

AN INVESTIGATION OF PERSONALITY ATTRIBUTES,  
IN CHILDHOOD, OF STAMMERERS, ENURETICS  
AND CASES OF SCHOOL PHOBIA.

BY

A.McHALE, M.A.

Thesis submitted for the degree of Doctor of  
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## CONTENTS

	<u>Page</u>
Preface                   ...   ...   ...   ...   ...	3
<u>PART</u>	
I   Introduction           ...   ...   ...   ...   ...	5
II   The Background of the Present Research..   ...	8
III   The Plan and Purpose of the Research ...   ...	71
IV   The Tests and Procedures ...   ...   ...   ...	86
V   The Description of the Groups Actually Found..	102
VI   The Statistical Treatment of the Material ...	105
VII   The Results           ...   ...   ...   ...   ...	113
VIII   Discussion           ...   ...   ...   ...   ...	152
IX   Suggestions for Future Research...   ...   ...	183
X   Summary and Conclusions ...   ...   ...   ...	187
 Appendices	
A.   Statistical Tables ...   ...   ...   ...   ...	190
B.   Instructions for the Projective Test and Questionnaire.   ...	237
C.   The Geographical Distribution of Cases..   ...	243
D.   Twenty-four typical case histories in brief...	249
 Bibliography           ...   ...   ...   ...   ...	274



### PREFACE

Child Guidance is a field of work in which there is a pressing need for research. Frequently decisions affecting the well-being of children are made and treatment is carried out on the basis of unverified or conflicting theories, or on authority derived from this or that school of thought. The fact that these theories sometimes work cannot be accepted as proof of their general validity.

The obstacles which stand in the way of research into this highly complex area of human behaviour are as often practical as theoretical. The problems of time and distance, of interdisciplinary stresses, of the demands of case-work and of the many other pressures which operate in a child guidance clinic have to be faced. Yet without adequate research case-work must inevitably remain largely dependent upon intuition and personal experience and to that extent unscientific and less effective.

The present research was attempted in the belief that it embodies a method which may be of value in arriving at useful and reliable results and may be relatively free from the bias of theories and schools of thought.

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A.M.

Leicester.

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PART IINTRODUCTION.

In the course of several years work as a psychologist in child guidance clinics I gained certain impressions as to the nature of the cases referred for diagnosis and treatment. I had to make intuitive judgments based on clinical data and case histories. It was inevitable that formulations, however vague and tentative, should emerge with regard to the relationship between the presenting symptoms and the underlying personality types. I found that these formulations were necessary for the consideration of difficult and intractable cases, but I felt that they were in need of more objective appraisal.

My attention gradually became focused upon cases of stammering, enuresis and school phobia. I regarded these as difficult cases for which the success rate in treatment was not high. They seemed to be perennial problems in child guidance clinics and a source of anxiety to themselves, to their parents and to the various social agencies which were involved with them for one reason or another.

These three groups were also chosen for investigation because the cases appeared to be so different from each other. I felt that these differences might well exist not only at symptom level, but also at deeper levels of the personality; that the differences might be independent of age, sex or intelligence; and that the differences might lie in the mode of expression of certain basic needs.

I proposed, therefore, to carry out a comparison between stammerers, enuretics, school phobics and normals with respect to various features of their personalities. This might show whether, in addition to being different in symptom manifestation, they were also different in other important respects. This sort of information might in turn throw some light on the question of possible treatment.

To be more precise and to summarize, stammerers seemed to me to be timid mainly in "speech" situations, but elsewhere hasty, impulsive and even aggressive; not avoiding difficult situations, but often recklessly seeking them out; frequently neat and well-behaved; and generally less deeply disturbed than school phobics.

Some enuretics seemed to me to be of nervous disposition, but others seemed to be placid, well behaved and conforming, eager to please and less aggressive and dominant than either of the other groups. Enuretics seemed generally less deeply disturbed than school phobics.

School phobics seemed to me to be timid, withdrawn and shy in situations outside the home; failing to face up to external demands; domineering, aggressive and "anti-authority" in the home situation, yet avoiding painful and unpleasant situations elsewhere. I felt that they were generally more deeply disturbed than stammerers and enuretics.

Between these three groups I expected to find some differences in motivation, anxiety and level of social adaptation. I also expected to find some degree of discrepancy between the more overt and the less overt expressions of basic needs. The purpose of the present research was to investigate these differences and their relationship to the presenting symptoms.

A brief account of stammering, enuresis and school phobia follows, from which it will be seen that there is a considerable amount of disagreement and confusion present in the literature. The comment of Poser and Lee on a similar topic is relevant here - "these examples.....are far from being isolated instances and suggest either that there is no specific personality pattern associated with any particular disorder, or that the methods and terms used by different investigators in obtaining relevant information are too divergent to yield comparable results". (POSER & LEE, 1963).

PART IITHE BACKGROUND OF THE PRESENT RESEARCH.STAMMERING, ENURESIS AND SCHOOL PHOBIA.

From the extensive literature on stammering, enuresis and school phobia a representative selection of articles has been taken and briefly summarized in the following three sections. The summaries have been grouped and presented in order, beginning with those in which there has been an emphasis on "physical" causes and following with studies in which explanations have been in terms of psychology, psychoanalysis and learning theory. Comparative studies in which objective tests have been used have been placed last.

Comments and criticisms have been added under each section and finally more general comments and criticisms have been made which seemed to be applicable to all three sections.

## 1. STAMMERING.

Barbara has defined stuttering as " a disturbance in the smooth flow of speech, due to tonic and clonic spasms involving the functions of respiration, phonation and articulation". (BARBARA,1958). Some authors have made a distinction between stammering and stuttering and it has been suggested that stammering may be regarded as a generic term which includes stuttering (BURT,1937). In the present research no such distinction has been made and the two terms have been used synonymously.

The causes of stammering have been regarded by some writers as physical and constitutional, since the disorder appears in nervous individuals along with other nervous traits and seems to arise from a lack of emotional control. The search to discover and isolate the precise physical factors, however, has been long and fruitless. Diverse methods have led to findings that have been equally diverse and contradictory. Thus a correlation between stuttering and motor disturbances was found by Kopp, who used Oseretzky's tests to investigate the psychomotor development of 450 stutterers. Kopp claimed that gross hereditary defects of the motor function and disturbances of various motor systems were almost invariably found amongst stutters, whether the stuttering

was constitutional or acquired. She concluded that stuttering was neurological, not emotional, in origin. (KOPP,1943). On the other hand, when Rheinberger compared the laterality tendencies and the E.E.G. patterns of 10 stuttering and 10 non-stuttering boys the two groups were found to be essentially similar. (RHEINBERGER et al.,1943).

Several authors have suggested that the physical factor was an inherited tendency to stammer, but that the stammer might or might not be initiated by other factors. Boome stated the causes as (1) endogenous or constitutional, by which the child inherited neuropathic tendencies which predisposed him to stammer, and (2) exogenous or environmental, which precipitated the stammer. (BOOME & RICHARDSON,1934). Blanton held the view that stuttering was the result of emotional difficulty and that the physical symptoms could be explained neurologically. (BLANTON,1936). It seemed, therefore, that the precipitating causes might be "emotional", although there was a physical element present. A similar point of view was taken by McAllister who studied 139 cases of stammering over several years. She formed the opinion that in the largest group of her cases emotional disorder was the basic precipitating factor and that the emotional disorder spent itself through some weakness in the stammerer's speech equipment, the weakness being possibly hereditary. (McALLISTER,1958).



In a comprehensive survey of the literature on stammering, Barbara expressed the opinion that there was some suggestion of the presence of constitutional factors which predisposed an individual to emotional imbalance and to stammering in particular. However, he then pointed out that there was no direct correlation between the problem of stammering and heredity; that neurological examination gave no indication of the cause of the stammer; and that electro-encephalographic and laterality studies of stammerers and non-stammerers did not lead to conclusive results. (BARBARA,1958).

Perhaps the more recent attitudes towards "physical" explanations of stammering have been best summarized by Madison - that while a few authorities made the reservation of some undefined physical predisposition, most now agreed that the basis for stuttering was primarily psychological. (MADISON,1956).

Even if it is granted that the primary causes of stammering are psychological, it is still true to say that little agreement has been reached as to what the precise causes are or how they operate. Clinical investigators have claimed that many other symptoms were associated with stammering, although, in fact, little evidence has been adduced that the other symptoms and the stammering were related. Burt found the stutterer to be an emotional child, shy, sensitive, self-conscious and with marked

tendencies towards anxiety and repression, (BURT,1937), and Gifford regarded the problem as one of emotional maladjustment involving the total personality, the origin being purely psychological. (GIFFORD,1939,1940). Among the many symptoms allied to stammering Bakwin mentioned timidity, fears, sleep disturbances, compulsive behaviour, emotional disturbance and nervous and aggressive behaviour. He suggested that imitation might be a factor in stammering and that stammerers were more restricted and rigid than non-stammerers. (BAKWIN,1960).

An intensive investigation of 50 stutterers was carried out by Despert, who concluded that they had an outstanding degree of primary anxiety (not secondary to the speech difficulty); that psycho-neurotic manifestations were numerous, the most prominent being anxiety and obsessive-compulsive characteristics; and that intense, more or less inhibited, hostility was revealed and sadistic phantasies were common. (DESPERT,1946).

In a more controlled inquiry Moncur made a comparison between 41 stutterers and 41 non-stutterers. It was found that the stutterers revealed more symptoms of maladjustment aside from their speech problem. The stutterers averaged more than twice as many symptoms of maladaptive behaviour as did the non-stutterers, ranging from nervousness and fussy eating to aggressiveness and a more frequent need for disciplinary action. It was concluded that the problem was more widespread than just one of speech alone. (MONCUR,1955). In these researches there seemed to be the

implication that there might be some underlying cause which might account for both the stammering and the various other symptoms. This, however, was not the point of view taken by Johnson, who consistently held that the stammering was a cause and not a result of emotional unrest. (JOHNSON,1955).

The opinion of analytically-oriented psychologists that a stammer was symptomatic of deep disturbance involving the total personality was reiterated by Fawcett and McCulloch. They found that adult stammerers had often an unusual need to control and repress their feelings of aggression and self-assertion, but that expressions of these impulses could be seen in various covert-forms. The stammer could be used to subserve a variety of purposes which relieved the personality of anxiety and conflict. (FAWCETT & McCULLOCH,1964). The same authors, by using a questionnaire technique with a group of stammerers and a control group, related stammering to various other factors such as strictness, anxiety, high parental aspiration, social stress and overt conflict within the home.

A psycho-analytical interpretation of stammering was given by Coriat, who regarded stammering as a psycho-neurosis caused by the persistence into later life of early pre-genital oral nursing, oral sadistic and anal sadistic components. The stammerer had not overcome these pre-genital impulses in the course of adult development, but had remained fixed or anchored

to both the oral and the anal organisation. (CORIAT,1928,1943).  
An explanation in similar terms was put forward by Fenichel,  
who interpreted the stammer as a pre-genital conversion -  
an anal conflict transferred to an oral zone, the speech of  
the stammerer being an aggressive act directed at the  
listener. (FENICHEL,1955).

A different point of view was adopted by Sheehan, who  
formulated the problem of stuttering in terms of an approach-  
avoidance conflict. It was found that when approach responses  
were strengthened, fluency increased. Therefore, it was suggested,  
the goal of therapy should be the reduction of all tendencies to  
avoidance and of the fears which motivated them. Support for this  
theory and therapy was derived from a comparison between 40  
adult stutterers and 60 normal speakers with respect to their  
level of aspiration. The stutterers showed a significantly  
greater discrepancy between aim and accomplishment; they predicted  
more modest performances and showed in general a lower level of  
aspiration. To a greater extent than the normal population  
stutterers avoided even the threat of failure. (SHEEHAN,1954;  
SHEEHAN & ZELENY,1955; SHEEHAN & VOAS,1957).

The findings and the method of treatment reported by  
Sheehan et al. seemed to be related to conditioning techniques.  
Blumel had early advanced the theory that speech was a

conditioned response and that stammering was an inhibition which occurred before the speech reflex was securely established. Stammering would thus be expected to have its onset in the early years of life because the conditioned reflex of speech was not yet stable; and by the same argument stammering would rarely begin in adult life because the conditioned reflex of speech was now a fixed and secure response. (BLUEMEL,1935). Cherry et al. carried out an experiment on 25 adult stammerers in which the monitoring and control processes associated with speaking were interfered with by (a) a loud tone, and (b) the "shadowing" technique. A striking improvement was obtained in almost all the cases and the improvement was maintained with no negative results being reported. (CHERRY, SAYERS & MARLAND,1955,1956).

Continuing these lines of enquiry, Walton and Black proposed that stammering was a drive-reducing conditioned avoidance response, evoked originally in a traumatic situation. In such a situation intense anxiety would have been generated and the evocation of stammering would have resulted in a reduction or cessation of the anxiety-inducing stimulus. A theoretical model was set up, based on learning theory, and one severe case of stammering was treated successfully by the "shadowing" technique. There seemed to be no evidence of the symptom substitution which would have been predicted by psycho-analytic theory. It was suggested that psychiatric symptoms, such as stammering, might thus be regarded as products of learning processes, obeying certain laws as laid down principally by Hull,1943. (WALTON & BLACK,1958).

This experiment appeared to indicate that there might not necessarily exist any deep underlying disturbance of which the stammer was a symptom. The obvious weakness of the experiment was the fact that only one case was used and the results might not, therefore, be valid generally. The personality of the subject and also of the experimenter might enter into the treatment to an unknown extent. In an attempt to meet these objections McHale used the shadowing method to treat three groups of stammerers. The treatment was carried out by three speech therapists working independently of each other over a period of about three years and a total of 38 cases of child stammerers were treated. Each therapist was trained in the use of the method and close contact was maintained with each therapist during the experiment. Although the therapists differed widely in personality, the percentage of successes was almost exactly the same in each of the three groups of cases, no significant differences being found in percentages of successes. This would seem to indicate that the results depended upon the method rather than upon the personality of the therapist. Good or very good improvement was reported in about 74% of all the cases treated, a result which would suggest that about 74% of the cases were "conditioned" and 26% were not. No negative results were reported and no alternative symptoms were produced. (KELHAM & McHALE, 1966).

The many findings of differences between stutterers and non-stutterers that have been reported were regarded in a different light by Johnson, who took the view that the stuttering was a cause and not a result of the other associated symptoms. He argued that stutterers were essentially like non-stutterers, perhaps a little more withdrawing socially and a little more inclined towards discouragement - a reaction to the frustration and humiliation of the stutter. He felt that the stuttering was to be regarded as a cause of emotional unrest and demoralization; it was not to be regarded as a psycho-neurosis, nor a cause nor a symptom of psychoneurosis, although the stutterer might be neurotic. Stutterers were considered to be essentially normal and, although they were somewhat more shy and inclined to ~~worry~~<sup>Worry</sup>, no significant difference between stutterers and non-stutterers was found on mean attitude-test scores. (JOHNSON, 1932, 1955). These conclusions did not support psychiatric theories of the nature and cause of stuttering, but were more in agreement with the results obtained by the application of learning theory to the treatment of stuttering.

Johnson's views were based on many years of research, tests and experiments with stutterers. Other investigators have arrived at similar conclusions which have, in effect, failed to provide any evidence for the existence of a "stuttering personality". Thus McDowell tested the educational and emotional

adjustments of 61 stuttering children and a control group and found that both groups were very similar in emotional ~~adjustments.~~  
~~readjustments.~~ On the Kent-Rosanoff Test there was no significant difference between stutterers and non-stutterers in reaction time or in quality of responses. (McDOWELL, 1928). Richardson administered a battery of tests to a group of 30 stutterers and a control group. He included an abilities test, a questionnaire and the Thematic Apperception Test. The stories were analysed according to themes, needs, type of ending and certain other variables, but on the great majority of these measures no significant difference was found between the groups. (RICHARDSON, 1944).

On the other hand, when Bender administered the Bernreuter Personality Inventory to a group of 249 college male stutterers and a group of 303 non-stuttering students he found several differences between the stutterers and the non-stutterers. The stutterers had significantly higher scores in neurotic tendencies; they were more introverted, less dominant, less confident of themselves and less sociable. Bender concluded that there was evidence for the existence of a "stuttering personality". (BENDER, <sup>1942</sup>~~1944~~).

While most authors have associated stammering with anxiety, the attempts to relate stammering to neuroticism have shown less agreement. Krugman found that stutterers tended more towards



instability and neuroticism than did a group of seriously maladjusted children. He made a Rorschach study of 50 stuttering children and a control group of 50 "problem children", referred to a child guidance clinic. The stutterers were found to be rigid in personality, anxious and showing an obsessive-compulsive make-up and many signs of neurotic involvement. (KRUGMAN,1946). Krugman and Bender thus provided some evidence to show that stutterers might be "neurotic". On the other hand, when Boland studied the relationship between stuttering and anxiety by comparing a group of stutterers with a group of non-stutterers on several measures of anxiety, the findings were that the degree of "neuroticism" did not differentiate stutterers from non-stutterers; that stutterers preferred to express anxiety overtly; that the level of general anxiety was higher in stutterers; and that the level of anxiety associated with speech situations was greater in stutterers than in non-stutterers. (BOLAND,1953). Boland's evidence seemed to indicate, therefore, that stutterers were anxious, but not "neurotic".

A research by Walnut was particularly interesting because four groups were used for comparison instead of the usual two groups of stutterers and non-stutterers. The short form of the M.M.P.I. was administered to 141 high school students or to students of high school age divided into four groups:-

a control group, a group of stutterers, a group of cripples and a group with cleft-palate. The stutterers were found to have increased indications of paranoia and depressive tendencies, but did not differ significantly from the crippled and cleft-palate groups in personality. (WALNUT,1954). In this research the use of several groups seemed to increase the validity of the findings and this point will receive further mention later in relation to the present investigation.

It will be apparent from these brief summaries and comments that the problem of stammering has produced many theories as to its nature and cause and many methods of treatment. As a result the literature on the subject of stammering is extensive and confusing. (BARBARA,1958; MADISON,1956; WYATT,1949). Indeed, Wyatt made the point that the theories about the etiology and the treatment of this disturbance varied in accordance with the author's special training and consequent focus of interest. (WYATT,1949). It might reasonably be thought that many of the proposed theories have insufficient basis in experimental facts. Sortini investigated the number of experimental researches into stuttering over the 20-year period 1932-51 and found that only 225 experiments (i.e. laboratory, questionnaire, rating scale and case-history methods) had been conducted in the whole field, averaging 11 experiments per year. It was concluded that more experimental research should therefore be encouraged.(SORTINI,1955).

To summarize, stammering has been attributed to or associated with a wide variety of factors, such as physical, constitutional or hereditary causes (BOOME & RICHARDSON, 1931; McALLISTER, 1958; FAWCETT & McCULLOCH, 1964); neurological causes (BLANTON, 1936; KOPP, 1943); emotional disturbance, nervous symptoms, anxiety or aggressiveness (BURT, 1937, GIFFORD, 1939; DESPERT, 1946; BOLAND, 1953; MONCUR, 1955; McALLISTER, 1958; BAKWIN, 1960; FAWCETT & McCULLOCH, 1964); neurosis, immaturity or obsessive-compulsive characteristics (CORIAT, 1928; DESPERT, 1946; KRUGMAN, 1946, FENICHEL, 1955); an approach-avoidance conflict (SHEEHAN et al., 1954, 1955, 1957); imitation, conditioning or learning (BAKWIN, 1960, BLUEMEL, 1935; CHERRY et al., 1955; WALTON & BLACK, 1958); a "stammering personality" or a particular configuration of personality (BENDER, 1944; KRUGMAN, 1946).

On the other hand, evidence has been produced which has conflicted with many of these supposed "causes" of stammering, or which has failed to support them because no significant difference was found between stammerers and non-stammerers on the selected criterion. Thus no essential difference was found between stammerers and non-stammerers on laterality tendencies or E.E.G. patterns (RHEINBERGER, 1943); on laterality tendencies, E.E.G.'s, neurological factors or heredity (BARBARA, 1958); on

educational or emotional adjustments (McDOWELL,1928); or on an abilities test or on projective material which might have shown evidence of a "stuttering personality" (RICHARDSON,1944); or on degree of neuroticism (BOLAND,1953). Johnson consistently held the view that stutterers were essentially similar to non-stutterers and that stuttering was unrelated to neurosis. (JOHNSON,1932,1955).

There may be "overlapping" of the various suggested causes of stammering, since several factors may operate simultaneously.

Comparisons of the researches cited were difficult because of the variety of methods and tests that had been used. The extent of the agreement between authorities was therefore difficult to assess. Thus both Kopp (1943) and McAllister (1958) suggested physical causes of stammering, Kopp basing her conclusion upon the use of tests of psychomotor development and McAllister offering an opinion based on the long-term clinical study and treatment of a large number of cases.

Despert (1946) claimed in her investigation that the findings obtained through different techniques showed a marked degree of convergence. The different techniques included her own clinical investigations and Krugman's use of the Rorschach. Both clinical and projective material showed that anxiety was the most common finding. But anxiety, undefined or vaguely defined, has been associated with stammering by most writers, and has also

been associated with many other disorders unrelated to stammering. Imprecise results of this kind might not constitute evidence of any real agreement between investigators.

Moncur's (1955) approach was to estimate the "width" of the problem by ascertaining the number of symptoms shown by stammerers as compared with non-stammerers. It was concluded that the disorder was more widespread than one of speech alone, but no indication was given as to cause or effect. At the other extreme, the "depth" of the problem has been shown by expressing it in terms of repressed aggression, anxiety and conflict, (FAWCETT & McCULLOCH, 1964) and psycho-analytically oriented investigators have attempted to "explain" stammering in terms of a pre-genital conversion (CORIAT, 1928, 1943; FENICHEL, 1955).

Other interpretations of stammering have involved treatment based on theoretical formulations and experimental findings. Thus Sheehan et al. used the concept of "level of aspiration" and interpreted stammering as an "approach-avoidance conflict"; and Walton and Black formulated their experimental model in terms of learning theory. (SHEEHAN et al., 1954, 1955, 1957; WALTON & BLACK, 1958).

The difficulty of comparing and evaluating the various researches might be to some extent due to the differences in

the terminology that has been used. Stammering has been "explained" on the one hand in psycho-analytic terms, such as "pre-genital conversion", "anal conflict" and "oral sadistic", and on the other hand in the non-psychiatric terminology of the learning theorists, such as "drive-reducing conditional avoidance response". An equal difficulty has been the common use of such terms as "nervous", "emotional" and "neurotic", which are virtually meaningless in the absence of precise definition.

In almost all of the researches that have been quoted insufficient use has been made of control groups. Researches that were felt to be unsatisfactory in this respect were those which compared stammerers with no other group or with only one other group, e.g. Moncur (1955), Fawcett & McCulloch (1964), Sheehan & Zelen (1955), McDowell (1928), McAllister (1958), Richardson (1944), Bender (1944), and Boland (1953). Of the researches cited only that of Walnut (1954) had a sufficient number of groups for valid conclusions about stammerers to be drawn.

The general impression gained from the literature was that, despite a multiplicity of theories and methods, there seemed to be considerable agreement on these points:- (a) that the causes operating to produce stammering were not purely

physical, and (b) that the "psychological" causes were predominant. It also appeared that there was a need for further experimental research into the more specific psychological factors with which stammering seemed to be associated.

## 2. ENURESIS.

Enuresis has been defined by Bakwin as the repeated involuntary discharge of urine after the third year of life, the choice of the third birthday being somewhat arbitrary and the term enuresis being restricted to persistent bedwetting. (BAKWIN,1960).

In a survey of 1,000 unselected children between the ages of 4 and 12 years at the Bellevue Hospital it was found that 26% wet themselves during the night or day or both. (BAKWIN,1960). The same incidence was found by Michaels and Goodman in a group of 475 children. They concluded that about one out of four children wet the bed after the age of 7 years. (MICHAELS AND GOODMAN,1934). These figures are in respect of clinic populations. In the general population the percentage may be somewhat lower, perhaps 16%. (BAKWIN,1960). Powell suggested a figure of 15% in children over the age of 3 years. (POWELL,1951).

There appeared to be no evidence to indicate that there was any difference between the sexes in the number of cases of enuresis, or any difference between the sexes in the background to the cases. Diller compared 76 boys with 76 girls all exhibiting enuresis without organic basis. There were no significant differences in familial or personal backgrounds between the sexes.



Poor family relationships and the appearance of one or more behaviour difficulties characterized both groups. (DILLER,1951).

No significant differences in I.Q. seemed to have been found between enuretic and non-enuretic children and there did not appear, therefore, to be any relationship between enuresis and intelligence. (BAKWIN,1960).

In some cases enuresis has been attributed to physical causes. Thus Burt referred to functional physical cases, such as lax sphincters and overactive bladder walls, and organic physical causes, such as cystitis, bacilluria and over-acid urine. (BURT,1940). Gerard, in a brief review of suggested causes, divided the organic causes into neurological and somatic. She pointed out the disagreements between various investigators who attributed enuresis to spina bifida occulta, defective control of the bladder reflex, local spasm, inadequate conditioned reflex development, thickened bladder musculature, occlusion of the urethra, fatigue and an irritable bladder. Gerard herself investigated 72 cases and found definite physical causes in seven children. The enuresis in these seven cases was attributed to epilepsy, bladder infections or spina bifida. (GERARD,1939). Bakwin related enuresis to various physical disorders including epilepsy, spina bifida and an irritable bladder. He regarded enuresis in most cases, however, as due to a hereditary abnormality in bladder function - the "irritable" bladder. (BAKWIN,1949).

Anderson's opinion was that physical factors were of undoubted significance in a limited number of cases, (ANDERSON,1930), and in an investigation of 100 enuretic children at the clinic of a children's hospital Stockwell and Smith found that there were organic causes in 13% of the cases. (STOCKWELL & SMITH,1940). Stalker and Band reported 67 cases of severe enuresis in adolescents and adults and offered the opinion that "the enuresis syndrome was not purely emotional in origin, as had been widely believed, but had important physical components". (STALKER & BAND,1946).

The physiology of urinary continence is a matter of considerable complexity and the point was made by Hodge and Hutchings that it had not yet been fully apprehended or explained and that further research was needed. They investigated 131 cases of enuresis between the ages of 4 and 18 years in child guidance clinics and proposed a theory of faulty adaptation. They attributed the enuresis to a failure or delay of the cerebral adaptive mechanisms and they felt that a delayed cerebral maturity caused an inability readily to effect the appropriate learning circuits. Epilepsy with an abnormal E.E.G. was a finding in 5 cases. (HODGE & HUTCHINGS,1952).

The suggestion that physical disorders appeared to be of minor importance as causes of enuresis was made by Hallgren, who carried out an extensive clinical and genetic study of 229 cases, 173 secondary cases (sibs and parents of cases) and 530 unaffected

sibs and parents. Hallgren concluded that primary enuresis tended to be familial and that there was probably a nuclear group of cases in which nocturnal enuresis was primarily genetically determined, although the manifestation of the genes was modified by environmental factors. (HALLGREN,1957). This finding of a genetic cause for enuresis gave support to the opinion of Bachet, who felt that paediatricians were in agreement that enuresis was a hereditary phenomenon. "The hereditary basis for enuresis is definite". (BACHET,1951).

Several investigators have studied E.E.G. tracings in relation to enuresis and some evidence has been adduced that E.E.G.'s of enuretic children indicated abnormalities of various kinds. Michaels and Secunda studied the E.E.G.tracings of a group of 122 children with various "neurotic" traits. Of all the children examined those with enuresis had the highest association with an abnormal E.E.G., the commonest finding being "a wave of slow rate". (MICHAELS & SECUNDA,1944). Further evidence came from the E.E.G. recordings taken by Turton and Spear from 100 cases of severe enuresis without any organic condition. Only 26 were normal and a further 23 were on the borderlines of normality. Of the abnormal records 28 showed a too slow or immature type of record, one showed an organic type and 22 were epileptiform. It was suggested that a considerable proportion of enuretics had a physical basis for their disorder. (TURTON & SPEAR,1953). However, Turton and Spear also pointed out

that, while some investigators had arrived at results comparable with their own, others had found no connection between E.E.G's and various behaviour disorders. The E.E.G's of 100 children were investigated by Boyd, who concluded that no clue to the character of the E.E.G. could be found in studying the personalities and behaviour of the children. (BOYD,1959).

Attempts have been made to relate enuresis to depth of sleep and sometimes E.E.G's have been used to provide evidence for or against such a relationship. Stalker and Band associated enuresis with autonomic disorders, especially with heavy sleep (STALKER & BAND,1946) and Hallgren also concluded that depth of sleep and enuresis were related, although the relationship was probably not a simple causal one. (HALLGREN,1957). On the other hand, Anderson, in a psychiatric inquiry similar to that of Stalker and Band, felt that there was no certain evidence to justify the claim that enuretic children were especially deep sleepers (ANDERSON,1930), and Boyd also concluded that unusually deep sleep was not a factor in the causation of nocturnal enuresis. (BOYD,1959). An E.E.G. method that could be used diagnostically in enuresis and also as a study method to investigate sleep, dreams, anxiety, enuresis and dissociative states was offered by Ditman and Blinn. They formed the opinion that nocturnal enuresis was not a form of epilepsy and was unrelated to epilepsy; that functional nocturnal enuresis was not due to

excessively sound sleeping, but that the more automatic variety, during deep sleep, was relegated to the early years of childhood; and that the adult type of enuresis should be viewed as a dissociation or repression phenomenon. (DITMAN & BLINN, 1955).

A dissociation of sleep during the pre-wetting period was observed by Bental in a study of two enuretic brothers, while after the wetting had occurred absolute parallelism between physiological and electro-encephalographic sleep was noted. (BENTAL, 1960). In general, therefore, the evidence for a relationship between enuresis and depth of sleep and between enuresis and E.E.G. tracings seemed to be conflicting.

Enuresis has frequently been attributed to "psychological" causes and has been associated with nervous symptoms, emotional disturbance and immaturity, but it is difficult to establish whether the enuresis is a cause, a consequence or independent of the emotional difficulties. Anderson investigated 148 children and found that emotional factors constituted by far the largest group of elements in the causation or at least the continuance of enuresis and that most contributory factors exerted results on this basis. (ANDERSON, 1930). Beverly studied 250 children, all incontinent and mostly with nocturnal enuresis, and concluded that the enuresis was but one manifestation of a general behaviour disturbance. The children were described as infantile and finding growing up and taking responsibility too difficult. They were timid and nervous and commonly had infantile

habits such as thumb-sucking, nail-biting, temper tantrums and frequent crying. (BEVERLY,1933). Stockwell and Smith found that many of their cases were markedly timid and sensitive, had infantile traits or showed some emotional problems. They concluded that in 50% of their cases the origin of the enuresis was psychogenic. (STOCKWELL & SMITH,1940). Similar references to immaturity, timidity or dependent behaviour were made by Kanner (1947), Hallgren (1957) and Boyd (1959).

Enuresis was associated with psychological stresses and regressive behaviour by Hodge and Hutchings (1952) and Burt gave similar reasons for the great increase in bed-wetting among evacuated school-children. He regarded it as a symptom of anxiety and a regression to an infantile attitude caused by the separation of the child from the mother. Among older children and perhaps some of the younger ones it was felt to be often a symptom of repressed resentment or defiance. (BURT,1940).

Bakwin made the point that while speech disorders and nervous behaviour were more frequent among children with diurnal enuresis than among a comparable group of normal children, there was no difference in children with nocturnal enuresis only. (BAKWIN,1960).

These authors have associated enuresis with infantile attitudes, regression and immaturity, but a more specific association was suggested by Wiesenhutter, who drew his conclusions from experiences with over 200 child bedwetters. He regarded the

most significant factor as a problem in the child's handling of his own or others' aggressiveness and success in treatment was achieved in the largest number of cases by encouraging and developing the child's readiness and capacity for the expression of his aggressiveness. (WIESENHUTTER, 1954).

A variety of "causes" of enuresis have been found within the family, such as those listed by Powell (1951) which included parental conflicts, emotional instability of one or both parents, sibling rivalry, parental overprotection, over-emphasis of the enuresis by parents, punishment or inconsistency by parents in attempts towards enuresis control and too-early attempts in toilet training. Bostock found that rigid toilet training was strongly associated with later enuresis and that there was also a significant association between the type of toilet training and the acceptance and rejection of the child. (BOSTOCK, 1951). The suggestion that unfavourable environmental factors might disturb the emotional security of the child and thus cause enuresis was also made by Hallgren (1957).

Psycho-analytic writers have suggested that enuresis might be a feature of a neurosis and might be interpreted in terms of sexual or aggressive drives. Thus Gerard found that the majority of enuretic children presented definite neurotic patterns, wetting representing one symptom of the syndrome. Etiological factors of an emotional nature were discovered in the majority of cases. Of these a few were "regressive" in

that the total personality regressed to a more infantile level of behaviour; a few were "revenge response" cases, the child retaliating against a punitive adult; and the majority presented a clear-cut neurotic pattern of behaviour. In both boys and girls the principal factor was a fear of harm from the opposite sex. This fear arose from destructive wishes towards the rival parent, from traumatic sexual experiences or information and from experiences of parental seduction or rejection. (GERARD, 1939).

Some authors have related enuresis to a particular personality pattern, usually "delinquent" or "psychopathic". Anderson suggested that stealing and truancy probably had some relationship to enuresis, if only because they tended to perpetuate the affective disturbance. (ANDERSON, 1930). Several authors were quoted by Hodge and Hutchings (1952) to support the notion that enuresis, though frequently a presenting feature, was yet on investigation to be considered as a factor in a personality pattern. Stockwell and Smith regarded enuresis as a symptomatic expression in most instances of poor training, a conduct disorder, a psychopathic personality or a wish for attention associated with feelings of fear and inadequacy. (STOCKWELL & SMITH, 1940). The total personality, in its constitutional, neuro-physiological and emotional aspects was related to the "enuresis syndrome" by Stalker and Band, who found psychiatric abnormalities in the majority



of enuretics, the two biggest groups being the anxious and the psychopathic. They were impressed by the correlation between psychopathic states and enuresis, the same lack of inhibitory control being seen physiologically in the enuresis and emotionally and socially in behaviour. (STALKER & BAND, 1946). Bachet proposed the theory that the delinquent with a history of persistent enuresis had a specific configuration of personality which manifested itself at various levels - biological, neurological, psychological and sociological - with persistent enuresis as the psychological paradigm. (BACHET, 1951). A similar theme was elaborated by Michaels, who associated persistent enuresis, delinquency and psychopathic personality, regarding them as disorders of character. He developed the thesis that persistent enuresis presaged and reflected the emergence of a new character type, impulsive in behaviour and distinct from the neurotic and the psychotic. He suggested that persistent enuresis might be the physiological forerunner at a lower level of the later psychopathic tendencies at a higher socio-psychological level. (MICHAELS, 1941, 1954). Michaels thus linked enuresis with delinquency and psycho-analytic theory.

By other writers enuresis has been regarded as a clinical entity in its own right and not merely a symptom of some more general disorder. The term "essential" enuresis has been used

to describe cases of this type. Thus Crosby held the view that enuresis was not a symptom but an entity or state arising from physiological activity and not of anatomical, pathological or psychological origin. The results of his investigations led him to discredit hereditary and familial tendencies. (CROSBY,1950). Stalker and Band also formed the opinion that enuresis was not just a symptom but a disease in itself. (STALKER & BAND,1946).

It has been reported that enuresis has in many cases been successfully treated by conditioning techniques. Mowrer and Mowrer claimed to have eliminated enuresis in 30 children from 3 to 13 years of age by using an apparatus for waking a child immediately after the onset of micturition. They put forward a theoretical explanation in terms of conditioned responses. (MOWRER & MOWRER,1938). Crosby used a similar method and claimed 50 cures out of 58 cases. He felt that after the age of  $10\frac{1}{2}$  years success by this method was less certain because of complications which caused anxiety and because the sheer length of time of the enuresis made conditioning more difficult. (CROSBY,1950). Seiger, by a similar method, claimed success in 88% of his 106 cases of nocturnal enuresis. He felt that most of his cases were of "secondary" enuresis, by which he meant that the primary anxieties had now faded into the background and had ceased to be of causal significance and in their place had arisen a refractory ring of secondary anxieties. Seiger concluded that learning was the basis

of bladder control and that if learning was not accomplished by the child himself it could be done by conditioning.(SEIGER,1952). It seemed that the anxiety might thus be both cause and effect of the enuresis. It also appeared that the "symptom substitution", which might be expected in psychiatric theory, did not in fact take place. This point was made by Jones in his article on specific conditioning treatment, who also suggested the need for further research into the differences between those patients who respond to the treatment and those who fail. (JONES,1961).

To summarize, enuresis has been attributed to or associated with a variety of factors. Amongst these have been "physical", organic or constitutional causes (ANDERSON,1930; BURT,1940;; GERARD,1939; STOCKWELL & SMITH,1940; BAKWIN,1949; STALKER & BAND, 1946; HODGE & HUTCHINGS,1952); hereditary or genetic causes (BACHET,1951; HALLGREN,1957); abnormal E.E.G.tracings (MICHAELS & SECUNDA,1944; TURTON & SPEAR,1953); depth of sleep (STALKER & BAND,1946; BENTAL,1960); nervous symptoms and emotional disturbance (ANDERSON,1930; BURT,1940); general behaviour disturbance or general immaturity (BEVERLY,1933; KANNER,1947; BOYD,1959); aggressiveness (WIESENHUTTER,1954); tensions within the family (BOSTOCK,1951; POWELL,1951); a distinctive personality pattern (STOCKWELL & SMITH, 1940; STALKER & BAND,1946; HODGE & HUTCHINGS,1952); a neurosis (GERARD,1939); delinquency (ANDERSON,1930; MICHAELS,1941,1954; BACHET,1951); a separate clinical entity, not a symptom (STALKER

& BAND,1946; CROSBY,1950); learning or conditioning (MOWRER & MOWRER,1938; SEIGER,1952; JONES,1961).

Many of these authors have suggested a number of possible "explanations" of enuresis, so that there is a considerable overlapping of causes several of which may operate simultaneously.

On the other hand, evidence has been produced or opinions expressed which have contradicted or failed to support several of these theories, such as that relating to E.E.G.tracings (TURON & SPEAR,1953; BOYD,1959); to depth of sleep (ANDERSON, 1930; DITMAN & BLINN,1955; BOYD,1959); to the association between enuresis, speech disorder and nervous behaviour (BAKWIN,1960); and to hereditary factors (CROSBY,1950).

In the investigation of the problem of enuresis clinical methods seemed to have been used most commonly. In the attempt to find objective evidence of "abnormality" recourse has been had to E.E.G.tracings. The theory has been evolved that there might be an association between enuresis, abnormal E.E.G's and epilepsy, but opinions on this have differed and the evidence has been conflicting. E.E.G. records did not appear to have provided the clear, objective evidence in cases of enuresis that might have been expected.

Many writers have associated enuresis with infantile and regressive behaviour, immaturity, dependency, timidity and nervousness (BEVERLY,1933; BURT,1940; BOYD,1959; GERARD,1939; HODGE & HUTCHINGS,1952; KANNER,1947; STOCKWELL & SMITH,1940).

There appeared, therefore, to be a certain measure of agreement in this respect, but the extent of this agreement was difficult to establish in the absence of precise definitions of these terms. In the same way, there seemed to be some agreement between several authors in relating enuresis to a distinctive personality pattern, but it was difficult to attach any exact meaning to such terms as "psychopathic" (STALKER & BAND, 1946; STOCKWELL & SMITH, 1940; MICHAELS, 1941, 1954), "conduct disorder" (STOCKWELL & SMITH, 1940) and "disorder of character" (MICHAELS 1941, 1954).

Hallgren (1957) investigated the families of enuretics and concluded that enuresis tended to be "familial" and perhaps in some cases, genetically determined. He made the point that it appeared to be the predisposition to enuresis that was inherited, the actual development of the symptom being dependent upon environmental and precipitating factors. These environmental factors consisted of strains and tensions within the family, similar in nature to those given by Powell (1951) and Bostock (1951). It might, therefore, be argued that enuresis might be familial even in the absence of any genetically-determined predisposition. Consequently there still remained considerable doubt as to the extent of the role played by inheritance in the occurrence of enuresis.

Enuresis was associated with neurosis by Gerard, who felt that the majority of her cases presented definite neurotic patterns of behaviour, wetting representing one symptom in the syndrome. (GERARD, 1939). Michaels, on the other hand, proposed the theory

that many enuretics might be of a distinctive character type, neither neurotic nor psychotic. His view was that persistent enuresis might be an indication of a psychopathic personality. (MICHAELS, 1941, 1954). These two opinions might not be conflicting; there might in fact be two widely different causes of enuresis.

Those authors who have used learning or conditioning techniques in the treatment of enuresis have also differed in their interpretations of the problem. Thus, Mowrer and Mowrer (1938) and Seiger (1952) treated enuresis with a high degree of success without postulating any "physical" or "physiological" causes. They used a "psychological" method based on learning theory. Crosby (1950), however, who also treated his cases by a method of conditioning, felt that enuresis was not of anatomical, pathological or psychological origin, but was an entity or state arising from physiological activity. Hodge and Hutchings (1952) took an even more "physiological" point of view. They attributed enuresis to a failure or delay of the cerebral adaptive mechanisms, an inability readily to effect the appropriate learning circuits because of a delayed cerebral maturity. They suggested that cerebral adaptation might be facilitated by the action of amphetamine sulphate (benzedrine). Thus, although a process of learning seemed to be implicit in all these forms of treatment, the authors' interpretations of "learning" and how it might be facilitated appeared to be quite different. It may be of interest to recall that Walton and Black (1958), in their treatment of stammering by the application of learning theory, ~~also~~ suggested

the use of ~~amphetamines~~ dextedrine, but they related the effect of the drug to conditioning and type of personality.

It was felt that many of the reported findings were invalidated because of the insufficient use of control groups. Thus, for example, no control group was mentioned by Anderson, (1930), Beverly (1933), Burt (1940), Stockwell & Smith (1940), Gerard (1939), Stalker & Band (1946), Bachet (1951), Bostock (1951), Turton & Spear (1953), Wiesenhutter (1954), Ditman & Blinn (1955) or Bental (1960). Boyd (1959) used two groups of hospitalized children. It was therefore doubtful whether the non-enuretic group could be regarded as a "normal" control group. It would have been interesting and useful to have compared both of these groups with groups of non-hospitalized children. Similarly, Hallgren (1957) used controls within the same families as the enuretics and concluded that there was a tendency for enuresis to be familial. Additional controls drawn from outside the families under investigation might have put the findings into a different perspective.

It appeared, however, from the literature that the causes operating to produce enuresis were largely psychological and that further research was warranted into the specific factors which had been associated with enuresis by many authors.

### 3. SCHOOL PHOBIA.

The term "school phobia" has been criticized by some writers and "separation anxiety" has been suggested instead as being more accurate. (JOHNSON,1957; EISENBERG,1958). However, in the present research the term "school phobia" has been retained because it is now firmly established in the literature and in everyday life and is therefore difficult to change. The term describes a well-recognised childhood disorder of which a dread of school is the chief symptom and to put the emphasis on the symptom rather than on the underlying causes may be regarded as justifiable. (EISENBERG,1958).

Eisenberg pointed out that the phobic child was unable to go to school and unwilling to leave home at all during school hours. He was often unable to specify what he feared, or he offered rationalizations in explanation of his behaviour. (EISENBERG,1958). Waldfogel referred to a morbid dread of the school situation and a fear attached to almost anything connected with school. (WALDFOGEL et al.,1957). The severe anxiety and the inability to face school seemed to be characteristic of school phobia and to distinguish it from truancy, a point which several writers have noted. "The syndrome relating to truancy is probably as different from the syndrome relating to school phobia as from any other syndrome we are familiar with in Child Guidance work". (GREEN,1959). Talbot



found that school phobia differed from truancy in that the phobic child had terror about being in school and that he might flee school in a panic, but, unlike the truant, he dashed straight home to the mother. (TALBOT,1957). A further distinction between the two types of case was the anti-social nature of truancy. Eisenberg found the truant to be an indifferent student, to cut classes and spend time away from home, frequently for anti-social purposes - a rebel against authority, while the phobic child, on the other hand, was average or better intellectually and did well academically. (EISENBERG,1958). Truancy has also been associated with delinquency, such as lying and stealing, but no such association has been found between school phobia and delinquency. (DAVIDSON,1960).

In an investigation of persistent non-attendance at school, Hersov concluded that school phobic children came from families with a higher incidence of neurosis; they were passive, dependent and overprotected, but exhibited a high standard of work and behaviour at school. Their school phobia was one manifestation of psychoneurosis. Truants, on the other hand, came from larger families where home discipline was inconsistent. They had changed school frequently and their standard of work was poor. Their truancy was an indication of a conduct disorder which involved other delinquent behaviour. (HERSOV,1960).

In a much earlier investigation into 50 cases of truancy, Partridge had divided the cases into four categories, one of which

he described as psycho-neurotic. In this group he felt that the trouble was endogenous - the result of a conflict of motives - not referable to the environment, but to an emotional situation. (PARTRIDGE,1939). It seemed most likely that this group might now be described as cases of school phobia.

Other researches into truancy also appeared to support the distinction between truants and school phobics. Thus Tyerman associated truancy with failure in school, both in work and relationships. He found that truants had often been with-held from school by the parents and showed faulty discipline and anti-social behaviour. The parents showed a general irresponsibility. (TYERMAN,1958). Young compared 40 truants with 40 controls. He found that the truants tended to be duller intellectually; that there was defective discipline in the homes; that their parents were indifferent to the children's behaviour or were absent from home; or that the parents were weak morally, intellectually or physically. (YOUNG,1947). These descriptions of truants did not appear to be applicable to school phobic children, but served to strengthen the belief that truancy and school phobia were two entirely different entities.

There appeared to be little evidence of any difference between the sexes in the incidence of school phobia. Talbot investigated 16 boys and 8 girls. (TALBOT,1957). Burns investigated 13 boys and 10 girls.(BURNS,1952). Bakwin, on the other hand, stated that school phobia was more frequent in girls.(BAKWIN,1960).

Coolidge referred to 16 girls and 11 boys. (COOLIDGE et al.,1957). Davidson found the sexes to be equally divided, and Johnson investigated 4 girls and 4 boys. (JOHNSON et al.,1941). In the present research it was felt that the sexes were equally divided; the numbers included in the research were 22 boys and 24 girls.

Separation anxiety seems to be often accompanied by a variety of other symptoms, many of them physical, (EDELSTON,1943), and the same point has been made by several authors with reference to school phobia. Talbot mentioned pallor, trembling, nausea, sleep disturbances, stomach upsets and other symptoms of anxiety. (TALBOT,1957), and Green (1959) drew attention to the claustrophobic reactions to school assembly and similar occasions, the common occurrence of symptoms such as nightmares and nightfears and many other indications of generalized anxiety. Johnson maintained that there always occurred at the onset in the child some acute anxiety which aroused conflict and was manifested in hysterical or compulsive symptoms; all cases had histories of night-terrors, temper tantrums, asthma or eczema or similar indications of anxiety. (JOHNSON et al., 1941,1957). Similar descriptions including somatic symptoms, depression and signs of withdrawal have been given by several authors. (BAKWIN,1960; BURNS,1952; DAVIDSON,1960; EISENBERG,1958; HERSOV,1960; WALDFOGEL et al.,1954,1957).

The physical symptoms that have been described were not present at all times; they usually disappeared when the period of stress had ended. Bakwin stated that the symptoms disappeared when the morning

episode had passed, or at week-ends or holidays. (BAKWIN,1960). Nausea and abdominal pains were found to occur in the mornings before school and the children became pale, tremulous and fearful when pressure was employed to get them to school. (HERSOV,1960). Somatic symptoms involving the gastro-intestinal tract, and complaints of sore throat, headaches and the like, were all devices to remain at home; they easily vanished. (WALDFOGEL et al.,1957). In many cases, therefore, it seemed that the physical symptoms might be generated by acute anxiety.

It has been suggested that in a few of the most severe cases there may be a constitutional factor involved. Thus Burns felt that in a few severe cases treatment was difficult and not necessarily successful; he formed the opinion that the condition was constitutionally conditioned to such an extent as to render psychotherapy a doubtful proposition altogether. (BURNS,1952). Eisenberg, too, wrote that the history of early sensitivity to change in these children as infants suggested that an intrinsic anxiety proneness might exist, which rendered them more susceptible to the acquisition of these patterns. (EISENBERG,1958).

The fact that phobias occur in clusters rather than alone was emphasized by Dixon and de Monchaux, who felt that it was, therefore, misleading to consider phobias as isolated symptoms. They suggested that there was no justification for the isolation of specific phobias as clinical entities merely because of the patient's emphasis on one particular stimulus to anxiety, and that

two patterns of phobic symptoms might be recognised - (a) the threat of separation, helplessness and loneliness - a general class of separation anxieties, and (b) the fear of injury, hurt and pain - a general class of castration anxieties. (DIXON & de MONCHAUX, 1957). Waldfogel et al., however, took the view that anxiety, when traced to its source, was invariably found to originate in the child's fear of being separated from its mother. (WALDFOGEL et al., 1957).

So far as school phobia was concerned, there seemed to be agreement between many investigators that there was a relationship of mutual dependency between the child and the mother and that this might be the underlying cause of the school phobia. Johnson wrote that the mother's dependency needs were recognised and appreciated by the child; that there was a dependency relationship between the child and its mother; and that on the basis of an early, poorly-resolved dependency relationship both regressed to that earlier period. "School phobia is separation anxiety which occurs not only in early childhood, but also in later years". (JOHNSON et al., 1941, 1957). Eisenberg, (1958) believed that school phobia had been shown to be a variant of separation anxiety and Talbot (1957) referred to the deep, unhealthy involvement of mother and child as being a well-accepted phenomenon in school phobia; these anxious children still being tied to their mothers, a bond which they resented. Other authors have noted that the child was drawn to the mother and felt the need to be with her (KLEIN, 1945;

WALDFOGEL et al.,1954), that the mother might be equally involved with the child and consciously wanted the child to go to school while unconsciously preventing it; and that the parents were sometimes phobics, too. (DAVIDSON,1960).

Nevertheless, the attitude of the mother has in some cases been found to be one of rejection, although this might well have increased the feelings of dependency in the child. In a study of a pair of twin girls, one suffering from school phobia, Kagan felt that the phobic child had a fear of being abandoned or rejected and consequently felt a growing reluctance to leave the mother. The birth of a male sibling might have increased the fear of rejection by the mother and this was regarded as the precipitating cause of the school phobia.(KAGAN,1956). In a study of five cases of school phobia, Suttentfield also found that maternal rejection, preference of the parent for a sibling and excessive dependency on an overprotecting or rejecting mother seemed to be causes of school phobia. (SUTTENTFIELD,1954).

While anxiety may be a common feature of school phobia cases, aggression and hostility have also been frequently reported. School phobic girls in particular have been found to have a tendency to aggressive behaviour (BURNS,1952) or to be "aggressively defiant" (JOHNSON,1941). Johnson also referred to the school phobic child's hostile rages and hostile destructive wishes against the parents. Davidson related the disturbance within the child to an increase in hostility at puberty and felt that the tolerance of hostility was an important factor in phobic cases. (DAVIDSON,1960). There seemed

to be little doubt, too, that both anxiety and aggressiveness might be found in the same child in different circumstances, as Hersov pointed out. He found that school phobic children were often timid, inhibited and passive outside the home, but wilful, stubborn and demanding within the home. Away from home 37 cases were timid and inhibited, 9 friendly and 4 aggressive, while within the home 37 cases were demanding and 13 passive and obedient. Hersov also referred to evidence of hostility and aggressive behaviour, both verbal and physical (HERSOV,1960).

Klein suggested that the refusal to go to school could be broken down into three component motives, - anxiety, aggression and secondary gain; the dread of going to school occurred in children with repressed aggressive impulses toward a parent on whom they were greatly dependent. (KLEIN,1945). The hostile dependent relationship between the child and the mother, with consequent feelings of guilt related to aggression, was also elaborated at some length by Coolidge et al.(COOLIDGE et al.1962).

Some authors have adopted an analytically oriented approach to the problem and have referred to the oedipal situation which may arise between the child and the parents. Thus Davidson wrote of the increase in hostility at puberty, when the child tried to solve its revived Oedipus conflict with a bid for greater independence - or, in the case of girls, with renewed rivalry with the mother. So long as the child was regarded as a baby the danger of the Oedipus conflict could be denied, but outside evidence that he was growing up might

make this difficult to maintain. When the old defences had broken down, mother and child resorted to more primitive ones and needed reassurance by each other's constant presence that no harm had resulted from their hostile impulses. Immaturity was a failure to face the Oedipus conflict, maturity meant overcoming it. (DAVIDSON,1960).

Klein related the dread of going to school to castration anxiety and masturbation guilt and expressed the opinion that these children were fixated at the oedipal or pre-oedipal level; that an increase in sexual longing, fear or guilt toward the parents reactivated the oedipal or pre-oedipal fear of sexual injury of the mother, or injury to the mother by a projected aspect of the child's oral-sadistic impulse, or desertion by the mother. (KLEIN, 1945). Hersov also found that with older, often pubertal, boys, there was evidence of castration anxieties. (HERSOV,1960). Klein and Hersov mentioned castration anxiety specifically; most authors have related school phobia to separation anxiety.

Coolidge et al. felt that the mother's guilt about her own hostile impulses underlay a similar concern in the child and was the source of his prodigious anxiety, the mother's hostility toward her child being derived from her unresolved dependency upon her own mother. School phobia thus became explicable in terms of the anger, guilt and anxiety of the mother and the child, and the expression of these feelings became inappropriate and problematical for both of them. (COOLIDGE et al.,1962).



Some authorities took the view that school phobia was a neurosis, while others felt that in some cases there was a much deeper and more serious disturbance. School phobia was described as a true phobia by Suttentfield, who felt that the anxiety became detached from a specific situation in daily life and was displaced to some symbolic idea or situation in the form of a neurotic fear. (SUTTENTFIELD,1954). The interpretation of school phobia as an acute neurosis in some cases was supported by Burns, who found that sometimes the anxiety took on an extreme and compulsive quality; that it was difficult to establish rapport with the children, but that they were not withdrawn in the schizoid sense; that they were hypersensitive, but not schizophrenic, and were extreme forms of school phobia. (BURNS,1952). Johnson's opinion seemed to be in close agreement with this. She felt that school phobia did not seem to be a qualitatively new and specific entity, but was a symptom developing under very definite circumstances; it was not clear why there should be a division of cases, as suggested by Coolidge et al., into "neurotic" and "characterological"; and that the latter group were just more insidious and possibly longer in onset than the other. (JOHNSON, 1941,1957). Finally, in support of the attitude that school phobia is a form of neurosis, may be quoted Hersov, who regarded the refusal to attend school not as a clinical entity but as one aspect of behaviour in an affective disorder. He divided 50 cases into

diagnostic categories as follows:- anxiety reaction (27), hysterical reaction (5), obsessional disorder (2), depressive reaction (10) and reactive behaviour disorder with some neurotic features not amounting to a psychoneurotic syndrome (6). (HERSOV,1960).

On the other hand and taking a more serious view, Klein related school phobia to a primitive regressive fear, in older children of a paranoid nature simulating schizophrenia. It was suggested that the fear of school failure, especially in adolescents, might result in a schizophrenic-like picture; and that shame about school failure reactivated a paranoid shame at inability to control one's sexual impulse. (KLEIN,1945). Waldfogel et al. investigated 20 cases; they regarded 15 as anxiety reactions with a displacement of unconscious fears on to some aspect of the school situation; the other 5 cases seemed to represent a more serious disturbance of the ego and were marked by paranoid schizoid or depressive features. (WALDFOGEL et al.1954). In a later article Waldfogel et al. confirmed their view that school phobia represented a neurosis with displacement of anxiety and symptom formation, especially in younger children; but that in older children it might represent a character disturbance, with depressive or paranoid features and with fixation of infantile conflicts that finally emerged in the phobic symptom; but that the "neurotic" and "characterological" types of school phobia might, nevertheless, be a continuum. (WALDFOGEL et al.,1957). Coolidge et al. also

found that there were "neurotic" and "characterological" cases of school phobia, the latter more deeply disturbed from an earlier age and with less acute onset. (COOLIDGE et al., 1957). In a later article Coolidge et al. expressed the idea of a continuum; they felt that school phobia might be associated with widely varying degrees of emotional disturbance, ranging all the way from transient anxiety states - reflecting a developmental or external crisis - to severe character disorders bordering on psychosis; they now observed a definite and direct relationship between the age of the child and the severity of the disturbance - a finding which Eisenberg had reported earlier; they found that in older groups the prognosis was unfavourable, that in adolescence school phobia could be a prodromal sign of schizophrenia and that signs of a generalized withdrawal from reality and of delusional thinking were present. (COOLIDGE et al., 1960).

An interesting comparison was provided by a description of six cases (2 boys and 4 girls) of schizophrenia in childhood by Warren and Cameron. Among the many symptoms reported there were included, - a loss of scholastic efficiency coupled with a high level of aspiration; headaches and other physical symptoms; acute anxiety; schizoid reactions; depression; unusually "good" behaviour in the boys and shyness and timidity in the girls; and a strong attachment to the mother. The authors concluded that acute psychotic episodes might occur in adolescence; that severe anxiety was characteristically present and a depressive colouring frequent;

and that the psychotic episode was usually determined by marked situational stress in an adolescent undergoing severe psychosexual conflict often related to an undue attachment to the heterosexual parent. (WARREN & CAMERON, 1950). There seemed, therefore, to be a marked similarity between some cases diagnosed as "schizophrenic" and others classified as "school phobic", and the two classes appeared to have several features in common. It seemed likely that in the event of adolescent disturbance there might well be differences of opinion and difficulties of decision as to which diagnosis might be the more accurate.

It has been pointed out by several authors that in cases of school phobia separations of the child from the parents have been infrequent. Davidson found that separations and illnesses in early life were uncommon, (DAVIDSON, 1960), and Hersov noted that there had been less experience of maternal and paternal absence in infancy and childhood. (HERSOV, 1960). Hitchcock compared a group of children having learning disability with a group having school phobia and found that to a significantly greater extent the disability group had experienced during their first school years a greater number of illnesses, accidents and losses of loved ones through death and separation. (HITCHCOCK, 1956). The infrequency of separation, therefore, may well be related to the growth of separation anxiety. Moreover, it has been suggested that, as part of the treatment for school phobia, the child should whenever possible be made to attend school. Thus Suttentfield stated that it

was important to get the pupil back to school as soon as possible. (SUTTENFIELD,1954). Waldfogel et al. felt that the outlook was favourable if the mother continued to exert pressure to conform to the demands of the school; that the child should be kept at school if possible, regardless of his or his mother's distress; and that autonomy in the mother and the child was desirable and should be encouraged. (WALDFOGEL et al.,1959). Davidson made the point that the need for compromise and concession and adjusting the demands to the child's capacity extended to the school, whose co-operation and understanding could be enormously helpful in getting the child back to school. (DAVIDSON,1960).

There appeared, therefore, to be some measure of agreement that separation of the child from the parents has not occurred in school phobic children as frequently as is usual with other children; that in the usual course of events the child learns to accept separations and becomes adjusted to them; and that the failure to experience separations may well be a factor in the growth of separation anxiety, in the treatment of which separation may have to be encouraged and even enforced. School phobic children have, indeed, frequently been treated successfully by an enforced separation from the parents, such as placement in a residential school or a hostel or a remand home. While psychotherapy alone may be successful in some cases, there is little evidence that it is so in all, or even in the majority of cases.

The infrequency of separation in early childhood, the need to keep the phobic child at school if possible and the success of enforced separation from home may have meaning in terms of adjustment, conditioning and learning theory, that is, in non-psychiatric terms. It seems feasible to interpret these findings along the lines of need reduction, secondary drive and reinforcement. The successful outcome of placement in a residential school or hostel would seem to indicate that in some cases of school phobia the child can learn to bear separation from the mother with diminishing anxiety and can learn to attend school with increasing ease and satisfaction. The eventual return home does not usually bring about a relapse, nor are "substitute" symptoms usually generated.

To summarize, school phobia has been attributed to or associated with several other factors, such as a constitutional predisposition to anxiety (BURNS,1952; EISENBERG,1958); separation anxiety (JOHNSON,1941,1957; EISENBERG,1958; TALBOT,1957; KLEIN,1945; WALDFOGEL et al.,1954; DAVIDSON,1960); castration anxiety (KLEIN, 1945; HERSOV,1960); rejection by the mother (SUTTENFIELD,1954; KAGAN,1956); aggressiveness (BURNS,1952; JOHNSON,1941; KLEIN,1945; DAVIDSON,1960; HERSOV,1960; COOLIDGE,1962); depression (WALDFOGEL et al.,1954,1957; HERSOV,1960); psychoneurosis, immaturity or guilt (KLEIN,1945; SUTTENFIELD,1954; DAVIDSON,1960; HERSOV,1960; COOLIDGE et al.,1962); possible psychosis with paranoid and schizophrenic features (KLEIN,1945; WALDFOGEL et al.,1954;

COOLIDGE et al., 1957, 1960).

Several of these "causes" and concomitants of school phobia may operate simultaneously.

Several of the researches cited seemed to have samples that were too small for valid conclusions to be drawn about school phobia. Thus Kagan (1956) reported only one case, Suttentfield (1954) five cases, Johnson et al. (1941) eight cases, Klein (1945) eight cases and Warren and Cameron (1950) six cases. It was, therefore, difficult to assess the weight that should be attached to their findings.

There was usually no indication in the researches quoted that control groups had been used. Thus, no mention of control groups was made by Burns (1952), Davidson (1960), Eisenberg (1958), Klein (1945), Coolidge et al. (1957, 1962), Johnson (1941), Partridge (1939), Suttentfield (1954), Talbot (1957), Waldfogel et al. (1954, 1957, 1959), or Warren and Cameron (1950). Hitchcock (1956) compared school phobics with another clinic group, but not with a group of "normal" controls. Of the researches quoted, only that of Hersov (1960) was satisfactory from this point of view.

Several differences of opinion between authors have been expressed or implied. Thus, the state of "mutual dependency" supposed by several authors (e.g. JOHNSON, 1941; TALBOT, 1957), to exist between the mother and the child did not appear to be entirely compatible with the maternal rejection found by others (e.g. SUTTENTFIELD, 1954; KAGAN, 1956). In fact, Davidson stressed that the relationship between the mother and the child was one of ambivalence

and not rejection (DAVIDSON,1960). Coolidge (1957) felt that the social adjustment of school phobic children was poor and that their friendships were hard to make and ambivalent, but Burns (1952) found that school phobics were not unsociable and that they could play normally with their fellows.

Waldfogel et al.(1954,1957) and Coolidge et al.(1957) distinguished two types of school phobia - the neurotic and the characterological, the latter being regarded as a much deeper and more severe disturbance. On the other hand, Johnson (1957) did not accept this division into two categories, but felt that the latter group were essentially similar to the former, being merely cases of longer standing and more insidious onset. Burns (1952) also felt that some cases were merely more extreme than others without being fundamentally different. The grouping of cases into five categories by Hersov (1960) seemed to emphasise further the difficulties of diagnosis. It might be possible that the only common feature in some cases is the failure to attend school.

Dixon and DeMonchaux (1957) proposed a general class of separation anxieties and a general class of castration anxieties. Some authors have regarded school phobia as a form of separation anxiety (e.g. JOHNSON,1941; EISENBERG,1958; TALBOT,1957), while others have suggested that castration anxiety was present (KLEIN, 1945; HERSOV,1960). This seemed to be a point which might well be further investigated and clarified.



The usual approach to the problem of school phobia seemed to be clinical investigation of the child and family. Even if no other method were available, further research still appeared to be necessary to determine the relevance of the many factors that have been suggested and to assess their relative importance. For the most part, the explanations of school phobia that have been put forward have been expressed in psychiatric or psychoanalytic terms, such as "guilt", "regression", "immaturity", and "oedipal conflict". These concepts might be relevant to the problem, but there seemed to be little objective evidence that this was so. The opinions that have been quoted appeared to be heavily dependent upon clinical impressions and unverified psychoanalytic theory.

General comments and criticisms of the literature on stammering,  
enuresis and school phobia.

So far as could be ascertained from a study of the literature, no comparison of these three clinical groups had been made before, nor had any objective tests been given to groups of stammerers, enuretics and school phobics in a comparative study of the present kind. The present research consists essentially of such a comparison and the comments and criticisms which follow were made from this point of view.

An interesting feature of the investigations into stammering and enuresis was the similarity in the approaches that have been made. Both of these disorders have been attributed to physical, constitutional and hereditary causes; researches and treatment of a clinical nature have been carried out; and attempts have been made to base explanations and treatment on psychoanalytic theory and learning theory. This many-sided attack has seemed in itself to be an indication of the difficulties and failures which have been experienced with these cases. The recognition of school phobia as a distinct problem has been more recent, but it now seems to have become apparent that school phobia, too, may represent a disorder of a particularly difficult kind.

Many writers have given their separate descriptions of stammering or enuresis or school phobia, but when these descriptions are compared, as in the present research, the reader is as impressed by the similarities between the three categories as by the differences. The terms that have been used have described the cases, but have often failed to distinguish them sufficiently. Thus Despert wrote of stammerers that they were timid, with numerous intense fears and with nightmares; that they were anxious and hostile; and that the girls were less severe cases of stammering than were the boys. (DESPERT, 1946). Gerard described enuretics as stubborn, aggressive and antagonistic; as passive, retiring and afraid of physical injury; and the girls appeared to be more normal than the boys. (GERARD, 1939). Davidson found school phobic boys to be passive, timid, immature, babies still attached to their mothers and afraid of bigger, rougher boys and physical pursuits, but also aggressive and hostile; the girls were more mature emotionally, popular, had friends and were more active and outgoing than the boys. (DAVIDSON, 1960). These descriptions have not helped to differentiate between the three kinds of case; on the contrary, they have shown the extent to which the three categories might be regarded as parallel.

Stammering, enuresis and school phobia have each been regarded by some writers as "familial". Barbara and Burt referred to a familial tendency to stammer (BARBARA, 1956; BURT, 1937) and Meyer

considered the possible factors responsible for the tendency for stuttering to occur in families. (MEYER,1945). Hallgren found enuresis to occur more frequently in families, the morbidity risk for nocturnal enuresis among parents and siblings of enuretics being significantly higher than among the general population. (HALLGREN,1957). Davidson noted that some mothers of school phobics had themselves been school phobics. (DAVIDSON,1960), and Coolidge et al. felt that the mother of the school phobic child had an unresolved dependency on her own mother.(COOLIDGE et al.,1962). It might or might not have been implied in these findings that there was any inherited or genetic factor in these disorders. Meyed doubted it in stammering but nevertheless admitted that the tendency to stutter might be part of a complex hereditary pattern. (MEYER,1945); Hallgren concluded that there was a genetic factor in some cases of enuresis (HALLGREN,1957); and it was hinted by Burns (1952) and Eisenberg (1958) that school phobia might have an inherited factor in some cases. On the other hand, it might merely be that the relationships within the family were such as to produce in the children the same disorder as existed in the parent. In any event, the description of a disorder as "familial" has not been useful in distinguishing between the three kinds of case.

When hereditary factors have been discounted and attempts have been made to relate stammering, enuresis and school phobia to the home and family influences, the explanations given have

been very similar for each disorder. Fawcett and McCulloch (1964) related stammering to anxiety and conflict within the home, to strictness, perfectionism, aspiring mothers and passive fathers. Meyer (1945) found that the stutterer was reared in an emotionally turbulent atmosphere in which stability and security were conspicuously absent. Powell (1951) listed the factors possibly contributing to enuresis and he included the emotional instability of one or both parents, parental and sibling conflicts, punishment or inconsistency by the parents in attempts toward enuresis control and overprotection by the parents. Hallgren also concluded that enuresis might result from unfavourable environmental influences disturbing the emotional security of the child; in particular the mother-child relationship was probably involved. (HALLGREN, 1957). School phobia has been related to a high incidence of neurosis within the family, high standards of work and behaviour at school, overprotection by the mother, demanding mothers, passive fathers and inconsistent handling of the child by the parents. (HERSOV, 1960). There seemed little doubt that, if other groups of different clinical status had been investigated, the same or very similar conclusions might have been reached.

Investigators with a psychoanalytic approach have also "explained" stammering, enuresis and school phobia in similar ways. Fenichel (1955) regarded a stammer as a pregenital conversion. Coriat (1928, 1943) related stammering to pregenital impulses which had not been overcome in the course of adult development. He found

that some cases also revealed a regression tendency toward the urethral-erotic stage. There was also in stammerers an unconscious tendency to retain the original libidinal binding to the mother, because stammerers did not wish to abandon the original infantile helplessness and thus lose the early nursing object; the stammerer thus retained his mother into adult life. (CORIAT,1943). Michaels felt that in the enuretic psychopath pregenital levels were dominant, with difficulty in surmounting the urethral stage; persistent enuresis demonstrated the lack of sublimation of the urethral erotic component and probably had its roots in the pregenital levels. (MICHAELS,1941). Coolidge et al. (1957) found school phobics to be fixated at the pregenital stage, while Davidson (1960) and Klein (1945) referred to the difficulty of school phobic children in overcoming the oedipal conflict and to their fixation at the oedipal or pre-oedipal level. Many authors have mentioned the dependency relationship between the child and the mother in cases of school phobia. These remarks seemed to attribute all three disorders to the same cause - fixation at an infantile level of development, while throwing little light on the question of differences of symptom manifestation.

The "explanation" of the disorder has sometimes seemed to depend upon the orientation of the author. Thus, of stammering, Burt wrote that it occurred in the child who was emotional, shy, sensitive, self-conscious and with marked tendencies towards anxiety and repression. (BURT,1937). Of enuresis, Burt felt that it might be due to an acute emotional disturbance; that it

appeared to be an anxiety symptom, or it might be a symptom of repressed resentment or defiance. (BURT,1940). Both disorders seemed, therefore, to originate in a similar kind of way.

In the same way, Wiesenhutter explained stammering and enuresis along similar lines. Stammering was described as the vocal expression of a crisis in a predominantly masculine type of self-assertion - a difficulty in individuation and self-assertion. Enuresis was attributed to the child's problem in handling aggressiveness - a problem with aggressiveness and in "becoming a person". (WIESENHUTTER,1954,1955). Both disorders were thus attributed to almost precisely the same cause. To this might be added the difficulties which school phobic children have in handling their aggressiveness, as reported by several writers (KLEIN,1945; DAVIDSON,1960; COOLIDGE et al.,1962; and others), and the "problem with aggressiveness" is seen to be a common feature of all three kinds of case.

Similarly it has been suggested, as indicated in the present brief accounts of each disorder, that each of the three kinds of case might be described as "immature" or "neurotic", or might have a disorder of "personality" or a specific kind of "personality". The vagueness of meaning and the omission of definitions of these and many such terms has detracted from the value of many researches. Poser and Lee have made this same criticism in a similar context... that "terms such as immaturity, insecurity and guilt are meaningless

unless operationally anchored". (POSER & LEE,1963).

Selecting from the comments and explanations that have been offered in the literature a description of a child might be given in such terms as the following:- timid, nervous and lacking confidence; emotionally disturbed; aggressive, hostile, stubborn and wilful; immature; fixated at or regressed to an infantile level; failing to learn the appropriate habits; neurotic; showing a specific configuration of personality or a distinctive personality type; and exhibiting a "familial" pattern of behaviour, perhaps with a constitutional or hereditary element, or perhaps arising from conflicts and tensions within the family.

Such a description might be applied with equal pertinence to a stammerer, an enuretic or a school phobic; or indeed to a "normal" child, if by "normal" is meant non-stammerer, non-enuretic or non-school phobic or not referred to a child guidance clinic for any reason.

The work of several investigators has been made less valuable because of the small numbers of cases reported. This criticism might be applied with equal force whatever the kind of research, whether it is a clinical inquiry or an experiment in the application of learning theory. Reports that have been based on small numbers of cases may be of value only as leads to further and wider inquiry and a generalization based on the existing findings might be unreliable.

Attention has been drawn in each of the sections on stammering, enuresis and school phobia, to the fact that insufficient use has



been made of control groups in the majority of the researches quoted. A fuller explanation is now given as to why this criticism has been made. The comparison of one clinic group with one control group cannot be regarded as adequate, because even if significant differences were found between the groups it could not be assumed that the differences were characteristic of that particular clinic group. The findings might in fact apply equally to other groups of different clinical status. Thus some of the results that have been reported in the literature in respect of stammerers might also have been found if enuretics or school phobics had been used instead. It seems to be necessary, therefore, that investigations should be carried out with several groups, each acting as a "control" on the others. The use of no control group, as with many of the researches reported in the literature, has meant that little weight could be given to the results of the investigation.

The bulk of the research into stammering, enuresis and school phobia has been carried out by clinical investigation. This method is very unreliable, since the clinical impressions and interpretations of cases may differ widely between different investigators. Moreover, such impressions are usually unquantifiable, so that an accurate comparison with the findings of other workers is impossible.

The majority of the researches that have been quoted seem to have been characterized by an absence of objective tests and

standardized procedures. The standardized procedures that have been used have been applied mainly to stammerers. They have included attitude tests (JOHNSON,1955); the Kent-Rosanoff Test, the Woodworth-Matthews and Woodworth-Cady Tests (McDOWELL,1928); an abilities test, a questionnaire and the Thematic Apperception Test (RICHARDSON,1944); the Rorschach Inkblots (KRUGMAN,1946); the Minnesota Multiphasic Personality Inventory (WALNUT,1954; BOLAND,1953); a questionnaire completed by the children's teachers (FAWCETT & McCULLOCH,1964); the Rotter Level of Aspiration Board (SHEEHAN,1954); the Bernreuter Personality Inventory (BENDER,1944); and E.E.G. tracings (RHEINBERGER,1943; MICHAELS & SECUNDA,1944; TURTON & SPEAR,1953; BOYD,1959; BENTAL,1960; DITMAN & BLINN,1955).

Of these tests, only E.E.G's were used with enuretics. The objective testing of enuretics and school phobics seemed to be noticeably absent from reports in the literature.

An assessment of the usefulness of several of these measures has been made by Vernon (1953) and some of his comments are now given. The TAT and the Rorschach are well established tests and appear to be reasonably valid for differential ~~diagnosis~~<sup>diagnosis</sup>, although less so for prediction purposes. The M.M.P.I. has been shown to be of some limited value in differentiating abnormal groups from normals. The Bernreuter Personality Inventory appeared to measure four variables, but was shown to be measuring only two; it appeared to have low reliability and validity and was found by

(1946)

Ellis<sup>^</sup> to be one of the least successful questionnaires. The Woodworth questionnaire was also found to be one of the least successful. The Kent-Rosanoff Test has some value as a measure of mental abnormality if it is empirically scored, but the psychological significance of the results of the test is obscure; the relations with other tests and ratings are so inconsistent that the technique has now been abandoned. Level of aspiration tests have given unreliable and inconsistent results as between tests; they seemed to be based on oversimplified and trivial situations and reactions to them were extremely chancy and had little bearing on the manner in which a person's self-esteem operated in his real-life behaviour. E.E.G's have been found to be very useful in diagnosing epilepsy; abnormal wave forms are also produced by many psychopaths, delinquents and criminals; but although this is a reliable test of some condition of the brain which underlies certain mental abnormalities, its significance for personality is still obscure. (VERNON, 1953).

These comments on tests and techniques have been quoted briefly to support the present arguments that (a) many of the researches into stammering, enuresis and school phobia have led to results of doubtful reliability, and (b) much more work is needed using objective tests and procedures, which will have the added advantage of making possible the replication of researches by other workers.

The present research.

The present research was intended to be an 'objective' inquiry and as free as possible from subjective judgments and clinical impressions. Attention was therefore given to the following points:-

1. The selection of cases for investigation was confirmed by independent diagnosis made by other workers.
2. Variables were used which had already been well defined in the literature. (MURRAY,1938).
3. Objective tests were used as far as possible.
4. The administration of all the material was standardized.
5. The scoring of the material was carried out in as objective a manner as possible and a sample of the material was scored by an independent judge.
6. The samples used were sufficiently large for valid conclusions to be drawn.
7. Several groups were used, each group acting as a "control" for the others.
8. The conditions of the research were such as to make replication by other investigators feasible.

It was hoped that under these conditions results of greater significance and validity might be obtained.

PART III.THE PLAN AND PURPOSE OF THE RESEARCH.Selection of cases.

The plan was to select children who had been referred to a child guidance clinic and to group them according to clearly defined patterns of symptoms which were similar within each group but different between the groups. Then tests were administered which it was hoped would tap different "levels" of personality and would thus indicate whether the wide differences between the groups which were evident at symptom level really reflected any deeper differences in the personality; or whether the significant differences between the groups appeared only at the symptom level; in effect, whether any evidence might be found for the existence of a "stammering personality", an "enuretic personality" and a "school-phobic personality".

The groups selected were typical clinic cases of stammering, enuresis and school-phobia. Two "normal" groups, one of boys and one of girls, were also included as controls.

By typical clinic cases it is implied that the cases could be separated into groups quite easily on the basis of symptoms displayed. The stammerers had already been referred to the speech therapist for treatment for their stammering. The enuretics had suffered either continually or intermittently from enuresis for several years beyond the point at which normal control might be

expected. The school-phobics had been absent from school for several weeks or had attended irregularly for a long period and showed the usual symptoms of vomiting, feelings of sickness and phobias associated with going to school, with school assembly or similar situations. The controls were children selected from school who had never been referred to a child guidance clinic for any reason whatever.

Intelligence tests were given to all children as part of the clinic routine. The controls were then matched as closely as possible with the clinic cases in respect of age, sex and intelligence quotient, (see Tables 5 and 6, appendix A).

Backward children, (i.e. children having low I.Q's), children from broken homes, and delinquents, (i.e. children who had appeared before the juvenile courts), were excluded from the research. Backward children were unable to complete the tests and the introduction of additional factors, such as broken homes or delinquency, would only have served to complicate the issue unnecessarily.

#### Confirmation of diagnosis.

The diagnosis of each case and therefore the allocation of each case to its appropriate group was confirmed by the judgment of other workers. The diagnosis of stammering was confirmed by the speech therapist, that of enuresis by the psychiatrist, the psychiatric social worker or the school medical officer; and that

of school-phobia by the psychiatrist and the psychiatric social worker.

Socio-economic distribution.

(a) From the total number of children tested twenty cases were selected at random and the occupation of the father was ascertained in each case. The occupations were classified according to the Registrar General's five groups as set out in the Census, 1951, introduction, p.IX. Only one case fell into the professional group, (group 1) and none of the cases fell into the unskilled group, (group 5).

The Registrar General's classifications, the parental occupations and the classifications of the twenty cases are shown in Tables 31, 32 and 33, appendix A.

(b) The geographical locations of the schools from which the cases originated are given in Table 53, and the distribution of cases is also shown on the maps of Leicestershire in appendix C. The three types of case seemed to be fairly evenly distributed over the county and there did not seem to be any evidence that the type of case was in any way related to the area in which the school was situated.

From an inspection of (a) the parental occupations of twenty cases and (b) the geographical location of all the clinic cases, the impression was gained that the socio-economic distribution of cases was very similar for each of the groups and

that socio-economic factors had not entered to any marked extent into the classification of the cases into clinical groups on the basis of symptoms.

#### General educational background.

All the children attended school in Leicestershire, a county which had a total school population of 65,546, in 1962, (Report of the School Medical Officer, 1962). Leicestershire may be regarded as a "progressive" county in the educational sense. The Leicestershire Plan for the re-organisation of secondary education is being extended to embrace all areas of the county. Experiments in the use of new methods in the teaching of reading and number are in progress throughout the county. The teaching of languages is introduced into junior schools and teaching machines are widely used. The discipline in the schools is free and informal and every opportunity is taken to encourage the interests of the children as far as is possible.

#### Motivation.

The clinic cases were sufficiently motivated by reason of their referral and the attention that they were receiving from the various workers involved. To them the tests were a part of the clinic procedure and were readily acceptable as such.

It was explained to the controls that their help was needed in a piece of research in which children who had personal



difficulties were being compared with other children who were not troubled in this way, and that their help was voluntary and would be valuable. All the controls seemed to accept this explanation very readily and were more than sufficiently motivated to complete the tests and to perform at a high level of interest.

#### Social maturity.

It seemed that there might be a strong social component in the children's behaviour differences. The impression gained from clinical observation and case histories was that the school-phobics, because of their timidity and tendency to withdraw, would be more likely to fail in social situations in general. This might be expected to be a much more severe failure than that of the stammerers, whose failure in social situations seemed to be directly attributable to the speech difficulty. The enuretics did not appear to lack social competence at all.

An estimate was therefore made of each child's level of social adaptation and the groups were compared with respect to this variable.

#### Needs.

It has already been stated that the differences between the groups of cases might lie in the mode of expression of certain basic needs. The impressions here were that school-phobics tended to avoid blame and harm, to escape from situations of pressure and to be aggressive and hostile in the home: that enuretics seemed to

conform anxiously and thus avoided blame, but that they did not seem to avoid harmful situations to any marked extent or to behave in a solitary or unsociable way; that stammerers sometimes appeared to be aggressive and dominant, with a tendency to hasty, reckless behaviour which might well conceal feelings of inferiority, but that they did not appear to be withdrawn, unsociable or hostile.

On the basis of these intuitive impressions and in the light of clinical theories, six needs were selected from Murray's list, (see MURRAY, 1938), preference being given to those needs which seemed relevant to the supposed differences in personality between the groups. Using the definitions and criteria provided by Murray the frequency of expression of the following needs was considered:-

Aggression	(Agg.)
Dominance	(Dom.)
Autonomy	(Aut.)
Blamavoidance	(Blam.)
Infavoidance	(Inf.)
Harmavoidance	(Harm.)

These six needs seemed to be the most appropriate for throwing into relief the differences between the cases at both conscious and unconscious levels.

Murray (1938) has described the manifestations of these needs at some length. A brief outline is given here in terms of those features which seemed relevant to the present investigation.

Aggression: opposing or overcoming opposition forcefully, attacking, injuring, quarrelling or acting in a resentful, critical or domineering way. It may be associated with feelings of anger, rage or hatred.

Dominance: controlling, influencing, directing or restraining, or acting in a forceful, assertive or authoritative way. It may be associated with feelings of confidence.

Autonomy: independence, a resistance to restraint, a defiance of conventions, with wilful or stubborn opposition to demands and a tendency to seek freedom from obligations. It may mean a refusal to comply with directions or an avoidance of the dominance of authority by running away. It may be associated with feelings of anger or independence.

Blamavoidance: the avoidance of blame, rejection or punishment; acting in an inoffensive way; being inhibited, over-anxious, fearful, dutiful or apologetic. It may be associated with feelings of anxiety or guilt.

Infavoidance: the avoidance of humiliation and embarrassment; escaping from the scorn and derision of others; acting in a fearful or hesitant way, or refraining from action because of the fear of failure. It may show itself in speechlessness,

trembling, stammering or similar symptoms; by being sick in order to avoid a difficult situation; by staying in bed to escape participation; or by withdrawal or flight. It may be associated with feelings of anxiety, nervousness or shame.

Harmavoidance: the avoidance of pain or injury; escape from a dangerous situation; showing symptoms of trembling, sweating, stammering or the like; acting in a fearful, timid or anxious way; being cautious; hanging back or evading; retreating or withdrawing; having nightmares or phobias. It may be associated with feelings of anxiety, apprehension or fear.

Generally, aggression and dominance represent self-assertion and an approach-reaction; blamavoidance, infavoidance and harmavoidance represent anxiety and a withdrawal reaction; and autonomy represents the need for independence with an element of defiance.

This group of needs was regarded as having particular relevancy to cases of stammering, enuresis and school-phobia and also to the "normal" children who were used as controls. The descriptions of the manifestations of the needs as given by Murray seemed to show a similarity to the clinical descriptions of cases of stammering, enuresis and school phobia as mentioned briefly in the introduction to the present research. Moreover, the expression of these needs has been associated in the literature with cases of

stammering, enuresis and school-phobia, either directly or by implication.

### The Hypotheses.

Within this frame of reference the following hypotheses were proposed as being relevant to the question of the existence of three personality types. These hypotheses were formulated so as to be directly testable within the present research, i.e. they could be accepted or rejected on the basis of the scores actually obtained by the groups on the various tests. The hypothesized differences might show at the "admitted" level, at the "projected" level, or at both. The "admitted" level and the "projected" level were related to the questionnaire and the projective test respectively.

For brevity the questionnaire has been referred to as the Q-test and the projective test as the P-test (see PART IV, Tests and Procedures). The stammerers, enuretics and school phobias have been referred to as St., En., SPB. (boys) and SPG. (girls); and the control boys and girls as CB. and CG. These abbreviations have been used throughout the research.

### The hypotheses were as follows:-

#### That on measures of aggression:-

the St. would not differ significantly from the controls on the  
Q-test.

the St. would have significantly higher scores than the controls  
on the P-test.

cf. BAKWIN,1960; FAWCETT & McCULLOCH,1964; FENICHEL,1955;

DESPERT,1946; KRUGMAN,1946; McALLISTER,1958; MONCUR,1955.

the En. would not differ significantly from the controls on the  
Q-test.

the En. would have significantly higher scores than the controls  
on the P-test.

cf. ANDERSON,1930; BEVERLY,1933; BURT,1940; GERARD,1939,

STOCKWELL & SMITH,1940; WIESENHUTTER,1954.

the S.P. would have significantly lower scores than the controls  
on the Q-test.

the S.P. would have significantly higher scores than the controls  
on the P-test.

cf. COOLIDGE et al.1957,1962; DAVIDSON,1960; HERSOV,1960;

KLEIN,1945; JOHNSON,1941; WALDFOGEL et al. 1954,1957.

That on measures of dominance:-

the St. would not differ significantly from the controls on the  
Q-test.

the St. would have significantly higher scores than the controls  
on the P-test.

cf. BENDER (in RICHARDSON) 1944; FAWCETT & McCULLOCH,1964;

McALLISTER,1958; WIESENHUTTER,1955.

the En. would not differ significantly from the controls on the  
Q-test.

the En. would have significantly higher scores than the controls  
on the P-test.

cf. GERARD,1939; STOCKWELL & SMITH,1940.

the S.P. would have significantly lower scores than the controls  
on the Q-test.

the S.P. would have significantly higher scores than the controls  
on the P-test.

cf. DAVIDSON,1960; HERSOV,1960; KLEIN,1960.

That on measures of autonomy:-

the St. would not differ significantly from the controls on the  
Q-test.

the St. would have significantly lower scores than the controls  
on the P-test.

the En. would not differ significantly from the controls on the  
Q-test.

the En. would have significantly lower scores than the controls  
on the P-test.

the S.P. would have significantly higher scores than the controls  
on the Q-test.

the S.P. would have significantly higher scores than the controls  
on the P-test.

cf. COOLIDGE et al.,1957; DAVIDSON,1960; HERSOV,1960; JOHNSON,1941;  
TALBOT,1957; WALDFOGEL et al,1957,1959.

That on measures of blamavoidance:-

the St. would have significantly lower scores than the controls  
on the Q-test.

the St. would have significantly lower scores than the controls  
on the P-test.

(refs. below under harmavoidance).

the En. would have significantly higher scores than the controls  
on the Q-test.

the En. would have significantly higher scores than the controls  
on the P-test.

(refs. below under harmavoidance).

the S.P. would have significantly higher scores than the controls  
on the Q-test.

the S.P. would have significantly higher scores than the controls  
on the P-test.

(refs. below under harmavoidance).

That on measures of infavoidance:-

the St. would have significantly higher scores than the controls  
on the Q-test.

the St. would have significantly higher scores than the controls  
on the P-test.

(refs. below under harmavoidance).

the En. would not differ significantly from the controls on the  
Q-test.

the En. would not differ significantly from the controls on the  
P-test.

(refs. below under harmavoidance).

the S.P. would have significantly higher scores than the controls  
on the Q-test.

the S.P. would have significantly higher scores than the controls  
on the P-test.

(refs. below under harmavoidance).



That on measures of harmavoidance:-

the St. would have significantly lower scores than the controls  
on the Q-test.

the St. would have significantly lower scores than the controls  
on the P-test.

cf. BAKWIN,1960; BURT,1937; BOLAND,1953; DESPERT,1946; FAWCETT  
and McCULLOCH,1964; McALLISTER,1958; SHEEHAN et al.,1954,1955;  
WALTON & BLACK,1958.

the En. would not differ significantly from the controls on the  
Q-test.

the En. would not differ significantly from the controls on the  
P-test.

cf. ANDERSON,1930; BAKWIN,1949; BEVERLY,1933; BURT,1940;  
GERARD,1939; STALKER & BAND,1946; STOCKWELL & SMITH,1940.

the S.P. would have significantly higher scores than the controls  
on the Q-test.

the S.P. would have significantly higher scores than the controls  
on the P-test.

cf. COOLIDGE et al.,1960,1962; DAVIDSON,1960; EISENBERG,1958;  
GREEN,1959; HERSOV,1960; JOHNSON,1941, KLEIN,1945; TALBOT,1957;  
WALDFOGEL et al.,1954,1957.

That on social maturity the S.P. would have significantly lower  
scores than the controls.

cf. COOLIDGE et al.,1957; DAVIDSON,1960; HERSOV,1960; KLEIN,1945;  
WALDFOGEL et al.,1954; KELLMER-PRINGLE,1951.

The reports in the literature frequently associated stammering, enuresis and school phobia with a need for aggression or dominance, which might be repressed. The hypotheses relating to aggression and dominance were framed with this in mind. It was felt that the repression might be greatest in the case of the school phobics in view of their overt timidity and withdrawal.

The need for autonomy appeared to relate particularly to school phobia and was mentioned three times in the researches quoted (COOLIDGE,1957; WALDFOGEL,1957,1959). It seemed that school phobic children might feel a strong need for independence with an element of defiance, but this did not seem to apply to the stammerers or the enuretics. A high degree of expression of this need was therefore hypothesized for the school phobic groups at both questionnaire and projective level.

Blamavoidance, infavoidance and harmavoidance were not mentioned specifically in the literature, but these needs were taken to represent three forms of anxiety. Anxiety was associated very frequently in the literature with stammering, enuresis and school phobia. In particular, anxiety was related to school phobia and it was, therefore, hypothesized that the school phobic group would have significantly higher scores on all three of these needs at both questionnaire and projective level. It was felt that the anxiety of the stammerers and the enuretics might be less

pervasive and more specific than that of the school phobics.

It was, therefore, hypothesized that the stammerers, because of their speech disorder, might show a need for infavoidance, but not for blamavoidance or harmavoidance; and that the enuretics might show a particular need for blamavoidance, because of the more covert nature of their symptom, but not for infavoidance or harmavoidance.

Finally, it seemed reasonable to suppose that the school phobics, in view of the frequent comments in the literature on their "withdrawing behaviour" and "emotional disturbance", would have significantly lower scores than the controls on social maturity. It was not felt that the stammerers or the enuretics would show any significant difference from the controls on this variable.

PART IVTHE TESTS AND PROCEDURES.

The clinic cases were tested as and when they were first referred to the clinic. The order of testing was random and the testing extended over a period of about two and a half years. Within the latter part of this period the controls were selected and tested. They were taken from five schools, two junior and three senior, which were regarded as representative of the area served by the clinic.

The matching of the groups.

The groups were matched as closely as possible with respect to age, sex and intelligence. It was not possible to control or to match associated symptoms, but cases which displayed two of the main classifying symptoms were excluded from the groups. The groups were considered to be sufficiently alike to ascribe differences in their performance on the tests to their clinical classification.

It was found to be impracticable to match the controls with the cases with respect to schools. This would have entailed the selection of individual children scattered over a wide area to serve as controls, a procedure which would have been unacceptable both to the schools and to the parents. The controls were, therefore, selected in groups and tested individually within a reasonably short period of time at each school.

The geographical distribution of the schools from which children were tested is shown on the maps in appendix C. The distribution seems to represent a fair sample of the county.

#### Intelligence.

All the children, both clinic cases and controls, were given the Terman-Merrill Intelligence Scale. This test was in current use as part of the clinic routine. The controls were matched with the cases as closely as possible with regard to I.Q., so that both the range of I.Q.'s and the mean I.Q.'s were comparable. This was done for the boys and the girls separately.

#### Social Competence.

The Vineland Social Maturity Scale was also administered. The first standardized revision (DOLL, 1936) and the revised condensed manual (1947) were used. "The items of the scale aim to measure social competence by measuring successive degrees of social independence. Even in its present form the scale provides a practical means of evaluating social competence and an instrument for investigating many types of research problems.... It is a reasonably standard objective device and the results obtained with it can be interpreted both quantitatively and descriptively". (DOLL, 1935).

Kellmer-Pringle felt that it was fair to say that Doll's Vineland Social Maturity Scale was an instrument that made possible the measurement of one of the aspects of personality, although at

present it might well be a rather rough tool. She suggested that the scale threw into relief the relationship - so well known to child guidance workers - between intelligence, social competence, family relationships and emotional disturbance. (KELMER-PRINGLE, 1951).

Although this may not be regarded as a very accurate instrument it was thought that it might be useful in illustrating any marked differences in social competence between the groups. It was suspected that there might be such differences, but more definite evidence was needed.

#### Needs.

The selected needs were tested at two levels by using (1) a questionnaire, and (2) a projective test.

(1) The questionnaire was intended to assess the six needs at a conscious or "admitted" level. It was an adaptation of Murray's questionnaire material, which was amended and reworded to make it more suitable for use with children. It consisted of eight items for each need, a total of 48 items in all. These 48 questions were arranged in random order and five neutral questions were inserted at the beginning to serve as a lead and for purposes of explanation and demonstration. These neutral questions were not scored. The responses were entered on a five point scale for scoring. (See appendix B).

(2) The projective test was originally a new set of pictures and one blank card. It was found in a brief try-out that the blank card elicited responses at least as effectively as the pictures. It was decided, therefore, to dispense with the pictures and to invite

the subjects to make up their own stories without the presentation of any stimulus. This appeared to be closer to "pure" projection and relatively free from extraneous influences. The subject was asked to write three stories. In some cases the actual writing was done by the examiner at the subject's dictation.

The four tests were always presented in the same order:-

1. The Intelligence Scale.
2. The Vineland Social Maturity Scale.
3. The Open Projective Test.
4. The Questionnaire.

The questionnaire was placed at the end so that it would not suggest ideas to the subjects which might influence their responses in the story-telling situation.

The scoring of the material.

The Intelligence Scale, the Social Maturity Scale and the Questionnaire were scored immediately after being administered.

The Questionnaire was treated as a five-point scale and scores of 1 to 5 were allotted for each item from "never true" at one end of the scale, to "always true" at the other end. (V. instructions in appendix B). The scores were then totalled for each of the six needs which were represented throughout the questionnaire in random order. Each child thus had a questionnaire score (Q-score) for each of the six needs.

The stories were scored by allotting one point for each expression of each need, with a maximum of five points for each need in any one story - a maximum total of 15 points for each need for each case. The aim was to score all the needs in this way but it was found that beyond the six main needs already mentioned only nine others occurred with sufficient frequency to warrant any investigation.

The nine other needs that were scored were as follows:-

Abasement	(Aba.)
Achievement	(Ach.)
Acquisition	(Acq.)
Affiliation	(Aff.)
Cognisance	(Cog.)
Exposition	(Exp.)
Nurturance	(Nur.)
Order	(Ord.)
Succorance	(Suc.)

Fifteen needs were therefore scores in all and in respect of each of these each child was allotted a score between <sup>nought</sup>~~nought~~ and fifteen.

In addition to this method of scoring the projective test (P-test) a count was made of the number of stories in each group in which each need was expressed at all. Each story was scored for each need on an all-or-none basis.



A sample of the projective material was also scored by an independent judge using the first method of scoring. Twenty cases, (i.e. sixty stories) were selected at random and given to an independent judge who had had no contact with the research or with the children, but who was already quite familiar with the needs as set out by H.A.Murray. He was instructed to score the stories for the six main needs using Murray's own definitions and descriptions as his criteria and allowing one mark for each expression of each need with a maximum of five marks for each need for each story.

The stories were also scored in respect of four formal measures as outlined below.

(1) The verb-adjective quotient (VAQ), i.e. the ratio of verbs to adjectives, was calculated for each child. This measure was used because findings reported in the literature had suggested that the VAQ might be related to emotional instability (BODER, 1939), to level of anxiety (BALKEN & MASSERMAN, 1940) or to "a characteristic personality structure". (HAYS et al., 1951).

(2) The percentages of happy, unhappy and indecisive endings were calculated for each group. Cox and Sargent had found that a "stable" group of boys were better able than a "disturbed" group to bring their stories to a satisfactory ending (COX & SARGENT, 1950).

(3) The total number of expressions of all the fifteen needs was counted for each group. Cox and Sargent had also found in their

investigation that the "disturbed" group produced more constricted responses than the "stable" group, i.e. they produced less frequent expression of feelings, needs, threats, actions or outcomes. (COX & SARGENT, 1950). This finding suggested that in the present research the total number of needs expressed by each group might provide a basis for distinguishing between the groups.

(4) The percentages of stories written in the past, present and future tense were calculated for each group. Hartwell et al., had suggested that the use of the tenses might be related to degree of adjustment in children. (HARTWELL et al., 1951). It was felt, therefore, that in the present research the use of the tenses might discriminate between the groups and might provide a means of comparison in respect of degree of adjustment.

In general it was hoped that these four formal measures would produce evidence of differences between the groups with regard to stability, anxiety and adjustment.

Particular care was taken to ensure that the scoring was as unbiassed as possible. The stories were numbered and typed before being scored, so that there was no indication of the group to which any particular story belonged. The order was random in the sense that each case was given a number on referral and no attempt was made to test the children in any pre-arranged order. The scoring

was carried out at a much later date than the testing and it was then found to be impossible to identify the group from the story.

The scores on the P-test are shown in Tables 26 and 27 in appendix A, which give the frequency with which each need occurred in each of the six groups, i.e. the score for each need, and also the number of stories in each group in which each need was expressed at least once.

#### The "two-level" approach.

In the present research the method consisted of the assessment of certain needs at each of two levels - the questionnaire or more overt level and the projective or more covert level.

The questionnaire method has been severely criticised. In addition to the obvious objection that subjects tend to over-rate themselves on desirable traits and vice versa, thus raising the average mark on the desirable traits and lowering the average mark on the undesirable traits, Murray gave the following criticisms of questionnaires:-

A questionnaire is limited to a few of many modes or situations in which the variable exhibits itself and therefore there will certainly be subjects who will get a low score, although they possess the variable, because they manifest it in situations other than those defined in the questionnaire.

Subjects mark themselves on the basis of their everyday life. The full conditions, such as family stresses and strains, are not taken into account and these will be different for each subject.

Subjects mark themselves, consciously or unconsciously, in relation to others, such as brothers and sisters, friends and acquaintances. The standards of comparison are therefore different in every case.

Subjects differ markedly in insight; they have repressions or internal projections and fail to realise or acknowledge that they act in certain ways (e.g. aggressively).

There may be intentional misrepresentation because of feelings of shame, or a wish to please the experimenter or because of the subjects self-dramatization as a certain kind of person. "Whatever the motive, the fact is that he does not tell the whole truth as he knows it".

Murray, however, continued as follows:-

"These are but some of the factors - minimized in the best procedures - which explain why questionnaires are always unreliable. If, however, they are supplemented by intimate interviews and used in conjunction with other examinations, they may be helpful". (MURRAY, 1938).

Vernon has expressed similar views. He felt that suggestibility, willingness to co-operate and temporary mood were important; that success with questionnaires depended largely on the subject's attitude and his interpretation of the questions; and that questionnaires differed from projective tests because they did not reduce self-consciousness and critical attitudes - on the contrary, direct questions raised conscious criticism to a maximum. Unconscious resistances might affect the responses, which were only too likely to be rationalizations or unwitting self-deceptions.

Vernon stated that "the reactions of children, particularly under 14 years, to personal questions are even more unpredictable than those of adults, and we would strongly deprecate the use of such tests except in experiments conducted by trained psychologists".

Nevertheless, Vernon concluded that "despite their extreme weaknesses and dangers, paper and pencil personality tests and questionnaires should not be entirely condemned. Well-constructed ones, given under suitable motivating conditions, can be of value both for experimental research and in clinical or other applied psychological work". (VERNON, 1953).

The use of a projective technique implies an assumption that projection takes place. There is some evidence that this is the case. It seems likely that unconscious motivation may emerge in projective

material because the subject is not "on guard" and is unaware of the oblique nature of the test procedure. Support for this point of view may be found in Bellak (1942) and Rosenzweig (1948).

Bellak carried out an investigation into the existence of projection, i.e. the ascription of wishes and sentiments which one has oneself to subjects or objects of the external world. The results were taken to indicate that the hypothesis of projection could be considered essentially correct. (BELLAK,1942). Rosenzweig regarded it as a well-established fact that the TAT represented one of the most powerful tools that we had at present for understanding the deeper levels of the personality. While the Rorschach method revealed personality structure most efficiently, the TAT concentrated upon personal needs or drives and their inter-relationships in a fashion that made it essentially complementary to the former approach. (ROSENZWEIG,1948).

Many authors have referred to the advantages of the "two-level" method of approach. Allport suggested that both direct and projective methods should be used together, otherwise we should never be able to distinguish a well-integrated personality from one that was not. The value of projective testing lay in the contradictions that were found between direct and indirect assessment. (ALLPORT,1953). Davids critically examined Allport's theory and agreed that projective techniques were advisable since they were less susceptible to deception than direct or questionnaire methods. (DAVIDS,1955). The need for combined direct and projective personality assessment

was stressed. (DAVIDS and PILDNER,1958). Bellak felt that one could consider unconscious data and behavioural data, the latent and the manifest, and one could learn most from a combination of both levels (BELLAK,1954). The behavioural approach was used by Henry together with several other areas of investigation in his conceptual framework for case analysis, the material to be integrated finally into an estimation of general adjustment to the outer world. (HENRY,1956). Balken and Van der Veer used the method of independent analysis of projective material with subsequent checking against social histories and psychiatric interviews, with the emphasis on content rather than on form. (BALKEN & VAN DER VEER,1940). A comparison of the TAT and autobiography based upon the analysis of the individual's "desires" made from each instrument was carried out by Combs. He concluded that the TAT appeared to reveal more strongly desires with respect to the present and the future and socially unacceptable and more violent categories of desire. The autobiography emphasized the past, factual, milder or socially acceptable forms of motivation. (COMBS,1947).

Material that has been derived from the "two-level" method of approach may be interpreted in various ways. Tomkins supposed that there was a finite quantum of energy at the disposal of the personality and that the personality might be regarded as a closed

system - a convenient scientific fiction. He then proposed a theory of the relative strengths of conflicting and repressing forces and their relationship to personality disturbances. The forces might be measured by an analysis of imaginative productions and an index of repression might be evaluated. Tomkins suggested that a high level of phantasy together with a low behavioural level might indicate a cultural prohibition or an internal conflict; a low phantasy level with high overt behaviour might indicate socially acceptable needs, permitted or even encouraged and leaving little residual tension; a high phantasy level with high overt behaviour might indicate that a need was encouraged by the culture, but was given insufficient opportunity for satisfaction. (TOMKINS, 1947).

Lazarus criticized the direct expression theory, i.e. that needs give rise to direct expression in projective material. He maintained that needs are not reflected directly in perception and apperception and that the relationship between need and imagery should be represented by an inverted-U curve - positive at first and then negative. He proposed a substitutive conception - that only when a need was not being expressed in motor striving did it appear as wish-fulfilment in phantasy. Lazarus suggested, therefore, that when it did appear in apperceptive phantasy there might be an absence of striving behaviour with respect to that need.



There would be a positive relationship between need states and phantasy only when the need had been blocked from motoric discharge, i.e. not expressed in actual life striving. High phantasy levels, therefore, might imply moderate need levels in the absence of motoric expression; low phantasy levels might imply either low need or moderate need in the face of substantial motoric expression. Only moderate need levels were implied because of the ego-defence principle, which stated that as the need reached excessively high levels because of environmental blockage or internal conflict the organism was under stress and various ego-control processes operated to reduce the disturbance. (LAZARUS,1961).

The two-level approach was used by Forrest and Lee in an investigation into the mechanism of repression. A questionnaire was used to derive independent measures of the relative conscious strengths of certain needs and projective material was obtained and analysed in terms of the same needs. This kind of approach made possible a quantitative assessment of need strength. Thus the use of a questionnaire together with a projective test might be a means by which to assess the relative strengths of certain needs within the individual and possibly the level of consciousness at which they were expressed. The use of the combination of projective test and questionnaire provided a measure of repression. (FORREST & LEE,1962).

In particular, Forrest and Lee suggested that a high score for a need on the questionnaire might be an indication of high conscious motivation, while a high score on the projective test might or might not reflect conscious desires. The combination of a high projective score for a need with a low questionnaire score for the same need might be an indication of repression of that need.

With regard to the present research, therefore, it was felt that there was considerable support in the literature for the use of the "two-level" approach and that, while the weaknesses of both questionnaires and projective techniques were recognised and admitted, their use in the present context might be justifiable. The aim was the ascertainment of significant differences between groups rather than prediction. In the case of the six main needs the use of a questionnaire together with a projective test provided an assessment of the relative strengths of the needs and of the "level of consciousness" at which they were expressed. It was hoped that this might help to make clear the different ways in which the clinical groups expressed or repressed their aggression, dominance and anxiety.

To summarize, the social maturity scale, the six needs assessed at two levels, the nine needs assessed at the projective level and the four oblique formal measures afforded many possible

points of comparison between the groups. An attempt was then made to organize and interpret the significant findings in relation to the classifying symptoms.

PART V.            THE DESCRIPTION OF THE GROUPS ACTUALLY FOUND.

1. Sex.

It was found that the school phobics were in the total sample almost equally divided between boys and girls and this made possible a comparison between the sexes.

The enuretic boys so outnumbered the enuretic girls that the attempt to test a group of girls had to be abandoned. Only three enuretic girls were in fact tested, (V.Table 1 following). This may have indicated merely that more enuretic boys than girls were referred to the clinic during the period of the research.

The stammerers were almost all boys. Only two girl stammerers were referred to the clinic. One of these was backward and was therefore rejected and the other was not tested.

2. Numbers.

A total of 170 children were tested. Fifteen of these were rejected because of adoption, broken homes, failure to co-operate on the tests or to complete the tests, or because they were controls whose I.Q's were unsuitable for matching. Six cases showed two symptoms, e.g. they were both enuretic and phobic, and therefore they could not be included in any of the groups. Three cases of enuretic girls were not included in a main group. The

remaining 146 children formed the six main groups of the research.

(V. Table 1).

### 3. Age.

The age range of the children extended from  $7\frac{1}{2}$  years to 15 years with a mean age of about  $11\frac{3}{4}$  years. It was not possible to administer the tests to younger children and two cases of younger children were discarded because of their inability to complete the tests in full. The details of age range and mean ages for each group are given in Table 5, Appendix A.

### 4. Intelligence.

The range of intelligence of the children extended from I.Q. 82 to I.Q. 171 with a mean I.Q. of about 114. I.Q.'s of less than 80 were excluded from the research. Details of the range of I.Q.'s and mean I.Q.'s for each group are given in Table 6, Appendix A.

TABLE 1.THE NUMBERS OF CHILDREN IN EACH GROUP.

The numbers of the children in each group were as follows:-

Control Boys	C.B.	24
Control Girls	C.G.	24
Stammerers	St.	24
School phobic boys	S.P.B.	22
School phobic girls	S.P.G.	24
Enuretic boys	En.	28
Enuretic girls		3
Cases with two symptoms		6
Rejected because of Adoption, broken home, etc.		5
Controls rejected because of unsuitable I.Q.		6
Unco-operative; testing not completed.		4
<u>Total:</u>		170

PART VI.            THE STATISTICAL TREATMENT OF THE MATERIAL.

All variables.

For age, intelligence, social maturity and for all the variables on the questionnaire and the projective test MEANS and STANDARD DEVIATIONS were calculated. These figures are set out in Tables 5 - 14 in Appendix A.

Age, intelligence, social maturity and Q-scores.

An analysis of variance between groups was carried out in respect of each of these variables. Significant differences were found between groups and these differences were then tested by using the critical ratio (t-test) technique. (H.E.GARRETT, Statistics in Psychology and Education, 1949, pp. 190-192).

The values of F and t thus obtained are set out in Tables 15 and 16.

The scores on the projective test (P-scores).

As already described the P-test was scores in two ways:-

(1) A score was allotted to each case based on the number of expressions of each need in the three stories taken together, (maximum score = 15).

(2) A count was made of the number of stories in each group containing the expression of each need (Table 27).

The P-scores were not suitable material for the technique of variance analysis because of their discontinuous nature. This was due to the large proportion of zero scores, i.e. stories in which some of the needs were not expressed at all.

The correlations between the scores on the P-test and the Q-test were estimated by calculating the rank-difference correlations ( $\rho$ ) for each group for each need. Method (1) was used for scoring the P-test. The rank-difference correlations were calculated by using formula 9.4, p.207, in "Non-parametric statistics" (S.SIEGAL,1956). This formula was selected because it allowed for a correction for tied ranks, the tied ranks in the present instance being caused by the large proportion of zero scores. The effect of ties is to inflate the value of  $\rho$  and therefore the correction should be used when there is a large proportion of ties in either or both the X and Y variables. The significant correlations are given in Table 29.

The differences between groups on the P-test were tested by using the CHI-square technique. Method (2) was used for scoring the P-test, i.e. the number of stories in which a need was expressed was counted. The groups were thus related to the expression or non-expression of each need. In this way differences were tested for significance between the six groups in respect of fifteen need-variables. Values of CHI-square greater than 3 are shown in Table 18.



Two composite groups.

Two composite groups were formed from the four groups of boys by combining the enuretics with the stammerers to form a "physical symptom" group and by combining the school phobics with the controls to form a "non-physical-symptom" group. These two composite groups, referred to as the "physical" and the "non-physical" group, were then compared. Mean scores on the Q-test and the P-test were calculated; the significance of the differences between means on the Q-test was evaluated by the t-test (see Table 17); and significant differences on the P-test between the two groups were evaluated by using the CHI-square technique (see Table 19).

The inter-judge reliability.

A sample of 20 cases (i.e. 60 stories) was scored by an independent judge in respect of the six main needs. The rank-difference correlations were then calculated between the original scores and the scores allotted by the independent judge. The six correlation coefficients thus obtained were regarded as indices of the reliability of the scoring as between the two judges.

The obtained values of the rank-difference correlation coefficients ( $\rho$ ) are set out in Table 30.

The reliability of the scores would have been increased if the material had been scored by four or five judges, but it was unfortunately impossible to arrange this within the time limits of the present research.

CHI-square.

CHI-square was estimated by tabulating the expression or non-expression of each need horizontally and the group vertically. CHI-square was then used as a test of independence and the differences between groups in respect of the expression of the need were tested for significance. ("Statistical Analysis in Educational Research", E.F.Lindquist, 1940, p.41).

High values of CHI-square were taken to indicate a low probability that the observed discrepancies were due to chance. It was then inferred that there was evidence of a relationship between group and variable.

The Verb-Adjective quotient (VAQ).

The verb-adjective quotient was calculated for each subject along the lines described by Balken and Masserman, 1940.

The adjective count included participial adjectives preceded by the article "the" or "a" or by the preposition "of", but nouns used as adjectives, adjectives used as nouns (e.g. the wealthy, the idle), quantitative and ordinal numerals and "numeral pronouns" (next, many, several) and the adjectives certain, various and different were not counted.

Verbs in all forms, including infinitives and participles were counted. Participles used without nouns and preceded by an article - "the" or "a", or by the preposition "of" and auxiliary

verbs (e.g. have, shall, etc.) were not counted.

The verb-adjective quotient was calculated from the formula:-

$$\text{VAQ} = \frac{\text{Total number of verbs}}{\text{Total number of adjectives}}$$

The mean values of the VAQ are given in Table 2 below.

TABLE 2.

MEAN VALUES OF THE VAQ.

GROUP	C.B.	St.	S.P.B.	En.	C.G.	S.P.G.
MEAN VAQ	3.99	4.09	4.53	4.58	3.42	2.91

The differences between the mean values of the VAQ were tested for significance by using the t-test. The largest values of t are given in Table 20.

The groups were also compared with respect to the VAQ by using the CHI-square technique. A cut-off value of 5 was fixed and the number of cases above and below this cut-off point was counted.

The number of cases above and below the cut-off point and the single significant value of CHI-square are given in Table 21.

The story endings.

It has been suggested by some writers that the endings of stories may be diagnostic of disturbance in children. For example, very disturbed children may not be able to bring stories to a

satisfactory ending at all or may be less able to write a happy or successful ending. (COX and SARGENT, 1950).

In the present research, therefore, the endings of the stories were classified under three headings as follows:-

(a) Happy or successful endings.

(b) Unhappy or unsuccessful endings.

and (c) Indecisive endings or no satisfactory endings.

The (c) category included descriptive passages which did not demand any definite conclusion, i.e. they were not stories at all in the real sense; and also stories which were inconclusive, i.e. which tailed off in the middle and were not brought to a definite ending, but left a feeling of being incomplete.

The percentages of stories falling under each of the three headings are given in Table 22.

The differences between groups and the values of  $t$  are given in Table 23.

#### The tense of the stories.

An investigation by Hartwell et al. (1951) emphasized the significance of the tense in which stories were written. In the present research, therefore, the proportions of stories written in the past, present and future tense were calculated.

These percentages are given in Table 24.

The differences between groups and the values of  $t$  are given in Table 25.

The differences between groups in respect of story endings and  
the use of tense.

The percentages of happy, unhappy and indecisive endings to the stories and the percentages of stories using the past, present and future tense, were calculated. The groups were then compared with respect to these percentages. The differences between the percentages were tested for significance by using formula 39 given by H.E.GARRETT (p.219), -

$$SE_D = 100 \sqrt{\frac{p_1 q_1}{N_1} + \frac{p_2 q_2}{N_2}}$$

The critical ratio (t) was calculated from the actual difference and the standard error of the difference. The level of significance was ascertained by reference to Table 29 of Garrett (p.190).

The total and mean number of needs.

The total number of expressions of all the fifteen needs was counted for each of the six groups. The mean number of expressions of all needs for each group was calculated and the differences between the means were tested for significance by using the critical ratio (t).

The total and mean number of expressions of all needs for each group are given in Table 28.

Summary of the main statistical procedures.

The following main procedures were carried out:-

1. The analysis of variance between groups in respect of age, intelligence, social maturity and questionnaire scores (Q-test).
2. The significance of the difference between means in respect of six main needs on the Q-test for the "physical" and "non-physical" groups.
3. The estimate of inter-judge reliability by rank-difference correlation (P-test).
4. The rank-difference correlations between the P-test and the Q-test for the six groups for the six main needs.
5. The significance of the differences between the six groups in respect of fifteen needs on the P-test (CHI-square technique).
6. The significance of the differences between the "physical" and "non-physical" groups in respect of fifteen needs on the P-test (CHI-square technique).
7. The verb-adjective quotients for each of the six groups.
8. The kinds of story-endings for each of the six groups.
9. The use of the tenses in the stories of each of the six groups.
10. The total and mean number of needs expressed in the stories by each of the six groups.

PART VIITHE RESULTS.Age.

The mean age of the En. group was significantly lower than the mean ages of the other clinic groups. This was to be expected, since the age of referral for this symptom was much lower than the age of onset of school phobia. The mean age of the enuretics might also be expected to be lower than the mean age of the stammerers, because, in general, stammering persists for a longer period than enuresis.

Intelligence.

There was no significant difference between any of the groups in level of intelligence. All the groups were therefore satisfactorily matched in respect of this variable.

The Social Maturity Scale.

The SPB had lower scores than the En<sup>++</sup> St<sup>+</sup> and CB<sup>++</sup>

The CG had lower scores than the CB<sup>+</sup>

+ Significant at the 5% level of confidence.

++ Significant at the 1% level of confidence.

The Questionnaire (Q-test).

The SPB had lower scores than the CB<sup>+</sup> St<sup>++</sup> and En. on Dominance.

The SPB had higher scores than the St<sup>++</sup> and En<sup>+</sup> on Harmavoidance.

The SPG had higher<sup>+</sup> scores than the CG on Harmavoidance.

The "physical" group had higher<sup>+</sup> scores than the "non-physical" group on Dominance.

The "non-physical" group had higher<sup>+</sup> scores than the "physical" group on Autonomy and Harmavoidance.

The Projective Test (P-test).

The CG had lower<sup>+</sup> scores than the CB on Harmavoidance.

The St. had lower<sup>+</sup> scores than the CB on Dominance and Harmavoidance.

The En. had lower<sup>+</sup> scores than the CB on Harmavoidance.

The CB had lower<sup>+</sup> scores than the CG on Infavoidance.

The SPG had lower<sup>+</sup> scores than the CG on Infavoidance.

The SPG had lower<sup>+</sup> scores than the SPB on Aggression<sup>+</sup> and Harmavoidance.

The "physical" group had lower scores than the "non-physical" group on Dominance and Harm avoidance.

The CG had lower scores than the CB on Ach<sup>++</sup> and Cog<sup>+</sup>

The SPB had lower<sup>+</sup> scores than the CB on Cog.

The SPB had lower<sup>+</sup> scores than the CB on Cog.

The CB had lower scores than the CG on Acq. and Nur<sup>+</sup>

The SPB had higher scores than the CB on Aba.

+ Significant at the 5% level of confidence.

++ Significant at the 1% level of confidence.



The Projective Test (P-test) continued.

The SPG had higher scores than the CG on Ach<sup>+</sup> and Ord.

The SPG had higher<sup>+</sup> scores than the SPB on Acq.

The St. had higher scores than the CB on Aba<sup>++</sup> Acq<sup>++</sup> and Exp<sup>+</sup>

The St. had higher <sup>+</sup> scores than the SPB on Acq.

The En. had higher scores than the SPB on Acq.

The En. had higher scores than the CB on Acq<sup>++</sup> and Aba.

The "physical" group had higher scores than the "non-physical"  
group on Acq<sup>++</sup> and Aba.

The Tense of the Stories.

The SPB used the past tense to a lesser<sup>+</sup> extent than did the CB.

The Story-endings.

No significant differences were found between the groups.

The Verb-adjective Quotient (VAQ).

No significant differences were found between the groups with  
respect to mean VAQ.

The SPB had more + cases above the cut-off point than did the St.

The Mean number of Needs Expressed.

No significant differences were found between the groups.

+ Significant at the 5% level of confidence.

++ Significant at the 1% level of confidence.

TABLE 3.      Significant correlations between the P-test and the Q-test (rank-difference correlations).

Group	Need	Rho.	Significance.
CG.	Dom.	0.689	++
St.	Dom.	0.395	+
SPB.	Agg.	0.513	+

TABLE 4.      The inter-judge reliabilities (rank-difference correlations).

Need	Rho.	Significance
Agg.	0.361	-
Dom.	0.033	-
Aut.	0.518	+
Blam.	-0.018	-
Inf.	0.5	+
Harm.	0.435	+

+ Significant at the 5% level of confidence.

++ Significant at the 1% level of confidence.

### The Hypotheses.

The hypotheses which had been made at the outset were examined in the light of the results. The relevant findings are set out below in the same order as the hypotheses. The findings which confirmed a hypothesis have been marked  $\neq$ .

### The findings were as follows:-

#### Aggression.

The St. showed no significant difference from the controls on the Q-test  $\neq$

The St.     "     "     "     "     "     the controls on the P-test.

The En.     "     "     "     "     "     the controls on the Q-test  $\neq$

The En.     "     "     "     "     "     the controls on the P-test.

The S.P.     "     "     "     "     "     the controls on the Q-test.

The S.P.     "     "     "     "     "     the controls on the P-test.

#### Dominance.

The St showed no significant difference from the controls on the Q-test  $\neq$

The St. showed lower<sup>+</sup> scores than the controls on the P-test.

The En. showed no significant difference from the controls on the Q-test  $\neq$

The En.     "     "     "     "     "     controls on the P-test.

Dominance (continued)

The S.P. had lower<sup>+</sup> scores than the controls on the Q-test  $\neq$

The S.P. showed no significant difference from the controls on the  
P-test.

Autonomy.

The St. showed no significant difference from the controls on the  
Q-test  $\neq$

The St.	"	"	"	"	"	the controls on the P-test.
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The En.	"	"	"	"	"	the controls on the Q-test $\neq$
---------	---	---	---	---	---	--------------------------------------

The En.	"	"	"	"	"	the controls on the P-test.
---------	---	---	---	---	---	--------------------------------

The S.P.	"	"	"	"	"	the controls on the Q-test.
----------	---	---	---	---	---	--------------------------------

The S.P.	"	"	"	"	"	the controls on the P-test.
----------	---	---	---	---	---	--------------------------------

Blamavoidance.

The St. showed no significant difference from the controls on the  
Q-test.

The St.	"	"	"	"	"	the controls on the P-test.
---------	---	---	---	---	---	--------------------------------

The En.	"	"	"	"	"	the controls on the Q-test.
---------	---	---	---	---	---	--------------------------------

The En.	"	"	"	"	"	the controls on the P-test.
---------	---	---	---	---	---	--------------------------------

The S.P.	"	"	"	"	"	the controls on the Q-test.
----------	---	---	---	---	---	--------------------------------

The S.P.	"	"	"	"	"	the controls on the P-test.
----------	---	---	---	---	---	--------------------------------

Infavoidance.

The St. showed no significant difference from the controls on the Q-test.

The St.     "     "     "     "     "     the controls on the P-test.

The En.     "     "     "     "     "     the controls on the Q-test  $\neq$

The En.     "     "     "     "     "     the controls on the P-test  $\neq$

The S.P.     "     "     "     "     "     the controls on the Q-test.

The S.P. had lower<sup>+</sup> scores than the controls on the P-test.

Harmavoidance.

The St. showed no significant difference from the controls on the Q-test.

The St. had lower<sup>+</sup> scores than the controls on the P-test.  $\neq$

The En. showed no significant difference from the controls on the Q-test  $\neq$

The En. had lower<sup>+</sup> scores than the controls on the P-test.

The S.P. had higher<sup>+</sup> scores than the controls on the Q-test  $\neq$

The S.P. showed no significant difference from the controls on the P-test.

Social Maturity.

The S.P.B. had significantly lower<sup>++</sup> scores than the other boys' groups  $\neq$

The S.P.G. had lower scores than the C.G.

$\neq$  These results confirmed the relevant hypotheses.

GROUP PROFILES USING THE SIGNIFICANT DIFFERENCESBETWEEN GROUPS.

Using the information set out in the preceding pages, group profiles were drawn up with the purpose of bringing to light the main points of similarity and difference between the groups. The significant differences were considered first; then the other differences between groups were considered because it was felt that some differences might indicate interesting trends even though they were not significant statistically.

GROUP PROFILES:1. THE STAMMERERS.SIGNIFICANT DIFFERENCES BETWEEN THE  
STAMMERERS AND THE CONTROLS.

DIRECT MEASURES: No significant differences between  
stammerers and controls.

OBLIQUE PROJECTIVE MEASURES:

P-abasement <sup>++</sup>	The St. had higher scores
P-acquisition <sup>++</sup>	than the CB.
P-exposition <sup>+</sup>	" " " "
P-dominance <sup>+</sup>	The St. had lower scores
P-harmavoidance <sup>+</sup>	than the CB.

OBLIQUE FORMAL MEASURES:

No significant differences between  
the St. and the CB.

The stammerers were characterized by their significantly higher scores than the controls on projected exposition. Since the need to speak and to explain has been blocked at the overt level, it may find correspondingly stronger expression at the more covert level of the projective material.

The significantly higher scores on projected abasement may indicate that the stammer represents a self-punishment by causing embarrassment to the speaker, thus at the same time creating and satisfying a need for submission; or the expressed need for abasement may represent the stammerer's reaction to an apparent threat in the environment.

The stammerers had significantly lower scores than the controls on projected dominance and harmavoidance, but they did not differ significantly from the controls on either of these needs at questionnaire level. This may show that dominance and harmavoidance may be readily expressed at an overt level and may leave little residual tension to show itself in projection. The stammerer may really be timid and withdrawing in "speech" situations because of an inability to assert himself, and may not necessarily be repressing a strong need for dominance. The lower scores on harmavoidance may similarly show a ~~weakly~~ <sup>weakly</sup> expressed need, a diminished need for caution which would accord with the hasty, almost reckless manner which



stammerers often have - an impulsiveness in their behaviour which may lead them to disregard difficulties and dangers. Anxiety may also be expressed in the symptom of stammering itself, so that less anxiety remains to be shown in the projective material. The high need for acquisition may be to some extent a substitute for the loss of influence over people which follows from the speech defect.

GROUP PROFILES:                    2. THE ENURETICS.

SIGNIFICANT DIFFERENCES BETWEEN THE  
ENURETICS AND THE CONTROLS.

DIRECT MEASURES:            No significant differences between  
enuretics and controls.

OBLIQUE PROJECTIVE MEASURES:

P-acquisition<sup>++</sup>            The En. had higher scores  
than the CB.

P-harmavoidance<sup>+</sup>            The En. had lower scores  
than the CB.

OBLIQUE FORMAL MEASURES:

No significant differences between  
the En. and the CB.

The enuretics had significantly lower scores than the controls on projected harmavoidance; they expressed less anxiety in their stories. This result may be related to the observed placid behaviour of many enuretics. They may show little concern over their enuresis and may fail to take precautions in relation to it.

Admitted harmavoidance was not significantly different from the controls. Harmavoidance in the enuretics may therefore be a weakly expressed need indicating low residual tension. Anxiety may be expressed in the symptom of enuresis itself, leaving less anxiety to be shown in the projective material.

The higher scores of the enuretics on projected acquisition may show a need for security. Perhaps the need for acquisition may be taken to include a need to "possess" or "use" people. Enuresis in children is a disorder which puts people, especially the parents, to a good deal of inconvenience; it may enable the child to gain attention from the parents. The need for acquisition may also possibly be related to the suggested "delinquent" nature of enuresis, that is that enuresis may be associated with stealing and similar anti-social behaviour.

GROUP PROFILES:3. THE SCHOOL PHOBIC BOYS.SIGNIFICANT DIFFERENCES BETWEEN THE  
PHOBIC BOYS AND THE CONTROLS.DIRECT MEASURES:

On Social Maturity the S.P.B. had  
lower<sup>++</sup> scores than the C.B.  
On Q-dominance the S.P.B. had  
lower<sup>+</sup> scores than the C.B.

OBLIQUE PROJECTIVE MEASURES:

P-cognisance<sup>+</sup>                      The SPB had lower scores  
than the CB.

OBLIQUE FORMAL MEASURES:

The SPB used the past tense less<sup>+</sup>  
than the CB.

The school phobic boys were significantly lower than the controls in social competence and in admitted dominance. These findings may well reflect the reported timid, withdrawn behaviour of school phobics in situations outside the home and their failure to face up to external demands. These low scores may represent a lack of confidence and self-assertion, with feelings of weakness, failure and inadequacy and an inability to take the lead or deal competently with everyday requirements.

The lower scores on projected cognisance may then show a reluctance to attempt anything new because of a lack of confidence. They may represent a weakness of social and intellectual curiosity which may be associated with diminished social competence and school attainment.

The less frequent use of the past tense in the projective material may be regarded as a feature more appropriate to younger children and may be another indication that the school phobic boys tended to be less confident and less mature than the control boys.

GROUP PROFILES:                    4. THE SCHOOL PHOBIC GIRLS.

SIGNIFICANT DIFFERENCES BETWEEN THE  
PHOBIC GIRLS AND THE CONTROLS.

DIRECT MEASURES:            On Q-harmavoidance the SPG had  
higher<sup>+</sup> scores than the CG.

OBLIQUE PROJECTIVE MEASURES:

P-achievement<sup>+</sup>            The SPG had higher scores  
than the CG.

P-infavoidance<sup>+</sup>            The SPG had lower scores  
than the CG.

OBLIQUE FORMAL MEASURES:

No significant differences  
between SPG and CG.

The school phobic girls had significantly higher scores than the control girls on admitted harmavoidance. They openly admitted to a greater extent than the controls their need to avoid painful and threatening situations. This result may be a reflection of the observed tendency of school phobic girls to withdraw from difficulties and escape from situations of stress.

The need for infavoidance was not admitted openly at a higher level than the controls and it was projected at a significantly lower level than the controls. This need seemed, therefore, to find comparatively weak expression in school phobic girls. The phobic girls seemed to show little need to avoid humiliation or to express a fear of failure. It may be that this need was sufficiently discharged in actual life, leaving little residual tension to show itself in the projective material.

The projected need for achievement was significantly higher than the control group. This may show a need to succeed in the face of actual or imagined failure in school work, or a need to overcome difficulties so as to increase self-regard.

GROUP PROFILES:5. SEX DIFFERENCES IN THE  
PHOBIC GROUPS.SIGNIFICANT DIFFERENCES.

DIRECT MEASURES: No significant differences between  
SPB and SPG.

OBLIQUE PROJECTIVE MEASURES:

P-acquisition <sup>+</sup>	The SPB had lower scores than the SPG.
P-aggression <sup>+</sup>	The SPB had higher scores than the SPG.

OBLIQUE FORMAL MEASURES:

No significant differences.



The two phobic groups differed significantly from each other in their scores on projected acquisition and aggression.

The girls had higher scores than the boys on acquisition. The girls may be expressing in this way a need for security in the face of great anxiety.

The boys had higher scores than the girls on projected aggression, but there was no significant difference between the groups in the scores for aggression at the overt level. This result may show that aggression in the girls was a weakly expressed need and that the girls may be less aggressive than the boys. This interpretation may be supported by the fact that the control girls also had lower scores on aggression than the control boys, although this difference was not significant. The different way of handling aggression may be a sex difference and may not be related to the symptom of school phobia.

GROUP PROFILES:6. SEX DIFFERENCES IN THE CONTROL  
GROUPS.SIGNIFICANT DIFFERENCES.

DIRECT MEASURES:      On Social Maturity the CB had  
higher<sup>+</sup> scores than the CG.

OBLIQUE PROJECTIVE MEASURES:

P-harmavoidance <sup>+</sup>	The CB had higher scores
P-achievement <sup>++</sup>	than the CG.
P-cognisance <sup>+</sup>	"      "      "
P-infavoidance <sup>+</sup>	The CB. had lower scores
P-nurturance <sup>+</sup>	than the CG.

OBLIQUE FORMAL MEASURES:

No significant differences.

The two control groups differed from each other on several measures.

The girls had significantly lower scores than the boys on the social maturity scale, indicating that the girls may be less competent socially than the boys.

The girls also had lower scores than the boys on projected achievement and cognisance. The girls, therefore, may well have felt less need to discover and achieve and this area of weak motivation may also have included social achievement, thus becoming associated with low scores on the social maturity scale. This may also link up with the girls' higher scores on infavoidance, since they may prefer to avoid situations which may be embarrassing or likely to arouse a feeling of failure.

At the same time the girls expressed to a greater extent than the boys the need to give sympathy and help and therefore, presumably, felt tenderness and compassion more frequently than did the boys. The boys projected more their need to avoid harm.

There may be a greater cultural expectation that boys should not openly avoid dangers and this may account for their greater projection of harmavoidance; whereas in girls overt harmavoidance may be more socially acceptable and this may result in a weaker expression of the need.

GROUP PROFILES:7. THE PHYSICAL AND NON-PHYSICAL  
GROUPS.SIGNIFICANT DIFFERENCES.DIRECT MEASURES:

On Q-harmavoidance and Q-autonomy  
the "physical" group had lower<sup>+</sup>  
scores than the "non-physical" group.

OBLIQUE PROJECTIVE MEASURES:

P-harmavoidance <sup>+</sup>	The "physical" group had lower scores than the "non-physical" group.
P-acquisition <sup>++</sup>	The "physical" group had higher scores than the "non-physical" group.

OBLIQUE FORMAL MEASURES:

No significant differences between  
the two groups.

The "physical" group had lower<sup>+</sup> scores than the "non-physical" group on harmavoidance at both projective and questionnaire level. There appeared to be less need for the "physical" group to express harmavoidance at all. Perhaps the anxiety and tension of the stammerers and the enuretics is released in the habit patterns of stammering and enuresis - a "motoric" discharge, which may leave less residual tension to be discharged in other ways. The lower<sup>+</sup> scores of the "physical" group on admitted autonomy may represent a conscious need to conform, to be like other people and acceptable to them, that is, to be rid of the physical symptom. This conscious need may conceal an underlying insistence on being different from others, that is, on retaining the symptom. Stammerers and enuretics often tend to retain their symptoms, as if in spite of treatment.

The "physical" group had significantly higher<sup>++</sup> scores than the "non-physical" group on the projected need for acquisition. As already suggested, the reasons for the high expression of this need may well be different as between the stammerers and the enuretics. In the stammerers it may be a form of compensating mechanism following from the speech defect; in the enuretics it may be related to the suggested "delinquent" nature of enuresis.

GROUP PROFILES:8. THE CLINIC GROUPS.SIGNIFICANT DIFFERENCES.DIRECT MEASURES:

On Social Maturity the SPB had lower scores than the St.<sup>+</sup> and the En<sup>++</sup>.

On Q-dominance the SPB had lower scores than the St<sup>++</sup> and the En<sup>+</sup>.

On Q-harmavoidance the SPB had higher scores than the St<sup>++</sup> and the En<sup>+</sup>.

OBLIQUE PROJECTIVE MEASURES:

P-acquisition<sup>+</sup>

The St. had higher scores than the SPB.

OBLIQUE FORMAL MEASURES:

VAQ: the SPB had significantly more + cases above the cut-off point than did the St.

The significant differences between the clinic groups were interesting because they all involved the SPB. The phobic boys were significantly lower than the stammerers and the enuretics on social maturity and admitted dominance, and significantly higher than the stammerers and the enuretics on admitted harmavoidance. The SPB also had more + high values for the VAQ than did the St., which may indicate a higher level of anxiety amongst the SPB. These results distinguish the school phobic boys from the other clinic boys and give further support to the opinion that the phobic boys are characterized by a lack of confidence and self-assertion, a withdrawn attitude in situations outside the home and a high level of anxiety.

GROUP PROFILES USING BOTH SIGNIFICANT AND  
NON-SIGNIFICANT DIFFERENCES.

The groups were then arranged with the mean scores in order, boys and girls separately. This was done for each variable. The purpose was to discover whether any of the groups were consistently higher or lower than the other groups on any of the measures. This procedure also showed whether any of the measures ordered the groups in the same sequence and whether there was, therefore, evidence of a relationship between the measures. This latter information was not used in the construction of the group profiles, but was set out in the tables in the appendix.

The groups arranged with the means in order and comments on the relationships between the measures are given in Tables 34 - 48 in Appendix A.

In the group profiles which now follow not only the significant differences appear, but also many differences which were not significant. It was hoped that group trends might be indicated in this way.



GROUP PROFILES:9. THE STAMMERERS.

Soc.Maturity:	the St. had lower scores than the CB.
Q-aggression:	the St. had higher scores than the other boys' groups.
Q-dominance:	" " " " " "
Q-harmavoidance:	the St. had lower scores than the other boys' groups.
Q-autonomy:	" " " " " "
P-infavoidance:	the St. had higher scores than the other boys' groups.
P-abasement <sup>++</sup>	" " " " " "
P-achievement:	" " " " " "
P-acquisition <sup>++</sup>	" " " " " "
P-affiliation:	" " " " " "
P-exposition <sup>+</sup>	" " " " " "
P-nurturance:	" " " " " "
P-order:	" " " " " "
P-aggression:	the St. had lower scores than the other boys' groups.
P-dominance <sup>+</sup>	" " " " " "
P-cognisance:	" " " " " "
P-blamavoidance:	the St. had lower scores than the CB and SPB.
P-harmavoidance <sup>+</sup>	" " " " " "
Past tense:	was used less by the St. than by the CB.
Present tense:	was used more by the St. than by the CB.
Unhappy endings:	were used less by the St. than by the CB.
Indecisive endings:	were used more by the St. than by the CB.
VAQ:	the St. had a higher score than the CB.
Mean no.of needs:	the St. had a higher score than the other boys' groups.

GROUP PROFILES:10. THE ENURETICS.

Soc.Maturity:	the En. had lower scores than the CB.					
Q-autonomy:	the En. had lower scores than the other boys' groups.					
Q-infavoidance:	"	"	"	"	"	"
Q-aggression:	"	"	"	"	than the CB. and St.	
Q-dominance:	"	"	"	"	than the CB. and St.	
Q-harmavoidance:	"	"	"	"	than the CB. and SPB.	
P-abasement:	the En. had higher scores than the CB.					
P-achievement:	"	"	"	"	"	CB.
P-infavoidance:	"	"	"	"	"	CB.
P-acquisition <sup>++</sup>	"	"	"	"	"	CB. and SPB.
P-blamavoidance:	the En. had lower scores than the other boys' groups.					
P-harmavoidance <sup>+</sup>	"	"	"	"	"	"
P-affiliation:	"	"	"	"	"	"
P-order:	"	"	"	"	"	"
P-succorance:	"	"	"	"	"	"
P-aggression:	the En. had lower scores than the CB.					
P-dominance:	"	"	"	"	"	CB.
P-cognisance:	"	"	"	"	"	CB.
Past tense:	was used less by the En. than by the CB.					
Present tense:	was used more by the En. than by the CB.					
Happy endings:	were used less by the En. than by any other boys' groups.					
Indecisive endings:	were used more by the En. than by any other boys' groups.					
VAQ:	the En. had a higher score than the other boys' groups.					
Mean No.of needs:	the En. had a lower score than the other boys' groups.					

GROUP PROFILES:      11. THE SCHOOL PHOBIC BOYS.

Soc. Maturity:      the SPB had lower<sup>++</sup> scores than the other  
   boys' groups.

---

Q-blamavoidance:      the SPB had higher scores than the other  
   boys' groups.

Q-infavoidance:      "      "      "      "      "      "

Q-harmavoidance:      "      "      "      "      "      "

---

Q-aggression:      the SPB had lower scores than the other boys'  
   groups.

Q-dominance<sup>+</sup>      "      "      "      "      "      "

---

P-blamavoidance:      the SPB had higher scores than the other boys'  
   groups.

P-succorance:      "      "      "      "      "      "

P-abasement:      the SPB had higher scores than the CB.

P-infavoidance:      "      "      "      "      "

P-acquisition:      "      "      "      "      "

P-achievement:      "      "      "      "      "

---

P-aggression:      the SPB had lower scores than the CB.

P-dominance:      "      "      "      "      "

P-harmavoidance:      "      "      "      "      than the CB.

P-cognisance<sup>+</sup>      "      "      "      "      "

---

Past tense:      was used less<sup>+</sup> by the SPB than by the CB.

Present tense }      were used more by the SPB than by any other  
Future tense }      group.

Unhappy endings:      were used less by the SPB than by any other  
   group.

Indecisive endings: were used more by the SPB than by the CB.

VAQ<sup>+</sup>:      the SPB had higher scores than the St.

Mean n. of needs:      the SPB had a higher score than the CB.

GROUP PROFILES:      12. THE SCHOOL PHOBIC GIRLS.

Soc, Maturity:	the SPG had lower scores than the CG.
Q-blamavoidance:	the SPG had higher scores than the CG.
Q-infavoidance:	" " " " "
Q-harmavoidance <sup>+</sup>	" " " " "
Q-aggression:	the SPG had lower scores than the CG.
Q-dominance:	" " " " "
P-blamavoidance:	the SPG had higher scores than the CG.
P-abasement:	" " " " "
P-achievement <sup>+</sup> :	" " " " "
P-acquisition:	" " " " "
P-order:	" " " " "
P-aggression;	the SPG had lower scores than the CG.
P-dominance:	" " " " "
P-infavoidance <sup>+</sup> :	" " " " "
P-harmavoidance:	" " " " "
P-cognisance:	" " " " "
Past tense:	was used less by the SPG than the CG.
Present tense } Future tense }	were used more by the SPG than the CG.
Happy endings } Unhappy endings }	were used less by the SPG than the CG.
Indecisive endings:	were used more by the SPG than by the CG.
VAQ:	the SPG had a lower score than the CG.
Mean no. of needs:	the SPG had higher scores than the CG.

GROUP PROFILES:      13. THE PHOBIC GROUPS COMPARED  
WITH EACH OTHER.

Soc. Maturity:      No difference.

---

Q-infavoidance:      the SPB had lower scores than the SPG.

---

P-acquisition<sup>+</sup>      the SPB had lower scores than the SPG.

---

P-aggression<sup>+</sup>      the SPB had higher scores than the SPG.

P-harmavoidance:      "      "      "      "      "

---

Present tense }      the SPB had higher scores than the SPG.  
 Future tense }

Past tense:      the SPB had lower scores than the SPG.

Unhappy endings:      "      "      "      "      "

VAQ:      the SPB had a higher score than the SPG.

Mean no. of needs:      "      "      "      "      "

GROUP PROFILES:      14. THE CONTROL GROUPS COMPARED  
WITH EACH OTHER.

Soc. Maturity:      the CB were higher<sup>+</sup> than the CG.

---

Q-autonomy:      the CB had higher scores than the CG.

---

P-aggression:      the CB had higher scores than the CG.

P-harmavoidance<sup>+</sup>      "    "    "      "      "

P-achievement<sup>++</sup>      "    "    "      "      "

P-cognisance<sup>+</sup>      "    "    "      "      "

---

P-infavoidance<sup>+</sup>      the CB had lower scores than the CG.

P-acquisition:      "    "    "      "      "

P-nurturance<sup>+</sup>      "    "    "      "      "

---

Tense and story endings:      No differences.

VAQ:      the CB were higher than the CG.

Mean no. of needs:      the CB were higher than the CG.

GROUP PROFILES:      15. THE PHYSICAL AND NON-PHYSICAL GROUPS.

Soc.Maturity:            the physical group had higher scores than the  
non-physical group.

---

Q-dominance:            the physical group had higher scores than the  
non-physical group.

---

Q-autonomy<sup>+</sup>            the physical group had lower scores than the  
non-physical group.

---

Q-harmavoidance<sup>+</sup>      "    "    "            "            "            "

---

P-aggression:            the physical group had lower scores than the  
non-physical group.

P-dominance:            "    "    "            "            "            "

P-blamavoidance:        "    "    "            "            "            "

P-harmavoidance<sup>+</sup>        "    "    "            "            "            "

P-cognisance:            "    "    "            "            "            "

---

P-abasement:            the physical group had higher scores than the  
non-physical group.

P-acquisition<sup>++</sup>        "    "    "            "            "            "

P-achievement:          "    "    "            "            "            "

P-exposition:            "    "    "            "            "            "

P-nurturance:            "    "    "    "            "            "            "

---

Past tense:              used less by the physical group than the  
non-physical group.

Present tense:            used more by the physical group than by the  
non-physical group.

Happy endings:            used less by the physical group than by the  
non-physical group.

Indecisive endings:      used more by the physical group than by the  
non-physical group.

From an inspection of these group-profiles some interesting differences between the groups may be noted, even though they were not all significant statistically.

1. The stammerers were distinguished by:-

- (a) the highest scores of all the boys' groups on admitted aggression and dominance;
- (b) the highest scores of all the boys' groups on the largest number of needs (8 at projective level and 2 at questionnaire level - 10 out of 21);
- (c) the highest score of all the boys' groups on the mean number of needs expressed in the stories;
- (d) the highest<sup>+</sup> score of all the boys' groups on projected exposition.

2. The enuretics were distinguished by:-

- (a) the lowest scores of all the boys' groups on admitted infavoidance and autonomy.
- (b) the lowest scores of all the boys' groups on the largest number of needs (5 at projective level and 2 at questionnaire level - 7 out of 21);
- (c) the lowest score of all the boys' groups on the mean number of needs expressed in the stories;



- (d) the highest score of all the boys' groups on the number of indecisive endings to the stories;
- (e) the lowest score of all the boys' groups on the number of happy endings to the stories.

3. The phobic groups were distinguished by:-

- (a) the lowest<sup>+</sup> scores of all the groups on social maturity;
- (b) the highest scores of all the groups on admitted anxiety - blamavoidance, infavoidance and harmavoidance;
- (c) the tendency to use the past tense less<sup>+</sup> and the present and future tenses more than all the other groups;
- (d) the lowest score of all the groups on the number of unhappy endings to the stories;
- (e) the highest scores of all the groups on projected blamavoidance.

4. All the clinic groups were distinguished from the controls by:-

- (a) the higher scores than the controls on projected abasement, achievement and acquisition;
- (b) the lower scores than the controls on projected aggression, dominance, harmavoidance and cognisance.

5. Sex differences between the groups were noted as follows:-

- (a) the phobic girls and the control girls expressed more need for acquisition in their stories than did the boys.
- (b) the phobic girls and the control girls expressed less need for aggression and harmavoidance in their stories than did the boys;
- (c) the girls' groups expressed fewer needs in their stories than did the boys:
- (d) the girls' groups had lower scores for the VAQ than did the boys.

The differences between the phobic girls and the phobic boys, therefore, may be to a large extent differences due to sex and may not be of significance in relation to the symptom.

6. The "physical" group had lower scores than the "non-physical" group on the self-assertive needs (aggression and dominance) and on anxiety (blamavoidance and harmavoidance) at the projective level.

These group differences have been put forward because they may suggest trends distinctive of each group, but no conclusions have been based on the non-significant differences. Further reference has been made to them, however, in the discussion which

follows (PART VIII), especially with regard to their relationship with other research findings.

Finally, to conclude this section on results, an attempt was made to translate the significant findings into brief sketches of a stammerer, an enuretic, a school-phobic boy and a school-phobic girl.

#### THE STAMMERER.

The stammerer, by the nature of his symptom, is unable to express himself or assert himself with ease in everyday situations. The need to speak and to explain may be strongly expressed by him in an indirect way in his stories.

In situations which require him to speak the stammerer may be unsure of himself and may show signs of timidity and withdrawal, but elsewhere he may show as much aggressiveness and dominance as a non-stammerer. The need for dominance may be fully expressed in an overt way and may not necessarily be repressed to any marked extent.

The stammerer may show little need to avoid harm as compared with the non-stammerer. He may tend rather to be impulsive and lacking in caution. He may have a hasty, almost reckless manner which may lead him to disregard difficulties and dangers. He may manifest a high degree of psychic activity, a tendency which may be reflected in the higher scores on a larger number of needs than the non-stammerers.

The symptom of stammering may be a self-inflicted punishment which may satisfy a need for self-abasement - a need which seems to be strong in stammerers; or it may be that the stammer originates as an avoidance response in a traumatic situation and the need for self-punishment arises later as a consequence of the stammer; or perhaps both of these processes take place simultaneously.

#### THE ENURETIC.

The enuretic may often seem to show little anxiety and may be easy-going in behaviour. The enuresis may be a problem to other people rather than to him and he may not show a great deal of concern about it. He may frequently fail to take precautions in relation to it even when instructed or urged to do so.

The enuretic may appear to conform overtly and be eager to please, but there may be in him a failure to co-operate which resembles an attitude of delinquency. He may show a tendency to "use" people, to seek their attention and put them to inconvenience.

In the enuretic there may be an emotional under-reaction, a low level of psychic activity as reflected in the scores on several measures which were lower than those of the non-enuretics.

### THE SCHOOL PHOBIC BOY.

The school-phobic boy seems to be inadequate in social adjustment. He may have difficulty in admitting a need for self-assertion. In the face of difficulties and in anxiety-provoking situations he may be timid and withdrawn, he may lack confidence and he may be troubled by his own feelings of failure. It may well be beyond him to take the lead or even to deal competently with everyday requirements, especially in a social situation, such as school, in which demands are made upon him. He may have little incentive to find out things for himself because he may feel uneasy in new situations. His social and educational development may thus be hindered to a marked extent.

### THE SCHOOL PHOBIC GIRL.

The school-phobic girl seems to admit openly her need to avoid threatening situations. In particular, she may be incapable of facing school, which may be to her a situation of severe stress. The fear and the experience of failure may be to her a present reality which she may be unable to avoid except by actual escape from the scene. This sense of failure may include a real or imagined failure to achieve a satisfactory level either in school work or in a wider sphere of activity. This need to achieve may be expressed indirectly in her stories.

PART VIIIDISCUSSION.

In the setting of a child guidance clinic it was found that cases of stammering, enuresis and school phobia presented difficulties with regard to treatment. The relevant research findings in the literature were felt to be divergent and inconclusive, so that further investigation into more specific factors associated with stammering, enuresis and school phobia seemed to be justifiable.

The aim of the present research was to explore, by means of a hypothetico-deductive model, a method whereby differences between groups of children who had been referred to a child guidance clinic might be objectively assessed. It was hoped that evidence would be obtained for or against the existence of a "stammering personality", an "enuretic personality" and a "phobic personality". It was also hoped that the method and the findings might have relevance to questions of diagnosis and treatment.

Cox and Sargent had already suggested in an earlier research that objective measurements of the differences between groups were of value for these purposes and might in some respects be superior to clinical judgments; in fact, clinical

judgments were made more difficult and less reliable by the absence of appropriate norms on which they might be based. (COX & SARGENT,1950). The work of Meehl might also suggest that clinical judgments need not be opposed to statistical prediction, but rather that each should complement the other, each having its place and its limitations and both being used together so as to reduce guess-work and errors to a minimum. (MEEHL,1958).

In the present research six groups of children, who had been referred to the clinic or who had been selected from the schools as controls, were given various tests from which direct and oblique measures were taken. The groups were closely matched with respect to age, sex and intelligence. The socio-economic level, educational background and motivation were comparable as between the groups. It was therefore felt that the differences between the groups on the applied tests might be attributed to their clinical classification.

The results of the present research are now discussed in some detail and with particular reference to their relationship to the findings of other investigators.

#### The two-level approach; cause and effect.

The two-level method of investigation provides significant information, but it does not enable a distinction to be made between cause and effect. The results may therefore be interpreted in different ways. Thus, in the present research

significant differences were found between the stammerers and the controls in respect of the needs for abasement and exposition. It might be argued that stammering was a symptomatic expression of a repressed need for abasement and was also at the same time an impediment to easy self-expression and therefore the cause of the high degree of projection of the need for exposition. It might, however, also be argued that the stammer was a conditioned avoidance response, without any deep, underlying cause, which constituted a marked personal failure to communicate effectively and was therefore the reason for the high degree of projection of both the punitive need for abasement and the need for exposition. Or again, it might be argued that neither the symptom of stammering nor the needs for abasement and exposition were first causes, but that both symptom and needs arose simultaneously from some incidental cause and then developed together, increasing in gravity by mutual interaction and becoming inextricably involved with each other. The end result of this process might then be the present pattern of tensions as disclosed by the instruments of research.

In the present research the third of these courses has been taken and the attempt has been made to associate the needs directly with the symptom. This interpretation assumes that the need and the symptom co-exist, rather than that the need "causes" the symptom or vice versa. Stammering was thus associated directly with the need for exposition; and school phobia with the low scores on social maturity.



### Social Maturity.

Kellmer-Pringle administered the Vineland Social Maturity Scale to 50 children who were receiving child guidance and to 200 "normal" controls selected from four areas different in socio-economic and cultural background. Discrepancies were found between S.Q. (social quotient) and I.Q., both sets of scores being standardized. Wide discrepancies were found in the child guidance group, and the mean S.Q. of the child guidance sample was most markedly below that of the normal group as well as below the assumed mean of 100 for the population as a whole. Although there were significant differences in intelligence level and reading attainment in the four subgroups of the normal sample, no such difference was found in mean S.Q. Thus the wide discrepancy between normal and maladjusted groups in mean S.Q. suggested that of the three measures used the S.Q. was the best discriminator between "normal" and "abnormal" children. Since invariably a number of children find their way into child guidance clinics whose behaviour is not markedly abnormal, the S.Q. mean may well have been even lower (and thus diagnostically more significant) had all the children been truly problem cases. Kellmer-Pringle commented further that there appeared to be a marked degree of under-functioning in social competence among problem children and that social maturity seemed to be the first casualty of emotional disturbance. There was strong evidence that children whose

development of social maturity was relatively low showed some degree of emotional maladjustment, educational retardation or both. It was found that the social maturity level of the problem group as a whole was significantly lower than that of the normal sample, which suggested that emotional disturbance had an inhibiting or retarding influence on social growth. (KELLMER-PRINGLE, 1951).

These findings appeared to be of particular significance in relation to the present research in which the school phobic group had lower scores than the other groups on the social maturity scale, the boys being significantly lower<sup>++</sup> than the controls. This seemed to be evidence that the school phobic boys were the most maladjusted group and suffering from the highest degree of "emotional disturbance". This conclusion confirmed the suggestion made in the introduction to the present research "that the school phobic children were generally more deeply disturbed than the stammerers and the enuretics". It also confirmed Kellmer-Pringle's suggestion that the mean S.Q. for her child guidance group would have been lower if the group had been composed entirely of truly problem cases.

Kellmer-Pringle reported no sex difference in S.Q., but in the present research the control girls were significantly lower than the control boys in social maturity, and it followed from this that the difference between the control girls and the phobic

girls was not large enough to be significant. It was felt that the present low mean score of the control girls might be due to chance errors of sampling and should be treated with caution. Replication of the investigation with a different sample might be expected to show no significant difference between the sexes, but a significant difference between control girls and phobic girls, indicating that the phobic girls might be as deeply disturbed as the phobic boys. The present low score of the control girls was not attributed to differences in social or economic status, nor would the findings of Kellmer-Pringle have supported the suggestion that any difference in S.Q. might be attributed to these factors.

#### The choice of needs.

The six main needs were selected in the light of clinical experience and relevant references in the literature. The need for aggression has received frequent mention in the literature and it seemed to be a reasonable assumption that autonomy and blamavoidance would also be meaningful in relation to the cases being investigated. In fact the needs aggression, autonomy and blamavoidance did not differentiate significantly between the controls and the clinic groups at either the questionnaire or the projective level. This seemed, therefore, to be a negative finding of considerable importance.

The need infavoidance was expressed in the stories to only a very limited extent and the mean scores on projected infavoidance were considerably lower than the means for the other needs for all groups. It was doubtful, therefore, whether infavoidance was a strongly repressed need, or whether it was a need that was generally felt only weakly and admitted easily. The failure of so many cases to express infavoidance at all made its usefulness rather doubtful.

On the other hand several needs which had not been selected as main needs were freely expressed in the stories. These were notably abasement, achievement, acquisition, cognisance and exposition. These needs, which were not measured at questionnaire level, all showed significant differences between groups at the projective level. It would have been interesting and useful to have had a direct assessment of their strengths as well as the oblique assessment which was obtained.

#### The hypotheses.

Many of the predicted differences between the groups were not in fact found. Of the 36 hypotheses that were made in respect of the main needs 12 were strongly confirmed. The results in respect of aggression were not as expected and none of the predicted results in respect of blamavoidance proved to be correct.

The hypotheses referring to the needs for aggression and dominance were formulated in the belief that the symptoms of stammering, enuresis and school phobia might be related to repressed aggression or dominance. This belief was not borne out by the present findings.

The hypotheses referring to the need for autonomy were based on the assumption that the stammerers and the enuretics might have a need to conform, while the school phobics might feel a need to be defiant. This assumption did not find support in the present results.

It was felt that the stammerers might have less need to avoid blame and the enuretics and school phobics more need to avoid blame than the controls. These hypotheses were based upon the hasty, impulsive behaviour of stammerers and the overt nature of the symptom, upon the more covert nature of the symptom of enuresis and upon the withdrawing behaviour of the school phobics. In fact, no significant differences between the groups were found in respect of blamavoidance, and none of the hypotheses relating to blamavoidance were confirmed.

The need for infavoidance did not seem likely to differentiate the enuretics from the controls and this hypothesis was proved to be correct. On the other hand, the expected high scores for the stammerers and the school phobics were not found. In fact, the school phobic girls projected less need for infavoidance than did

the control girls.

The hypotheses referring to harmavoidance were based on the assumption that the stammerers might have less need and the school phobics more need than the controls to avoid harm. This assumption was shown to be correct.

Finally, it seemed most probable that the school phobics would be characterized by significantly lower scores than the controls on social maturity. This hypothesis was based on the general tendency of school phobics to withdraw and was shown to be correct in the case of the school phobic boys. In the case of the school phobic girls the tendency was in the same direction, but the difference was not significant.

#### The "physical" and "non-physical" groups.

On the projective test the significant differences between the "physical" and "non-physical" groups served to confirm the differences which had already been found for the groups taken separately, that is, for the stammerers and the enuretics on the one hand and for the school phobic boys and control boys on the other.

At questionnaire level, however, two new differences were found to be significant:- the "physical" group had significantly lower scores than the "non-physical" group on harmavoidance and autonomy. Those cases with a manifest physical symptom seemed to

admit to less anxiety than cases without such a symptom. They also seemed to feel less need for defiance or hostile independence. The production of a physical symptom may serve to diminish both anxiety and also the need to express independence in other ways; it may allow the child to be more conforming in other ways.

The rank-difference correlations between the P-test and the Q-test.

Of the 36 possible rank-difference correlations between the P-test and the Q-test the six largest values are given in Table 29 and of these only three were significant.

The significant correlations indicated that those control girls and stammerers who had high scores on admitted dominance also had high scores on projected dominance; and those school phobic boys who had high scores on admitted aggression also had high scores on projected aggression. Similarly there was a tendency for the same children to have low scores on both tests.

It was interesting that all the six largest correlations were in respect of "self-assertion" needs - aggression, dominance and autonomy. No significant correlations were found in respect of "anxiety" needs.

In general, however, there appeared to be little correlation between the projective test and the questionnaire. This finding was in agreement with the result obtained by Forrest and Lee in a similar investigation. "Since conscious and unconscious needs may be quite independent, no significant degree of correlation between

the projective test and the questionnaire was expected, and none was found". (FORREST & LEE, 1962).

The inter-judge reliability.

As a measure of reliability of the scoring of the projective material twenty cases (60 stories) were selected at random and scored by an independent judge. The rank-difference correlations between the original scores and the scores allotted by the independent judge were then calculated in respect of the six main needs. (Table 30).

The correlations were significant at the 5% level of confidence in respect of three needs - autonomy, infavoidance and harmavoidance. The correlation in respect of aggression (0.361) fell short of significance at the 5% level (0.377) by only a small fraction (0.016). It was felt that in respect of these four needs the reliability of the scoring was at a sufficiently high level for the results to be treated with confidence. The lower correlations in respect of dominance and blamavoidance indicated that results relating to these needs should be treated with greater caution. In fact, in the comparisons between the groups on the projective test only one significant difference involving dominance was found - the difference between the stammerers and the controls. The one significant difference in respect of dominance should therefore be treated with caution. It is possible that, if greater reliability



of scoring had been achieved in respect of dominance and blamavoidance, more significant differences between the groups might have been found.

In the attempt to make the scoring as objective and impartial as possible and the research as open to independent replication as possible collaboration between the scorers was kept to a minimum. The two scorers did not meet and did not discuss their marking with each other. The independent judge was given only brief instructions as to the scoring procedure - to use Murray's own definitions of the needs and to allot one mark for each expression of each need. It is certain that greater collaboration between the scorers would have brought about a considerable increase in the correlations between their scores, but this collaboration was purposely avoided. The harshest criterion was used deliberately and in this context the correlations were felt to be particularly valuable.

#### The verb-adjective quotient (VAQ).

Boder referred to Busemann's calculation of the Action Quotient (Verb-adjective Quotient) for children of various ages. Busemann had formed the opinion that there were rhythmical variations of the quotient spread over the lifetime of the individual and that an increase in the quotient was accompanied by an increase in the emotional instability of the child as estimated by teachers. He spoke of an 'active' style and a

'qualitative' style and believed that differences in a person's style depended very little upon the subject matter dealt with. Boder related these suggested differences in style to Rorschach's distinction between kinaesthetic responses (verbs) and colour responses (qualitatives). The importance of these two kinds of response lay not in their absolute numbers but in their relationship to each other, in the same way as the important feature of style was the relationship of verbs to adjectives rather than the absolute number of each. Boder then investigated the adjective-verb quotient and its relationship to various styles of writing. He found that the adjective-verb quotient (the inverse of the verb-adjective quotient) varied significantly with the category of the material from which specimens were taken, having the lowest value in drama, increasing through legal statutes and fiction and having the highest value in scientific writings. On his available evidence, Boder was unable to conclude that fluctuations in the AVQ of an individual writer could be attributed to periodic changes in emotional stability as Busemann had suggested. (BODER, 1939).

Balken and Masserman found that in anxiety states the action expressed in stories was dramatic and often compulsive and the VAQ was high. Similarly a high VAQ was found in cases of obsessive-compulsive neurosis, in which latent anxiety frequently

broke through the defences. The compulsive neurosis and anxiety state were found to bear a dynamically close relationship to each other. High values of the VAQ were said to connote restless, forceful dramatic action in the phantasies, expressing libidinal tensions and anxiety in the subject. In cases of conversion hysteria, however, low values of the VAQ were found, indicating little forceful action. In these cases overt anxiety was thought to be diminished by the conversion of the repressed erotic or aggressive urge into organic dysfunctions. (BALKEN & MASSERMAN, 1940).

Hays et al. computed the VAQ's of seventy-two subjects from their TAT stories. These were compared with each of three different estimates of the Rorschach experience-balance and a significant positive relationship between the variables was found. It was concluded that speech usage had a definite relationship to the nature of the Rorschach record. The findings were consistent with hypotheses advanced by earlier investigators and suggested that both speech usage and Rorschach determinants were products of a characteristic personality structure. (HAYS et al., 1951).

In the present research the enuretics and the school phobic boys had the highest values for the VAQ, the stammerers had the next highest and the control boys had the lowest score. The VAQ's for the girls' groups were lower than those for the boys and also the trend was reversed, the school-phobic girls having a lower

VAQ than the control girls.

The differences between the mean values of the VAQ for the groups were not found to be significant. However, when the groups were compared with respect to the numbers of cases above a cut-off point of VAQ=5, it was found that the school phobic boys had significantly more<sup>+</sup> high scores than the stammerers. These findings would support the suggestion that anxiety reached a higher level in the school phobics than in the other groups.

When the groups were ranked in order on the basis of the mean score for each group, the VAQ ranked the boys' groups in the same order as the percentages of indecisive endings and in the reverse order to the percentages of happy endings (see Table 36). There was, therefore, a hint of a possible relationship between the VAQ and the kind of story-ending, a high VAQ being associated with more indecisive endings and fewer happy endings.

In the present research, therefore, the use of the VAQ produced only one significant difference between the groups. This difference might indicate that the VAQ was a possible measure of anxiety, as suggested by Balken and Masserman, or possibly evidence of a "characteristic personality structure" as suggested by Hays et al.

The comment of Vernon seemed to be appropriate here, that "much investigation is needed into the consistency of speech

measures; it is only too likely that a person's style varies greatly in different contexts and different social situations". (VERNON, 1953).

### The Story-endings.

Cox and Sargent presented ten TAT pictures to two groups each of 15 boys, one group clinically diagnosed as "stable" and the other as "disturbed". Certain differences between the groups in respect of their TAT productions were hypothesized. Although the results of the inquiry showed many differences between the "stable" and the "disturbed" groups, the differences were not all in the expected direction. So far as the story-endings were concerned, one feature which was found to distinguish the "stable" group was the larger number of stories with successful or unsuccessful outcomes and the smaller number with "no ending". The stable group seemed better able to bring a story to an ending. (COX & SARGENT, 1950).

In the present research the differences between the groups in respect of story-endings were interesting even though they were not statistically significant. The largest differences between the clinic groups and the controls were as follows:-

1. The CB wrote more happy endings (successful outcomes) than the En. (16%)
2. The CB wrote fewer indecisive endings ("no endings") than the En. (17%).

3. The CB wrote more unhappy endings than the SPB. (8%)
4. The CB wrote fewer indecisive endings than the SPB. (11%)
5. The CG wrote more unhappy endings than the SPG. (6%)
6. The CG wrote fewer indecisive endings than the SPG. (10%)

It seemed that the control groups wrote more stories with endings and fewer stories with "no ending" than the clinic groups, a result which was in agreement with that of COX and SARGENT.

Negligible differences were found between the two control groups and between the controls and stammerers.

There seemed to be a tendency for the enuretics to write fewer happy endings, for the enuretics and the phobics to write indecisive endings, and for the phobics to avoid unhappy endings.

It was felt that further investigation of the use and significance of story-endings was necessary.

#### The tense of the stories.

In an investigation into the application of the Michigan Picture Test, Hartwell et al. included the tense of verbs as one of the twelve variables chosen for study. The frequency of use of the tenses in stories written by children was estimated and it was found that the proportion of past tense references in response to the blank card was considerably greater than to the other three, which indicated that this card elicited more projections into the past. (Hartwell, p.131).

This result would be in agreement with the findings of the present research in which no stimulus picture was used and in which the large majority of the stories were written in the past tense (91.2%).

Hartwell et al. found that at all age levels the group of poorly-adjusted children used more past tense references than the well-adjusted group. It was suggested that poorly adjusted children projected the time of stories into the past because of their difficulty in dealing with current conflicts. Younger children used the present tense almost exclusively, while older children used the past and the future tenses more frequently. No sex differences were found in the use of the tenses.

In the cases of severely maladjusted children, however, there was a reversal of the group trends. When regression became severe, older clinic children who were schizoid or schizophrenic began to use predominantly the present tense, which was the characteristic of the normative results for younger children. Children with schizoid tendencies appeared to retrogress in their language structure to the level of much younger children. (HARTWELL et al., 1951).

The present findings were not entirely in agreement with those of Hartwell. While there was no significant sex difference in the use of the tenses, it was not found that the poorly-adjusted groups used the past tense more frequently, than the well adjusted

groups; on the contrary, the control groups used the past tense exclusively (Tables 24-25).

The clinic cases, many of whom were severely disturbed, used the present tense to a marked extent and the school phobic boys, some of whom could be described as schizoid or schizophrenic in type, used the past tense to a significantly lesser<sup>+</sup> extent than did the controls. The stammerers and the enuretics also wrote fewer stories in the past and more in the present tense than did the controls, although these differences were not significant statistically. The result for the school phobic boys gave some support to Hartwell's findings for older, clinic children of schizoid type.

In general, therefore, there seemed to be some measure of agreement between the present findings and those of Hartwell, but further research into the use of the tenses by different groups seemed to be needed.

#### The total number of needs expressed.

In their investigation into the responses of a "stable" and a "disturbed" group of boys, Cox and Sargent found that the responses of the "disturbed" group were more constricted, a term which included the less frequent expression of feelings, needs, threats, actions or outcomes. The "stable" group, on the other hand, were able to express more needs and wrote fewer stories in which no need was expressed. The needs scored were affiliation,



security, achievement, independence and conformity; the central need or needs of the primary hero were scored. (COX & SARGENT, 1950).

In the present research the needs scored did not coincide exactly with those of Cox and Sargent, and the scoring included all expressions of the needs. Nevertheless it was felt that a broad comparison was possible of the total number of needs expressed. Since the present groups differed from each other in size, the mean number of needs expressed was calculated. (Table 28). It will be seen that the CG expressed, on average, fewer needs than the SPG; the CB expressed fewer than the St. and the SPB, but more than the En; and the girls expressed fewer needs than the boys. None of the differences between the means were significant.

With regard to the total number of needs expressed, therefore, the present findings did not seem to indicate any particular trend nor did they support the findings of Cox and Sargent.

#### The present research in relation to other investigations.

##### 1. The Stammerers.

Many writers have associated stammering with aggressiveness and dominance, either open or repressed. (BAKWIN, 1960; BARBARA, 1958; DESPERT, 1946; FAWCETT & McCULLOCH, 1964; FENICHEL, 1955; KRUGMAN, 1946;

MONCUR,1955; WIESENHUTTER,1955). Thus Despert found that intense, more or less inhibited hostility was revealed; Krugman found evidence of considerable hostility in stammerers, who were basically hostile, but might not appear so superficially, and that strong repression took place.

In the present research the stammerers showed evidence of open aggressiveness and dominance, but the findings did not seem to confirm that there was any undue repressed hostility. On the contrary, the opposite of this seemed to be indicated.

It has been suggested that stammerers show anxiety to an unusual degree. (BARBARA,1958; BURT,1937; DESPERT,1946; FAWCETT & McCULLOCH,1964; MONCUR,1955; KRUGMAN,1946; WALTON & BLACK,1958). Boland felt that stammerers preferred to express their anxiety overtly rather than to repress it or give it indirect expression. (BOLAND,1953).

In the present research there did not seem to be any indication of an outstanding degree of anxiety at either questionnaire or projective level; nor did the present findings support the conclusion that the stammerers tended to express their anxiety overtly rather than indirectly.

The stammerers obtained higher scores than the other boys' groups on projected infavoidance and achievement, and significantly higher scores than the controls on projected exposition. These results might afford some support for the "approach-avoidance"

theory of Sheehan et al., - that stammerers have the need to succeed and to achieve but tend to avoid even the threat of failure. (SHEEHAN et al., 1954,1955).

Johnson's observation that stammerers were a little more withdrawing socially seemed to find support in the slightly below average score in social maturity. His general view that stammerers were essentially normal and showed no significant difference from non-stammerers on mean attitude-test scores was not confirmed by the present significantly higher scores for stammerers on abasement and acquisition, their significantly lower scores on projected dominance and harmavoidance, nor by the fact that the stammerers had higher scores than the other boys' groups on so many measures. (JOHNSON,1955).

Reid and McAllister, using personality inventories with elementary-school children, found no significant difference between personal and social adjustment scores of speech defectives and those of normal speakers (see Reid and McAllister in NELSON,1953). This finding was in agreement with the present result that stammerers did not differ significantly from the controls on social maturity. McAllister felt that many stammerers generated a fear and dislike of speaking, feelings of inferiority and aggressive attitudes about speech or withdrawal from social situations. (McALLISTER,1958). The present significantly higher scores of the stammerers on projected exposition and abasement might give some support to McAllister's point of view.

Bender found stammerers less dominant and less sociable than non-stammerers. (BENDER, in RICHARDSON, 1944). The present findings were that stammerers were significantly lower than the controls on projected dominance, but the difference in social maturity was not significant.

Richardson found that there were no significant differences between stammerers and non-stammerers in the proportions of needs expressed or in the satisfactory or unsatisfactory endings to stories. (RICHARDSON, 1944). In the present research, although the stammerers had higher scores than the controls on the mean number of needs expressed and indecisive endings, the differences were not significant.

Richardson also found that the most predominant themes for both the stutterers and the controls were abasement, achievement and aggression. (RICHARDSON, 1944). In the present research these three needs were not the most frequently expressed by either the stammerers or the controls; they were exceeded in frequency by other needs. Moreover, the stammerers projected the need for abasement significantly more than the controls; the need for achievement was also higher in the stammerers, although not significantly so; and the need for aggression was projected less by the stammerers than by the other boys' groups. These results were not in agreement with those of Richardson.

Krugman made a Rorschach study of a group of 50 stutterers and a group of 50 "problem" children referred to a child guidance

clinic because of serious maladjustment and found that the stutterers tended more towards instability and neuroticism, showed emotional tensions and an impulsive irregularity of performance and had a high refusal rate. They were also less productive, i.e. made fewer responses, than the non-stutterers. (KRUGMAN,1946). In the present research the large number of needs on which the stammerers had the highest score might be taken to indicate emotional tensions and this would agree with Krugman's finding. There were no refusals in the present research, nor could it be concluded that the stammerers were less productive or made fewer responses, since the mean number of needs expressed was higher for the stammerers than for the other boys' groups.

Madison and Norman administered the Rosenzweig Picture-Frustration Test to groups of 25 stutterers and normals. They investigated the contention that unconscious guilt feelings, resulting from repressed hostility to the listener, might explain the reluctance of some stutterers to discard their secondary mechanisms during treatment, and that these mechanisms might fulfil the need of the stutterer for self-punishment as an atonement for his hostility. They concluded that the stutterers had a need for self-punishment, a need which would help to explain their depressive trends and sense of inadequacy; that the stutter was a self-punishment for the hostile or sadistic tendency to

destroy an opponent; that the ego refrained from externally directed aggression and the aggression was blocked; and that the sadism, no longer directed against objects, was turned inward as the super-ego's aggression against the ego. "The findings seemed to correspond to the psychoanalytic contention that stuttering is essentially compulsive in nature, with anal sadistic tendencies resulting in a turning inwards of aggression". (MADISON and NORMAN, 1952).

An investigation by Quarrington using a group of 30 adult stutterers failed to confirm the findings of Madison and Norman. No significant differences were found between stutterers and normals on seven test characteristics of the Picture Frustration Test and no support was found for the psycho-analytical assertion that stuttering is a symptom of a basic character neurosis (QUARRINGTON, 1953).

In the present research there was no significant difference between the stammerers and controls in aggression at either questionnaire or projective level. At questionnaire level the stammerers had higher scores than the other boys' groups. At projective level the stammerers had lower scores than the other boys' groups. These results did not seem to indicate that stammerers tended to repress their aggression. This finding would agree with that of Quarrington, but not with that of Madison and Norman.

In the present research the stammerers were significantly higher than the controls in projected abasement. This finding might support the contention that stammerers are more intro-punitive than normals and have a need for self-punishment. This would be in agreement with the conclusion of Madison and Norman. It was, however, interesting to note that in the present research the enuretic and school phobic boys also exceeded the controls on abasement, although these differences were not significant. It might be possible that intro-punitiveness is a characteristic of several clinic groups and not merely of stammerers.

## 2. The Enuretics.

Several writers have associated enuresis with aggressiveness, hostility or stubbornness. (BURT,1940; GERARD,1939; STOCKWELL & SMITH,1940; WIESENHUTTER,1954). In the present research no significant difference was found between the enuretics and the controls on aggression or autonomy. In fact, the enuretics had slightly lower scores than the controls on these needs.

It has been suggested that enuretics are nervous, timid and generally passive in behaviour. (ANDERSON,1930; BEVERLY,1933; GERARD,1939; STOCKWELL & SMITH,1940). This observation might receive some slight support from the present scores on dominance, which were lower than the controls, although not significantly so.

Anderson reported that feelings of inferiority occurred extremely commonly in enuretic children. (ANDERSON,1930). In the present research the evidence for this was slight, the enuretics having lower scores than the other boys' groups on admitted infavoidance and higher scores than the controls on projected infavoidance, no differences being significant.

Enuresis has perhaps been most commonly associated with anxiety, although it is not clear whether the anxiety has been regarded as a cause or a result of the enuresis or both. (BEVERLY,1933; BURT,1940;CROSBY,1950; DENNY-BROWN,1954; GERARD,1939; SEIGER,1952; STALKER & BAND,1946; STOCKWELL & SMITH,1940). This association would not be confirmed by the present findings. No significant differences were found between the enuretics and the controls on blamavoidance or infavoidance; on projected harmavoidance the enuretics were significantly lower<sup>+</sup> than the controls. There did not seem, therefore, to be a strong case for associating enuresis with anxiety.

As compared with the controls the enuretics had lower scores on admitted and projected dominance, lower scores on the needs generally, a higher score on projected infavoidance, a larger number of indecisive and a smaller number of happy story endings. These results might be taken to support Gerard's view that enuretics have a "passive, retiring and self-depreciatory" kind of attitude. (GERARD,1939). However, only two of the



differences between the enuretics and the controls were significant. Significant evidence could, therefore, not be found for the suggestions that enuresis may be associated with a "psychopathic personality", (STALKER & BAND, 1946), a "specific configuration of personality", (BACHET, 1951), or a distinctive character type, (MICHAELS, 1944, 1954, 1955).

### 3. The school-phobics.

Many authors observed that school phobia was associated with anxiety described as acute, severe, extreme and overwhelming. (BAKWIN, 1960; BURNS, 1952; COOLIDGE et al., 1960, 1962; DAVIDSON, 1960; EISENBERG, 1958; GREEN, 1959; HERSOV, 1960; JOHNSON, 1941, 1957; KAGAN, 1956; KLEIN, 1945; TALBOT, 1957; WALDFOGEL et al., 1954, 1957). This observation was supported by the present findings that both phobic groups had higher scores than the controls on admitted blamavoidance, infavoidance and harmavoidance; in the case of harmavoidance the phobic girls were significantly higher than the controls. Both phobic groups also had higher scores than the controls on projected blamavoidance, although these differences were not significant. The fact that the phobic girls were lower, and the phobic boys were very significantly lower, than the controls on social maturity indicated a failure in social situations which might also reasonably be attributed to anxiety.

The aggression shown by phobic children in some circumstances was not reflected in the present findings, which therefore did not support the view that aggressiveness may be a feature of these cases. (BURNS,1952; COOLIDGE et al.,1962; DAVIDSON,1960; HERSON, 1960; KLEIN,1945; WALDFOGEL et al.,1954,1957,1959.) There was no confirmation of the suggestion that the girls were aggressively defiant and the boys were submissive and obedient. (JOHNSON et al.,1941). In the present research both phobic groups had lower scores than the controls on aggression and dominance at both the questionnaire and the projective level. On admitted dominance the phobic boys were significantly lower than the controls.

Davidson felt that in school phobic cases there was an increase in hostility at puberty, coupled with a bid for greater independence. (DAVIDSON,1960). This did not show itself in the present results; the phobics did not have higher scores than the controls on autonomy.

Johnson et al. expressed the view that the phobic child punished himself in a typically self-destructive way by falling behind in school and crippling himself for life if not treated; all of the children showed fears and sensitiveness regarding this. (JOHNSON et al.,1941). Klein also reported a fear of school failure, together with unrealistic ambitions. (KLEIN,1945). In the present research the need for achievement was strongly expressed in the stories. The phobic girls significantly exceeded the

control girls in the expression of this need and the phobic boys had higher scores than the control boys. No evidence was obtained of the conscious expression of the need, but it may well be that the projection of the need to achieve takes place in conjunction with a self-punitive failure in school work. It seems to be generally true that a failure in school work occurs in cases of school phobia. However, it is interesting to note that in the present research the other clinic groups also had higher scores than the controls on the need for achievement, so this feature did not characterize the school phobics particularly.

Lurie et al. investigated the diagnostic and prognostic significance of the differences between the I.Q. and the S.Q. (social quotient). In one of their groups (group IV), which consisted of children with both anti-social behaviour and maladjustment to school, there was a marked tendency for the I.Q. to exceed the S.Q. Five children were found to be psychotic, 19 psychoneurotic and 13 were suffering from organic nervous lesions. The children also tended to behave at the level of their lower quotient, whether I.Q. or S.Q. (LURIE et al., 1942). In the present research there was no significant difference between the groups in I.Q., but the phobic boys were very significantly lower<sup>++</sup> than the control boys in S.Q., and the phobic girls were lower than the control girls. Many of these cases might be described as psychoneurotic and a few as tending towards the psychotic. The

present results therefore appeared to confirm the findings of Lurie et al. with regard to the differences between the I.Q. and the S.Q.

PART IXSUGGESTIONS FOR FUTURE RESEARCH.

It was felt that in general the plan of the present research was satisfactory, and that the method was useful in ascertaining significant differences between groups of children of different clinical status. However, certain points arising from the research might well receive consideration with regard to their applicability to future investigations of a similar kind.

The fact that the needs aggression, autonomy and blamavoidance did not discriminate significantly between the controls and the clinic groups may be a finding of considerable importance. On the other hand, if the experiment were replicated with different groups significant differences in respect of these needs might be found. In particular, the need aggression has received such frequent mention in the literature in relation to stammering, enuresis and school phobia, that further efforts to arrive at an objective assessment of its relevance might be said to be essential. It is suggested, therefore, that these three needs might usefully be included in similar future investigations.

The need infavoidance was expressed to only a very limited extent in the present research. There was doubt, therefore, as to the usefulness of this need with groups of this kind and the impression was that it might well be omitted from future researches

of this sort into similar clinical groups.

On the other hand, several other needs, which were scored at the projective level only, might be profitably used in the future with similar groups. In particular, the needs abasement, achievement, acquisition, cognisance and exposition might be further examined in view of the present highly significant differences which they indicated.

Indeed it might be useful to carry out an investigation of a more empirical nature and initially at the projective level only. Several different clinical groups might be used and the projective material might be scored for many needs. In this way similarities and differences might be found in respect of several needs, some of which might be related to the central symptom of each group, just as the need exposition was related to stammering in the present research. Further investigation at questionnaire level might then be carried out, using those needs which had been found to be relevant to the groups. Eventually clearer indications might be found of the associations between symptoms and needs with ultimate gain for purposes of diagnosis and treatment.

There were indications in the present research that the differences between groups, such as the school phobic boys and girls, might be due to sex and related cultural expectations and might not be of significance in relation to the symptom. It was felt, therefore, that it might be advisable to investigate

matched groups of boys and girls displaying the same symptom, so that an assessment might be made of the extent to which differences between groups were due to sex differences.

It seemed likely that more reliance might have been placed upon the scores of the projective material in the present research if several judges had carried out the scoring, all the judges being supplied with detailed operational criteria for the needs. Perhaps a greater degree of collaboration between scorers might, therefore, be advisable in future investigations of this kind. This, of course, is largely a practical problem, the solution of which depends upon the availability of time and personnel.

The present research has shown the value of the Vineland Social Maturity Scale in differentiating cases of school phobia from other groups. This instrument might, therefore, be usefully applied to various groups of different clinical status in researches of a similar kind. It seems to be effective in discriminating between children who are "stable" and those who are "emotionally disturbed".

The oblique formal measures were not as useful as had been hoped, but the trends which they indicated seemed to be promising. The impression was that further research was needed into the nature and application of the measures themselves, which might then be more usefully employed in researches of the present kind.

This seemed to apply especially to the Verb-adjective Quotient which might be useful as a measure of anxiety if the effects of other factors such as style and context were estimated.



PART XSUMMARY AND CONCLUSIONS.

The Terman-Merrill Intelligence Test, the Vineland Social Maturity Scale, a questionnaire and an open projective test were administered to four groups of children referred to a child guidance clinic and to two groups of controls. The clinic groups consisted of cases of stammering, enuresis and school phobia. The aim of the investigation was to discover whether there existed any differences between the groups with regard to certain selected variables; in effect, whether any evidence could be produced for the existence of a "stammering personality" an "enuretic personality" and a "school phobic personality". The questionnaire and the projective test were scored for six main needs as defined by H.A.MURRAY, 1938, and the projective test was also scored for nine other needs. In addition, the projective material was scored for the use of tense, the kind of ending, the number of needs expressed and the verb-adjective quotient.

Several significant differences were found between the groups and it was felt that other differences, although not statistically significant, were indicative of important trends. Some of the hypothesized differences were not, in fact, found and some of the significant differences that were found had not been predicted. In particular, the needs aggression, autonomy and

blame avoidance did not show the expected significant differences between the groups, but significant differences were shown by other needs, such as abasement, achievement and acquisition, at the projective level. The oblique formal measures proved to be less useful than had been hoped at the outset; they indicated certain trends, but produced only two significant differences between groups.

In general, however, there seemed to be sufficient evidence that the groups differed not only at symptom level but also in respect of several objectively-measured variables. The stammerers, the enuretics and the school phobics appeared to handle their needs in different ways and to that extent might, therefore, be regarded as having a "stammering personality", an "enuretic personality" and a "school phobic personality" respectively.

This preliminary study showed that the method was useful in disclosing differences on well-defined measures between groups of children of different clinical status and that the differences could be readily assessed without the necessity for interpretations in depth. It was felt that further studies along the same lines might be profitable and that research into the meaning and reliability of the oblique formal measures was desirable. It may then be more possible to draw valid

conclusions from the differences that may be found between groups. The evidence here presented seemed to show that important differences may well exist.

## APPENDICES

	Page.
A. STATISTICAL TABLES ... ..	190
B. INSTRUCTIONS FOR THE PROJECTIVE TEST AND QUESTIONNAIRE.. ...	237
C. THE GEOGRAPHICAL DISTRIBUTION OF CASES ... ..	243
D. TWENTY-FOUR TYPICAL CASE HISTORIES IN BRIEF ... ..	249

APPENDIX A.

Statistical Tables.

TABLE 5      MEAN AGES.

Group	CB.	St.	En.	SPB.	CG.	SPG.
Age range.	9:3 - 14:4	8:6 - 15:1	7:5 - 14:5	7:10 - 14:8	10:2 - 14:7	9:3 - 14:11
Mean age.	11.11yr.	11.83yr.	10.77yr.	11.86yr.	12.49yr.	12.42yr.
S.E. of Mean.	0.44	0.45	0.42	0.47	0.34	0.39

TABLE 6      MEAN I.Q.'s.

Group	CB.	St.	En.	SPB.	CG.	SPG.
I.Q. range.	86-145	93-134	91-142	89-171	82-150	88-148
Mean I.Q.	117.83	114.67	111.04	111.36	112.13	114.54
S.E. of Mean.	3.61	2.98	2.47	4.09	3.00	3.63

TABLE 7      MEAN SOCIAL QUOTIENTS. (S.Q.)

Group	CB.	St.	En.	SPB.	CG.	SPG.
S.Q.range.	82-119	81-120	75-126	69-133	85-103	74-108
Mean S.Q.	101.04	97.13	99.14	89.95	94.67	90.75
S.E. of Mean.	2.69	2.76	2.81	3.17	1.76	2.45

TABLE 8      MEAN SCORES ON QUESTIONNAIRE. (Q-TEST)

	Group	CB.	St.	En.	SPB.	CG.	SPG.
Agg.	MEAN S.E.of Mean.	20.04 1.11	20.13 1.06	19.61 1.41	19.55 1.40	19.75 1.22	19.42 1.60
Dom.	MEAN S.E.of Mean.	21.96 1.27	22.38 1.39	21.29 1.44	18.45 1.24	21.54 1.21	19.17 1.14
Aut.	MEAN S.E.of Mean.	26.54 1.40	24.25 1.44	23.25 1.19	24.68 1.45	24.75 1.30	23.83 1.47
Blam.	MEAN S.E.of Mean.	27.83 1.56	27.42 1.39	27.93 1.39	28.09 1.61	27.04 1.46	27.17 1.35
Inf.	MEAN S.E.of Mean.	23.29 1.60	24.29 1.38	22.14 1.24	24.45 1.63	23.96 1.51	25.79 1.61
Harm.	MEAN S.E.of Mean.	19.48 1.42	17.54 1.23	18.89 1.34	22.41 1.68	19.42 1.18	22.83 1.82

TABLE 9    MEAN SCORES ON THE QUESTIONNAIRE (Q-TEST)  
PHYSICAL AND NON-PHYSICAL GROUPS.

NEED	PHYSICAL GROUP	NON-PHYSICAL GROUP	DIFFERENCES.
Agg.	19.85	19.78	0.07
Dom.	21.79	20.28	1.51
Aut.	23.71	25.65	1.94
Blam.	27.69	27.96	0.27
Inf.	23.13	23.85	0.72
Harm.	18.27	20.93	2.66



TABLE 10MEAN SCORES ON THE PROJECTIVE TEST (P-TEST).

	GROUP	CB.	St.	En.	SPB.	CG.	SPG.
Agg.	MEAN	2.29	1.29	1.64	1.73	1.5	0.63
	S.E. of MEAN	0.66	0.43	0.43	0.55	0.41	0.26
Dom.	MEAN	1.08	0.33	0.64	0.55	1.0	0.88
	S.E. of MEAN	0.27	0.12	0.26	0.18	0.26	0.26
Aut.	MEAN	0.42	0.42	0.46	0.41	0.58	0.92
	S.E. of MEAN	0.22	0.18	0.18	0.19	0.20	0.42
Blam.	MEAN	0.79	0.54	0.43	0.91	0.88	1.0
	S.E. of MEAN	0.22	0.16	0.13	0.28	0.21	0.30
Inf.	MEAN	0.08	0.25	0.11	0.23	0.54	0.04
	S.E. of MEAN	0.08	0.21	0.08	0.11	0.19	0.04
Harm.	MEAN	3.33	2.42	2.11	2.95	1.83	1.79
	S.E. of MEAN	0.57	0.56	0.48	0.51	0.45	0.42

TABLE 11      MEAN SCORES ON THE PROJECTIVE TEST (P-TEST).

	CB.	St.	En.	SPB.	CG.	SPG.
Aba.	2.0	4.08	3.39	3.09	2.21	2.92
Ach.	4.33	5.75	5.12	5.41	1.54	4.38
Acq.	0.67	1.88	1.82	0.95	1.17	1.83
Aff.	1.71	2.46	1.50	2.18	2.50	2.67
Cog.	4.25	2.42	2.93	2.64	2.83	2.50
Exp.	2.04	3.25	2.89	2.91	1.71	2.0
Nur.	1.08	1.96	1.14	1.23	1.96	2.25
Ord.	1.21	1.29	0.64	0.91	0.54	0.92
Suc.	0.88	0.96	0.86	1.14	1.33	1.21

TABLE 12      MEAN SCORES ON THE PROJECTIVE TEST (P-TEST).  
PHYSICAL AND NON-PHYSICAL GROUPS.

	PHYSICAL GROUP	NON-PHYSICAL GROUP
Agg.	1.4	2.0
Dom.	0.5	0.82
Aut.	0.44	0.41
Blam.	0.48	0.84
Inf.	0.17	0.15
Harm.	2.25	3.15

TABLE 13      STANDARD DEVIATIONS.

	CB.	St.	En.	SPB.	CG.	SPG.
AGE (Years)	2.17	2.22	2.21	2.22	1.68	1.92
I.Q.	17.7	14.6	13.1	19.2	14.7	17.8
SOC.Q.	13.2	13.5	14.9	14.9	8.6	12.0

QUESTIONNAIRE.

Agg.	5.44	5.21	7.46	6.58	5.96	7.86
Dom.	6.22	6.79	7.64	5.81	5.93	5.61
Aut.	6.87	7.05	6.29	6.80	6.38	7.21
Blam.	7.66	6.79	7.36	7.55	7.13	6.62
Inf.	7.82	6.74	6.58	7.67	7.41	7.90
Harm.	6.94	6.02	7.11	7.89	5.77	8.91

PROJECTIVE TEST.

Agg.	3.25	2.11	2.30	2.57	2.00	1.28
Dom.	1.31	0.57	1.37	0.86	1.27	1.27
Aut.	1.10	0.88	0.93	0.91	0.98	2.07
Blam.	1.08	0.79	0.69	1.32	1.05	1.46
Inf.	0.41	1.03	0.42	0.53	0.94	0.20
Harm.	2.81	2.75	2.52	2.40	2.20	2.06

TABLE 14.      STANDARD DEVIATIONS. (Q-TEST).  
PHYSICAL AND NON-PHYSICAL GROUPS.

Standard deviations for needs which  
showed significant differences  
between the two groups.

NEED	STANDARD DEVIATION	
	PHYSICAL GROUP	NON-PHYSICAL GROUP
Dom.	5.726	4.473
Aut.	4.595	4.127
Harm.	5.464	5.949

TABLE 15      THE ANALYSIS OF VARIANCE BETWEEN GROUPS.  
(Q-TEST).

VALUES OF F.

VARIABLE	F - VALUE	SIGNIFICANCE
Age.	3.807	++
I.Q.	0.795	-
SOC.Q.	4.174	++
Agg.	0.494	-
Dom.	2.730	+
Aut.	1.692	-
Blam.	0.342	-
Inf.	1.306	-
Harm.	2.957	+

+ An F - VALUE of 2.27 is significant at the 5% level.

++ An F - VALUE of 3.14 is significant at the 1% level.

TABLE 16      THE ANALYSIS OF VARIANCE BETWEEN GROUPS.  
(Q-TEST).

Values of t for significant differences between groups.

VARIABLE	GROUPS	VALUE of t.	SIGNIFICANCE
Age.	SPB. exceed En.	2.13	+
Age.	St.    "    En.	2.14	+
Soc.Q.	CB.    "    SPB.	3.487	++
Soc.Q.	En.    "    SPB.	2.994	++
Soc.Q.	St.    "    SPB.	2.258	+
Soc.Q.	CB.    "    CG.	2.049	+
Dom.	CB.    "    SPB.	2.5	+
Dom.	St.    "    SPB.	2.799	++
Dom.	En.    "    SPB.	2.096	+
Harm.	SPB.    "    St.	2.830	++
Harm.	SPB.    "    En.	2.120	+
Harm.	CG.    "    SPG.	2.027	+

+ A t - value of 1.98 is significant at the 5% level.

++ A t - value of 2.61 is significant at the 1% level.

TABLE 17      DIFFERENCES BETWEEN MEANS ON THE Q-TEST.  
PHYSICAL AND NON-PHYSICAL GROUPS.

NEED	DIFFERENCE BETWEEN MEANS	t - VALUE	SIGNIFICANCE
Dom.	1.51	1.448	-
Aut.	1.94	2.179	+
Harm.	2.66	2.272	+

+ A t - value of 1.98 is significant at the 5% level.

++ A t - value of 2.61 is significant at the 1% level.



TABLE 18     SIGNIFICANT DIFFERENCES BETWEEN GROUPS ON  
THE PROJECTIVE TEST.

Values of CHI - Square greater than 3 are shown in this table.

GROUPS		NEED	CHI - Square	SIGNIFICANCE
CG.	Exceeded CB.	Inf.	4.765	+
CB.	" CG.	Harm.	6.308	+
CB.	" St.	Dom.	5.856	+
CB.	" St.	Harm.	4.716	+
CG.	" SPG.	Inf.	4.765	+
CB.	" En.	Harm.	4.088	+
SPB.	" SPG.	Harm.	3.371	
SPB.	" SPG.	Agg.	4.295	+
CB.	" CG.	Ach.	12.128	++
CG.	" CB.	Acq.	3.564	
CB.	" CG.	Cog.	4.648	+
CG.	" CB.	Nur.	4.968	+
SPG.	" CG.	Ach.	4.817	+
SPG.	" CG.	Ord.	3.20	
St.	" CB.	Aba.	7.04	++
St.	" CB.	Acq.	8.663	++
St.	" CB.	Exp.	4.0	+
SPB.	" CB.	Aba.	3.287	
CB.	" SPB.	Cog.	4.176	+
En.	" SPB.	Acq.	3.786	
St.	" SPB.	Acq.	4.083	+
En.	" CB.	Acq.	8.375	++
En.	" CB.	Aba.	3.032	
SPG.	" SPB.	Acq.	4.083	+

+ Significant at the 5% level.     ++ Significant at the 1% level.

The value of CHI-square must exceed 3.841 to be significant at the  
and must exceed 6.635 to be significant at the  
5% level,  
1% level.

TABLE 19      SIGNIFICANT DIFFERENCES BETWEEN THE PHYSICAL  
AND THE NON-PHYSICAL GROUPS ON THE PROJECTIVE TEST.

Values of CHI-square greater than 3 are shown  
in this table.

GROUPS	NEED	CHI-square	Significance
Non-physical exceeded physical	Dom.	3.636	-
Non-physical exceeded physical	Harm.	5.611	+
Physical exceeded non-physical	Aba.	3.094	-
Physical exceeded non-physical	Acq.	12.288	++

+ Significant at the 5% level.

++ Significant at the 1% level.

The value of CHI-square must exceed 3.841 to be significant  
at the 5% level,  
and must exceed 6.635 to be significant  
at the 1% level.

TABLE 20      THE MEAN VAQ'S FOR SIX GROUPS.

GROUP	CB.	St.	En.	SPB.	CG.	SPG
MEAN VAQ.	3.99	4.09	4.58	4.53	3.42	2.91

The mean values of the VAQ were calculated for the six groups. The differences between the means were tested for significance by using the t-test.

None of the differences between the means was found to be significant at the 5% level.

GROUPS	Difference between means	t - value
CB. and En.	0.59	0.946
CG. and SPG.	0.51	0.112

TABLE 21      VAQ : SIGNIFICANT DIFFERENCES BETWEEN GROUPS  
BY THE CHI-SQUARE METHOD.

A cut-off point was fixed at VAQ = 5. The number of cases with a VAQ of 5 or over and the number under 5 are shown below:-

GROUP	CB.	St.	En.	SPB.	CG.	SPG.
VAQ = 5 or over.	5	3	9	9	3	1
VAQ under 5	19	21	19	13	21	23

One significant difference was found i.e. between the St. and the SPB. (CHI-square = 4.803, significant at the 5% level).

TABLE 22      PERCENTAGES OF HAPPY, UNHAPPY AND  
INDECISIVE ENDINGS TO THE STORIES.

	HAPPY	UNHAPPY	INDECISIVE
CB.	68%	17%	15%
St.	68%	13%	19%
En.	52%	16%	32%
SPB.	65%	9%	26%
CG.	68%	19%	13%
SPG.	64%	13%	23%

TABLE 23      THE DIFFERENCES BETWEEN GROUPS IN RESPECT  
OF STORY ENDINGS.

STORY ENDING	CB.	En.	SPB.	Difference.	t-value.
Happy	68%	52%		16%	1.193
Unhappy	17%		9%	8%	0.817
Indecisive	15%	32%		17%	1.487

The percentage differences were tested for significance by the use of formula 39 in H.E.Garrett, p.219. None of the t - values were found to be significant.

TABLE 24      THE PERCENTAGES OF STORIES USING THE  
PAST, PRESENT AND FUTURE TENSE.

	TENSE		
	PAST	PRESENT	FUTURE
CB.	99%	1%	-
St.	89%	10%	1%
En.	86%	13%	1%
SPB.	81%	15%	4%
CG.	100%	-	-
SPG.	92%	7%	1%

TABLE 25      THE DIFFERENCES BETWEEN GROUPS IN RESPECT  
OF THE TENSE OF THE STORIES.

TENSE	CB.	En.	SPB.	Difference.	t-value
PAST	99%		81%	18%	2.342
PAST	99%	86%		13%	1.895
PRESENT	1%	13%		12%	1.799
PRESENT	1%		15%	14%	1.776

The percentage differences were treated statistically in the same way as the percentage differences for the story endings.

Only one difference was found to be significant - the difference between the CB. and the SPB. in the use of the past tense ( $t = 2.342$ , significant at the 5% level).



TABLE 26      THE FREQUENCY OF EACH NEED.

NEED	GROUP					
	CB.	St.	En.	SPB.	CG.	SPG
Agg.	55	31	46	38	36	15
Dom.	26	8	18	12	24	21
Aut.	10	10	13	9	14	22
Blam.	19	13	12	20	21	24
Inf.	2	6	3	5	13	1
Harm.	80	58	59	65	44	43
Aba.	48	98	95	68	53	70
Ach.	104	138	143	119	37	105
Acq.	16	45	51	21	28	44
Aff.	41	59	42	48	62	64
Cog.	102	58	82	58	68	60
Exp.	49	78	81	64	41	48
Nur.	26	47	32	27	48	54
Ord.	29	31	18	20	13	22
Suc.	21	23	24	25	32	29

TABLE 27      THE NUMBER OF STORIES CONTAINING THE  
EXPRESSION OF EACH NEED.

NEED	GROUP					
	CB.	St.	En.	SPB.	CG.	SPG.
Agg.	21	13	18	16	15	8
Dom.	18	7	13	11	14	13
Aut.	5	5	8	7	9	9
Blam.	14	10	11	13	17	16
Inf.	1	3	2	4	7	1
Harm.	40	27	33	32	25	24
Aba.	26	42	42	34	30	27
Ach.	43	51	57	40	22	35
Acq.	9	24	27	12	18	24
Aff.	27	35	31	28	34	34
Cog.	44	40	42	29	31	32
Exp.	30	42	43	37	27	32
Nur.	14	21	17	15	26	25
Ord.	14	13	14	8	8	16
Suc.	17	19	16	18	22	13

TABLE 28      THE TOTAL AND MEAN NUMBER OF EXPRESSIONS OF  
ALL NEEDS BY EACH GROUP.

GROUP	CB.	St.	En.	SPB.	CG.	SPG.
TOTAL NUMBER OF EXPRESSIONS OF ALL NEEDS.	628	703	719	599	534	622
MEAN NUMBER OF EXPRESSIONS OF ALL NEEDS.	26.17	29.29	25.68	27.23	22.25	25.92

None of the differences between means were significant.

TABLE 29      THE P-TEST AND THE Q-TEST.  
RANK DIFFERENCE CORRELATIONS.

The rank difference correlations between the P-test and the Q-test for all the groups for the six main needs were calculated. The largest values for rho are given below:-

GROUP	NEED	Rho.	SIGNIFICANCE
CB.	Aut.	0.196	
St.	Dom.	0.395	+
En.	Aut.	0.170	
SPB.	Agg.	0.513	+
CG.	Dom.	0.689	++
SPG.	Dom.	0.335	

Rho was calculated by using formula 9.4, p.207, in "Non-parametric Statistics". (S.SIEGAL,1956). This formula allows for a correction for tied ranks. The significance of rho was tested by the use of table P, p.284. (Ibid.)

+ A rho of .377 would be significant at the 5% level of confidence.

++ A rho of .534 would be significant at the 1% level of confidence.

TABLE 30      THE P-TEST. INTER-JUDGE RELIABILITY.  
RANK-DIFFERENCE CORRELATIONS.

The correlations between the rankings of the two judges for the random group in respect of the six main needs were calculated and are given below.

NEED	Rho.	Significance.
Agg.	0.361	-
Dom.	0.033	-
Aut.	0.518	+
Blam.	- 0.018	-
Inf.	0.5	+
Harm.	0.435	+

Rho was calculated by using formula 9.4, p.207, in "Non-parametric Statistics". (S.SIEGAL,1956). This formula allows for a correction for tied ranks. The significance of rho was tested by the use of table P, p.284. (Ibid.)

+ A rho of .377 would be significant at the 5% level of confidence.

++ A rho of .534 would be significant at the 1% level of confidence.

TABLE 31      THE REGISTRAR GENERAL'S CLASSIFICATION OF  
OCCUPATION INTO FIVE GROUPS.

GROUP	OCCUPATION
1	PROFESSIONAL
2	INTERMEDIATE
3	SKILLED
4	PARTLY SKILLED
5	UNSKILLED

Taken from the CENSUS, 1951; Introduction, p.IX.

TABLE 32      CLASSIFICATION OF TWENTY CASES TAKEN AT  
RANDOM FROM THE PRESENT RESEARCH.

REGISTRAR GENERAL'S GROUPS	1.	2.	3.	4.	5.
CB.	1		1		
St.		3	2		
En.		2	3		
SPB.		2	1		
CG.				1	
SPG.			1	3	
TOTALS:	1	7	8	4	-

TABLE 33      PARENTAL OCCUPATION IN TWENTY CASES TAKEN  
AT RANDOM.

CASE NO.	FATHER'S OCCUPATION	GROUP	REGISTRAR GENERAL'S CLASSIFICATION.
6	Engineer	En.	3
7	Shoe manufacturer	St.	2
9	Engineer	St.	3
16	Slaughter house manager	En.	2
25	Engineer	En.	3
26	Bus driver	SPG	3
36	Boot & Shoe operative	St.	4
37	Miner	SPG	4
44	Shop manager	SPB	2
46	Business manager	SPB	2
47	Factory worker	SPG	4
55	Engineer	St.	3
69	Family business	En.	2
76	Draughtsman	St.	3
82	Electrician	SPB	3
96	Head of Junior School	CB	1
103	Engine driver	En.	3
106	Secretary to shoe firm	CB	3
136	Hosiery worker	CG.	4
153	Factory stoker	SPG.	4

TABLE 34.      THE Q-test. THE GROUPS ARRANGED WITH THE  
MEAN SCORES IN DECREASING ORDER.

Agg.	St.	CB.	En.	SPB.	CG.	SPG.
Dom.	St.	CB.	En.	SPB.	CG.	SPG.
Aut.	CB.	SPB.	St.	En.	CG.	SPG.
Blam.	SPB.	En.	CB.	St.	SPG.	CG.
Inf.	SPB.	St.	CB.	En.	SPG.	CG.
Harm.	SPB.	CB.	En.	St.	SPG.	CG.



TABLE 35      THE P-TEST. THE GROUPS ARRANGED WITH THE  
MEAN SCORES IN DECREASING ORDER.

Agg.	CB.	SPB.	En.	St.	CG.	SPG.
Dom.	CB.	En.	SPB.	St.	CG.	SPG.
Aut.	En.	CB.	St.	SPB.	SPG.	CG.
Blam.	SPB.	CB.	St.	En.	SPG.	CG.
Inf.	St.	SPB.	En.	CB.	CG.	SPG.
Harm.	CB.	SPB.	St.	En.	CG.	SPG.
Aba.	St.	En.	SPB.	CB.	SPG.	CG.
Ach.	St.	SPB.	En.	CB.	SPG.	CG.
Acq.	St.	En.	SPB.	CB.	SPG.	CG.
Aff.	St.	SPB.	CB.	En.	SPG.	CG.
Cog.	CB.	En.	SPB.	St.	CG.	SPG.
Exp.	St.	SPB.	En.	CB.	SPG.	CG.
Nur.	St.	SPB.	En.	CB.	SPG.	CG.
Ord.	St.	CB.	SPB.	En.	SPG.	CG.
Suc.	SPB.	St.	CB.	En.	CG.	SPG.

TABLE 36      SOCIAL MATURITY, TENSE, STORY-ENDING, VAQ  
AND NUMBER OF NEEDS.

	BOYS				GIRLS		ORDER
Social Maturity Mean Scores	CB. 101	En. 99	St. 97	SPB. 90	CG. 95	SPG. 91	Decreasing
Past tense	CB. 99%	St. 89%	En. 86%	SPB. 81%	CG. 100%	SPG. 92%	Decreasing
Present tense	CB. 1%	St. 10%	En. 13%	SPB. 15%	CG. -	SPG. 7%	Increasing
Future tense	CB. -	St. 1%	En. 1%	SPB. 4%	CG. -	SPG. 1%	Increasing
Unhappy endings	CB. 17%	En. 16%	St. 13%	SPB. 9%	CG. 19%	SPG. 13%	Decreasing
Happy endings	CB. 68%	St. 68%	SPB. 65%	En. 52%	CG. 68%	SPG. 64%	Decreasing
Indecisive endings	CB. 15%	St. 19%	SPB. 26%	En. 32%	CG. 13%	SPG. 23%	Increasing
Mean number of needs expressed	En. 25.68	CB. 26.17	SPB. 27.23	St. 29.29	CG. 22.25	SPG. 25.92	Increasing
VAQ	CB. 3.99	St. 4.09	SPB. 4.53	En. 4.58	SPG. 2.91	CG. 3.42	Increasing

TABLE 37      SOCIAL MATURITY, Q-INFRAVOIDANCE AND  
STORY-ENDINGS.

THE GROUPS ARRANGED WITH MEANS IN ORDER.

Social Maturity	CB.	En.	St.	SPB.	CG.	SPG.	decreasing
Q-infravoidance	En.	CB.	St.	SPB.	CG.	SPG.	increasing
Unhappy endings	CB.	En.	St.	SPB.	CG.	SPG.	decreasing

When the groups were arranged in order, boys and girls separately, social maturity was associated with the percentage of unhappy endings.

Social maturity and unhappy endings had an almost inverse relationship with Q-infravoidance. A high score on Social maturity seemed to be associated with the ability to write unhappy endings to the stories and with a low score on "admitted" infravoidance.

TABLE 38      Q-INFAVOIDANCE AND THE MEAN NUMBER OF NEEDS.THE GROUPS ARRANGED WITH MEANS IN ORDER.

Q-infavoidance	En.	CB.	St.	SPB.	CG.	SPG.	increasing
Mean number of needs	En.	CB.	SPB.	St.	CG.	SPG.	increasing

Q-infavoidance seemed to be closely related to the mean number of needs expressed in the stories, a low score on infavoidance being associated with a low number of needs expressed.

TABLE 39      Q-DOMINANCE AND THE TENSE OF THE STORIES.

Q-dominance +	St.	CB.	En.	SPB.	CG.	SPG.	decreasing
Past tense	CB.	St.	En.	SPB.	CG.	SPG.	decreasing
Present tense	CB.	St.	En.	SPB.	CG.	SPG.	increasing
Future tense	CB.	St.	En.	SPB.	CG.	SPG.	increasing

Q-dominance seemed to be fairly closely associated with the use of the past tense and negatively associated with the use of the other tenses.

TABLE 40      THE Q-TEST AND THE STORY ENDINGS.

Q-autonomy	CB. 26.5	SPB. 24.7	St. 24.3	En. 23.3	CG. 24.8	SPG. 23.8	decreasing
Happy endings	CB. 68%	St. 68%	SPB. 65%	En. 52%	CG. 68%	SPG. 64%	decreasing
Indecisive endings	CB. 15%	St. 19%	SPB. 26%	En. 32%	CG. 13%	SPG. 23%	increasing

Q-autonomy was related positively to the percentage of happy endings and negatively to the percentage of indecisive endings. The groups having high scores on autonomy had more happy endings and fewer indecisive endings to their stories.

TABLE 41      THE Q-TEST. THE GROUPS ARRANGED WITH MEANS  
IN DECREASING ORDER.

Q-autonomy	CB.	SPB.	St.	En.
Q-autonomy <sup>+</sup>	Non-physical		Physical	
Q-harmavoidance	SPB	CB.	En.	St.
Q-harmavoidance <sup>+</sup>	Non-physical		Physical	

On Q-autonomy and Q-harmavoidance the four uncombined groups of boys fell into the same order as the non-physical and physical groups. The phobics and controls admitted to more autonomy and harmavoidance than the enuretics and stammerers, the differences being significant for both needs.

Q-aggression	St.	CB.	En.	SPB.	CG.	SPG.
Q-dominance <sup>+</sup>	St.	CB.	En.	SPB.	CG.	SPG.

When the groups were arranged with the means in decreasing order the arrangement was the same for both Q-aggression and Q-dominance, indicating that there was a close relationship between these two needs.

TABLE 42      THE Q-TEST AND THE P-TEST.

On the Q-test the SPB were higher <sup>++</sup> than the En. and the  
St. on harmavoidance.

On the P-test the SPB were higher than the En. and the  
St. on harmavoidance.

The SPB expressed harmavoidance both directly and  
indirectly to a greater extent than the other two clinic  
groups of boys.

TABLE 43      THE P-TEST. THE GROUPS ARRANGED WITH THE MEANS  
IN ORDER.

P-autonomy	En.	CB.	St.	SPB.	SPG.	CG.	decreasing
P-succorance	En.	CB.	St.	SPB.	SPG.	CG.	increasing

Projected autonomy and succorance were associated negatively with each other, high scores on one being associated with low scores on the other.

P-aggression <sup>+</sup>	CB.	SPB.	En.	St.	CG.	SPG.	decreasing
P-harmavoidance <sup>+</sup>	CB.	SPB.	St.	En.	CG.	SPG.	decreasing

Aggression and harmavoidance seemed to bear a close relationship to each other, high scores on one being associated with high scores on the other.

P-blamavoidance	SPB.	CB.	St.	En.	SPG.	CG.	decreasing
-----------------	------	-----	-----	-----	------	-----	------------

On blamavoidance the phobic boys were higher than the other boys' groups and the phobic girls were higher than the controls. This was the only projected need on which both the phobic groups had the highest scores.



TABLE 44      SOCIAL MATURITY, STORY ENDINGS AND THE  
P-TEST.

Social Maturity	CB.	En.	St.	SPB.	CG.	SPG.	decreasing
Unhappy endings	CB.	En.	St.	SPB.	CG.	SPG.	decreasing
P-dominance	CB.	En.	SPB.	St.	CG.	SPG.	decreasing

Social maturity was positively related to the percentage of unhappy endings, the groups with high scores on social maturity also having a high percentage of unhappy endings. These variables showed a fairly close relationship with P-dominance and therefore also with the other needs in Table 45.

There seemed to be a positive relationship between social maturity, unhappy endings, dominance and cognisance. These variables seemed to be negatively related to achievement, exposition, nurturance and infavoidance.

TABLE 45      THE P-TEST.    THE GROUPS ARRANGED WITH THE MEANS  
IN ORDER.

P-dominance <sup>+</sup>	CB.	En.	SPB.	St.	CG.	SPG.	decreasing
P-cognisance <sup>+</sup>	CB.	En.	SPB.	St.	CG.	SPG.	decreasing
P-achievement <sup>++</sup>	CB.	En.	SPB.	St.	CG.	SPG.	increasing
P-exposition <sup>+</sup>	CB.	En.	SPB.	St.	CG.	SPG.	increasing
P-nurturance <sup>+</sup>	CB.	En.	SPB.	St.	CG.	SPG.	increasing
P-infavoidance <sup>+</sup>	CB.	En.	SPB.	St.	SPG.	CG.	increasing

Dominance and cognisance were related positively to each other and negatively to achievement, exposition and nurturance. The relationship of dominance to infavoidance was positive for the boys and negative for the girls.

TABLE 46      THE P-TEST, THE MEAN NUMBER OF NEEDS AND  
THE VAQ.

P-affiliation	St.	SPB.	CB.	En.	SPG.	CG.	decreasing
Mean number of needs	St.	SPB.	CB.	En.	SPG.	CG.	decreasing

There was a close relationship between P-affiliation and the mean number of needs expressed. The groups with high scores on P-affiliation also had high scores for the mean number of needs.

P-order	St.	CB.	SPB.	En.	SPG.	CG.	decreasing
VAQ	CB.	St.	SPB.	En.	SPG.	CG.	increasing

There was a close negative relationship between P-order and the VAQ. The groups with high scores on order had low scores for the VAQ.

TABLE 47      THE P-TEST. THE GROUPS ARRANGED WITH THE MEANS  
IN ORDER.

P-aggression <sup>+</sup>	CB.	SPB.	En.	St.	CG.	SPG.	decreasing
P-harmavoidance <sup>+</sup>	CB.	SPB.	St.	En.	CG.	SPG.	decreasing
P-abasement <sup>++</sup>	CB.	SPB.	En.	St.	CG.	SPG.	increasing
P-acquisition <sup>++</sup>	CB.	SPB.	En.	St.	CG.	SPG.	increasing

P-aggression and harmavoidance were associated positively with each other and negatively with abasement and acquisition. The groups with high scores on aggression and harmavoidance had low scores on abasement and acquisition.

TABLE 48      THE P-TEST. THE GROUPS ARRANGED WITH THE  
MEANS IN DECREASING ORDER.

P-acquisition	St.	En.	SPB.	CB.
P-acquisition <sup>++</sup>	Physical		Non-physical	
P-abasement	St.	En.	SPB.	CB.
P-abasement	Physical		Non-physical	
P-harmavoidance	CB.	SPB.	St.	En.
P-harmavoidance <sup>†</sup>	Non-physical		Physical	

On acquisition, abasement and harmavoidance the four uncombined groups of boys fell into the same order as the physical and non-physical groups. The enuretics and stammerers had higher scores for "projected" acquisition and abasement. The phobics and controls had higher scores for "projected" harmavoidance.

THE CORRELATIONS BETWEEN TESTS AND NEEDS.TETRACHORIC - R.

The correlations between test scores and need-variable on the P-test and the Q-test were estimated by calculating tetrachoric-r. Method (1) was used for scoring the P-test and the numbers of cases above and below the mean score were then correlated with the two tests. In this way correlations between test and need-variable were found for the six groups in respect of the six main needs. The "physical" and "non-physical" groups were then treated similarly.

The correlations with their levels of significance are set out in the following tables 49-52.

Tetrachoric-r was estimated by tabulating the tests horizontally and the number of cases above or below the mean vertically. This gave rise to a four-cell table and from this the cross-products were calculated. The ratio of these resultant cross-products was translated into tetrachoric-r by the use of the Davidoff-Goheen Table. (v, Table D, "APPLIED STATISTICS", J.G. PEATMAN, 1963, p.404).

The significance of tetrachoric-r was estimated by the use of Table 49 of GARRETT, (p.299).

Significant correlations between Tests and Needs (tetrachoric-r).

High scores on the Q-test were associated with low scores on the P-test for the following needs:-

The CB. for Dom<sup>+</sup>, Aut<sup>+</sup> and Inf<sup>++</sup>

The CG. for Agg<sup>+</sup>

The St. for Inf<sup>++</sup>

The En. for Dom<sup>+</sup>, Aut<sup>+</sup> and Inf<sup>++</sup>

The SPB. for Agg<sup>+</sup>, Aut<sup>+</sup> and Inf<sup>++</sup>

The SPG. for Inf<sup>++</sup>

The "physical" group for Dom<sup>++</sup>, Aut<sup>++</sup> and Inf<sup>++</sup>

The "non-physical" group for Agg<sup>++</sup>, Aut<sup>++</sup> and Inf<sup>++</sup>

The information derived from the use of tetrachoric-r was not incorporated in the present research. It is given here because it may be of interest in connection with future researches of a similar kind.

TABLE 49      CORRELATIONS BETWEEN TESTS AND NEEDS.

CB.

NEED	P	Q	TETRACHORIC r
Agg.	8 16	10 14	0.14
Dom.	7 17	14 10	0.45 <sup>+</sup>
Aut.	5 19	12 12	0.48 <sup>+</sup>
Blam.	12 12	12 12	0.00
Inf.	1 23	11 13	0.84 <sup>++</sup>
Harm.	8 16	12 12	0.27

St.

NEED	P	Q	TETRACHORIC r
Agg.	7 17	11 13	0.28
Dom.	7 17	13 11	0.39
Aut.	5 19	10 14	0.37
Blam.	9 15	11 13	0.14
Inf.	2 22	13 11	0.78 <sup>++</sup>
Harm.	9 15	11 13	0.14

Test (P or Q) is tabulated horizontally and need level (above or below the mean) is tabulated vertically. The figures give the number of cases.

+ Significant at the 5% level of confidence.

++ Significant at the 1% level of confidence.



TABLE 50      CORRELATIONS BETWEEN TESTS AND NEEDS.

En.

NEED	P	Q	TETRACHORIC r
Agg.	10 18	12 16	0.12
Dom.	7 21	15 13	0.46 <sup>+</sup>
Aut.	7 21	14 14	0.41 <sup>+</sup>
Blam.	9 19	14 14	0.29
Inf.	2 26	13 15	0.75 <sup>++</sup>
Harm.	9 19	15 13	0.34

SPB.

NEED	P	Q	TETRACHORIC r
Agg.	7 15	13 9	0.42
Dom.	8 14	10 12	0.15
Aut.	6 16	12 10	0.43 <sup>+</sup>
Blam.	10 12	12 10	0.14
Inf.	4 18	12 10	0.59 <sup>++</sup>
Harm.	11 11	8 14	0.22

Test (P or Q) is tabulated horizontally and need level (above or below the mean) is tabulated vertically. The figures give the number of cases.

+ Significant at the 5% level of confidence.

++ Significant at the 1% level of confidence.

TABLE 51      CORRELATIONS BETWEEN TESTS AND NEEDS.

CG.

NEED	P	Q	TETRACHORIC r
Agg.	9 15	16 8	0.44 <sup>+</sup>
Dom.	11 13	9 15	0.14
Aut.	8 16	12 12	0.27
Blam.	14 10	11 13	0.20
Inf.	7 17	13 11	0.39
Harm.	10 14	11 13	0.07

SPG.

NEED	P	Q	TETRACHORIC r
Agg.	6 18	10 14	0.29
Dom.	11 13	11 13	0.00
Aut.	8 16	14 10	0.39
Blam.	11 13	12 12	0.07
Inf.	1 23	12 12	0.86 <sup>++</sup>
Harm.	11 13	11 13	0.00

Test (P or Q) is tabulated horizontally and need level (above or below the mean) is tabulated vertically. The figures give the number of cases.

+ Significant at the 5% level of confidence.

++ Significant at the 1% level of confidence.

TABLE 52      CORRELATIONS BETWEEN TESTS AND NEEDS.

NON-PHYSICAL GROUP

NEED	P	Q	TETRACHORIC r
Agg.	14 32	25 21	0.38 <sup>++</sup>
Dom.	21 25	21 25	0.00
Aut.	11 35	25 21	0.48 <sup>++</sup>
Blam.	22 24	25 21	0.10
Inf.	5 41	23 23	0.69 <sup>++</sup>
Harm.	17 29	22 24	0.17

PHYSICAL GROUP

NEED	P	Q	TETRACHORIC r
Agg.	17 35	25 27	0.25
Dom.	14 38	28 24	0.43 <sup>++</sup>
Aut.	12 40	25 27	0.42 <sup>++</sup>
Blam.	18 34	25 27	0.22
Inf.	4 48	26 26	0.73 <sup>++</sup>
Blam.	18 34	23 29	0.16

Test (P or Q) is tabulated horizontally and need level (above or below the mean) is tabulated vertically. The figures give the number of cases.

+ Significant at the 5% level of confidence.

++ Significant at the 1% level of confidence.

APPENDIX B.

Instructions for the Projective Test  
and the Questionnaire.

INSTRUCTIONS FOR THE OPEN PROJECTIVE TEST.

"I would like you to write some stories for me. I would like three stories. They need be only short ones - about ten to fifteen lines each. You can write them about anything you like as long as they are good stories. It's better if you write about something interesting or exciting. Of course, not all stories are true, so your stories don't have to be true; you can make them up from your imagination if you like".

If the subject is not a good writer, or is uneasy about handwriting or spelling:-

"I will write the story down for you if you like, but it must be your story. You must tell me what to write".

INSTRUCTIONS FOR THE QUESTIONNAIRE.

"I want you to have a look at this. The first sentence says:-

'I make great efforts to do well and get on'.

Then there are five squares and I want you to put a tick in one of the squares to show how true you think this is about you.

Some people do make great efforts to do well and get on and other people don't. So it might be true about you; or it might not be true about you; or it might be sometimes true".

"On this card there are five sets of answers to choose from:-

-2	-1	0	+1	+2
Hardly Ever True. Very Seldom True. Never True.	Not Often True. Seldom True.	Sometimes True.	Often True. Mostly True.	Very Often True. Always True.

You see they go from always true at this end, to never true at this end; sometimes is in the middle. I want you to pick the one that applies to you and then put a tick in the corresponding square.

Now, do you make great efforts to do well and get on? Is that true about you? always true? sometimes true? hardly ever true?"

"Now, the next sentence says:-----"

"Is that true about you? often true?not often true?"

THE QUESTIONNAIRE (Q-test).

	-2	-1	0	+1	+2
I make great efforts to do well and get on					
I change my hobbies quite often					
I enjoy work just as much as play					
I could leave home easily and not be bothered about it					
I am not really satisfied with my own work					
1. I often do what my parents do not want					
2. I enjoy making others do what I want them to do					
3. I like annoying other people sometimes					
4. I am fond of rough games					
5. I dislike it if people are annoyed with me					
6. I am careful not to say things that other people dislike					
7. If I do badly I am unhappy for a long time afterwards					
8. I am nervous if I have to meet a lot of people					
9. If people try to 'manage' me I argue with them					
10. I like to persuade others to my way of thinking					
11. I find it easy to lead a group and keep them in order					
12. I fight other children if I feel like it					
13. I dislike other people making me do things					
14. Rules and regulations seem to me to be a nuisance					

	-2	-1	0	+1	+2
15. I am afraid of things like lightning, high places, rough water					
16. I dislike some animals, insects, snakes or spiders					
17. If something goes wrong, I worry in case I am blamed for it					
18. I never do things that other people dislike if I can help it					
19. I dislike examinations or tests because I am afraid of doing badly					
20. I am afraid of being injured in an accident					
21. I am afraid of the dark					
22. I have a fear of death					
23. I am rude to people if they are rude to me					
24. I get the boys and girls together for parties, clubs and teams					
25. I do a lot of things just so that I will not get into trouble					
26. I keep out of trouble at all costs					
27. I lose my temper quite easily					
28. When I am with other people I like to have my own way					
29. I worry a lot about being able to do well					
30. Before giving in some work I have done I say that I am sorry it is not done better					
31. Sometimes I tell people very plainly what I think					
32. If I am alone in the house at night I am afraid					
33. I like being in charge of a group or team					
34. I am afraid of anything that is painful					
35. I like a good argument when I think I am right					



	-2	-1	0	+1	+2
36. I go my own way and do not care much what other people think					
37. When I fail at something I am not so sure of myself afterwards					
38. If I am annoyed, I soon say so					
39. When I am annoyed, I tell people what I think of them					
40. I really dislike others making fun of me					
41. I am upset if I hear that other people are blaming me					
42. Most of all I like to be free to do what I want					
43. I work best when I am left on my own to get on with it					
44. I worry about what other people think about me					
45. Sometimes I feel afraid that I will be attacked by someone					
46. When things go wrong I often blame other people					
47. I dislike being made to behave just like everyone else					
48. If I am told that I have done something selfish I feel hurt					

APPENDIX C.

The geographical distribution of cases.

TABLE 53 THE GEOGRAPHICAL DISTRIBUTION OF CASES.

	St.	En.	SP.		St.	En.	SP.
Anstey	1		1	Shapshed	1		1
Bottesford			1	Scraftoft		1	
Braunstone	1		1	Syston	1		
Birstall	4	1	2	Thurmaston	1	1	2
Castle Donington	1			Wigston	1	3	2
Coalville		2	4				
Church Langton			2	TOTALS:	24	28	46
Dunton Bassett	1						
Enderby			4				
Glenfield	3						
Groby			1				
Hinckley	3	6	8				
Loughborough	2	2	3				
Lutterworth			1				
Mountsorrel		1					
Market Harborough		1	4				
Market Bosworth			2				
Melton Mowbray		2	5				
Newbold Verdon	1						
Oadby	3		1				
Redmile		1					
Ratby		1					
Sibson		1					
Sileby		1					
South Wigston		4	1				

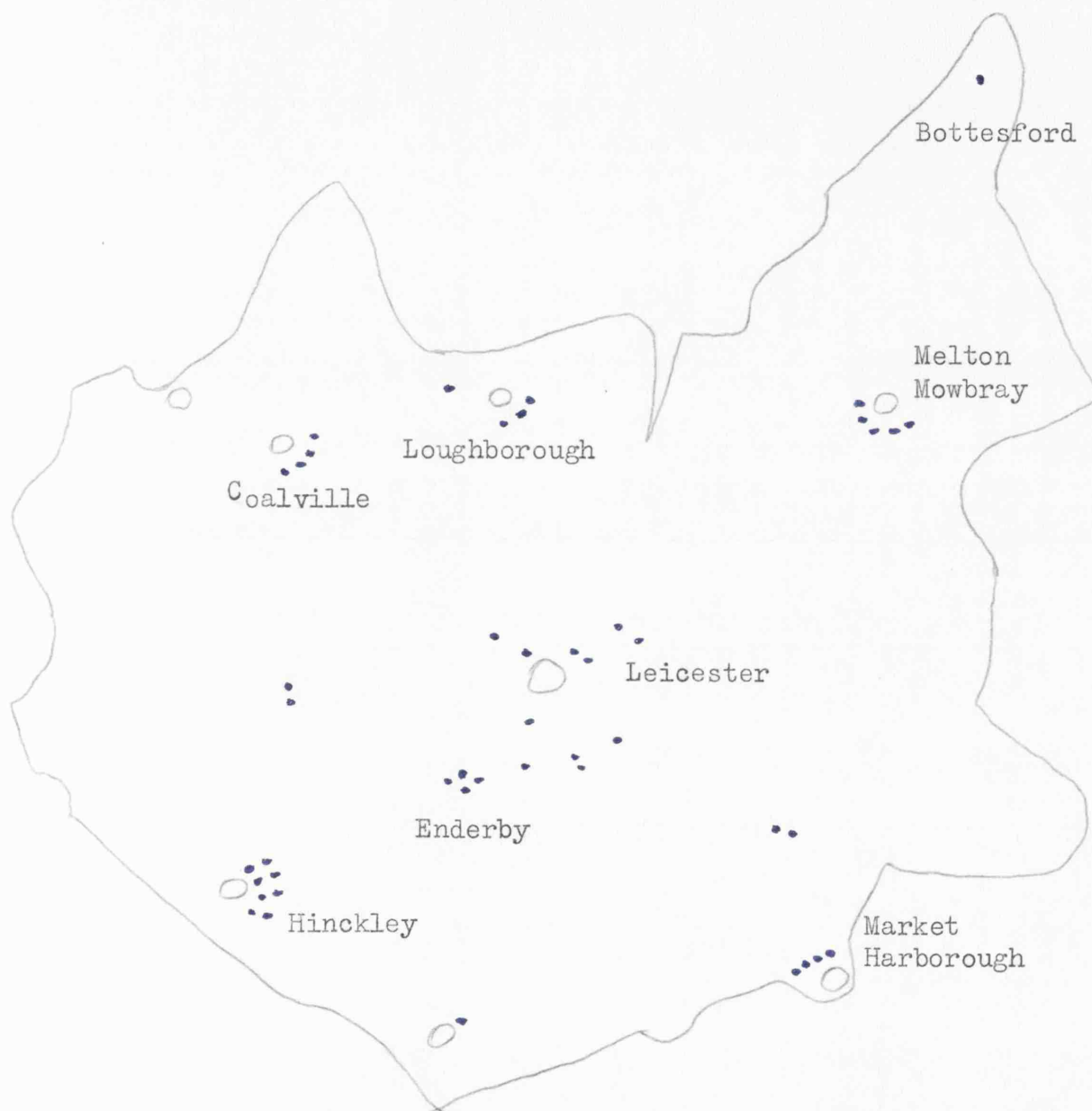
Map of Leicestershire showing the geographical  
distribution of cases of stammering.



Map of Leicestershire showing the geographical  
distribution of cases of enuresis.



Map of Leicestershire showing the geographical  
distribution of cases of school phobia.



Map of Leicestershire showing the geographical  
distribution of controls.



APPENDIX D.

Twenty-four typical case histories  
in brief outline.



CASE No. 1Graham (13.5.48).GROUP: SPB.Roundhill School, Thurmaston.

Graham was referred by the School Welfare Officer for his persistent refusal to attend school. For six months his attendances were spasmodic - one week at school, then two or three weeks absent. No physical illness was reported. When sent to school by his mother he would climb on to the roof of an outhouse and remain there out of her reach.

There was evidence of some nervous trouble one year earlier. On one occasion Graham was found wandering round the house at night in a dazed condition. The family doctor reported that the trouble had now cleared up and that the boy was now sleeping normally.

Graham was 13:6 when interviewed. He had an I.Q. of 103. He was found to be diffident and nervous at the beginning of the interview, but more at ease later. He was in need of continual encouragement and support and frequently failed to answer even when he knew the correct answer. It was recommended that he should be placed in a hostel for maladjusted children. The parents would not accept this proposal and Graham was absent from school for about six months. He was regarded by the clinic team as a very disturbed boy.

CASE No. 2Ronald (25.8.51).GROUP: St.Glenfield Junior School.

Ronald was referred by the Speech Therapy Department because of his very severe and obstinate stammer, which was present at all times. He had a sister, aged 14, who was a very fluent speaker, but the father was also a stammerer. There was some jealousy between the children, Ronald being a very good boy at home and quite unlike his sister. He had the usual interests for a boy of his age, such as stamp collecting. He worried a great deal and was generally nervous, afraid of the dark and not making friends very easily. He found the stammer particularly worrying and frustrating.

At the interview Ronald was unable to speak at first, but he gradually settled and became interested in the tests, which he executed in a calm and controlled manner. He was left-handed. A success would please him very much, but at the thought of failure he would immediately give up the task and had to be encouraged to continue. Mistakes and failures were an embarrassment to him.

CASE No. 3

Colin (3.12.49).

GROUP: SPB.

Syston Junior School.

Colin was referred by the School Welfare Department for non-attendance at school. He was described as run-down, depressed and nervous and when pressure was put on him by the attendance officer he became violent. His parents regarded him as highly strung, lacking in confidence and showing fears of water, travel and crowds. He was happy when at home, where he spent the time drawing, modelling or doing odd jobs about the house. He was also fond of animals. His mother said that he was "clinging", difficult, and unable to leave the house.

Colin was absent from school for over six months, but the parents refused the offer of placement in the hostel for maladjusted children.

CASE No. 4Stuart (11.3.52).GROUP: SPB.Grobby Junior School.

Stuart was referred by his family doctor for morbid fears. He was afraid of death, of going to sleep, of the dark and of going to school, which he attended with difficulty. He mixed fairly well with other children, but would not go into their homes. At home he was competent at performing household tasks, fond of animals and able to keep himself amused, but he was obsessed with thoughts of death and of killing things. He had also suffered from nightmares and used to scream out when asleep.

Stuart was very involved with and overprotected by his mother, who also suffered from "nerves". He received psychiatric treatment at the Child Guidance Clinic.

CASE No. 6Derek (6.7.52).GROUP: En.Rothley Junior School.

Derek was referred by the school for difficult behaviour. He was restless, disobedient, attention-seeking and lazy. He took articles of money belonging to others and constantly told lies.

On investigation it was found that he was also a life-long enuretic, with only occasional brief periods of dryness. He was regarded as a very anxious and disturbed child and was eventually placed in the hostel for maladjusted children where he remained for over two years. Although he appeared to become more settled in general behaviour, the enuresis was not improved at all as a result of this treatment.

CASE No. 7Christopher (21.11.49).GROUP: ST.Oadby: Gartree High School.

Christopher at age eleven developed a severe blockage of speech. He had always had some slight difficulty with speech and was slow to develop speech in infancy. He was reported to have begun to speak at  $2\frac{1}{2}$  years of age. He now stammered very badly with his parents and in shops, but not with children and only slightly in school. He was described as self-willed and stubborn at times. He had little interest in school or in games but preferred to work with animals. He wanted to become a veterinary surgeon.

Christopher seemed to be over-managed by his parents and had an older sister who was particularly bright socially and fluent in speech.

Psychiatric investigation of the family was recommended, with speech therapy for Christopher.

CASE No. 8David (10.2.52),GROUP: En.Redmile Junior School.

David was referred by the school for difficult behaviour. He was described as sullen, unpopular with other children and refusing to admit his faults and errors, even to the extent of telling lies about them. He was incapable of sustained effort in school, although he had original ideas and seemed to be of good intelligence. He read with reasonable fluency and enjoyed stories.

His mother reported that he was a persistent bed-wetter. He had been dry at 15 months, but regressed when a younger sister was born. He had difficulty in sleeping and was afraid of the dark. He was affectionate, but not demonstrative. He liked being made a fuss of, but wouldn't admit it. He used to be a quiet boy, but was becoming rougher and would pick a fight at school. He was fond of pets, especially cats and rabbits.

The general impression was that he was a nervous and highly strung boy who was trying to keep up a pretence of being competent and clever.

CASE NO. 9Peter (24.4.50).GROUP: St.Shepshed Secondary Modern School.

Peter was referred by the Speech Therapy Department for a severe, life-long stammer. It was usually a complete blockage of speech, but it occurred less often when he was with children than when he was with adults. He did not mix easily and he avoided situations where speech would be expected of him, because this kind of situation aroused great anxiety in him. He was nervous and shy and showed no sign of aggressiveness, although he denied that he was ever afraid of things. He developed obsessional and defensive patterns of behaviour quite easily from time to time, and found it increasingly difficult to tolerate frustrations or delays.

Long-term speech therapy, using all the available methods, had failed to bring about any improvement in Peter's speech. He was regarded as a particularly difficult case.



CASE No. 10Frank (25.1.50).GROUP: En.Earl Shilton Junior School.

Frank was referred by Dr. Matheson, Paediatrician, for enuresis which started at age 6 years and continued with only slight improvements ever since then. Frank was a very heavy sleeper and suffered from occasional nightmares. He was described as friendly, even tempered, slow to anger and showing no signs of aggression. He was able to stand up for himself, helpful and competent in the house, and if anything, too conforming and amenable for a boy of his age and ability. He enjoyed the attention given to him at the clinic.

No physical cause for the enuresis was found and all methods of treatment, including the alarm-bell and psychiatric investigation, failed to bring about any noteworthy improvement.

CASE No. 11

Michael (23.2.48).

GROUP: St.

Castle Donington Secondary Modern  
School.

Michael was referred by the Speech Therapy Department for a stammer which began at the development of speech and persisted throughout his life. He was an only child of quite normal behaviour, keen on sport, otherwise rather lazy, a good mixer, but preferring quiet companions since he was himself quiet by nature. During play he could speak normally, but otherwise had great difficulty.

The mother felt that he was highly strung, restless and fond of routine. He worried if things went wrong or if he was late. He was fond of outdoor life and lost his temper occasionally. He was able to stand up for himself, but in no way aggressive or provocative.

Psychiatric treatment, including play therapy, proved unsuccessful.

CASE No. 13Steven (21.6.48).GROUP: SPB.Bottesford School.

Steven was referred for "truancy" from Grammar School, with a request that he be seen by a school psychiatrist as his behaviour was due to "mental" trouble. He suffered from severe sickness on the school bus, avoided buses and stayed away from school whenever possible, and eventually asked for a transfer to the local secondary modern school.

At interview he was found to be shy and nervous at first, anxious, highly strung and disturbed at his failures. He consequently tended to aim rather low and be satisfied with achievements which were well below his true ability. The pressure of grammar school work was to him an increasingly intolerable situation.

He was transferred to the secondary modern school where he appeared to settle much better.

CASE No. 14

Michael (13.2.49).

GROUP: SPB.

South Wigston High School.

Michael was referred by the school via the Medical Officer because of frequent absences from school.

At interview he was nervous and tense and tended to give hasty answers and make careless mistakes which he would correct a moment later. He concentrated and persevered very well, was over-eager to please and obviously felt the need for reassurance and support.

At home he was described as childish for his age, jealous of his brother, helpful, well-behaved and easily hurt and offended.

He was regarded as a rather delicate child who had had many illnesses and accidents, some of which were genuine and others not so obviously so.

It was decided to classify this case as one of mild school-phobia with complicating physical factors.

CASE No. 15

Michael (12.2.48).

GROUP: SPB.

Church Langton Secondary  
Modern School.

Michael was absent from school for two terms. The reasons given were that he was "run down" or "not well", or "suffering from nerves". He also talked in his sleep, was afraid of the dark and was losing weight because of his poor appetite. He was described as timid, sensitive, highly strung and not a good mixer.

He had, in fact, a long history of very irregular attendance and difficulty over leaving the house. He had always complained of being afraid and feeling sick in the morning. He had never had any confidence in himself and had headaches ever since going to school. When at school he was worried about his home.

Michael was placed in the hostel for maladjusted children. He returned home of his own volition, having failed to settle, and left school shortly afterwards.

CASE No. 16

Stephen (10.2.51).

GROUP: En.

Coventry Road School, Market  
Harborough.

Stephen suffered from persistent enuresis with only occasional spells of dryness. He had had all the usual treatments without success. He was a heavy sleeper, had some nightmares and sleepwalking. By nature he was thoughtful, affectionate, generous and imaginative. He was popular with other children and a good mixer. He had the usual interests for his age. He was always very eager to help and would do anything for anybody. He was keen to do well and was successful in the selection for Grammar School.

Psychiatric treatment of the family was recommended.

CASE No. 18

Lindsay (8.5.54).

GROUP: SPB.

Coventry Road School, Market  
Harborough.

Lindsay was referred because of his persistent refusal to attend school. He had fears about trains, about going into a room or downstairs or into the garden alone. He would cling to his mother at all times, especially in the street, would not go into a crowd and "moved from one fear on to the next". When at school he worried about his mother and there were scenes when she took him to the family doctor. He slept downstairs with his mother.

At interview he was reticent and unresponsive at first, seemed to be timid, sensitive to criticism and afraid to commit himself. He said that he was terrified of school and rough boys. His mother had to take him and bring him home.

Lindsay was regarded as a serious case of school phobia. The mother would not agree to his placement in the Hostel for maladjusted children.

CASE No. 19

Karennna (11.2.50).

GROUP: SPG.

Heathfield High School, Hinckley.

Karennna was regarded as a case of school phobia. She made excuses for not attending, saying that she didn't like school, felt sick, had headaches and had no friends. She was timid and shy when with strangers, was an only child and did not mix easily. At home, however, she was described as "bossy", intolerant of people, aggressive towards her mother and occasionally capable of violent and destructive behaviour.

There was an unsettled home atmosphere, with considerable friction between the parents and with inconsistent treatment of Karennna.

The offer of a place in the Hostel for maladjusted children was declined. Karennna was absent from school for several months. She then changed to another school, where her attendance was very irregular.



CASE No. 20

Christine (30.4.47).

GROUP: SPG.

Hinckley Grammar School.

The family doctor referred Christine because she was depressed and having difficulty in attending school. She felt that she liked school, but could not face it and was absent for a considerable time, or attending for only a day or two at a time. Her school work was exceptionally good. She was an only child with few real friends.

At interview Christine was slow to respond but not particularly depressed. She could be unresponsive at times. She was diffident and indecisive with marked perfectionist tendencies. She was sensitive but not withdrawn and with no expressed aggression. She felt inferior and frustrated.

The mention of school caused her to panic and she explained that she could not bear school assembly, where she felt sick and faint and had to come out and rest in the sick bay. She had a horror of being sick. Medical treatment had been tried with no success.

Psychiatric treatment was given, but Christine did not attend school and in fact left school before completing her grammar school course.

CASE No. 21Margaret (3.12.48).GROUP: SPG.Hastings High School, Burbage.

Margaret was referred by the family doctor for depression and withdrawal. At interview she was sometimes responsive and co-operative, but at other times she would relapse into silence and behave as if she were deaf. At school work she was exceptionally good, but she disliked school intensely because she was teased by the other girls on account of her weight. For this reason, too, she resisted games and physical education and refused to eat. She seemed to be thoroughly unhappy and preoccupied with personal difficulties and anxieties.

The mother described Margaret as clinging, affectionate, rather sad and sometimes childish. She could be stubborn and moody and did not make friends easily.

When seen by the Child Guidance team Margaret was refusing to eat, drink, talk or attend school. She was absent from school for about two terms and was then placed in the Hostel where she remained for one year and made good progress.

CASE No. 23

Paul (19.11.54).

GROUP: En.

Scraptoft Valley Junior School.

Paul was one of a family of persistent enuretics. He had been sent home from school because of the smell. At interview he was bright and lively, very forthcoming, eager to please and showed a sense of humour. He gave the impression of being a very normal boy and there did not seem to be any emotional problem that would account for this very troublesome symptom. At home he was described as easy to manage.

The psychiatric social worker visited the home, but psychiatric treatment of the child was not undertaken in this case.

CASE No. 81

John (23.9.53).

GROUP: St.

Syston Junior School.

John was referred by the Speech Therapist for a severe stammer with many implosives. He also stammered on inspiration.

When interviewed at the clinic John was lively and forthcoming, very willing to have a try at anything, bothered by convulsive movements of the arms and legs, and restless and fidgetty. He played nervously with his fingers.

The mother was inclined to be nervous too, but intelligent and insightful. She said that John was incapable of behaving in a calm or relaxed way. He was shy and timid really, had poor co-ordination and slept badly. In fact, he would not sleep alone and occupied the mother's room because of his fear of the dark. At seven months he appeared to be slightly spastic, with jerky and impulsive movements, and he also walked sideways at first. His speech, however, was quite good for about three years and the stammer only really started when he went to school. He had always been left-handed. He had nervous habits, such as stamping his feet and pushing against doors and was a poor mixer.

The family appeared to be nervous and tense and the father had a history of migraine and asthma.

CASE No. 82

Peter (21.11.50).

GROUP: SPB.

Westfield High School, Hinckley.

Peter was referred by his own doctor because of his long history of headaches and abdominal pains, mostly precipitated by going to school. He also mixed poorly with his classmates.

Peter was interviewed at the clinic where he was abnormally quiet and timid. He spoke in a barely audible whisper and his hands trembled. He was eager to please and fully co-operative. He was anxious about school work, especially reading and arithmetic and had, in fact, been absent from school for a whole term. He felt nervous about standing up to read in class.

The mother said that Peter had always been nervous, unlike his two sisters, Janet (11) and Gillian (9). He would not answer in the mornings, but would hide under the bedclothes. He became sick and showed acute panic at the mention of the word school and would shake from head to foot and bang his head against the wall. He dreaded games or being bullied. He could also be quarrelsome and insist on having his own way, with outbursts of temper. He had hardly any friends, but would stand alone in a corner of the playground.

The father was an electrical linesman and the mother was at home. Peter had spent most of his life with the next door neighbours and used his own home only for sleeping.

CASE No. 85

Paul (27.2.52).

GROUP: En.

Waterleys School, Wigston.

Paul was referred by the School Medical Officer for enuresis, for which treatment had been given at the enuresis clinic with partial success.

When first interviewed at school he was very unsure of himself and paused frequently in search of approval. He was also slightly restless and at times inattentive.

On the second occasion, however, he was much more at ease and enjoyed being the centre of attention. He was amused at being allowed to sit in the head teacher's chair and promptly "expanded" into it. He was now genial and easy-going, confident of his own abilities and gave no sign that he was going to make any effort. The school record card was later found to be noted "lazy in school".

CASE No. 86Ivor (10.11.51).GROUP: En.Brownlow School, Melton Mowbray.

Ivor was referred by the School Medical Officer for enuresis. He was interviewed at school and found to be very slow to respond, persevering and over-cautious. He was very much in need of encouragement and support. His chief fear was that he should make a mistake and he tended to ruminate about every reply, about his choice of words and about what "pitfalls" were to be avoided. He wore a worried and anxious expression all the time and made a tremendous effort to "try" and to "do his best". He had to be assured that there was nothing wrong.

The school stated that he was a conscientious boy of only average ability, but co-operative, well-behaved and especially energetic in games. His home was described as good working-class and no difficulties or problems were known to the school.

CASE No. 89Bryan (29.5.52).GROUP: En.Brownlow School, Melton Mowbray.

Bryan was referred by the School Medical Officer for enuresis. He was interviewed at school and appeared to be a very nervous and highly-strung boy. His responses were quick and impetuous, he was keen to do his best and give a good impression and he kept up a continuous stream of conversation. He was restless and unsettled and gave ample evidence of a lively imagination. A life long speech defect, which had been treated by the Speech Therapy Department, was still noticeable - a reversion to baby-talk and infantile pronunciations.

Bryan had two brothers, Paul (1) and Raymond (13), the latter well known to the school for his nervous indigestion. This seemed to be a highly-strung family.



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