 5 and 10 who were currently being treated at an outpatient allergy clinic, and the mothers of these children. As the control group we had 20 children who were also physically ill with a variety of illnesses, and the mothers of these children. The two groups were not significantly different as regards age, race, sex, estimated intelligence and socio-economic background.

There was already a technique that was adapted to the study of goal setting behavior: the level of aspiration technique. The particular instrument we chose was the Rotter Aspiration Board. This had seemed an interesting task both for children and adults, it showed little learning after a short initial practice period, appeared to be free of attitudes and standards resulting from previous contact, allowed for a large number of trials and provided adequate quantitative results in a relatively short period of time.

Each child was seen individually by the experimenter, and administered a series of five practice trials and eleven experimental trials with the Rotter Aspiration Board. After completion of the eleven experimental trials, the child's mother was asked to come in. The task was explained to her, the instructions repeated, and she was told that we were also interested in how a child worked with another person on the task. For each of 11 trials, the mother and child were asked to agree on a guess as to what the child would score on the succeeding trial.

For each child under each condition, there were ten discrepancy scores, which were the differences between each performance on a given trial and the estimate of what the next performance would be. The mean of these ten discrepancy scores was operationally the level of aspiration measure.

There were three predictions: (1) the presence and participation of the asthmatic children's mothers will have

effects on the level of aspiration more similar to one another than the effects of the mothers of nonasthmatic children; (2) asthmatic children's levels of aspiration will be higher when their mothers are present and participating in the goal setting than when the children perform the task alone; (3) the difference in level of aspiration of the asthmatic children from the alone situation to the situation where their mothers are present and participating in the goal setting will be greater in a positive direction than the corresponding difference for the nonasthmatic children.

The three predictions were confirmed, and both hypotheses thereby supported. These results justified the conclusions that (1) goal setting is an area of functioning that is handled more consistently among asthmatic children and their mothers than among the general population of nonasthmatic children and their mothers, and (2) the asthmatic child is dependent upon the mother for help with a specific kind of reality testing -- the assessment of his ability to achieve -- and the mother influences this assessment consistently in an upward direction. Finally, some additional avenues of research were suggested to further clarify the nature of the asthmatic child-mother relationship. Approaches to the question of the specificity of this relationship to asthma were also suggested.

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ABSTRACT

This study was a partial test of the hypothesis that there is a specific kind of relationship between asthmatic children and their mothers. The central postulate was that the mothers of asthmatic children are overcontrolling of these children and over-ambitious for them, and that these children are overly dependent and conforming, particularly in the area of achievement. There were two hypotheses: (1) asthmatic child-mother pairs behave more like one another with respect to goal setting than non-asthmatic child-mother pairs, and, (2) the asthmatic child's level of goal setting rises when the mother is present and participating in the goal setting.

These hypotheses were tested by means of a modified level of aspiration procedure. Twenty asthmatic children of latency age and twenty controls were administered the Rotter Aspiration Board task, one series of trials when they were each alone with the experimenter, one series when the child's mother was present and participating in the goal setting activity.

The results supported both hypotheses and justified the conclusions that (1) goal setting is an area of functioning that is handled more consistently the same way among asthmatic

children and their mothers than among the general population of nonasthmatic children and their mothers, and (2) the asthmatic child is dependent upon the mother for help with a specific kind of reality testing -- the assessment of his ability to achieve -- and the mother influences this assessment consistently in an upward direction. Finally, some additional avenues of research were suggested to clarify further the nature of the asthmatic child-mother relationship. Approaches to the question of specificity of this relationship to asthma were also suggested.

APPENDIX I

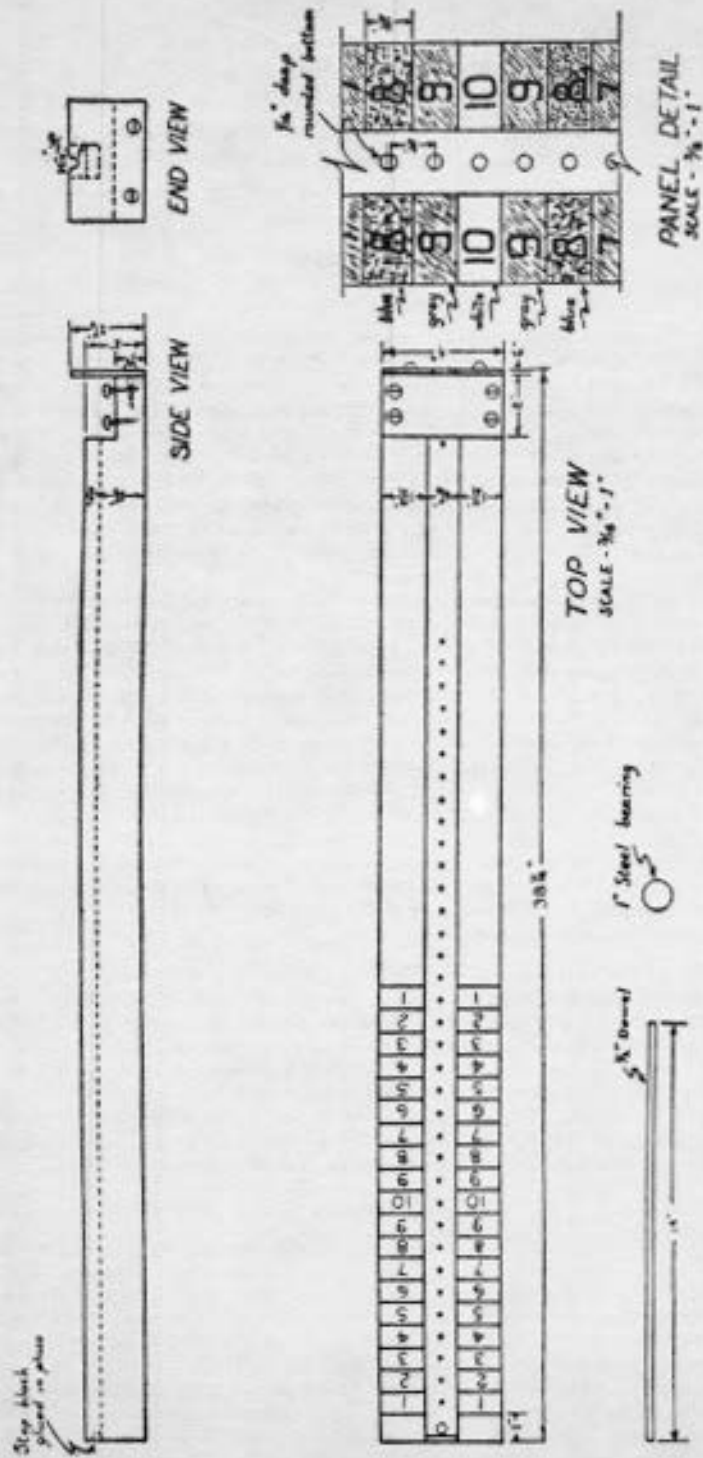


FIG. 1. Plan of aspiration board.

APPENDIX II

ESTABLISHED DIAGNOSES OF THE EXPERIMENTAL GROUP

- S1 Asthma, pollen and perennial; asthmatic bronchitis.
- S2 Asthma, pollen; recurrent upper respiratory disorder of allergic origin.
- S3 Asthma, pollen and perennial; pollinosis, tree, grass and weed; perennial allergic rhinitis; recurrent upper respiratory disorder of allergic origin.
- S4 Asthma, perennial.
- S5 Asthma, pollen; pollinosis, grass.
- S6 Asthma, perennial.
- S7 Asthma, pollen and perennial; pollinosis, tree, grass, and weed; food allergy.
- S8 Asthma, pollen and perennial.
- S9 Asthma, pollen and perennial; pollinosis, tree, grass, and weed; perennial allergic rhinitis.
- S10 Asthma, pollen and perennial; pollinosis, tree, grass, and weed; perennial allergic rhinitis; recurrent upper respiratory disorder of allergic origin.
- S11 Asthma, pollen.
- S12 Asthma, pollen and perennial.
- S13 Asthma, pollen and perennial.
- S14 Asthma, pollen and perennial; pollinosis, tree, grass and weed.
- S15 Asthma, perennial.
- S16 Asthma, perennial and pollen.
- S17 Asthma, perennial.
- S18 Asthma, pollen and perennial; pollinosis, tree, grass, and weed.
- S19 Asthma, pollen and perennial; allergic cough.
- S20 Asthma, perennial; perennial allergic rhinitis; allergic cough.

APPENDIX II

CURRENT DIAGNOSES OF THE CONTROL GROUP

- S1 Genito-Urinary infection.
- S2 Beginning Upper respiratory infection.
- S3 Upper respiratory infection; upper extremity hemangioma.
- S4 Contact dermatitis.
- S5 Pharyngitis.
- S6 Acute bronchitis; hypertrophied tonsils and adenoids.
- S7 Pectoral lymphadenopathy.
- S8 Torticollis.
- S9 Deferred diagnoses: I ? epilepsy, tumor; II ? chronic tonsil and adenoid disease.
- S10 Nephritis.
- S11 Sprain of right foot.
- S12 No disease; school requested a heart check.
- S13 Tonsillitis.
- S14 Upper respiratory infection.
- S15 Upper respiratory infection (subsided).
- S16 Chronic infectious rhinitis.
- S17 Dental caries.
- S18 Tonsillitis.
- S19 Refractive error.
- S20 Enuresis diurna and nocturna.

APPENDIX II

CHARACTERISTICS OF THE EXPERIMENTAL GROUP

	Age	Sex	Race	Fam. Pos.	Mo's Ed.	Fa's Ed.	Fa's Occup.	Voc.	BD	Est. IQ
S1	5.2	M	N	1/1	16	10*	P.O. Clerk	11	9	100
S2	5.9	M	W	3/4	12	10	Chauffeur	9	9	93
S3	5.9	F	W	2/4	9	11	Tel. Lineman	5	7	71
S4	6.6	M	W	4/4	10	9	Assemb. Wkr	9	10	96
S5	6.7	M	W	2/4	12	12	Hosp. Orderly	10	11	104
S6	6.8	M	W	1/2	9	9	Truck Driver	9	9	93
S7	7.2	M	W	1/2	10	10*	Shipping Clk	5	9	78
S8	7.4	F	W	1/4	11	9	Carpenter	6	7	75
S9	7.5	M	N	4/7	12	8	Elec. Cart Opr	8	10	93
S10	7.6	M	W	6/11	8	8	Iron Worker	9	13	107
S11	7.6	M	W	3/3	9	12	Tel. Lineman	12	8	100
S12	7.9	M	W	2/2	14	16	Accountant	11	12	111
S13	8.1	F	W	1/1	8	7*	Army Cpl	11	6	89
S14	8.4	M	W	8/9	8	13	Engineer	10	8	93
S15	8.5	M	W	3/4	12	12	Warehouseman	9	11	100
S16	8.7	M	W	4/4	12	10	Asphalt Tiler	8	8	85
S17	8.9	F	W	3/3	7	**	-	6	7	75
S18	9.8	M	N	2/3	10	12	Mill Laborer	13	11	115
S19	10.0	M	N	2/3	12	14	Lab. Worker	13	11	115
S20	10.1	M	N	1/1	9	**	-	8	9	89

* Parents separated.

** Mother unmarried.

APPENDIX II

CHARACTERISTICS OF THE CONTROL GROUP

	Age	Sex	Race	Fam. Pos.	Mo's Ed.	Fa's Ed.	Fa's Occup.	Voc.	BD	Est. IQ
S1	5.0	F	W	3/3	10	12	Truck Driver	6	9	75
S2	5.2	M	W	3/3	12	12	Chef	16	12	129
S3	5.3	M	N	5/6	10	10	USN, Ret. CPO	8	8	85
S4	5.9	M	N	2/3	10	13	Police Officer	7	5	71
S5	5.9	M	W	2/2	10	10	Sch. Janitor	10	9	96
S6	6.7	F	W	1/3	13	11	Laundry Mgr	8	6	78
S7	7.2	M	W	2/3	8	8	Crane Opr	11	12	111
S8	7.4	M	W	9/9	10	14	Leather Cttr	5	10	82
S9	8.0	M	W	2/2	9	10	Maintenance	9	9	93
S10	8.2	F	W	2/3	10	10	Truck Driver	7	13	100
S11	8.3	M	N	2/4	8	8*	Police Officer	6	8	78
S12	8.3	M	N	5/8	10	11	Truck Driver	11	7	93
S13	8.4	M	N	2/2	9	10	Army Sgt	10	11	104
S14	8.6	M	N	3/4	12	12*	Cook	12	10	107
S15	8.8	M	W	1/5	12	11	Truck Driver	6	10	85
S16	9.0	M	W	1/2	6	8	Tree Surgeon-	6	6	71
S17	9.3	M	N	1/3	10	13**	USN Stew'd Mt.	10	12	107
S18	9.4	M	W	2/3	7	12	USN, Ret. ChEM	13	11	115
S19	9.5	M	W	3/3	11	12	Machinist	10	5	82
S20	9.7	F	W	2/3	10	10**	Bricklayer	11	7	93

* Parents separated.

** Parents divorced.

APPENDIX III

EXPERIMENTAL DATA FOR THE EXPERIMENTAL GROUP

Subj.	Order	Ave. IA Alone	Ave. IA with Mo.	Change	Ave. Perf. Alone	Ave. Perf. with Mo.
S1	C-A-T	2.2	2.1	-0.1	4.8	6.3
S2	A-C-T	-0.5	1.1	1.6	5.6	5.7
S3	A-C-T	-1.5	2.3	3.8	6.3	6.1
S4	C-A-T	0.2	1.9	1.7	6.8	5.8
S5	T-A-C	-0.9	0.1	1.0	6.7	6.2
S6	A-C-T	0.4	0.6	0.2	5.9	5.3
S7	T-C-A	-0.4	0.4	0.8	5.7	6.2
S8	T-C-A	-0.5	0.6	1.1	5.0	4.0
S9	A-C-T	1.0	1.4	0.4	6.0	5.0
S10	T-C-A	0.5	1.1	0.6	5.0	6.3
S11	C-A-T	-1.2	0.2	1.4	7.6	5.4
S12	C-A-T	-1.0	0.1	1.1	4.5	5.3
S13	T-C-A	-0.2	2.8	3.0	5.1	5.4
S14	T-C-A	0.6	1.4	0.8	4.9	6.0
S15	T-A-C	0.2	0.8	0.6	7.0	7.0
S16	C-A-T	-0.9	0.7	1.6	6.4	5.0
S17	T-A-C	-1.5	1.0	2.5	5.9	5.7
S18	A-C-T	1.9	0.8	-0.2	7.4	6.9
S19	T-A-C	2.2	3.4	1.2	6.3	5.4
S20	T-A-C	0.1	0.3	0.2	6.1	5.8
Means:		-0.010	1.155	1.165	5.95	5.69
S. D.		1.045	.899	1.015	.86	.67

Legend:

C: Control measures

A: Alone

T: Together with mother

APPENDIX III

EXPERIMENTAL DATA FOR THE CONTROL GROUP

Subj.	Order	Ave. IA Alone	Ave. IA with Mo.	Change	Ave. Perf. Alone	Ave. Perf. with Mo.
S1	T-A-C	-1.5	-1.4	0.1	7.1	6.7
S2	T-C-A	1.3	2.8	1.5	4.8	5.0
S3	C-A-T	4.1	1.3	-2.8	4.6	6.7
S4	A-C-T	2.0	-0.4	-2.4	5.0	6.2
S5	T-A-C	-1.4	1.0	2.4	6.1	4.8
S6	T-C-A	3.2	3.0	-0.2	5.9	6.3
S7	C-A-T	-2.5	-0.4	2.1	6.5	4.7
S8	C-A-T	1.7	0.5	-1.2	4.8	6.4
S9	T-A-C	0.4	2.1	1.7	5.9	4.8
S10	C-A-T	0.1	-1.3	-1.4	5.5	7.0
S11	A-C-T	-0.1	2.4	2.5	6.5	5.1
S12	C-A-T	2.2	2.3	0.1	6.8	5.7
S13	T-C-A	-1.0	-0.5	0.5	6.3	5.6
S14	A-C-T	0.6	2.4	1.8	5.0	5.0
S15	T-C-A	2.7	2.6	-0.1	5.0	5.5
S16	T-A-C	-0.4	0.5	0.9	6.4	4.9
S17	T-A-C	3.8	1.8	-2.0	5.4	7.4
S18	T-C-A	0.7	2.4	1.7	6.6	5.0
S19	A-C-T	-0.2	-0.2	0.0	6.4	6.3
S20	A-C-T	2.2	0.9	-1.3	6.0	6.7
Means		0.895	1.090	0.195	5.83	5.79
S. D.		1.785	1.384	1.593	.75	.84



ROBERT PETER MORRIS

I was born on January 22, 1933, the third of five children to George and Josephine Morris. I attended Boston public schools, graduating from The English High School in Boston in 1949. I received my Bachelor of Arts degree cum laude from Harvard University in 1953, and my Master of Arts in Psychology from Boston University in 1955. In June of 1955, I married Patricia M. Williams of Lawrence, Massachusetts. We have one daughter, Anne Patricia, born in February, 1958. At present I am a staff psychologist at the Douglas A. Thom Clinic for Children in Boston.