A study of the factors thought to be relevant in moral judgements in E.S.N. children

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A STUDY OF THE FACTORS THOUGHT TO BE RELEVANT IN MORAL JUDGEMENT IN E.S.N. CHILDREN

Abstract

The study was designed to investigate the factors thought to be relevant in the attainment of maturity of moral judgement in educationally sub-normal children: those of age, intelligence, and family influence, the last being specifically concerned with social position, parental discipline and family relationships. Sex differences in the development of moral judgement were also considered.

The subjects were 50 pupils, aged 11 to 16, of a day special school for E.S.N. children, and measures used were a test of moral judgement, the Wechsler Intelligence Scale for Children, attainment tests of reading and vocabulary, the Bene-Anthony Family Relations Test, a test of parental discipline, and a social class assessment.

Results showed the general low level of moral maturity in E.S.N. children but the expected age trend was barely evident. Intelligence was found to be significantly related to the development of moral judgement in E.S.N. boys, particularly where there was a verbal factor or when in terms of mental age; findings for the girls were either inconclusive or less pronounced. Some of the related aspects of intelligence were of the type which are influenced by social factors. Results of comparisons between moral judgement and tests of verbal attainment were mainly inconclusive.

The differences between social classes in maturity of moral judgement of both boys and girls were positive though non-significant, but moral maturity was not related to size of family or to major involvements with particular members of the family. Sensitisation-type maternal discipline was found to be very highly related to the development of moral judgement in E.S.N. boys, and there was a high negative relationship between psychological-type discipline and development of moral judgement in girls.

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I N D E X

A P P E N D I X

xviii. Parent-child attitudes: outgoing and incoming feelings - positive - Girls

xix. Parent-child attitudes: outgoing and incoming feelings - negative - Boys

xx. Parent-child attitudes: outgoing and incoming feelings - negative - Girls

xxi. Denial and idealisation. Paranoid tendency - Boys

xxii. " " " " " - Girls

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xxiv. " " " " - Girls

xxv. Egocentric states - Boys

xxvi. " " - Girls

xxvii. Over protection/over indulgence - Boys

xxviii. " " " " - Girls

Schaefer-type test of parental attitudes

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xxxi. " " " " " - Girls

xxxii. Father's occupation and social class - Boys

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CHAPTER 1

PURPOSE OF THE INVESTIGATION

Educationally sub-normal children comprise about 1% of the school population, a normal I.Q. range being 50 to 70, and are usually segregated into special schools following educational failure. The subjects of research into moral judgement have included 'dull' children but have been of higher intelligence than E.S.N. children.

The age-developmental theory of moral judgement has been confirmed by many investigators and, therefore, a significant relationship between chronological age and maturity of moral judgement could be expected in E.S.N. children. But, although specific ages of change in moral thought have been isolated by a number of investigators, a reasonable assumption would be that other factors than age would have some effect upon the development of moral judgement, especially in an abnormal population such as E.S.N. children.

When considering moral judgement in E.S.N. children, the factor of intelligence, as well as age, and a number of influences stemming from the particular nature of their families, would be assumed to be relevant.

In view of the emphasis on cognitive development as a means to the attainment of maturity of moral judgement, it is probable

that the low intellectual level of E.S.N. children would have a limiting effect upon such attainment. The ascertainment of E.S.N. children, though, follows a test of general intelligence and it would be of value to have indications as to the relative importance of different aspects of intelligence, as well as general intelligence in the development of moral judgement, with the reservation that the choice of major factors and components depends largely upon the theories of the authors of an intelligence test. Despite the difficulties of overlap of factors and of definition, a study of the factor analysis of an intelligence test and scores in a test of moral judgement, should give some indications as to the specific areas of thought or learning which are related to the success of children of very low general intelligence in a test of moral judgement.

As there is usually a positive relationship between various aspects of verbal attainment and level of general intelligence, a higher level of moral maturity could be expected from those children who had the most success in 'verbal' school subjects, standardized tests of comprehension and reading being the obvious choices in the E.S.N. field.

Social experience would seem to be relevant to moral development whether moral thought is regarded as a direct reflection of individuals and social groups with whom the child

comes into contact or, in terms of Kohlberg, as providing the child with basic 'general moral values' and the material for the development of moral values.

The E.S.N. child's lack of awareness of the world at large is an indication of his lack of positive contact with a number of potential influences outside the home and emphasizes the crucial factor of his family as a social influence. Most families of E.S.N. children are inadequate in many ways and many are large in number, and it could be assumed that there is a general lack of healthy stimulation and that any stimulating contact may tend to be dissipated over a large number of children in some families.

Most families of E.S.N. children are members of the lowest social classes and a common finding has been that there are social class differences in the age at which there are changes in levels of moral judgement, the children in the lower socio-economic groups changing at a later age than those in the middle and upper groups. One, or a number of factors, may account for this difference but one interpretation is that the handling of children by parents in the lower socio-economic groups is of a more constraining nature than higher in the social scale.

This investigation concerns the factors thought to be relevant in moral judgement in E.S.N. children: those of age,

intelligence and family influence, the last being specifically concerned with social position, parental discipline, and family relationships. At the same time, it is hoped that some knowledge may be gained in the neglected area of sex differences in the development of moral judgement.

CHAPTER 2

DEFINITION OF THE EDUCATIONALLY SUB-NORMAL CHILD

Local Education Authorities in England and Wales were required by the 1944 Education Act to have regard 'to the need for securing that provision is made for pupils who suffer from any disability of mind or body by providing, either in special schools or otherwise, special educational treatment, that is to say, education by special methods appropriate for persons suffering from that disability'.

The Handicapped Pupils and School Health Service Regulations, 1945 (82), (replaced by the School Health Service and Handicapped Pupils' Regulations, 1953 (83)) named and defined categories of handicapped pupils, educationally sub-normal pupils being defined as 'pupils who, by reason of limited ability or other conditions resulting in educational retardation, require some specialized form of education, wholly or partly in substitution for the education given in ordinary schools'. Explanations of this definition were given in the Ministry of Education's Pamphlet No. 5, 1946 (78), and in reports by the Chief School Medical Officer of 1939-45 (80) and 1946-47 (81).

The category of educationally sub-normal is broad and the criterion of the need for special educational treatment is essentially educational, the suggestion in Pamphlet No. 5 (78) being that an educationally sub-normal child is one whose attainments are less than 80% of the normal for his age.

Cleugh (17), Tansley and Gulliford (67) and others have tabulated the categories of educationally sub-normal children which

have emerged in practice and as a result of Ministry of Education suggestions, on the following lines:

(1) 'Backward' children of limited intelligence with an I.Q. range of 50 to 70 as measured, usually, on the Terman-Merrill scale. Such children often have additional handicaps such as inadequate home backgrounds, physical deficiencies and emotional problems. Before the Education Act of 1944, such children were classed as 'educable feeble-minded'.

(2) Dull children of below-average intelligence (say, I.Q.'s between 70 and 80) with consequent learning difficulties which are often aggravated by inadequate home backgrounds, etc.

(3) Children of any intelligence level whose attainments in one or more of the basic subjects is low. Attainment which is less than 80% of the norm is a usual measurement. The causes of failure are many and are often due to maladjustment or perceptual difficulties.

It can be seen from the above categories that, although the criterion of the need for special educational treatment is essentially educational, the means by which special educational treatment is given must depend upon the basic cause of the backwardness. Thus, while the majority of children in categories (2) and (3) could be adequately catered for by special educational treatment in the ordinary school,

backward children of limited ability (category (1)) are usually to be found (depending upon local circumstances) in boarding and day special schools for educationally sub-normal children.

It has been estimated that about 1% of the school population require special educational treatment in day special schools. The majority of such children will be of limited intelligence (category (1)) but some of category (2) and a few of category (3) will be included. Thus, most of the children in a day special school for educationally sub-normal children are part of the general field of mental subnormality known as educationally sub-normal (educational terminology), sub-normal in the field of subnormality (Mental Health Act, 1959, terminology), and feeble-minded or morons in the field of mental deficiency (scientific terminology).

Attempts have been made to classify mental defectives into clinical types and Clarke A.M. (16), 1965, has summarized the situation. Lewis, in 1933, suggested two forms of 'mental deficiences', the pathological group, whose members suffer from defects of a pathological type not found in the normal constitution, and the sub-cultural group, the group of low-grade normality. Lewis felt that sub-cultural deficiency is inherited although he did give some weight to unfavourable environmental conditions. Gibson's 1950 analysis is similar to that of Lewis. Clarke A.M. (16) points out that a common clinical practice in America is to classify defectives as exogenous (assumed to be brain-injured) and endogenous (sub-cultural) but that any classification in mental deficiency has doubtful validity and may

be dangerous as 'it may give a misleading sense of precision'.

Other forms of attempted classification are mentioned by Clarke A.M. (16) but Clarke A.D.B. (15), 1966, states that the pathological/sub-cultural dichotomy is still valid although the interpretation is now largely reversed. He states that sub-cultural sub-normals 'occupy a fair proportion of those between I.Q.'s 50 and 75', their level being due to an interaction of genetics and environment resulting from perhaps below-average parents and inadequate child-rearing conditions.

Clarke A.M. (15) in her summary of the aetiology of sub-cultural defects says that 'the large majority of ..... pupils in special schools for the educationally sub-normal are drawn from the lowest strata of society, have not infrequently been subjected to adverse experiences, and as a rule have suffered gross cultural deprivations'. She also adds the argument that the mentally and socially inadequate will sink to the lowest socio-economic groups.

CHAPTER 3.

RELEVANT RESEARCH.

Introduction.

A number of research approaches, either singly or in combination, have been made in the study of the nature and origins of moral behaviour; few consistent results have emerged from studies using different methods, and there have been contrary findings when similar approaches have been made. Much of present-day research stems from the inspiration of Freud and Piaget - the behavioural approach with its emphasis on the emotional and motivational aspects of personality structure, and the developmental or cognitive approach to the child's moral orientations.

The psychoanalytic theory of Freud was primarily intended to be a general explanation of the formation of conscience but has provided the basis for research into possible determinants of moral character in individual children. Probably owing to the complexity of the theory, investigators have concentrated upon particular concepts but, despite such an apparently simple approach, there is difficulty of definition and measurement of concepts. Attempts to clarify the meaning of concepts have resulted in modifications which have been influenced by the theoretical preferences of individual investigators.

Despite the difficulty of basing research upon rather vaguely defined variables, the contribution of psychoanalytic theory to understanding the individual child's moral development cannot be ignored and the results of investigations into the concepts of identification and guilt would seem to be of particular relevance.

The term identification, if it is to mean more than mere imitation, implies that there is an emotional attachment to a person and a desire to please which leads to the internalization or incorporation of standards and an obligation to act in accordance with these standards or suffer guilt. Thus, for a child who has internalized moral standards, external sanctions are replaced by a process of internal control. The Freudian view is that standards are acquired by identification with the parents, two kinds of identification, anaclitic and defensive, being advanced. Anaclitic identification is said to be based on fear of losing love, the child identifying with the parent by incorporating as much as possible of the parent as an insurance against loss of love. Defensive identification, or identification with the aggressor, is said to be a process of avoiding fear of punishment by identifying with the source of punishment, but the present view is that this type of identification is likely to encourage a hostile outlook in a child rather than contribute to the development of an inner conscience.

One important result of work on identification and guilt is the indication that love-oriented techniques of parental handling lead to a higher level of conscience and higher feelings of guilt than punitive techniques.

The emphasis on loss of love, anxiety, the self critical response of guilt, and anticipation of punishment suggests that such factors should be related to moral development. The attainment of internalized moral standards, however, cannot be explained solely in terms of emotional development or only in relation to parents. Attempts have been made to reconcile ideas about identification within learning theory and investigations have been carried out into the influence of those other than parents in the identification process; such studies have been valuable in themselves by indicating, for example, the importance of the principle of reinforcement and the influence of older siblings, in the identification process, but they also illustrate the complexity of the study of moral development and the need to consider a number of aspects of learning.

Intellectual development, leading to wider perceptive concepts and wider concepts of morality would seem to be of importance in the attainment of maturity of moral judgement, especially when children of low intellect are considered. The developmental approach of Piaget and others to the study of moral judgement in children, while not

rejecting other approaches, aims at the analysis of thought structures underlying responses in moral situations, by children of different ages, in an attempt to discover basic trends in the attainment of moral maturity, usually expressed in the form of age-developmental analysis. The specific study of moral judgement - the child's 'use and interpretation of rules in conflict situations, and his reasons for moral action, rather than a correct knowledge of rules or conventional belief in them' (Kohlberg, 41) - readily suggests age-developmental analysis and, to some extent, avoids the use of vaguely defined variables characteristic of the psychoanalytic approach. Although the study of moral judgement in children cannot be confined to one theory, the complexity of the problem is such that there must be selectivity. Piaget's theory, with later clarifications and modifications, would seem to provide a basis for the study of moral judgement in E.S.N. children but other relevant approaches cannot be disregarded and reference is made to them, where necessary, later in this section.

Piaget's Developmental Approach.

The main concern of Piaget (54) in his investigations into moral judgement in children was to establish developmental sequences, each stage having distinctive features and merging with the next. His first approach was to observe Swiss children playing marbles in order

to judge children's attitudes towards rules and he differentiated three main stages. Up to the age of about 3 years, the marbles were just rolled about and from about the ages of 3 to 5, the children started to imitate the rule regulated behaviour of older children but, if advantageous to do so, would frequently disobey rules. Beyond these stages, the children played according to the accepted rules but such rules were regarded as absolute and externally determined (the transcendental stage or absolute orientation to norms). An extension of this stage, which could be described as a further stage, was when, by the age of 11 or 12, there came some recognition that rules, although useful conventions, were not absolute and could be changed by mutual agreement (the autonomous stage or relative orientation to norms).

Piaget's second approach was to investigate children's attitudes towards violations of moral norms. The children were told stories to ascertain their views on moral actions. Children up to the age of 9 or 10 judged blame according to the consequences of acts but older children saw blame in the light of the actor. Similar results were obtained from studying children's reactions to the telling of lies. Younger children regarded a lie as bad because one is punished, older children because of the effect upon relationships with others. Younger children regarded lies to older people as worse than lies to their peers and regarded the successful lie more highly than the unsuccessful, while older children thought less of the lie that did succeed.

In a further approach, Piaget investigated children's conception of justice and similar underlying trends emerged. Younger children viewed punishment as an absolute, tending to accept authority's punishment as fair, whatever it may be and whatever the circumstances, and felt that it should be in proportion to the enormity of the transgression, regardless of circumstances. By the age of about 12 years, children felt that punishment should be related to circumstances. Younger children favoured expiatory punishments but older children, reciprocity punishments.

From Piaget' work on moral development emerges the conclusion that there are two types of morality in the child. The earlier type, up to the age of 7 or 8, the morality of constraint, is characterized by the child's belief in the omnipotence of adults and authority and in automatic punishment following the violation of rules, the severity of such punishment being in direct proportion to the consequences of the violation and independent of motive. This attitude is said to be the result of two defects in the child's cognitive processes, the inability to differentiate his own value perspective from that of others so that he is unable to associate moral values with particular people or ends, and the inability to separate subjective phenomena from objective things, resulting in the view that moral rules are fixed and unalterable.

The second and more mature type of morality which emerges, the morality of co-operation, follows an intermediate stage in the years 8 to 10 when the child is said to internalize rules without evaluation.

The morality of co-operation is characterized by mutual respect and agreement with others. Rules are maintained in the common interest but may be changed or modified by mutual consent. Punishment is judged in the light of the particular violation of rules, motive and circumstances being considered, and is restitutive rather than retributive; the child evaluates intentions and not deeds alone. This new found moral attitude is said to be the result of the child's new ability to differentiate his own value perspective from that of others, his increased ability to differentiate between subjective phenomena and objective things, and to a more rational concept of authority leading to less dependence upon the will of others. Conscience is said to have become autonomous, moral principles being internalized, and therefore external sanctions being unnecessary for correct moral behaviour. The child has thus developed from the stage of absolute orientation to norms to one of relative orientation to norms: to the stage of social realism.

A number of criticisms can be levelled against the Piaget experiments. Only a few children were involved (mostly below the age of 12 years) and the emphasis on stages of development appears to have clouded the importance of individual differences between children. There was some lack of conceptual clarity, such terms as 'interiorise' and 'moral facts' being vaguely defined, and, although Piaget was probably well aware of the danger of fitting his preconceived hypotheses to the experimental material, it is possible that this happened to some degree. In the wider sense, Piaget can be

criticized for placing too much emphasis on the role of maturation in the moralization process, but, it is fair to say that his work was in keeping with the current tradition of investigations in the behavioural sciences when little account was taken of antecedent factors such as sex, intelligence and social status. Despite criticisms, however, the great value of Piaget's work in providing a framework for research and the inspiration for many further investigations cannot be denied. It would appear that the stimulating content of his work, and the boldness of his theory of moral development, provided a firm basis for further experiments.

A large number of studies give general support for the pattern of moral development proposed by Piaget but, in general, chronological age is reported as the only consistently operative factor in the process of attaining maturity of moral judgement. Lack of general support does occur, however, and the degree of disagreement can almost be measured in terms of distance from Switzerland, emphasizing his rather narrow approach with excess emphasis on the role of maturation, and indicating that other factors have to be considered in relation to the development of moral judgement in the child. Such factors could include cross-cultural influences, social class, sex, and intelligence level. Each factor, though, cannot always be regarded as independent of another as, for example, a relationship between social class and intelligence level could be expected.

Moral Judgement and Social Class

Research into the effect of social class on the development of moral judgement has often been on Piagetian lines and one of the first of such investigators was Harrower (29) who, in England (1934), repeated Piaget's investigations into concepts of justice with children from two different social groups: primary school children in Marylebone and children from a Highgate private school. She found evidence of Piaget's stages in the group from the poorer part of London, and similar in social background to Piaget's group, but the private school group (from cultured, upper-middle class homes) gave more mature responses through the whole age range. She concluded that either Piaget's stages are not a universal characteristic of development and are only to be found in certain uniform groups, or that these stages of development could be accelerated to such an extent that children showing the most developed characteristics could be found in the age group where immature responses could be expected. She was unable to find evidence of social realism in children below the age of 6 years from cultured homes so thought that her first alternative probably had more substance.

Harrower felt that parental attitudes were most important because of both the different attitudes towards children in the two socio-economic groups and the particular position of upper-middle class children in the socio-economic strata. She felt that children from upper-middle class homes would tend to be more identified with

the environment and have a different perspective on the values of society owing to their parents having a larger stake in the management of affairs, while working class children would tend to a more passive acceptance of the environment. Although Harrower failed to take into account a number of factors which could be relevant in the development towards maturity of moral judgement (intelligence level appears an obvious factor), her work effectively challenged the sweeping generalizations of Piaget by establishing that there could be cultural or social class differences. A number of investigators have, in general, confirmed Harrower's findings and interpretation but others have only shown trends in the expected direction. Although subsequent investigations into social class differences in maturity of moral judgement are perhaps inadequate, some should be mentioned because of their various approaches and for their implications for the understanding of the reasons for cultural and class differences.

Tuma and Livson (69), 1960, through subjective assessments of adolescent attitudes to authority in various situations, also deduced that conforming was related to socio-economic status: the lower the status, the more conforming to authority. Like Harrower, they emphasized the importance of parental influence by their finding that conforming in boys was related inversely to the mother's level of education (but less so to the father's) and their quoting of two previous studies (American) showing that lower class parents were more insistent on conforming, and higher class parents with internalizing standards.

Very wide social class differences were found by Lerner (42) 1937, who investigated the relationship between moral judgement, socio-economic status and parental authority among American children aged 6 to 12 years. Upper class children showed less moral realism at an earlier age than lower class children and Lerner concluded that 'high status' parents used less constraint than 'low status' parents, and that children of 'high status' parents regarded moral principles as depending more upon intention and extenuating circumstances than upon the rigid externally imposed standards which were more typical of children of 'low status' parents. When Lerner's study is considered today, a notable finding is that 'high status' children considered the circumstances and intention behind an action more that 'low status' children even when children of similar intelligence level were compared. This seems to indicate that, despite the high intelligence of some children of 'low status', their social climate outweighs their ability to reason for themselves, either by its sheer impact or the lack of stimulation for formalized thinking, or that they are seldom presented with the information required for reasoning. Similar results to Lerner's were obtained by Johnson (37), 1962, except that he found that I.Q. was positively and significantly correlated with moral judgement in all areas. He also found that parental attitudes (and, to a lesser extent, parental occupation) were significantly related to moral judgement in his study of children in an American mid-western public school system.

Studies in recent years, in general, show no significant class differences in maturity of moral judgement but a trend in the expected direction, e.g. Boehm and Nass (11), 1962, (as part of Boehm's larger study), who investigated the influences of social class on the responses of children, of working class and upper-middle class backgrounds, to stories involving moral judgement, and generally corroborated the findings of Piaget; significant developmental trends towards more mature moral evaluation appeared with increasing age when the subjects were divided into 'below 9-year-old' and '9-year-old and above' groups, although morality of co-operation did not appear to be based on authority independence. The lack of marked differences between the social classes shown in recent studies may be due to the less marked differences in child rearing practices between the social classes of today. Boehm (10), 1962, was interested in the age at which groups of American children from different social classes (upper middle and working classes) learn to distinguish between intention and result of an action, and Piaget's view that the child must become independent of adults and achieve peer reciprocity before attaining 'morality'. She found that upper-middle class children develop earlier than working class children in their moral judgements on distinctions between intention and result of an action, and that working class children showed earlier peer reciprocity and adult independence than upper-middle class children (but, unlike Piaget, her findings did not show that maturity of moral judgement increases as the child becomes independent of adults and achieves peer reciprocity;

Durkin (20), 1959, found no increase in reciprocity in children aged 7 to 13).

The importance of social reinforcement is stressed by Aronfreed (4), 1961. He studied children's responses to transgression, using a story completion technique with American children from the sixth grade of two public schools and concluded that the middle class children (and, in general, boys) were more independent of external events in responding to transgression than working class children (and girls) who showed greater conformity to external orientation. He found that there was some, but less extensive, association between moral responses and maternal discipline. His results emerged as a pattern of moral responses in each group rather than identical responses to particular situations and he suggested that the changing moral orientations with age in a child were not the result of sequential development but of different patterns of social reinforcement.

It is quite clear that Piaget minimized the importance of environmental influences in the development of moral judgement and, if there is a two stage development, then it is not universal and is to be found only in some uniform groups as Harrower suggested. That the development of moral judgement proceeds by stages in some cultural contexts is probably true but it seems even more probable that the level of moral judgement is a reflection of the child's response to social-situational influences. If parental child-rearing practices have some relation to the development of moral judgement, it could

be that Piaget's results were a reflection of the authoritarian practices which, certainly at that time, were more typical of Europe than the other centres of major research. Such a statement, however, assumes that parents are the main influence in social class differences and ignores the significance of a child's relationship with other members of the family and those outside the family. But membership of a particular social class leads to the acquisition of the particular values existing in that class, and although parents are probably the main agents in the socializing process, with others having some influence, the basic question is one of how social class differences are brought about.

It has been mentioned that lower-class parents tend to treat their children in an authoritarian way, in order to inculcate standards of behaviour which conform to external authority, in contrast to the rationalistic and equalitarian treatment accorded higher in the social scale. Not only are children of the higher social classes at an advantage in having parents who would be expected to be of higher intelligence, and therefore better able to evaluate transgressions, but the reasoning approach would provide examples of differentiating between moral situations in cognitive terms and probably provide a framework for future evaluations by the child. Such children have superior learning conditions and, usually, the advantage of superior intelligence, so it could be assumed that they would be superior in their judgement of moral affairs.

A notable investigation, which illustrates the importance of a child's learning experiences rather than the maturational process,

is that of Bandura and McDonald (5), 1963, who found that a child's initial type of moral evaluation is most likely to change after he has been exposed to the verbal moral judgements of a reinforced adult model. It would seem that active intervention by others in a child's learning process, when done in a consistent way and where there is reinforcement which is appropriate to the examples provided, could be an important factor in the acquisition of judgement values. This theory, though, is one of many which seek to explain how values are acquired by a child but, if such a theory is valid in a child's wider social situation, then all members of the family and people outside the family could play a part in the acquisition of social class values. This suggestion that family conditioning, community mores, peer influence and other social influences are important in the development of moral standards is supported by the extensive study of Havighurst and Taba (32), 1949.

The attitudes of parents in particular, though, is a major factor in the child's development and a wealth of research suggests that different methods of parental discipline lead to different types of moral orientations in the child.

Moral Judgement and Parental Discipline

In many studies of parent-child relations, there are hundreds of variables and intercorrelations but a number of investigators have synthesized concepts of parent behaviour into a unified conceptual scheme by developing two-dimensional (e.g. Roe: 56, Schaefer: 58) and three-dimensional conceptual models for parent behaviour (e.g. Roe and

Siegelman: 57, Siegelman: 64, Becker: 7, Schaefer: 59). In addition to developing two- and three-dimensional models, some investigators have presented stereographic projections so that the different dimensions of parental behaviour could be seen as sectors of a parent behaviour sphere.

A typical synthesis is that of Schaefer (58) who, in 1959, claimed that all studies of parental behaviour demonstrate the two major dimensions of Love v Hostility and Autonomy v Control, but Becker's analyses of the studies relating to parental discipline (7) suggested that at least three general dimensions should be considered: Warmth v Hostility and sub-divisions of Permissiveness v Restrictiveness. Schaefer's later revision (59) proposed the three dimensions of Acceptance v Rejection, Psychological Autonomy v Psychological Control, and Firm Control v Lax Control, but work on this three-dimensional conceptual model is still not complete and only a tentative mapping has been published (62).

The use of a small number of dimensions, although achieving economy of conceptualization, can obscure important distinctions. The parent-child relationship is a very complex phenomenon and conclusions from research into the effects of types of parental discipline must be treated with some reserve. It is possible, for example, for some well-adjusted children to havemaladjusted parents, but, parental influences on child development are crucial and despite the many variables operating within a family e lack of consistency by the parents over the short or long term, the interaction of mother and

father, size of family, sex of children, age differences of children, etc. - there is some agreement, at least on trends, in the research into the effect of parental attitudes on child development, including the field of parental discipline and moral development.

Certain types of affectional relationship between parent and child and certain types of parental discipline have been found to be related, particularly a warm relationship with the use of praise and reasoning and a hostile relationship with the use of physical punishment. It would seem, though, that the trend in the study of parental discipline has been one of establishing the more fundamental themes before considering the many variables. Both restrictiveness and permissiveness, for example, could be considered in warm and hostile contexts.

Despite the many variables, and the differences in definition of methods of parental discipline, a major general classification has emerged which distinguishes between psychological or love-oriented types of parental discipline and those of a hostile nature. When considering the consequences of these two types of discipline for the child's moral development, moral responses have been viewed as either internally or externally oriented.

Psychological types of parental discipline are said to contribute to the internalization of moral standards. Hoffman (33, 34), who, in 1962 and 1963, summarized the major research in this field, stated that psychological discipline 'includes techniques that appeal to the child's need for affection and self-esteem and his concern for others'

and suggested that such techniques are more effective when there is an affectionate relationship between parent and child. It is said that the child feels that he is falling short of parental expectations, or hurting the parent, with consequent loss of love. The emphasis on fear of loss of love has its roots in Freud's analysis of superego-formation whereby the outcome for the child is a feeling of guilt, but probably a vital inference in the consideration of psychological methods of discipline is that such methods are meaningless if there is little or no love to withdraw.

The reasons for psychological types of discipline contributing to the development of moral standards are difficult to define and evaluate. Hoffman (33) suggested three possibilities: provide a model of self restraint, provide a measure of information in evaluating an act, or induce uncomfortable feelings associated with the act. Uncomfortable feelings could be anxiety over loss of love, guilt over harmless consequences of the act, or shame over the inability to reach expected standards. Whether valid or not, such proposals indicate that there is still much to be done in exploring the effect of different types of learning and in analysing the broad concept of psychological discipline. There are, however, some common factors in the practice of psychological discipline. The parents use reasoning, give love-oriented rewards such as praise, threaten to withhold such rewards as a punishment by showing hurt feelings or disappointment, and, generally create a climate which will encourage their children to adopt their moral values (but, the adoption of moral values is

dependent upon the parents having values worthy of adoption).

Techniques of parental discipline consisting of direct verbal or physical assaults on the child are said to encourage the development of a morality based upon fear of external authority and punishment. A number of explanations can be put forward but they illustrate the need for exploration into the effect of different types of learning. Basically, there is less reasoning and love-oriented handling such as praise, and, additionally, such discipline could be frustrating and a source of anger, or could provide a model of aggression both by being an illustration of and an approval of aggression, or, the aggressive parental attitudes could have a reinforcement effect. A further complication is that it could be expected that many parents who are generally hostile would use aggressive types of discipline, and it is therefore difficult to say whether any relationship between the method of discipline and aggressive attitude in the child is the result of the discipline in particular or the generally hostile attitude (or a combination of both). The influence of the warm hearted but 'hard hitting' parent has yet to be explored.

Studies in the assessment of guilt and reaction to transgressions in children confirm, in general, the different effects of the two major types of parental discipline on moral development. A study by Allinsmith (1) did not confirm this but, later, Allinsmith and Greening (3) using a projective story completion technique to assess violations of moral standards of middle class college students, and

Heinicke, C.M. (in Hoffman M.L. (33) and Aronfreed J. (4)), using an interview technique to assess concepts of right and wrong and reactions after wrongdoing of 5 year-old boys, found a positive relationship between a high measure of guilt and psychological discipline, especially when practised by mothers. The female subjects of Allinsmith and Greening's study showed only a slight positive relationship which may have been due to the masculine content of the story in this study but, in general, is in keeping with the more pronounced findings for boys shown in much of the research into the role of the parent in the child's moral growth.

Allinsmith defined two broad types of parental discipline, corporal (physically assaulting the child in various ways) and psychological (shaming, appeals to pride and guilt, showing of disappointment). Similar concepts have been advanced by Aronfreed (4): extinction (or sensitization) and induction techniques. Extinction techniques are similar to those in Allinsmith's 'corporal' category but with the addition of direct verbal assaults on the child and are said to have the effect of arousing fear by the external threat of force, the child's moral orientations thus being dependent upon, rather than independent of, external sanctions. Aronfreed's induction category, involving rejection of the child by the showing of parental disappointment, is said to 'induce' in the child, internal reactions to his transgressions which are independent of external threat, rather than Allinsmith's emphasis on the behaviour model presented to the child. Aronfreed (4), using a projective

story completion technique to investigate whether behaviour after transgression in 6th grade children was motivated by external or internal forces, obtained similar results to Allinsmith in the field of maternal discipline (only mothers were considered). Internally motivated action, allied to lack of external threat, in the story completion, was positively related to induction techniques while there was a predominance of story endings containing externally motivated moral actions and external punishments from the children of mothers using a predominance of extinction techniques.

The relevance of a warm relationship with the child, in giving effect to psychological types of discipline, is illustrated by the study of Sears, Maccoby and Levin (63), who actually used the term psychological discipline which to them involved 'the withdrawal of love'. Only the discipline of mothers was considered in their study which was concerned with the assessment of conscience in children following transgression, measured by reports from mothers as to whether characteristic behaviour was to confess, hide or tell lies. There was a positive relationship between love-oriented techniques and a high level of conscience (measured by the degree of confession) but only where there was usually a warm and affectionate relationship between mother and child, the inference being that the more warmth and affection displayed, the more effective 'withdrawal of love' would be. The assumption that confession is mainly motivated by guilt and therefore is a measure of moral development, though, is probably open to question.

Of particular interest for this thesis is that one of Kohlberg's situations (40, 41), was used by Hoffman M.L. and Saltzstein H.D. (in Hoffman M.L. (34)), when they assessed 7th grade children's moral judgement and compared the results with those of a questionnaire on parental discipline which was categorized in a similar way to the Allinsmith and Aronfreed categories. The boys' results were positive, internalized boys having parents using predominantly psychological-type discipline. Results for the girls, while not significant when a direct comparison between parental handling and moral judgement was made, were significant when a comparison was made between the results of the test of moral judgement and the incidence of threats by the mothers to ask fathers to carry out punishment, internalized girls reporting this less frequently than those motivated by external sanctions.

The above findings are mainly linked with studies concerning reactions to transgression and the measurement of guilt. Similar findings have not always been obtained in studies in the ability of children to resist pressures to deviate. It could be assumed that the child-rearing practices of parents of children with a high level of guilt would be similar to those of parents of children most successful in resisting pressures to deviate, one being an 'internal' concept and the other depending upon some internalization and resistance to external pressures, but a consistent relationship has not been found. Bandura and Walters (5) suggest that the learning principles involved in the development of resistance to temptation and guilt

are quite different as they appear to depend upon the classical conditioning of emotional responses and instrumental conditioning, respectively.

The results of research into resistance to temptation, however, are not consistent. Three studies quoted by Hoffman (33) - Sears, Maccoby and Levin; Burton; Grinder - resulted in conflicting findings although more pronounced results were obtained for boys than girls. The subjects were of pre-school age (2 studies) and 11-12 year-olds and their behaviour in the test situations was observed through a one-way screen. It could be that in this type of study, the choice of situation may be important to individual children and the resistance to deviate (in the above studies, the temptation to cheat) may vary as a result. Perhaps a relevant factor is that the experimental situations are practical and a child with strong moral tendencies may not necessarily behave morally.

Studies in resistance to temptation by Allinsmith (2) (story-completion), and MacKinnon (46) (written test), confirm the positive relationships between psychological and sensitization-type disciplines and aspects of moral development obtained in the studies of guilt and reaction to transgression.

Although there are conflicting results in studies of the relationship between child-rearing practices and moral development, a general lack of clarity of concepts, and a lack of knowledge of, or agreement on, the intervening processes between parental

behaviour and the child's moral development, it can be concluded that the predominant use of discipline which is within one of the two major types of parental disciplinary categories of psychological and 'sensitization', has some effect on the child's moral development.

Research results confirm, in general, that parental discipline which appeals to the child's inner needs is a contributory factor in the development of an internalized moral orientation and that the use of aggressive, sensitization-type discipline is likely to lead to a moral orientation in the child which is based upon fear of external sanctions.

Moral Judgement and Intelligence

It would seem a reasonable assumption to regard high intellect and a high level of moral judgement as synonymous, but some caution is required when interpreting experimental results owing to the interaction of factors and to the nature of the various experiments. The development of moral judgement is a complex process and reference has been made to the danger of the isolated consideration of possible contributory factors. There is usually, for example, a high positive correlation between intelligence and social class but any attempt to isolate the contribution of intelligence is complicated by the complex interaction of the two variables. It is evident that any relationship found between moral judgement and a variable which could be related to another variable should be treated with some caution.

Tests of moral knowledge, moral judgement, and character, are often of the paper-and-pencil type and heavily weighted with factors of intelligence. Therefore, despite some good reliabilities and inter-correlations obtained, such tests cannot necessarily be regarded as indicative of a high level of morality. A simple explanation would be to regard such tests as tests of intelligence and attribute success to intelligence alone, and this is a plausible explanation if intelligence could be regarded merely as the end-product of a number of conditions such as social class.

A clear understanding of the type or aspect of morality being measured is of importance in understanding the contribution of intelligence. Studies in moral knowledge and belief in children (e.g. Hartshorne and May: 30), as opposed to moral thought and judgement, indicate that most children know the basic rules and conventions of society at an early age. Some investigators have noted that gifted children are more likely to identify with an examiner and give expected answers which is a further indication that moral knowledge scores could indicate the child's level of intelligence and not his maturity of moral judgement. Where, however, the attainment of concepts and conscience are involved, as in Stephenson's study (65), the complexity of the study of moral development is again evident in the different relationships involved when different aspects of conscience development are considered at different levels of intelligence. Educational achievement (related

to both social class and intelligence) was found to be related to the development of guilt and conscience motive (the 'positive aspect of conscience': having an active concern for others, etc.) but the positive correlation between guilt and intelligence was mainly found in subjects of low intelligence whereas individual differences in intelligence in the upper half of the subjects were less highly related to differences in conscience variables.

Paper-and-pencil tests would not seem at all relevant to the testing of subjects of low intellect and low educational achievement and it is possible that other children would be at some disadvantage. A paper-and-pencil test was included in the investigation of moral judgement in 807 children (mean I.Q. 106) by Johnson (37). Piaget-type stories were used and I.Q. was found to be significantly related to moral judgement but his written test could have been more of a measure of intelligence than of moral judgement.

There is, though, some evidence to indicate that intelligence (or an interaction of intelligence and other variables) is a factor in the development of moral judgement. General indications are found in such studies as that of Terman (68), who found that intellectually gifted children tend to be superior to the average in many ways, and in the literature on child development. Gesell (25), for example, suggested that 'an improvement and widening of ethical attitudes' occurs after the age of 5 years which is related to 'an increase in intelligence' but such a statement can only be regarded as an indication, as, like many others, his concepts lack clarity.

In the specific field of moral judgement, there have been some conflicting findings on the importance of the factor of intelligence. It is of relevance, though, that the factors given most prominence by some findings have been those which could be related to intelligence.

In her study, Boehm (10) divided her subjects (from the upper-middle and working classes) into two groups - I.Q. 90 to 110 (studied jointly with Nash) and I.Q. over 100 - and, using Piaget's clinical method investigated some aspects of Piaget's theory of moral development. She found differences between academically gifted children and those of average intelligence: gifted children made more mature moral judgements when distinguishing between the intention and outcome of an action, there was a greater difference between responses of gifted children and children of average intelligence in the upper middle-class than in the working class, and working class children at both intelligence levels showed earlier peer reciprocity and adult independence than upper-middle class children. While indicating the difference in maturity of moral judgement between different intelligence levels, Boehm's study also re-emphasizes the importance of the socio-economic factor and the difficulty of studying possible contributory factors in isolation.

Boehm, in discussing the investigation, mentions that the gifted working class child may seem to have been at a disadvantage owing to his inadequate way of expressing himself, but it was not

merely the quality and length of expression which was of poor standard, but also the level of moral judgement. It would seem that poor verbalizers (who would include children of low intelligence) are fairly tested in a Piaget-type story situation, using Piaget's clinical method, where there is no paper-and-pencil barrier, but Kohlberg (41), although finding differences in the 'level of sophistication' of replies, found no significant difference in responses between intelligence levels.

Durkin (19, 20, 21) similarly used Piaget's clinical method in her investigation of the development of justice in children (I.Q. range 69 to 148). In her first study, Durkin felt that intelligence was a possible factor in the different levels of response but in her last paper concluded that there was no relationship. Lerner (42) dismissed the factor of intelligence, finding that parental authority was the important factor which emerged in his investigation into the relationship between social status and the development of moral judgement in children.

The study by Kellmer Pringle and Edwards (39) of moral concepts and judgements of 226 junior school children (mean age 11 years, mean I.Q. 112.1, I.Q. range 74 to 168) depended to some extent on a child's ability to read and write, only one of the three tests - Moral Incidents - being carried out individually with children in the 'dull' classes. The children were divided into 3 groups - able (I.Q. 121 to 168, N = 77), average (I.Q. 95 to 120,

N = 109), low average (I.Q. 74 to 94, N = 40) - and there were some pertinent results. Children of low intelligence chose ideal persons from their immediate circle of family and friends, brighter children chose a greater number and variety (and subtle and abstract forms) of wicked deeds whereas duller children, in their simple lists, confused trivial and serious offences, and, although simple moral issues were understood by the children, the moral judgement of the duller children became confused when faced with more complex issues. The children of low intelligence regarded the result of an action as more important than motive or underlying intention. In general, Pringle and Edwards found that brighter children showed a more subtle understanding of moral issues and that the moral concepts and judgements of duller children tended to be less mature, less clear, and more limited. The ability to differentiate between the consequences and the underlying intention of an act was investigated by Edwards (23), with older boys as subjects, with similar results to his combined study with Pringle, and by Whiteman and Kosier (76), with 7 to 12 year-olds, who found that the ability to formulate mature judgements increased with age and I.Q. at each age level.

Boehm (10) is of the opinion that contrary findings to her own and to Piaget's are due to differences in aspects of moral development under investigation, to differences in range of age groups and range of I.Q.'s, and to the smaller number of subjects

studied at each stage.

It would appear that intelligence is an important factor in the development of some aspects of moral judgement and it has been suggested (26, 73) that a certain level of intelligence is a pre-requisite for such development. But intelligence may be defined in a number of ways. In the field of moral judgement, it is not enough to regard intelligence as a mere measurable quantity but to define it at least in terms of the capacity to think and to acquire concepts. Children of low intellect have difficulty in conceptualization and, in general, concepts are more readily acquired by children of high intellect than their average peers. If wider perceptive concepts in general, and wider concepts of morality and aspects of morality, are dependent upon intellectual development, it would seem that the E.S.N. child in particular would be less able than normal children to make judgements in moral affairs, certainly at higher levels. The confusion of 'dull' children when faced with complex issues has been mentioned, and one of the themes of Tansley and Gulliford (67) is the limited capacity of E.S.N. children to deal with abstract ideas unless related to concrete situations.

Following the early work of Burt (1922) and Lewis (1929), quoted in Clarke A.M. and Clarke A.D.B. (16), it has been established in the field of severe subnormality, that the number of 'moral defectives' is high and, contrary to normal expectations, the

majority of institutionalized severe sub-normals are socially and morally inadequate people of relatively high intelligence, in the range which could be found in a special school for E.S.N. children. The high incidence of social and moral defectives in this particular range could lead to the assumption that there would be a high incidence of immature moral judgement, especially as there are strong indications that there is a relationship between moral judgement and intellectual development. There is, however, a lack of research in the relationship between the ideological and projective aspects of moral response and the only major work resulted in inconclusive findings (Grinder: 28)

Of probable significance is the determination of the level of moral judgement in children of low intelligence, is the extent of their ability to defer gratification. Although the study of 'character' by Hartshorne and May (3) was concerned with moral knowledge rather than thought or judgement, it is of note that there was some correlation between moral knowledge and moral character and, after a subsequent analysis of the data, Maller (47) concluded that there was a general factor common to all character tests, that of 'the readiness to forego an immediate gain for the sake of a more remote but greater gain'. This was confirmed in the extensive and more recent study of Peck and Havighurst (52).

Moral character can thus be viewed as ego (rather than superego) strength, a concept which includes such factors as

'will', empathy and foresight, and which basically depends upon the ability or willingness to consider future probabilities and consequences. The low intellectual ability of the E.S.N. child is a disadvantage in terms of his thinking ahead, and, acting impulsively, without judgement, is common in E.S.N. children who, as Tansley and Gulliford point out, 'tend to live more for the present moment without foreseeing the consequences of impulses (and) tend to act upon the first idea or suggestion without waiting to judge between alternatives' (67). The unwillingness or inability to consider future probabilities and consequences is a factor in the behaviour of some delinquents. In a study by Mischel (49), delinquents generally chose a smaller immediate reward, and those choosing the larger delayed reward tended to have higher scores on a scale measuring habitual responsibility. But E.S.N. children are not necessarily delinquents (although there is often a social as well as an educational problem) and there is probably much in Burt's view (14) that most delinquents know when they are doing wrong. It would seem that a basic cause of acting impulsively, without judgement, in E.S.N. children and some delinquents could be general low intellect or some aspects of low intellect but that there must be other associated or separate factors operating which may or may not be common to both E.S.N. children and delinquents.

A preference for immediate gratification indicates that the

the person is living primarily in the present. The E.S.N. child is unable to handle immediate complex situations, and those beyond the present (in time and surroundings) have an abstract flavour. Most delinquents give little attention to the future but probably for other basic reasons; lack of self esteem, a history of frequent frustrations and lack of healthy adult intervention in their lives are probably relevant. These adverse factors, though, could also be found in some E.S.N. children.

Deficiency in the capacity to focus on relevant parts of a stimulus display and lack of capacity to maintain attention are particularly noticeable in severely subnormal children and adults and could be relevant factors in the E.S.N. child's weak ego strength. If scanty or incorrect information is sampled from a perceptual field, the expected component of comparison, which is part of the normal child's thinking activities, would be deficient or lead to incorrect conclusions. A vital factor in this process would seem to be language, if problem solving and thinking are thought of in terms of the interdependence of factors, and if the work of Luria (44) is of relevance, although Piaget's view is that language development and cognitive development are not closely related.

The view of moral character as ego strength is interesting in that stress is placed on a child's capacity to make decisions in moral affairs, rather than moral response being dependent upon relatively

fixed criteria. This view also supports the emphasis by some investigators on the importance of different situations leading to situational variation of decision.

Although there is no direct research evidence, it would appear that the limited intellectual capacity of educationally sub-normal children would limit their level of moral judgement, and general support for this is indicated by a number of findings, especially in Piaget-type research, but is contrary to the findings of some research workers, including Kohlberg (41). This assumes, however, that E.S.N. children have attained the minimum levels of intelligence necessary for moral development in general, and certain aspects and stages of moral development in particular, prerequisites suggested by a number of writers (e.g. Kohlberg and reciprocity).

The Position of Kohlberg

Kohlberg (40, 41) after using Piagetian procedures, analysed the moral judgement responses of 72 boys from the suburbs of Chicago. Three age groups of comparable I.Q.'s were used - 10, 13 and 16 - and each age group consisted of 12 boys from the upper-middle class and 12 boys from the lower to lower-middle class. The boys in each group were further classified into popular boys and socially isolated boys.

The boys were presented with 10 story situations containing moral dilemmas caused by conflict between obedience to rules or

authority and the welfare of the subjects of the stories. After obtaining a boy's choice between the 'obedience-serving' act and the 'need-serving' act, probing questions were asked to discover the reasoning behind the choice.

Kohlberg's analysis, using 30 general aspects of morality (including concepts of Piaget), of the boys' definitions of the moral dilemmas and reasoning behind the choices did not support the type of age-developmental trends towards mutual respect of Piaget, but led him to define 6 developmental types of value-orientation grouped into 3 moral levels as follows:-

Level I. Pre-moral Level

Type 1. Punishment and obedience orientation.

2. Naive instrumental hedonism.

Level II. Morality of Conventional Role-Conformity

Type 3. Good-boy morality of maintaining good relations, approval of others.

4. Authority maintaining morality.

Level III. Morality of Self-Accepted Moral Principles

Type 5. Morality of contract and democratically accepted law.

6. Morality of individual principles of conscience.

Congruent levels were ascertained for motive, from an analysis of the subjects' expressed motives in support of moral action, and for 'a more cognitive aspect of morality', conceptions of rights:

Motivational Aspects

1. Punishment by another.

2. Manipulation of goods, rewards by another.

3. Disapproval of others.

4. Censure by legitimate authorities followed by guilt feelings.

5. Community respect and disrespect.

6. Self-condemnation.

Conceptions of Rights

1. No real conception of a right. 'Having a right' to do something equated with 'being right', obeying authority.

2. Rights are factual ownership rights. Everyone has a right to do what they want with themselves and their possessions, even though this conflicts with rights of others.

3. Same as the second level concept but gratified by the belief that one has no right to do evil.

4. Recognition that a right is a claim, a legitimate exception, as to the actions of others.

5. A conception of unearned, universal, individual or human rights in addition to rights linked to a role or status.

6. In addition to level 5 conceptions, a notion of respecting the individual life and personality of the other.

Moral statements were assigned by the judges to one of 180 cells (30 dimensions x 6 types) and a boy's total score was classified according to the percentage of statements assigned to each of the 6 types of thought.

Comparisons of the scores of the three groups supported the age-developmental theory of moralization; the first two of Kohlberg's moral types of thought (level 1) decreased with age, the next two (level 11) increased until the age of 13 years and stabilized, and the last two (level 111) increased until the age of 16. Further evidence for sequence was in the finding that individual scores were predominantly within one type of morality, the remaining part of each score being within an adjacent type, suggesting that a child's thought patterning is at a particular level at a particular time and his ability to learn new ways of thought depends upon his current stage of thought. If the emphasis is on new ways of thought, there is little difficulty in accepting Kohlberg's view that the child does not add levels of thought to existing levels but that the attainment of each level is dependent upon the integrity and restructuring of the previous level and a reluctance to make use of an earlier level.

Kohlberg's theory of thought patterning at particular levels accords with his suggestions that moral judgement develops in an invariant sequence and cannot be the result of direct teaching or a general reflection of (or conformity to) cultural standards. His view is that the development of moral judgement reflects cognitive growth in terms of age, and the effect on thought of social experience. An awareness and understanding of his culture pattern, and social interactions in the form of participation and role taking, are said to be essential to the child's reorganization of preceding types of thought, leading to a

firmer internal basis of judgements. The successive levels of moral judgement represent the child's processes of organizing his world through an awareness of, and participation in, the external social world.

Kohlberg dismissed the notion that the development of moral judgement is dependent upon verbal learning (age development being in terms of verbal intelligence or verbal mental age), leading to the acquisition or internalization of cultural moral concepts so that his six types of value-orientation represent patterns of adult verbal morality. He found moral judgement to be 'quite highly correlated' with age with intelligence controlled ($r = .59$), but only 'moderately' correlated with I.Q. ($r = .31$). These figures, to Kohlberg, also give support to his view that intellectual development, represented by the age factor, is an important condition for the development of moral judgement and that level of moral judgement is quite distinct from general intellectual level. It is possible that his view of the level of moral judgement being a quite unitary personal characteristic, and quite distinguishable from general intellectual level, may only apply in a general sense, and would not be at all applicable at the extreme ends of an I.Q. scale.

When distinguishing between level of maturity of moral judgement and intellectual level, Kohlberg suggests that mature moral judgements sre of a universal type rather than of a type which could necessarily be judged againat a child's cultural norms. But, in coming to this conclusion, sole consideration appears to have been given to higher

levels of morality which by their nature would seem to require a reasonable measure of intellectual development for their attainment. Kohlberg's belief is that particular levels of cognitive development are necessary for the attainment of particular aspects of moral maturity but he does not give consideration to the possibility that there may be some children who may never attain the pre-requisite levels. The early stages of moral development in such children would be an end in themselves. It is fair to say, though, that Kohlberg's argument rests upon his emphasis on the attainment of levels of cognitive development for the understanding of moral concepts. Whether decisions made by children at the earliest stages of moral development are moral judgements is questionable, certainly at the stage which Kohlberg aptly terms 'pre-moral'. It would seem evident, though, that the judgements of children who lack cognitive resources would be some way from the objective moral judgements reflecting high moral maturity, and could be a direct reflection of their immediate surroundings.

Kohlberg's notion of the unitary nature of moral judgement level is further emphasized by the suggestion that, in general, it is independent of subcultural background and beliefs, as shown by the consistent level of verbal moral judgement attained by individual subjects, of different social backgrounds, in response to different types of situations representing separate aspects of moral judgement. But, those who were involved more than others in social participation or responsibilities (middle class children and popular children of the lower classes) tended

to be more mature in moral judgement. Kohlberg's view that social participation is a factor in the moralization process is further supported by his finding, in a later study, that adolescent boys (who are generally regarded as having a greater role of participation and responsibility) were more morally mature than adolescent girls*. Kohlberg hypothesizes that the influence on a child's moral development of individuals, and social groups in which he participates, is of a general rather than specific nature. Different groups often have conflicting values and demands, and the assumption could be that there would be different developmental trends in moral judgement, but it is said that the immediate divergent values and demands of different groups influence each other and converge as a stimulant to the development of general moral values. The individual child is said to discriminate and develop general moral values from the conflicts between the demands of individuals and groups.

Thus, although Kohlberg does not disagree with the Freudian concept of the final moralization process being one whereby moral standards are internalized, he considers that theories on the attainment of internalized standards are an oversimplification. His view is that attainment follows changes in the child's primitive attitudes and social concepts through his

* Kohlberg L. Sex differences in morality. In Maccoby E.E. (Ed.), Sex role development, New York: Social Science Research Research Council, 1964.

cognitive growth and, more significantly, his social interaction. He suggests, though, that the factor of social interactions - social participation and role taking - is only of value, in the development of moral judgement, when the child is able to relate the moral values of his home and culture to a social order which he understands and to his aspirations as a social being, and, while moral role taking obviously involves emotional factors, a level of cognitive development is a prerequisite for judging moral situations in terms of reciprocity. The possibility of a child's cognitive growth being so limited that he is never likely to proceed beyond Kohlberg's pre-moral level of moral judgement is not discussed, and raises the question of whether the moral judgement of such children would represent a definite unitary stage or, perhaps due to social factors, a predominance of the basic stage with some evidence of high maturity in isolated aspects of moral judgement.

CHAPTER 4

METHOD OF INVESTIGATION

The Subjects

The subjects were 50 senior pupils of a day special school for educationally sub-normal children which, at the time, had 91 children, aged 8 to 16, on roll.

The school opened in a new building in 1958 and has places for 100 children but, despite the school population of the catchment area increasing from 11,500 to 13,000 from 1958 to 1967, there had been vacant places in the school for 3 or 4 years. In 1967 the 91 children on roll included 8 children from the adjoining catchment area of an overcrowded day E.S.N. school. Thus, approximately .64% of the school population of the school's true catchment area attended the school which is a somewhat lower proportion than normal expectations. One factor contributing to this situation had been the formation of special classes for slow learning children in the area's secondary schools which now catered for the needs of some children who would formerly have attended the E.S.N. school.

The catchment area of the school extends over about 100 square miles of moorland and lowland and the children live in a variety of environments ranging from an industrial town of 35,000 inhabitants (part of a large industrial conurbation) to isolated hamlets and

farms. Basically, the area is economically dependent upon the chemical and iron and steel industries.

Of the 55 children of secondary school age attending the school, 5 were omitted from the study as follows:

(a) Considered as unsuitable for education at school and currently being examined with a view to entry to a Junior Training Centre. (3 boys).

(b) In hospital. (1 girl)

(c) Prolonged absence from school. (1 girl)

The 50 subjects were in the following age groups:

Secondary School Equivalent	Age in years	No. of Boys	No. of Girls
5th year	15-16	3	5
4th year	14-15	5	5
3rd year	13-14	2	5
2nd year	12-13	3	8
1st year	11-12	9	5
		22	28

Three subjects of the 5th year (B1, G1, G2) attained leaving age and left school for employment during the testing period but completed some of the tests.

The higher proportion of girls to boys is unusual in a school for educationally sub-normal children.

Measures Employed: Preliminary Considerations

Investigations into moral judgement in children have

emphasized the complexity of the subject and the dangers of a limited approach, and it would seem that a number of possible factors should be considered in such investigations. This study was designed to investigate the factors thought to be relevant in the attainment of maturity of moral judgement in educationally sub-normal children: those of age, intelligence and family influence, the last being specifically concerned with social position, parental discipline and family relationships. The age-developmental theory of moral judgement has been confirmed by many investigators and, therefore, a significant relationship between chronological age and maturity of moral judgement could be expected in E.S.N. children. But, a reasonable assumption would be that other factors than age would have some effect upon the development of moral judgement, especially in an abnormal population such as E.S.N. children. The factor of intelligence and a number of influences stemming from the particular nature of their families would be assumed to be relevant. It is probable that the low intellectual level of E.S.N. children would have a limiting effect upon the attainment of maturity of moral judgement, and the influence of the family appears to be crucial in view of the general lack of awareness of such children of the world at large. Most families of E.S.N. children are members of the lowest social classes, many are large, and there is often some degree of

inadequacy. A common finding has been that there are social class differences in the age at which there are changes in levels of moral judgement, the children in the lower socio-economic groups changing at a later age than those in the middle and upper groups. A number of factors may account for this difference, one interpretation being that the handling of children by parents in the lowest socio-economic groups is of a more constraining nature than higher in the social scale, but, in general, the extent and type of involvement with parents and other members of a possibly inadequate family seems to be of particular relevance to the development of children who lack extensive contact with other than their immediate surroundings.

The choice of test material was basically influenced by the low educational achievement of most E.S.N. children and the general distractability of some. Paper-and-pencil tests could not be considered, unless of a simple type which would be suitable for the least able child of a group of handicapped children. Group tests were not really suitable owing to the paper-and-pencil element and the danger of the examiner overlooking those children who did not fully understand the test instructions and those who were not fully applying themselves to the test. The exceptions were the tests of Vocabulary and Parental Discipline which had simple instructions and were administered to groups of only 3 or 4 children.

Even individual testing of E.S.N. children can be difficult and it seemed appropriate to choose a test of moral judgement which had been used with recent success and which could be easily administered. The Kohlberg test of moral judgement suited both conditions and also seemed appropriate in a wider field. The test has been used by Kohlberg in a thorough investigation of moral judgement in children, is being used in the Durham studies (26, 27), and its use in this study of a type of child who had not been previously subject to the test would seem to be of obvious interest. Only eight of Kohlberg's story situations were available but this could not affect the result of an investigation which did not attempt to answer the question of whether moral judgement consists of a number of specific areas of response.

To assess the contribution of intelligence (or aspects of intelligence), to the attainment of maturity of moral judgement, the most appropriate test seemed to be the Wechsler Intelligence Scale for Children, an individual test with separate verbal and performance scales at each age level. Each scale consists of sub-tests which were selected and standardized after an analysis of a number of standardized tests of intelligence, special attention being given to the functions said to be measured in the test. The other individual test of intelligence in common use, the Terman-Merrill, has the disadvantage of being increasingly

weighted with verbal factors as the scale proceeds. The usual positive relationship between various aspects of verbal attainment and level of general intelligence could lead to the expectation of a higher level of moral maturity in those children who had most success in 'verbal' school subjects. The general low educational achievement of E.S.N. children, though, immediately limited the type of suitable test unless somewhat arbitrary lines were drawn between literacy, semi-literacy and illiteracy in a small selection of tests from very many of different characteristics. By the use of a test of comprehension (untimed) and two reading tests, wide ranges of scores were obtained for comparison with scores in the test of moral judgement.

In attempting to measure the intensity and types of relationship which a child had with other members of his family, it was decided to use a test which measured the child's own perception of such relationships rather than assess what appeared to be the relationship when viewed by other members of the family and people outside the home. The Bene-Anthony Family Relations Test is said to assess the emotional involvement of the child with other members of the family and is easy to administer to E.S.N. children. A test specifically concerned with parental discipline and suitable for use with E.S.N. children was not available. Therefore, a test was constructed, based upon Schaefer's 'Child's Report of Parent Behaviour Inventory (61), to assess the dimension of psycho-

logical discipline v hostile discipline, a major dimension which a number of investigators have suggested as being of relevance in the attainment of an internalized morality.

Appropriate statistical tests of significance were used in the attempt to show the relationship between possible relevant factors, expressed as scores or ratings, and scores obtained in the test of moral judgement. Despite the assumption that the basic hypotheses of this study were sound, special caution seemed necessary when assessing relationships between scores obtained by E.S.N. children. Only two-tailed tests were applied and, although general levels of significance had to be decided for the study as a whole, relationships at different stages of the study were considered with particular reference to the relevant data.

Description of Measures Employed

The Test of Moral Judgement

Eight of the Kohlberg story situations containing moral dilemmas (see pages 42 to 49: example: appendix i) were presented individually to each child at an interview, each followed by set questions (example: appendix i.) and probing questions in order to discover the child's use and interpretation of rules and his reasoning behind choice of moral action rather than to ascertain his knowledge of rules and his conventional beliefs in them.

Kohlberg's sentence-by-sentence method of scoring, mentioned

previously (page 44), was not used. His simpler global method, whereby each situation is rated as a whole and an overall moral maturity score obtained, was used instead. The children's responses to each story situation are assessed by a global rating guide (example: appendix ii) and one of 6 levels of response assigned with a weighting of 3 units. If there is doubt concerning a rating, the lower level is chosen. Where there is a mixed response, two-type scores are assigned, e.g. 4(3), the normal weighting of 3 units being divided between the major type 4 - score of 2 - and the minor type (3) - score of 1. The child's moral maturity score is determined by the addition of the weighted percent usage of each level as in the following example (subject B10):-

Situation	I	II	III	IV	V	VI	VII	VIII			
Subject B10	2(5)	4	1(2)	2	1	1(2)	1	1			
Type Score									Sum	%	Weighted %
1			2		3	2	3	3	13	54.17	54.17
2	2		1	3		1			7	29.17	58.33
3											
4		3							3	12.50	50.00
5	1								1	4.17	20.83
6											
											183.33

Moral Maturity Score:- 183

Scoring reliability was checked by an independent judge scoring the answers of 15 of the 50 subjects. There was an agreement of 64%.

The Test of Intelligence

The intelligence of the children was tested on the Wechsler Intelligence Scale for Children (WISC). The following 10 sub-tests were administered:-

Verbal	Performance
General Information	Picture Completion
General Comprehension	Picture Arrangement
Arithmetic	Block Design
Similarities	Object Assembly
Vocabulary	Coding

One important feature of the WISC is its renunciation of the concept of mental age as a basic measure of intelligence. Nevertheless, the authors of the test give two methods whereby equivalent mental ages (or, as they point out, test ages) may be obtained. In order to discover the significance of intelligence plus age weighting when compared with scores in the test of moral judgement (i.e. in terms of the WISC test, to define levels of test performance), 3 test age equivalents for each child were calculated from the raw scores: full scale, verbal and performance.

Wechsler (74) advances the view that intelligence 'is not a

unique entity but a complex constellation of interacting factors'. Similarly, he is of the opinion that one cannot talk of pure abilities when an intelligence scale is used for differential diagnosis. No attempt is made to put the sub-tests of the WISC in order of importance nor, through the sub-tests, to measure 'primary abilities'. Therefore, any results from comparisons between moral judgement test scores and scores in the WISC sub-tests could not initially be regarded as having implications in a wider field. Only when the factorial studies of the Wechsler scales were considered and were seen to have some relevance to a particular sub-test, or to particular sub-tests, were conclusions drawn.

It was decided that as comparisons between moral judgement scores and test ages were made just within the spirit of the WISC, to convert the raw scores of each sub-test into test ages (to compare with moral judgement scores) would be a real violation of the basis and spirit of the test and also would possibly lead to inaccuracy. In any case, the use of raw scores for statistical purposes has been confined to the area where they are the more appropriate measure.

A number of factorial studies have been carried out on the WISC tests and the broad factors which have been consistently identified are: verbal comprehension, g, a non-verbal organisation

factor, and an undifferentiated memory factor. There are differing interpretations of the meaning of each of the four terms and, where relevant, this is discussed later in this thesis (page 75 onwards).

Attainments Tests

Attainments in the 'verbal' subjects of reading (2 tests) and comprehension were measured by the following standardized tests:-

Schonell Diagnostic English Test 3: Vocabulary (untimed).

Holborn Reading Scale (Word Recognition).

Schonell Graded Reading Vocabulary Test R1.

The Holborn Reading Scale, described as a test of word recognition so as to differentiate it from the Holborn Reading Scale (Comprehension) was included as a test to come somewhere between the Schonell Diagnostic English Test 3, a vocabulary test, and the Schonell Graded Reading Vocabulary Test R1 which, despite its name, is a test of word recognition. The Holborn Reading Scale, although a test of word recognition, is in sentence form and so has an element of reading with understanding.

The Family Relations Test

The Bene-Anthony Family Relations Test aims to assess the emotional involvement of the child with other members of the family by analysing family feelings 'as they are experienced and understood by the child'.

The test is said to indicate the direction and intensity of

a child's feelings towards members of the family and his estimate of their feelings towards him. It is pointed out that the family group named by the child may not coincide with his sociological family and may exclude some individuals in the home and include others from outside, such variations being regarded as additional facts towards summing up his emotional life at home.

The authors name the emotional attitudes which play the main role in the interpersonal relationships of a child as:-

(1) Strong feelings of love and hate (sex and aggression in the widest sense of the word).

(2) Milder feelings of like and dislike.

(3) Jealousy reactions.

(4) Feelings towards himself (autoerotic or auto-aggressive).

(5) Defences against emotions which he does not wish to acknowledge.

Separate versions of the test are given for younger and older children. The version for older children, given to the subjects of this thesis, is designed to explore the following attitude areas:-

(1) Two kinds of positive attitude, ranging from mild to strong, the milder items having to do with feelings of friendly approval, and the stronger ones with the more 'sexualised' or 'sensualised' feelings associated with close physical contact and manipulation.

(2) Two kinds of negative attitude also ranging from mild to strong, the milder items relating to unfriendliness and disapproval, and the stronger ones expressing hate and hostility.

(3) Attitudes to do with parental over-indulgence, covered by such items as: 'This is the person in the family mother spoils too much'.

(4) Attitudes to do with parental over-protection, covered by such items as: 'Mother worries that this person in the family might catch cold'.

For a number of reasons, the authors avoid the paper-and-pencil approach, a very helpful point with educationally sub-normal children. Part of the test material consists of 20 cardboard figures representing people of different ages, etc., and sufficiently varied for a child to choose representatives of his family. Each figure is attached to a letter-box type of container into which cards with a printed message are posted according to the child's opinion of appropriateness. A further figure and box, 'Nobody', serves as a container for messages which the child feels do not apply to any member of the family. There are 86 message cards in the set for older children.

As some educationally sub-normal children have difficulty with (and sometimes an aversion for) reading, all messages were read by the tester.

Score sheets and record sheets cover all obvious contingencies including names and ages of siblings.

No normative data is given (although there is an 'expected hypothetical distribution of items') and it is stated by Bene that the test is 'sufficiently valid and reliable to be used as a research tool'.

The Test of Parental Discipline

Parental discipline on the dimension of psychological discipline v hostile discipline was assessed by a test based upon part of Schaefer's 'Child's Report of Parent Behaviour Inventory' (61). With the author's permission, the wording of some questions was simplified, some questions were omitted and further questions were added to the tests of 'Control Through Guilt' and 'Hostile Control' to form the following test of parental attitudes:-

Order of presentation	Schaefer reference	My father/mother:
1	18	Feels hurt when I don't do what he/she would like me to do.
3	42	Thinks I'm not thankful to him/her when I don't do as I am told.
5	66	Feels hurt by the things I do.
7	90	Tells me how much he/she has suffered for me.
9	114	Says if I liked him/her, I'd do what he/she wants me to do.
11	138	Tells me of all the things he/she has done for me.

Order of presentation	Schaefer reference	My father/mother:
13	162	Says if I really cared for him/her, I would not do things that cause him/her to worry.
15	186	When I don't do as he/she wants, says I never think about all he/she has done for me.
2	115	Gets cross and nervous when I am noisy.
4	127	Loses his/her temper with me.
6	151	Doesn't give me any peace until I do what he/she says.
8		Shouts at me for getting in the way.
10		Smacks me or hits me when I have done something naughty.
12		Yells at me when I do things wrong.
14		Shouts me down when I try to tell him/her why I have done something wrong.
16		Hits me or shouts at me for not doing as I am told.

A number of experiments were carried out with the E.S.N. group using Schaefer-type questions, in order to find a simple method of scoring, suitable for all the E.S.N. children, as it was hoped to test the children in small groups rather than individually. Schaefer's 'like/somewhat like/not like' was found to be unsuitable, 'yes/no' produced a vast majority of affirmatives and the apparently simple 'tick/cross' method was confusing to some children. Further experiments were conducted using variations

of simple drawings of a person which the children circled by pencil if chosen and eventually the type shown in appendix xxix) was found to be successful; a few children circled the wording instead of the drawing. The simpler term 'a bit like' was substituted for Schaefer's 'somewhat like'.

The children were tested in small groups, the questions being read by the tester, and, if it appeared necessary, the sentences were re-worded and repeated so that they were understood by the least intelligent of the children.

Schaefer's method of scoring was used, responses to each question being scored as follows:

Not like - score of 1.

A bit like - " " 2.

Like - " " 3.

The Assessment of Social Class

Parental occupation is the most widely used criterion for determining the social class of children.

In this study, the Registrar General's Classification of Occupations, 1960 (77), was used to classify the occupations of the children's fathers into social classes I to V:

I. Professional, etc.

II. Intermediate occupations.

III. Skilled

IV. Partly skilled

V. Unskilled

STATISTICAL NOTES

The product-moment correlations were obtained by using the following formulae, unless otherwise stated:

$$r = \frac{\frac{\Sigma xy}{N} - \left(\frac{\Sigma fx}{N}\right)\left(\frac{\Sigma fy}{N}\right)}{\sigma_x \cdot \sigma_y}$$

OR

$$r = \frac{N\Sigma xy - \Sigma x \Sigma y}{\sqrt{\left[N\Sigma x^2 - (\Sigma x)^2\right]\left[N\Sigma y^2 - (\Sigma y)^2\right]}}$$ (when computer available).

As samples were small when computing the significance of differences between means, the following formulae were used:-

$$SD = \sqrt{\frac{\Sigma(X_1 - M_1)^2 + \Sigma(X_2 - M_2)^2}{(N_1 - 1) + (N_2 - 1)}}$$

$$SE_D = S\sqrt{\frac{N_1 + N_2}{N_1 N_2}}$$

$$CR \text{ or } t = \frac{D}{\sigma_D}$$

Terms for levels of significance are used as follows:

Highly significant	.001 level
Significant	.01 level
Just significant	.02 and .05 levels

When using t-tests and when testing the significance of correlation coefficients, two-tailed tests were applied.

CHAPTER 5

RESULTS

THE KOHLBERG TEST OF MORAL MATURITY

When interviewed, the children were very co-operative. The answer, 'Don't know', was given at times, and some children were very slow at answering questions; if a child had not answered a question after 1 minute, the answer was recorded as 'Don't know'.

In rating the Kohlberg moral judgement situations, mixed scores-e.g., 3 (2) - were assigned to some answers as expected. There was, however, a difference of more than 1 between the major and minor type scores in some mixed scores which is contrary to the type of score expected by Kohlberg (41) and, to some extent questions his theory (at least, with educationally sub-normal children) of moral types forming an invariant sequence, each level of thought being dependent upon the integrity and restructuring of the previous level, and its use being an indication of a child's reluctance to make use of an earlier stage.

The range of possible moral maturity scores was 100 to 600 and the range of scores obtained by the 50 E.S.N. children was 117 to 329 (boys 117 to 329, girls 117 to 275). This study does not attempt to answer the basic question of whether moral judgement consists of a number of specific areas of response so, if the same score is assumed for each of the 8 situations within

each child's total score, no subject scored higher than Kohlberg's third level of value-orientation, that of the 'good boy' morality of maintaining the approval of others. There was, however, some difference between the scores of each subject in each moral situation but 12 of the 50 subjects scored in types 1 and 2 only, the 'pre-moral' stage.

The difference between the means (boys 183, girls 175) was statistically insignificant, The slight tendency for the boys to have a higher score is in keeping with the Durham findings (26), after using the Kohlberg material with normal children, and with the findings of Kohlberg (41) who explained the difference in terms of boys having a greater role of participation and responsibility in society.

MORAL JUDGEMENT AND CHRONOLOGICAL AGE.

Although positively correlated, results for all children and boys and girls separately were not significant though there was a trend in the expected direction:

	N	r
All children	50	.184
Boys	22	.159
Girls	28	.296

The range of Kohlberg scores was 117 to 329, the youngest girl being one of 3 children obtaining the score of 117, and

the youngest boy, the score of 329 (Appendices iii and iv).

MORAL JUDGEMENT AND INTELLIGENCE

Moral Judgement and (a) Wechsler I.Q. (full scale)

(b) Wechsler Mental Age (full scale)

		N	r
(a)	All children	47	.404
	Boys	21	.537
	Girls	26	.114
(b)	All children	47	.467
	Boys	21	.679
	Girls	26	.268

There were significant correlations between moral maturity scores and I.Q.'s for all children ($P < .01$) and for boys only ($P < .01$) but not for girls only.

The correlations between moral maturity scores and mental ages were highly significant for all children ($P < .001$) and for boys ($P < .001$). Although positive, the scores of the girls for moral maturity and their mental ages were not significantly correlated.

Moral Judgement and (a) Wechsler Verbal I.Q.

(b) Wechsler Verbal Test Age.

		N	r
(a)	All children	50	.340
	Boys	22	.562
	Girls	28	.148

		N	r
(b)	All children	50	.506
	Boys	22	.615
	Girls	28	.374

The relationship between moral maturity scores and verbal I.Q.'s was just significant for all children ($P < .05$), significant for boys ($P < .01$), but, although positive, not significant for girls.

As with mental age as a whole, the verbal age correlated highly significantly with the moral maturity scores of all children ($P < .001$). The scores of the boys were significantly correlated ($P < .01$) and those of the girls, just significant ($P < .05$).

Moral Judgement and (a) Wechsler Performance I.Q.

(b) Wechsler Performance Test Age.

		N	r
(a)	All children	47	.307
	Boys	21	.514
	Girls	26	.074
(b)	All children	47	.482
	Boys	21	.586
	Girls	26	.226

The correlations between moral maturity scores and performance I.Q.'s were only just significant for all children ($P < .05$) and for boys ($P < .02$), while the correlation for girls

was only just positive.

Again where the mental age factor was present, there was a significant correlation: between moral maturity scores and performance test ages for all children and for boys ($P < .01$). There was a positive though non-significant relationship for girls.

THE RELATIONSHIP BETWEEN MORAL JUDGEMENT AND INTELLIGENCE: SUMMARY OF RESULTS SO FAR

All Children

(1) The highly significant relationship between moral maturity scores and: (a) full scale mental ages.
(b) verbal test ages.

(11) The significant relationship between moral maturity scores and: (a) full scale I.Q.'s.
(b) performance test ages.

(111) The positive, though less significant, relationship between moral maturity scores and:
(a) verbal I.Q.'s.
(b) performance I.Q.'s.

Boys

Except for the relationship between moral maturity scores and performance I.Q.'s ($P < .02$), the consistently significant

relationship between moral maturity scores and other aspects of the Wechsler intelligence test considered so far: $P < .01$ (4 times), $P < .001$ (once).

Girls

Although a positive relationship between moral maturity scores and the Wechsler tests, only one (moral maturity/verbal test age) was significant, and that only at the .05 level.

General

(1) Confirmation of the decision to consider boys and girls separately.

(11) The importance of mental age. The most significant results are where mental age is a factor either as the full mental age, as the verbal test age, or as the performance test age, with highly significant results where there is a verbal factor (full scale mental age and verbal age).

(111) The apparent conflict with Kohlberg's notion of the unitary nature of moral judgement level and its independence of general intellectual level despite the 'moderate' correlation ($r = .31$) when he compared moral judgement and I.Q. Coefficients of .41 and .48, though, were obtained in the Durham study (26).

(1V) The indication that the test of moral judgement could be a test of intelligence (or, at least, some aspects of intelligence) for educationally sub-normal children when

the low correlations between moral maturity scores and chronological ages are considered. The girls' results do not support this, however.

MORAL MATURITY SCORES AND THE WECHSLER SUB-TESTS (RAW SCORES)

Verbal Scale Sub-tests

	All Children (N = 50)	Boys (N = 22)	Girls (N = 28)
General Information	r = .302	r = .552	r = .050
General Comprehension	.572	.662	.527
Arithmetic	.175	.378	.030
Similarities	.385	.433	.330
Vocabulary	.364	.466	.306

There was a highly significant correlation ($P < .001$) between scores in the test of moral judgement and the raw scores obtained by all children, and the boys only, in the Wechsler General Comprehension sub-test. The girls' scores were significant at the 1% level.

The above table also illustrates the significance ($P < .01$) of the Wechsler verbal factors of General Information (boys), Similarities (all children) and Vocabulary (all children), and the slight significance ($P < .05$) of General Information (all children), Similarities (boys) and Vocabulary (boys).

The trend showing the importance of the verbal intelligence factor in boys in the development of moral judgement is emphasized by the Wechsler factor of General Comprehension being highly

significant, and the Wechsler arithmetic factor, which could be regarded as the least verbal of the verbal sub-tests, being of little significance.

Despite the lack of really significant relationships between the girls' scores in moral maturity and intelligence (full scale, verbal and performance), there is a significant correlation between the 2 sets of scores - moral maturity and the general comprehension sub-test - where there was a highly significant correlation for all children and for boys only.

Performance Scale Sub-tests

	All Children (N = 47)	Boys (N = 21)	Girls (N = 26)
Picture Completion	r = .370	r = .444	r = .261
Picture Arrangement	.463	.524	.372
Block Design	.004	.153	- .258
Object Assembly	.381	.479	.251
Coding	.141	.470	.019

There were significant correlations ($P < .01$) between the moral maturity scores of all children and the raw scores of the Wechsler performance sub-tests of picture arrangement and object assembly and correlations of some significance between the moral maturity scores of the boys and their scores in 4 of the 5 sub-tests ($P < .02$ or $< .05$). The highest relationship between the moral maturity scores of the girls and their scores in the performance scale sub-tests was at the 10% level (picture arrangement).

No correlation was highly significant as in the relation between moral maturity scores and the Wechsler verbal scale sub-tests, and girls' scores had even less significance than in the somewhat unrelated moral maturity/verbal sub-tests comparison.

It would appear, as strongly indicated in the comparisons between moral maturity scores and full scale, verbal and performance I.Q.'s and test ages, that the relationship between the development of moral judgement and the verbal factors of general intelligence is of more importance than the relationship with the performance factors.

THE WISC VERBAL COMPREHENSION SUB-TEST AND THE KOHLBERG TEST - GENERAL CONSIDERATIONS

The highest levels of significance were obtained from the comparison between the verbal comprehension sub-test scores and moral judgement scores. It has been previously stated (page 59) that a number of factorial studies have been carried out on the Wechsler tests and one of the broad factors which has always been extracted has been that of verbal comprehension. According to Wechsler (74), this factor, the ability to derive meaning from single words or a combination of words, is best represented by the sub-tests of vocabulary, general information, general comprehension, and similarities. The factor has a high correlation

with g and therefore has a substitutive potential but a more specific analysis is difficult and may lead to ambiguous interpretations. Wechsler (74), on the basis of recent findings, suggests that the verbal comprehension sub-test is mainly dependent upon the factors of verbal comprehension and g, and that further analysis is required to substantiate the suggestions of other factors. After discussing various interpretations of the meaning of g, he states that perhaps the most important is that it 'cannot be associated with any .... single ability' but is 'involved in many different types of ability.... in essence not an ability at all, but a property of the mind': the basis for the mind's capacity for 'collective coupling', a definition which accords with Vernon's suggestion that g is 'the common element remaining, once the group factors present in all tests have been allowed for' (73).

On the function of the comprehension sub-test, Wechsler (74) suggests that it might be termed a test of common sense, success in the test depending upon the possession of 'a certain amount of information and a general ability to evaluate past experience'. He further states that the questions in the sub-test are of the type which are discussed or likely to occur in everyday life and that individuals of limited education are able to understand the content but low scores are often obtained by poor verbalizers.

As the verbal comprehension sub-test is said to have a high g content, it could be said that the test of moral judgement is a test of intelligence. The importance of mental age has been previously noted. However, apart from low intelligence and hence some inability to evaluate past experience, one of the characteristics of the E.S.N. child is his lack of information on the world around. The questions in the sub-test are said to be of the type which are discussed or likely to occur in daily life. In the group of children studied, many did not know simple facts of their immediate environment, e.g., father's occupation or place of work.

Although there is evidence to show that the severely sub-normal have very little facility for singling out relative features of a stimulus display (51), it seems unlikely that such lack of simple day-to-day knowledge is due to low intelligence alone; it is possible that the E.S.N. child finds much of the world around to be unstimulating or that his environment is such that he is seldom presented with facts or stimulating experiences beyond a simple level.

Mental age appears to be a vital element in the learning of concepts of moral judgement in E.S.N. children but it would seem that even given the pre-requisite mental age for a particular level of moral judgement, the type of situation involved in the

test of moral judgement may be entirely foreign to an E.S.N. child owing to lack of practice or discussion in his life, and, therefore, no opportunity has occurred for prior conceptualization. It is of interest that of the only 2 maximum major-type scores of 6 obtained on Kohlberg questions, one answer was given by subject B22 who had had direct experience of a similar situation to that in the question, his father recently dying of cancer. Subject B22, though, was one of the most intelligent children (full scale I.Q. 81, full scale mental age 9 years 11 months) and if the answers of the less intelligent children are studied, a pattern of answers emerges which could be expected from children of very limited ability and experience, e.g., 'He (the doctor) has to do what he is told by her, because I have to do what I am told when my mam asks me' (subject G12: I.Q. 46, mental age 6 years 10 months).

Wechsler's observation that, although the questions in the verbal comprehension sub-test are easily understood by individuals of limited education, low scores are often obtained by poor verbalizers, indicates that E.S.N. children are likely to obtain low scores in the sub-test and perhaps, also, in the Kohlberg test. The children appeared to understand the vocabulary of the stories and questions of the Kohlberg test, (some questions were not answered, however) only one child showing conclusively that she

did not understand, when she stated that Heinz should not have broken into the shop as 'he should open doors, not break them'.

O'Connor and Hermelin's suggestion (51) that the verbal disability (lack of vocabulary) of the severely sub-normal is coupled with a verbal disinclination (reluctance to use verbal symbols) may be relevant to the performance of the E.S.N. children in the tests. Some children gave no answer or a very brief answer to some questions and thus obtained a low score but the type of answer given by G12, above, seems to indicate that where there is little or no reluctance to use verbal symbols, the result is as expected from a very dull child.

Many of the answers given in the Kohlberg test were based on the child's own experience and, in general, there was an inability to conceptualize, e.g., a promise should be kept 'because you have told the headmaster at school that you are going' (subject B3). Even though the child may have experienced similar situations, the tendency was to give answers at the pre-moral level, e.g., 'He should tell Joe's father so that Joe will get into trouble. It's nice to tell on them (friend, brother) or get them into trouble' (G.11). Such relative subtlety as 'the death sentence should be given only sometimes because you might not have done it', was rare.

MORAL JUDGEMENT AND SCHOOL ATTAINMENT IN VOCABULARY AND READING

Moral Maturity Scores and attainment in:

(1) Schonell Diagnostic English Test 3: Vocabulary (untimed)

	N	r	Level of significance
All children	50	.340	<.02
Boys	22	.585	<.01
Girls	28	.000	-

(2) Holborn Reading Scale (word recognition)

	N	r	Level of significance
All children	50	.160	-
Boys	22	.362	<.10
Girls	28	- .013	-

(3) Schonell Graded Reading Vocabulary Test R1

	N	r	Level of significance
All children	50	.250	<.10
Boys	22	.402	<.10
Girls	28	.083	-

In general terms, there was far less relationship between scores in the test of moral maturity and verbal attainment tests than when compared with general intelligence. The strong trend, in the verbal field, for scores of the boys rather than those of the girls to be related to scores in the test of moral maturity is again shown, however.

It has been mentioned (page 60) that the Schonell Graded Reading Vocabulary Test R1 is, despite its name, a test in word recognition like the Holborn Reading Scale (Word Recognition).

The higher significance of results using the Schonell Diagnostic English Test 3 compared with those using the two tests of word recognition is notable, as it is a test of vocabulary, was untimed, and shows the same, though not so significant trends, as the results of the tests of verbal intelligence when compared with those of the test of moral maturity.

If the two tests of word recognition are regarded as tests in obedience to the mechanics of a situation, the lack of significant relationship between the test results and the test of moral maturity is interesting, though confusing. At first sight, sheer obedience to the mechanics of a situation does not appear to be related to judgement in moral affairs. In tests of word recognition, however, there is a tendency for testees to proceed beyond their levels of comprehension and results may have been distorted by the differing degrees of proceeding beyond levels of comprehension by individual children. It is of interest that most children obtained low scores in the test of moral maturity, their level of judgement being at what could be termed a mechanical stage.

RESULTS OF THE BENE-ANTHONY TEST OF FAMILY RELATIONS.

The administration of the Bene-Anthony test proved to be quite straightforward with the E.S.N. children. They were all most co-operative except subject B5 who appeared rather suspicious.

In forming their family groups, there were no complications of including people outside the immediate family circle (except the unavoidably complicated case of B22 below) and, in the allocation of message cards, only one child (G18) was insistent on the unsuitability of all the figures but only for 3 cards, saying that they were for 'friends'. Some message cards were shared by the children between more than one figure, either between mother and father or between siblings; this did not affect the overall results.

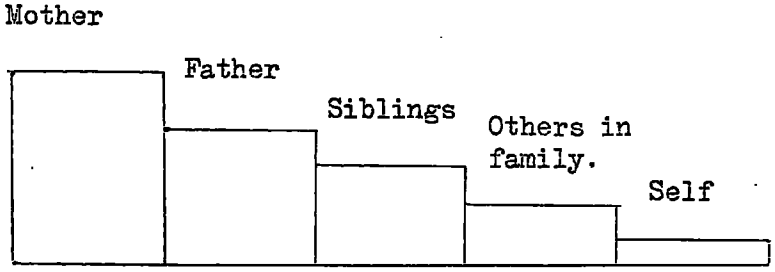
There had been three recent deaths of parents: G10 (mother), G12 (father) and B22 (father). In the first case, death had occurred three years before and the child perceived an older sister as the mother figure. Deaths of the two fathers were very recent and both G12 and B22 included their fathers in the test family circle. Subject B22's family circle was further complicated by his living in a children's home during the week and visiting his home at the weekends; his test family circle consisted of the children in the children's home and his mother and father.

Three other children - B9, G21 and G28 - were in another children's home and regarded the matron and husband as mother and father. Another child, G21, was in an all-female children's home, looked upon the matron as her mother and had no father figure.

Subject B11, an illegitimate child, living with his mother and grandparents, allocated few cards to his mother, his grandmother appearing to be very much the mother figure.

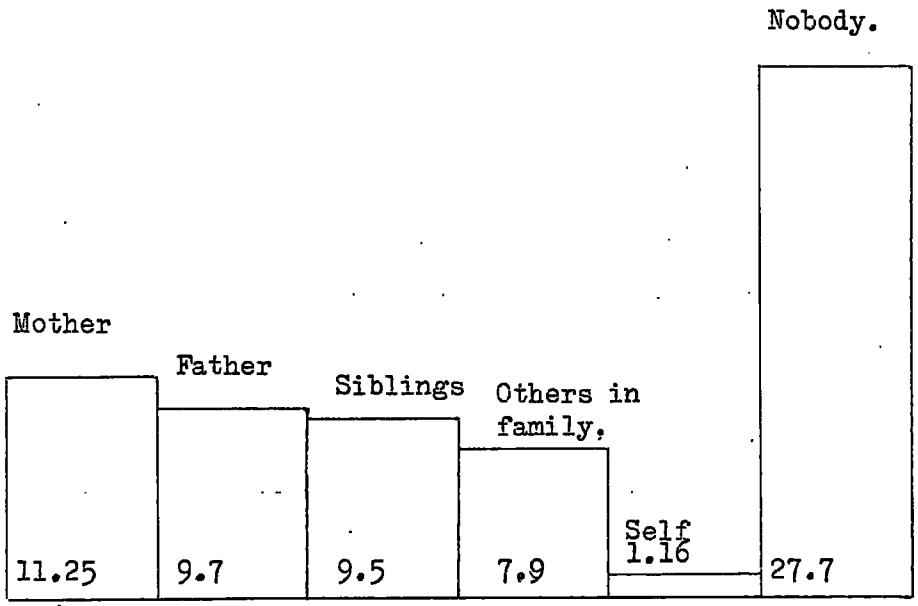
DISTRIBUTION OF ITEMS (DEGREE OF INVOLVEMENT).

It has been previously stated that no normative data is included in the Bene-Anthony test material although an 'expected hypothetical distribution of items' is given:

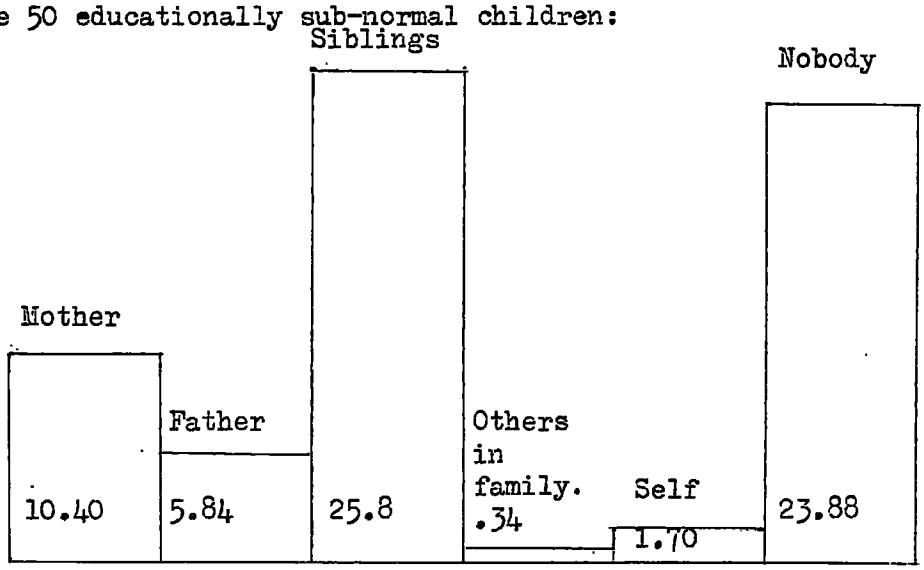


The distribution appears to be in the ratio 10: 7: 5: 3: 1.

Lynes (45) obtained the following distribution from mean scores of 54 normal children, aged 13:



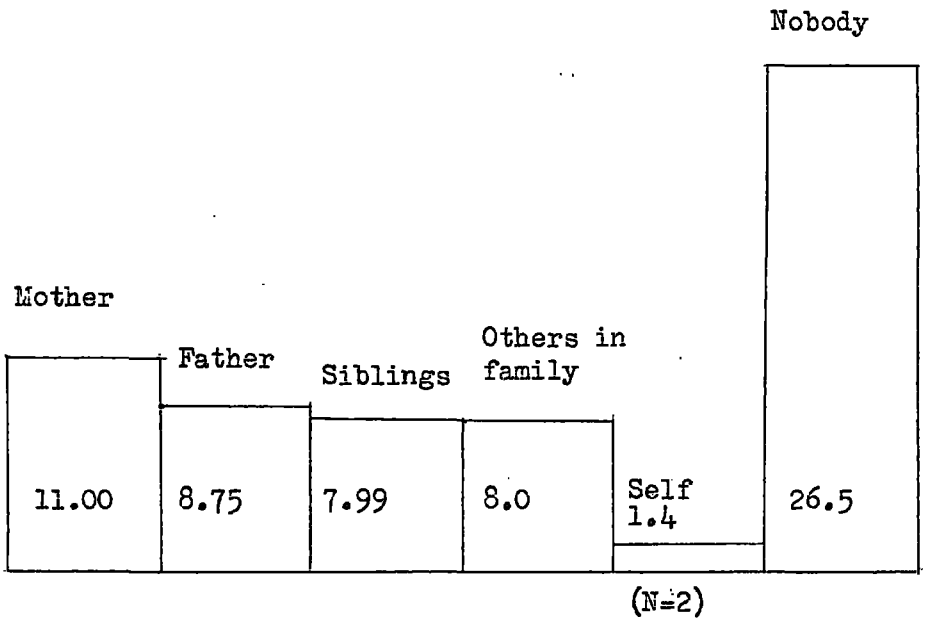
The following is the distribution of the mean scores of the 50 educationally sub-normal children:



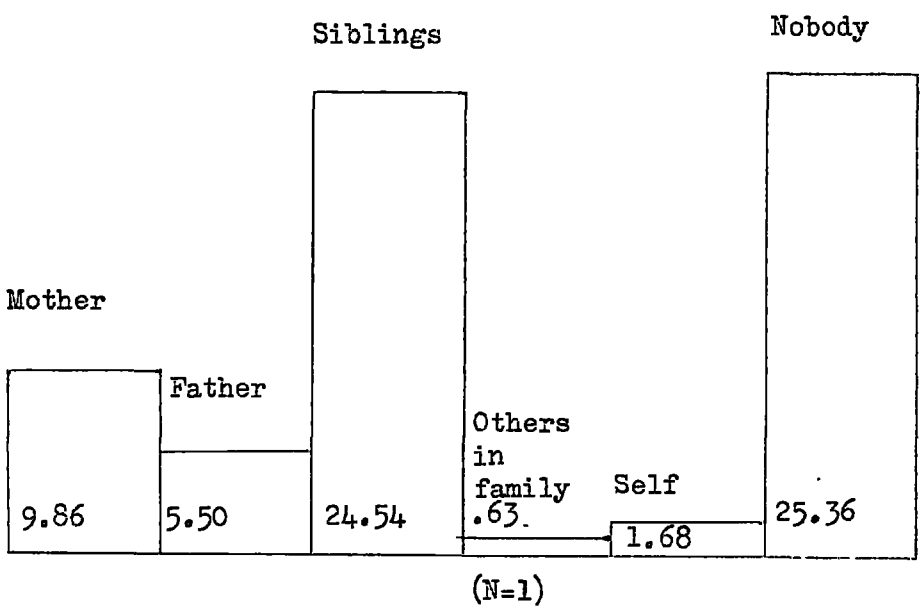
(N=2)

When boys and girls are considered separately, the distributions are as follows:

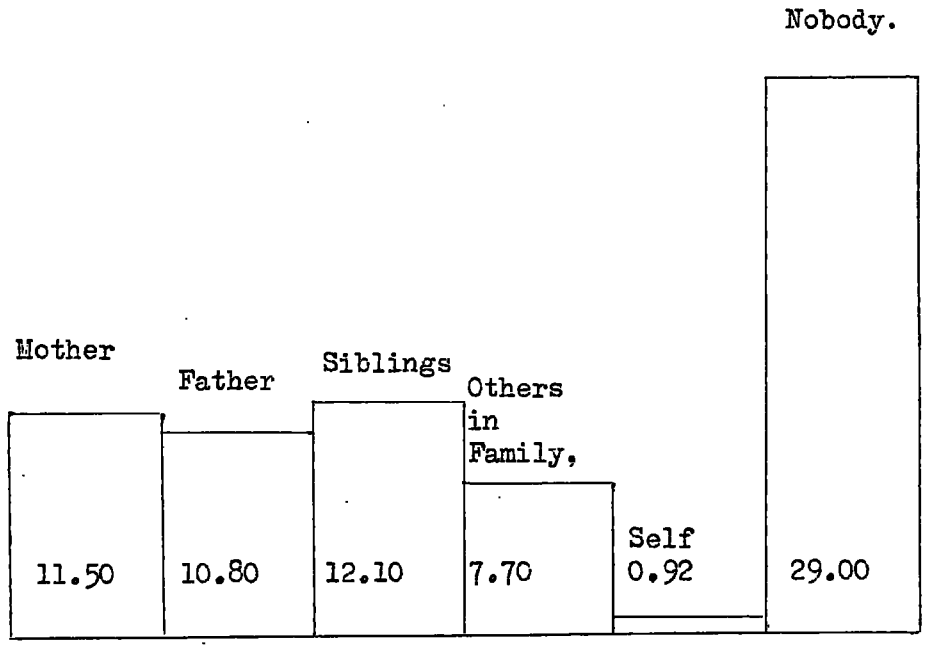
(1) Distribution of mean scores: Normal boys aged 13 (N = 28).



(2) Distribution of mean scores: E.S.N. boys aged 11 to 16 (N = 22).

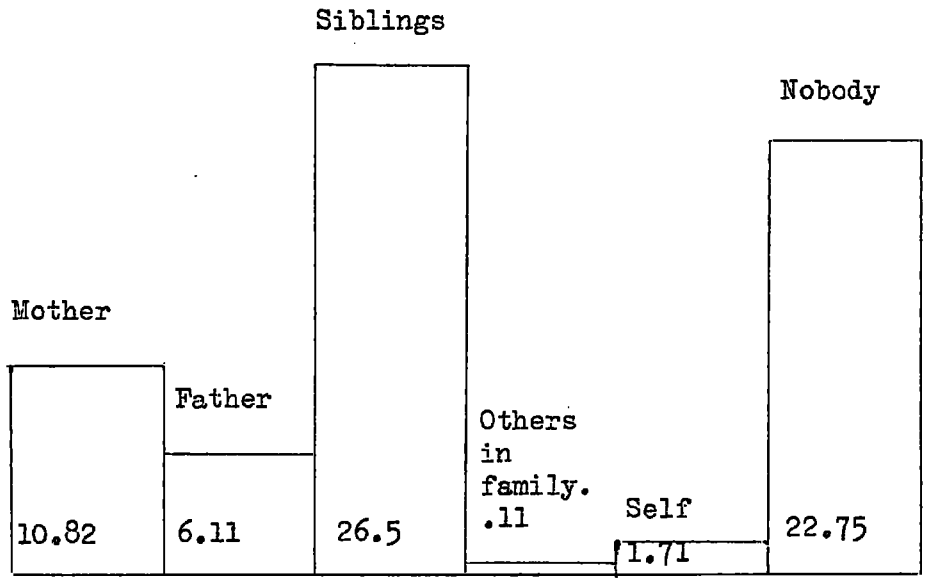


(3) Distribution of mean scores: Normal girls aged 13 (N = 26).



(N=7)

(4) Distribution of mean scores: E.S.N. girls aged 11 to 16 (N = 28).



(N=1)

A study of the diagrams indicates the similarities and differences between the distribution of items of the group of normal children and those of the E.S.N. children.

The items allocated to 'self' and 'nobody' are approximately the same in number. The involvement with their brothers and sisters is far greater with E.S.N. children. This may be due partly to the probable larger number of children in E.S.N. families but it is difficult to attribute such a difference solely to this reason.

Also shown is the E.S.N. children's lack of involvement with persons other than immediate members of the family, persons who would include adults, thus further emphasizing the lack of adult contact either by choice or through circumstances.

Involvement with parents is less with the E.S.N. group when compared with the group of normal children, especially in the case of the father, with a tendency for the boys to be less involved with both parents than the girls

If the development of moral judgement is influenced directly by social groups and individuals or, in Kohlberg terms, a child is presented by such influences with 'general moral values' and 'the material for the discrimination and development of such moral values', then the lack of, or preponderance of, particular types of social contact could have some relation to a child's level of moral judgement.

MAJOR INVOLVEMENTS

Comparisons were made between the moral maturity scores of groups of children with different major involvements and the remaining children as follows:

Major Involvement with:	Bene-Anthony Score	Boys	Girls	Remaining Children Score	Boys	Girls	Values of t (Boys - Boys / Girls - Girls / Boys & Girls - Boys & Girls)
Mother & Father	15 & above	11	14	Below 15	11	14	0.094 0.749 0.611
Mother	10 & above	14	17	Below 10	8	11	1.566 0.800 0.477
Father	6 & above	9	16	Below 6	13	12	1.160 0.393 0.501
Siblings	25 & above	10	15	Below 25	12	13	1.426 1.405 0.088
Major involvement with Older Siblings (7 boys, 10 girls) compared with group with Major involvement with Younger Siblings (15 boys, 17 girls)							0.546 1.097 1.221

In no case was there a significant difference between the means of the groups.

There were again no significant differences when the mean moral maturity scores of E.S.N. children of small and large families were compared:

Members of 1, 2 & 3 child families		Members of 4 child families & above.		Values of t	
Boys	Girls	Boys	Girls		
6	9	16	19	Boys - Boys Girls - Girls Boys & Girls - Boys & Girls	0.072 0.099 0.053

It would appear that the different types of social interactions within the family of the E.S.N. child do not fundamentally affect his level of moral judgement. It may be that most members of E.S.N. families are so inadequate in most ways, as Clarke A.M. suggests (16), that any influence they have on others is at much the same low level. If, though, social interactions make a significant contribution to moral development but, at the same time, cognitive growth is necessary for restructuring purposes, it is possible that E.S.N. children do not reach the requisite level of cognitive development for evaluating moral situations much beyond a very basic level anyway. If this is the case, the inability to restructure beyond a simple level would reduce or eliminate the effectiveness of mature social influences.

THE DISCOVERY OF 'SIGNIFICANT FIGURES'

The significant figures in the Bene-Anthony test handbook refer not only to the major involvements with parents and siblings but more specifically to peripheral members of the child's perceived family group.

There were no examples of such displacements in the E.S.N. group which could be an emotionally healthy sign. However, as only one child insisted on allocating some responses (3 in number)

to someone outside the immediate family circle, the lack of displacements could be an illustration of the narrow world of people within which the E.S.N. child moves, whether by the nature of E.S.N. family relationships with neighbours, etc., or due to the child's inability to make positive contact with others outside the immediate family.

SCALES OF INHIBITION

The Bene-Anthony test provides for responses to be graded as to intensity as well as by number of responses. The 'inhibitory state' is assessed for each child by his use of negative items. The inhibition of test responses is scored on 5-point scales, the negative scale of inhibition and the positive scale of inhibition. With the latter scale, the relationship found between test responses and dysinhibition in real life situations has been only moderate but test inhibition corresponds 'fairly closely' with the degree found clinically, the assumption being that a child who is inhibited in a test situation will be equally inhibited in most other situations, including the home.

The 5-point negative scale of inhibition is as follows:-

1. No negative responses or a single mild negative one.

2a. No strong negative responses or only one.

b. Mild negative 'focus' on sibling or peripheral family member.

3a. Strong negative 'focus' on sihlings or peripheral family members.

3b. Strong negative 'scatter' throughout the family.

c. Mild negative 'focus' on father.

4. Strong negative 'focus' on father.

5. Strong negative 'focus' on mother.

There is also an allied list of 5 diagnostic categories.

As with Lynes (45), it was found difficult to differentiate between categories 2 and 3 on the negative scale of inhibition. Therefore, the two categories were combined as 2/3 with the E.S.N. group and also, in the following table, with the clinic and normal group:

	1	2/3	4	5
Clinic Group (N=90) (Bene-Anthony)	4	76	8	2
Normal, aged 13 (N=54) (Lynes)	1	51	1	1
E.S.N. group (N=50)	1	46	1	2

The E.S.N. group more closely resembles the group of normal children. In the E.S.N. group, all 4 children outside category 2/3 were girls. Their scores in the test of moral judgement did not appear to be related to their isolated positions in categories 1, 4 and 5, and their actual behaviour did not relate to their predicted behaviour in terms of their categories of negative inhibition.

DEFENCE MECHANISMS

No child was an extreme case in terms of the Bene-Anthony categories. The one or two children who showed a tendency to score in a defensive way, fell far short of the clinical examples. Appendices xxi and xxii, 'Denial and Idealisation' and 'Paranoid Tendency', illustrate this.

EGOCENTRIC STATES, AUTO-AGGRESSIVE VARIETY

The authors of the test state that "a negative attitude towards the self is a test abnormality found in children imbued with a strong sense of their own 'badness'", and are usually rejected children. No subject had the extreme scores (lowest, 8) of the clinical cases although two of the E.S.N. group, B2 and G26, with scores of 4 and 5, obtained the low scores of 146 and 129 respectively in the test of moral maturity.

EGOCENTRIC STATES, AUTO-EROTIC VARIETY

The Bene-Anthony category of a very positive attitude towards the self 'is occasionally found' in over-protected children. Again, there were no extreme cases as in the clinic group (lowest score, 8) but three of the E.S.N. group - B10, G12, G18 (each scoring 4) obtained the scores of 183, 142 and 138 respectively in the test of moral maturity.

Where there is a close, exclusive relationship between mother and child, the test should illustrate this by the child scoring highly on the maternal overprotection scale. Nine children of the E.S.N. group scored 4 or more, as follows:

		Bene-Anthony Score	Moral Maturity Score
Boys	B2	4	146
	B12	7	142
Girls	G1	5	188
	G10	5	150
	G12	7	142
	G17	5	133
	G18	6	138
	G22	6	171
	G26	4	129

Comparisons were made between the mean moral maturity score of this group of 9 children and the mean score of the other 41 children, and between the mean scores of the 7 girls in the group and the remaining 21 girls. As most of the girls in the maternally overprotected group were from the three lowest age groups, a comparison was made between the mean scores of 6 girls of the group and the remaining girls of the three lowest age groups (13 of subjects G11 to G28); subject G1 was omitted as she was the sole 'only' child of the 28 girls, although she could probably have been omitted on the grounds of age. The maternally overprotected boys were not treated as a separate group, being too few in number.

Maternally Overprotected Group	Mean	Means of other children: All Children (N=41)	Girls (N=21)	Younger Girls (N=13)	t
Boys & Girls together (N=9)	148.78	185.32			2.023
Girls (N=7)	150.14		183.38		1.832
Girls (excluding G1) (N=6)	143.83			180.77	2.427
Boys (N=2)	144.00				

The mean moral maturity score of the maternally overprotected group was just significantly lower than that of the remaining 41 boys and girls ($P<.05$). The comparison between the mean score of the maternally overprotected girls and the remaining girls was only significant at the 10% level but when the mean score of the maternally overprotected girls (less subject G1) was compared with the remaining girls of a similar age, the mean score was again just significantly lower ($P<.05$).

Previous results have indicated, though, that an E.S.N. child's relationship within his family have little effect upon his level of moral judgement. Where a close, exclusive relationship exists between a mother and E.S.N. child, it would appear that either the child is subject to a very inadequate socialization process, as previously suggested, or the child is excluded from other agencies which play a part in the development of moral judgement. It is

possible that more than one major family influence, however inadequate, is necessary for providing the child with material for discrimination, and the development of moral judgement. It is of interest that the highest moral maturity score was obtained by Subject B22 who lived in a children's home and visited his family home at weekends.

The educationally sub-normal children's scores were not high in the Bene-Anthony categories of maternal and paternal indulgence. The highest score obtained was 5, and only 4 children obtained scores of 4 or 5: B15, B18, G4 and G23 with moral maturity scores of 175, 154, 179 and 183 respectively.

PARENTAL DISCIPLINE: INDUCTION V SENSITIZATION
SCHAEFER-TYPE TEST

Although, like Stephenson's 'normal' subjects (65), the test indicated that the E.S.N. children also had parents with predominantly love-oriented techniques of handling them, most of the children obtained mixed scores and, in some cases, there was little difference between the scores of each type of parental discipline, perhaps indicating some degree of haphazard scoring. This raised some doubts as to the reliability of the test with E.S.N. children. Using the Formula $r_{xy} = \frac{\Sigma xy}{N\sigma_x\sigma_y}$, and the test-retest method (interval of 3-4 weeks), the following values of r were obtained:

Psychological discipline		Hostile discipline	
Mother(N=10)	Father(N=11)	Mother(N=10)	Father(N=11)
r = .51(P<.10)	r = .81(P<.01)	r = .66(P<.05)	r = .66(P<.05)

Owing to school circumstances, the choice of children, unfortunately was not truly random in the statistical sense, older children predominating.

Consistency of Inter-Parental Handling.

Schaefer (60) correlated the descriptions by individual subjects of their mother's and father's behaviour. The correlations indicated that the individual subject in the group of normal children (aged 12 to 14) reported very similar behaviour for mother and father. The individuals in the group of delinquents (aged 12 to 18) of 'a somewhat lower socio-economic group' but chosen for intelligence and literacy, showed lower correlations for 25 of the 26 scales.

It is not possible to make a direct comparison between Schaefer's figures and those of the E.S.N. children, but the E.S.N. children's perception of similarity of behaviour in mother and father was determined by the construction of 2 x 2 contingency tables and applying the χ^2 test. The possible range of scores was 8 to 24 and a score of 17 and above was regarded as 'predominantly positive'.

BOYS. Perception of similarity of behaviour in Father and Mother.

Induction.

Father.	Mother −	Mother +
+	a −+ : 1	b ++ : 13
−	c — : 4	d +− : 3

$$\chi^2 = \frac{(ad-bc)^2 \times N}{(a+c)(b+d)(c+d)(a+b)} = \frac{(3-52)^2 \times 21}{5 \times 16 \times 7 \times 13} = 6.93 \ (P<.01)$$

14 6.43 ($p < .02$)

Sensitization.

Father.	Mother −	Mother +
+	a −+ : 1	b ++ : 2
−	c — : 10	d +− : 8

$\chi^2 = 5.09$ ($P<.05$)

1.09

GIRLS. Perception of similarity of behaviour in Father and Mother.

Induction.

Father	Mother −	Mother +
+	a −+ : 2	b ++ : 13
−	c — : 4	d +− : 6

$\chi^2 = 2.34$ (P <.20; >.10)

Sensitization.

Father	Mother −	Mother +	
+	a −+ : 2	b ++ : 4	6
−	c — : 13	d +− : 6	19
	15	10	25

$\chi^2 = 2.34$ (P <.20; >.10)

BOYS & GIRLS. Perception of similarity of behaviour in Father & Mother.

Induction.

Father	Mother −	Mother +
+	a −+ : 3	b ++ : 26
−	c — : 8	d +− : 9

$\chi^2 = 7.97$ (P <.01)

Sensitization.

Father.	Mother −	Mother +
+	a −+ 3	b ++ 6
−	c −− 23	d +− 14

$\chi^2 = 2.45$ $(P < .20; > .10)$

The E.S.N. boys are nearer to Schaefer's group of normal children, and the girls nearer to his group of delinquents, in their perception of the similarity of child handling by their mothers and fathers.

It would appear that the individual handling of the boys (or, more important, the boys' perception of parental handling) by their mothers and fathers is reasonably consistent whether the techniques are love-orientated or hostile in nature. The E.S.N. girls' results show positive correlations but the indications are that mothers and fathers are perceived by the girls to have different attitudes towards them.

Schaefer suggests a number of factors which may have contributed to the delinquent group's different perception of each parent's behaviour: the child's adjustment, socio-economic status, a more critical and differentiated perception of others, the differences between the mother and father in child rearing, and a less unified

and co-ordinated policy in the parents' behaviour with their children.

If the last two factors are relevant, it is difficult to explain why the mothers and fathers of individual E.S.N. girls handle them in different ways and the contribution, if any, that mixed handling makes to the girls' levels of moral judgement. Hofman and Saltzstein's findings (Hoffman M.L. and Saltzstein H.D. in Hoffman M.L. (32)) on the relationship between moral judgement level in girls and the incidence of threats by the mothers to ask fathers to carry out punishment may be of some relevance, but too many assumptions have to be made concerning the predominant handling technique of each parent and such an attitude by the mother infers some consistency between mother and father.

If Schaefer's view that there is a relationship between mixed parental handling and delinquency is accepted, and it is assumed that a delinquent boy has a low level of moral judgement, it is possible that mixed parental handling is related to the low level of moral judgement in E.S.N. girls. Again, too many assumptions have to be made, and there was no significant difference between the means of the scores of E.S.N. girls and E.S.N. boys in the test of moral judgement.

If Schaefer's delinquent group is viewed as a very abnormal part of the population and the results disregarded, a comparison

of the results of the E.S.N. boys and E.S.N. girls on the Schaefer-type test could again indicate the possibility of differences in contributory factors in the attainment of moral maturity of the two sexes.

PARENTAL DISCIPLINE AND MORAL MATURITY.

Comparisons were made between scores in the Schaefer-type test and scores in the test of moral maturity:

Father: Induction - Moral Maturity.

	N	r	P
Boys	21	- .304	-
Girls	25	- .923	<.001
Boys & Girls	46	- .626	<.001

Father: Sensitization - Moral Maturity.

	N	r	P
Boys	21	- .062	-
Girls	25	.068	-
Boys & Girls	46	.017	-

Mother: Induction - Moral Maturity.

	N	r	P
Boys	21	- .025	-
Girls	26	.345	- (<.10)
Boys & Girls	47	.239	-

Mother: Sensitization - Moral Maturity.

	N	r	P
Boys	21	.806	<.001
Girls	26	.129	-
Boys & Girls	47	.431	<.01

At first sight, the above results, where significant, are quite contrary to research findings on the effect of parental discipline techniques. It would appear that sensitization-type maternal discipline is very highly related to the development of moral judgement in E.S.N. boys, and that psychological-type discipline

could be a retarding factor in such development in E.S.N. girls.

Perhaps of relevance is that the success of induction techniques is dependent upon a degree of verbal reasoning which may be lacking in E.S.N. families but results of comparisons of scores in an induction/sensitization-type test with moral maturity scores of such low level as obtained by the E.S.N. children, are possibly not comparable with the results obtained by normal children over the whole range of developmental types of morality. The E.S.N. children's total moral maturity scores are all within the lowest three of Kohlberg's developmental types of morality: punishment and obedience orientation, naive instrumental hedonism, and good boy morality of maintaining good relations and approval of others. The effect of different types of parental discipline on moral development may be seen to be different when only such low levels are considered rather than the whole range of developmental types.

If the significant results are considered in the widest context, the contradiction with previous findings on sensitization techniques and moral development could be explained in terms of the particular nature of the E.S.N. family, the nature of the three lowest developmental types of Kohlberg, and the boys' need for a definite conviction of parental concern. Although the E.S.N. children were found to have predominantly loving parents, most obtained mixed scores, and it may be that the lack of vocabulary and reasoning power of both parents and children, leads to a lack of communication on the verbal plane which would not necessarily be reflected in the

Schaefer-type test. In turn, this could lead to sensitization techniques being regarded by the child as a form of parental concern leading to the attainment of a conviction of solicitude. The mixed scores, though, may indicate that the boys have a basis of psychological-type handling which leads to the success of sensitization-type handling as a factor in the very early stages of moral development.

It is difficult to explain the very high negative correlation between the moral maturity scores of the girls and the paternal induction scores unless, in view of the finding that mothers and fathers of most of the individual E.S.N. girls use different techniques of discipline, this indicates that mothers are the major parental influence on E.S.N. girls. It is of interest that the comparison between the moral maturity scores of the girls and maternal induction scores shows the expected positive trend.

It is possible that the test is not sufficiently reliable or valid. Doubts as to its reliability have been previously indicated (page 96), and Schaefer (personal communication) did not know if it could be used with educationally sub-normal children.

SOCIAL CLASS AND MORAL JUDGEMENT.

It proved difficult to make a wide inter-class comparison of moral maturity scores, owing to the majority of the educationally sub-normal children being placed, according to the occupation of their parents (or the last occupation, if unemployed), in the Registrar General's lowest classes 111 to V (Appendices xxxii and xxxiii) The lack of children in social classes 1 and 11 accords with the views of Clarke A.M. (16) and others. A further complication was the number of 'father-less' children (3 boys, 4 girls):

Social Class	No. of Boys.	No. of Girls	Total Boys & Girls
1	1	0	1
11	0	0	0
111	8	9	17
1V	3	6	9
V	7	9	16
	19	24	43
No father, illegitimate, or in children's home.	3	4	7
	22	28	50

Comparisons were made between the mean moral maturity scores of the children in social classes 111 and V:

	Social Class III		Social Class V		Values of t	
	N	Mean Scores	N	Mean Scores		
Boys	8	181.88	7	164.29	.807	
Girls	9	207.89	9	170.44	1.529	(P<.2)
Boys & Girls	17	195.65	16	167.75	1.777	(P<.1)

A number of studies have shown social class differences in moral judgement level but Boehm and Nass (11) have pointed out, in general terms, that more recent studies have not shown the marked differences between levels of moral judgement in different social classes of studies carried out some years ago. The above positive, but non-significant, results show the same trend as more recent findings but do not support Kohlberg's suggestion that moral judgement level is independent of sub-cultural background and beliefs. It could be said, though, that comparisons of the scores of E.S.N. children hardly compare levels of moral judgement, the range being so narrow. The Durham study (26), using Kohlberg material, showed a significant relationship between social class and level of moral judgement, the comparison being between the extremes of the Registrar General's scale, classes I/II and IV/V.

When the moral maturity scores and the chronological ages of all the E.S.N. children were compared, there was a positive though non-significant relationship. The factor of chronological age

could have influenced the results of the comparisons between the mean moral maturity scores of the different social classes of the E.S.N. children as, in the case of both boys and girls, older children predominated in social class V, and younger children in social class 111.

There have been indications in this study that the test of moral judgement could be a test of intelligence (or some aspects of intelligence) for E.S.N. children and it is said that there is a tendency for the mentally and socially inadequate to 'sink to the lowest socio-economic groups' (16). Comparisons were therefore made between the mean moral maturity scores of the children in social classes 111 and V and the mean of their raw scores in the General Comprehension sub-test of the Weschler Intelligence Scale for Children, the only sub-test which correlated significantly with the moral maturity scores of the girls and which was highly related to the moral maturity scores of the boys:

	Social Class 111		Social Class V		Values of t
	N	Mean Score	N	Mean Score	
Boys	8	10.63	7	10.57	.024
Girls	9	9.56	9	8.56	.649
Boys & Girls	17	10.06	16	9.44	.376

Again, no relationship was significant.

CHAPTER 6.

SUMMARY AND CONCLUSIONS

General Statement.

The age-developmental theory of moral judgement has been confirmed by many investigators and, therefore, a significant relationship could be expected between chronological age and maturity of moral judgement in E.S.N. children. It could be assumed, though, that other factors than chronological age would have some effect upon the development of moral judgement in such children. This investigation concerns the factors thought to be relevant in the development of moral judgement in E.S.N. children: those of age, intelligence and family influence, the last being specifically concerned with social position, parental discipline and family relationships. Sex differences in the development of moral judgement in E.S.N. children are also considered. The subjects were 50 senior pupils (aged 11 to 16) of a day special school for E.S.N. children.

As intelligence cannot be regarded as a unique entity, and viewing intelligence as a limiting factor in the attainment of moral judgement in E.S.N. children, comparisons were made between moral judgement scores and the full WISC test, and its verbal and performance scales and their sub-tests, so as to give some indications as to the specific areas of thought or learning which are related to maturity of moral response of children of very low intelligence. As there is usually a positive relationship between success in 'verbal' school subjects and general intelligence, a higher level of moral maturity could be expected from those children having the most success in 'verbal' school subjects, standardized tests of comprehension and reading being used for purposes of comparison.

Social experience would seem to be relevant to moral development. The E.S.N. child's lack of awareness of the world at large emphasizes the crucial factor of his family as a social influence. Most families of E.S.N. children are inadequate in many ways and many are large in number and it could be assumed that there is a general lack of healthy stimulation and, perhaps in some families, a tendency for any stimulating contact to be dissipated over a large number of children. The Bene-Anthony Family Relations Test was used to assess the children's perception of the intensity and types of relationship which they had with other members of the family.

There is general confirmation that parental discipline based upon induction techniques contributes to the development of an internalized moral orientation in the child, and that the use of sensitization techniques is likely to lead to a moral orientation which emanates from fear of external sanctions. The test of parental discipline was based upon part of Schaefer's 'Child's Report of Parent Behaviour Inventory' (61), a distinction being made between two major types of discipline, induction and sensitization.

Although the marked differences between levels of moral judgement of different social classes in studies carried out some years ago have not been shown to the same degree in recent studies, the notion that the lower the social status, the more there is a tendency for moral responses to be externally determined, was examined after assessing the social class of each child in accordance with the Registrar General's Classification, 1960 (77).

Summary of Findings

1. The Kohlberg Test of Moral Maturity

(1) Possible range of scores: 100 to 600
E.S.N. range of scores: 117 to 329

(11) Difference between means (boys 183, girls 175) not significant.

(111) Mixed scores, with a difference of more than 1 between the major and minor type scores, assigned to some answers (contrary to the type of score expected by Kohlberg).

2. Chronological Age and Moral Judgement

No significant relationship (positive trend).

3A. Moral Judgement and Intelligence (WISC full scale and verbal and performance scales)

All Children

(1) A highly significant relationship ($P<.001$) between moral maturity scores and: (a) full scale mental age
(b) verbal test ages

(11) A significant relationship ($P<.01$) between moral maturity scores and: (a) full scale I.Q's
(b) performance test ages

(111) A positive, though less significant relationship ($P<.05$) between moral maturity scores and: (a) verbal I.Q's
(b) performance I.Q's

Boys

Except for the slightly significant relationship ($P<.02$) between moral maturity scores and performance I.Q's, the relationship between moral maturity scores and other aspects of the Wechsler test were at a significant or highly significant level: full scale I.Q., verbal I.Q., verbal test age, performance test age (all: $P<.01$), and full scale mental age ($P<.001$)

Girls

Although there was a positive relationship between moral maturity scores and the Wechsler tests, only one (moral maturity/verbal test age) was significant ($P<.05$).

General

The most significant results were when mental age was a factor either as the full mental age, as the verbal test age, or as the performance test age, with highly significant results where there was a verbal factor (full scale mental age and verbal age).

3.B Moral Judgement and Intelligence (WISC sub-tests: raw scores)

(1) General Comprehension sub-test and Test of Moral Judgement.

Highly significant relationship ($P<.001$): boys & all children.

Significant relationship ($P<.01$): girls (the only significant relationship between the moral maturity scores of the girls and a WISC sub-test).

(11) Other Verbal Scale sub-tests and test of Moral Judgement.

	Sig.Relationship	Just Significant
General Information	Boys	All children
Similarities	All children	Boys
Vocabulary	All children	Boys

(111) Performance Scale sub-tests and test of Moral Judgement.

	Sig.Relationship	Just Significant
Picture Completion		Boys, All children
Picture Arrangement	All children	Boys
Object Assembly	All children	Boys
Coding		Boys

3.C Moral Judgement and Attainment in Vocabulary and Reading.

Moral Judgement related to:

(1) Schonell Diagnostic English Test 3: Vocabulary (untimed)

All Children:	P<.02
Boys:	P<.01
Girls:	No significance

(11) Holborn Reading Scale (word recognition)

No significance

(111) Schonell Graded Vocabulary Test R1

No significance

Influence of the Family

4.A Family Relationships

(1) General Findings

E.S.N. children:

(a) Are involved far more with siblings than are normal children.
(b) Are less involved with parents (especially with father) than are normal children, with a tendency for boys to be less involved than girls.
(c) Lack involvement with persons other than immediate members of the family.

(11) Major Involvements and Moral Judgement.

There were no significant differences between the mean moral maturity scores of children with major involvements with mother, father or siblings and the mean moral maturity scores of the remaining children.

(111) Size of Family and Moral Judgement

There were no significant differences between the mean moral maturity scores of children who were members of 4-child families and above and the mean moral maturity scores of children in smaller families.

(1V) Maternal Overprotection and Moral Judgement

(a) The mean moral maturity score of maternally overprotected E.S.N. children was just significantly lower than that of the remaining children ($P<.05$).

(b) The mean moral maturity score of maternally overprotected girls was just significantly lower than that of the remaining girls of similar age ($P<.05$).

(c) Maternally overprotected boys were not treated as a separate group, being too few in number.

(V1) Other Findings

(a) On assessment of the 'inhibitory state' by the grading of the intensity and number of negative items, the E.S.N. children more closely resembled a group of normal children than a clinic group.

(b) No E.S.N. child had the extreme score in the Bene-Anthony Family Relations Test to indicate 'a negative attitude towards the self' and rejection.

(c) No E.S.N. child had the extreme score in the Bene-Anthony Test to indicate 'a very positive attitude towards the self' which is 'occasionally found' in overprotected children.

(d) The E.S.N. children's scores were not high in the Bene-Anthony categories of maternal and paternal indulgence.

4.B Parental Discipline: Induction v Sensitization

(1) General Findings

(a) E.S.N. children have parents who use predominantly love-oriented disciplinary techniques.

(b) E.S.N. boys have a similar perception of parental handling to that of a normal group of children.

(c) E.S.N. girls have a similar perception of parental handling to that of a group of delinquent children.

(d) Mothers and fathers of individual E.S.N. boys are perceived as being reasonably consistent in child handling whether the techniques are love-oriented or hostile in nature.

(e) There are indications that the mothers and fathers of individual E.S.N. girls are perceived as having different attitudes towards them.

(11) Parental Discipline and Moral Judgement

Boys Sensitization-type maternal discipline is very highly related to maturity of moral judgement ($P<.001$)

Girls Psychological-type paternal discipline is related negatively and very highly to maturity of moral judgement ($P<.001$).

4.C Social Class and Moral Judgement

(1) There were no significant differences between the means of the moral maturity scores of the children in social classes 111 and V although there was a trend in the expected direction.

(11) There were no significant relationships when the mean moral maturity scores of the children in social classes 111 and V were compared with the raw scores in the Wechsler General Comprehension sub-test, the only sub-test which correlated significantly with the moral maturity scores of the girls and which was highly related to the moral maturity scores of the boys.

Conclusions

The educationally sub-normal children's scores in the test of moral judgement were low, the majority being in the two lowest of Kohlberg's developmental types of value-orientation (the 'pre-moral' group), and all within the three lowest - those of punishment and obedience orientation, naive instrumental hedonism, and the 'good boy' morality of maintaining the approval of others. Although well illustrating the general low level of moral maturity in E.S.N. children, the narrow range of scores formed a small basis of comparison with factors thought to be relevant in the development of moral judgement, and was not appropriate for the comparison of several distinct levels of moral concepts and thought with possible relevant factors, which is typical of many studies.

Despite an age range of 11 years to 16 years, the expected age trend was barely evident, indicating that maturity of moral judgement in E.S.N. children is dependent upon other factors and perhaps indicating that success in the test of moral judgement was dependent upon intelligence or certain aspects of intelligence. The findings for the boys gave support to this, especially when in terms of mental age (WISC full mental age, verbal test age and performance test age) and particularly so when there was a verbal factor (full mental age and verbal test age). As with most studies in the field of moral judgement, the findings for the girls were either inconclusive or less pronounced but the significance of

the verbal factor of intelligence in the attainment of moral maturity was emphasised by the sole significant relationship in the findings relating to the Wechsler intelligence scales, that between moral judgement and verbal test age.

Of the sub-tests of the intelligence test, that of verbal comprehension was the most significantly related to maturity of moral judgement, although the findings for girls were again less pronounced than for boys. Such a relationship seemed to support the indication that the test of moral judgement was dependent upon intelligence (or, certainly, some verbal aspects of intelligence) as the verbal comprehension sub-test is said to have a high correlation with g and to depend upon the ability to derive meaning from words. However, the sub-test has been termed a test of common sense, depending upon a 'certain amount of information and a general ability to evaluate past experience' (Wechsler), and the questions are said to be of the type discussed or likely to occur in everyday life. Apart from the ability to evaluate past experience, such a description of the sub-test and questions indicates that success in the sub-test is dependent upon certain environmental influences. While acknowledging that such influences affect a child's level of general intelligence, it is probable that success in this particular sub-test, by the E.S.N. child, is adversely affected by the lack of mature verbal stimulation that is to be expected in his typical social situation. It would appear that one of the conditions for the

attainment of maturity of moral judgement in E.S.N. children is the level of some aspects of intelligence (particularly verbal aspects), including some which are clearly influenced by social factors. In general terms, the E.S.N. child is in a position whereby his low level of intelligence is not sufficient to give much meaning to moral concepts and thought which could be gained from his background of social experience, and his social experience is such that his level of intelligence is adversely affected.

The comparisons between moral judgement and tests of verbal attainment mainly yielded inconclusive results but the trend of more pronounced boys' results was again shown. Despite contrary indications, it would appear that general basic thinking functions could be more relevant to the development of moral judgement in E.S.N. children than acquired mental skills (although such skills are closely related to the type of material which is often included in tests of intelligence).

Most subjects were members of social classes III, IV and V, which again emphasized the narrow limits of comparison when studying E.S.N. children. But, as in most modern studies, the difference between social classes in maturity of moral judgement was positive though non-significant. This difference could not be attributed to the variable of the Wechsler factor of general comprehension, which suggests that social class cannot be ignored as a factor in the E.S.N. child's development of moral judgement.

E.S.N. children were involved far more with siblings and less with parents (especially the father) than normal children. Moral maturity, however, was not related to size of family or to major involvements with particular members of the family although maternally overprotected girls had slightly less maturity of moral judgement (boys were too few in number to be considered). It would appear that either the different types of relationship of the E.S.N. child with other members of the family do not affect his maturity of moral judgement or that such relationships are all of a similar low standard. It is possible, though, that other factors may tend to offset the different influences of the various family relationships. Evidence suggests, for example, that the E.S.N. child is incapable of evaluating moral situations much beyond simple levels and this would reduce or eliminate the effectiveness of mature social influences.

General research findings on the effect of parental discipline whereby, in simple terms, induction techniques lead to a higher moral orientation than sensitization techniques, were not supported by the findings relating to the E.S.N. children. But, while a few E.S.N. subjects showed a high level of moral judgement when considering certain moral dilemmas, no subject attained a higher level than Kohlberg's 'good boy' morality of maintaining the approval of others when overall moral judgement was assessed. Types of

parental discipline, therefore, could not be considered in relation to levels of moral maturity over the whole range of developmental types of morality, as is usual in this type of research. Sensitization-type maternal discipline was very highly related to the development of moral judgement in E.S.N. boys and psychological-type discipline appears to be a serious factor in the retardation of such development in girls. Although there was some doubt as to the reliability and validity of the test of parental discipline, and any conclusions could be regarded as somewhat speculative, it is possible that the verbal reasoning required for the success of psychological-type techniques is lacking in most E.S.N. families, even at a simple level. Such contrary findings, though, should possibly be seen against the background of the low standard of moral maturity of the E.S.N. children, and could indicate that research is required into the effect of different types of parental discipline on early moral development.

A consideration of all the findings in relation to the attainment of moral judgement in E.S.N. children, shows the necessity for a fund of background information and experience and illustrates the importance of mental age (especially where there is a verbal element) and three specific elements: g, the ability to derive meaning from words and the ability to evaluate past experience. It would also seem that the child's socio-economic position cannot be disregarded.

Any study of moral judgement in E.S.N. children would appear to

be essentially confined to a narrow range of low moral maturity. When the results of this study are considered as a whole, it can be seen that there is also a narrow range of low intelligence and that most children are in the lowest socio-economic groups. Social class and some aspects of intelligence would appear to be amongthe relevant factors in the development of moral judgement in E.S.N. children and, as both low intelligence and low social class are usual in educational sub-normality, it seems inevitable that the E.S.N. child will never achieve a high level of moral maturity.

BIBLIOGRAPHY

1. ALLINSMITH, B.B. Directness with which anger is expressed, in Miller D.R. and Swanson G.E. (Eds.), Inner Conflict and Defense, New York: Holt, 1960: 315-336.

2. ALLINSMITH, W. The learning of moral standards in Miller D.R. and Swanson G.E. (Eds.), Inner Conflict and Defense, New York: Holt, 1960: 141-176.

3. ALLINSMITH, W. and GREENING, T.C. Guilt over anger as predicted from parental discipline; A study of superego development. American Psychologist, 1955, 10, 320 (Abstract from 'Program of the 63rd annual convention of the American Psychological Association').

4. ARONFREED, J. The nature, variety, and social patterning of moral responses to transgression. Journal of Abnormal and Social Psychology, 1961, 63 (2): 223-240.

5. BANDURA, A. and McDONALD, F.J. The influence of social reinforcement and the behaviour of models in shaping children's moral judgements. Journal of Abnormal and Social Psychology, 1963, 67: 274-282.

6. BANDURA, A. and WALTERS, R.H. Social learning and personality development. New York: Holt, Rinehart and Winston, 1965.

7. BECKER, W.C. Consequences of different kinds of parental discipline in Hoffman M.L. and Hoffman L.W. (Eds.), Review of child development research, Vol. 1. Russell Sage Foundation, New York, 1964: 169-208.

8. BENE, E. and ANTHONY, E.J. Manual for the family relations test. National Foundation for Educational Research, 1957.

9. BERKOWITZ, L. The development of motives and values in the child. Basic Books, Inc., New York and London, 1964.

10. BOEHM, L. The development of conscience: a comparison of American children of different mental and socio-economic levels. Child Development, 1962, 33: 575-590.

11. BOEHM, L. and NASS, M.L. Social class differences in conscience development. Child Development, 1962, 33: 565-574.

12. BRONFENBRENNER, U. The role of age, sex, class, and culture in studies of moral development. Religious Education, 1962, 57: S-3 to S-17.

13. BURT, C. The subnormal mind, Oxford University Press, 1935.

14. BURT, C. The backward child (4th Edn.) University of London Press, 1958.

15. CLARKE, A.D.B. Recent advances in the study of subnormality. National Association of Mental Health, 1966.

16. CLARKE, A.M. and CLARKE, A.D.B. (Eds.). Mental deficiency. Methuen, 1965.

17. CLEUGH, M.F. The slow learner. Methuen, 1959.

18. DROPPLEMAN, L.F. and SCHAEFER, E.S. Boys' and girls' reports of maternal and paternal behaviour. Journal of Abnormal and Social psychology, 1963, 67 (6): 648-654.

19. DURKIN, D. Children's concepts of justice: a comparison with Piaget data. Child Development, 1959, 30: 59-67.

20. DURKIN, D. Children's acceptance of reciprocity as a justice-principle. Child Development, 1959, 30: 289-296.

21. DURKIN, D. Children's concepts of justice: a further comparison with the Piaget data. Journal of Educational Research, 1959, 52, 252-257.

22. EDWARDS, J.B. Some studies of the moral development of children. Educational Research, 1965, 7 (3): 200-211.

23. EDWARDS, J. B. Some moral attitudes of boys in a secondary modern school (Part 1). Educational Review, 1965, 17 (3): 114-127.

24. FREUD, A. The ego and the mechanisms of defense. New York: International Universities, 1946.

25. GESELL, A. and ILG, F.L. The child from five to ten. Hamish Hamilton, London, 1946.

26. GRAHAM, D. A research in moral development. University of Durham, 1967.

27. GRAHAM, D. Moral development research - second progress report. University of Durham, 1967.

28. GRINDER, R.E. Relations between behavioural and cognitive dimensions of conscience in childhood. Child Development, 1964, 35: 881-891.

29. HARROWER, M.R. Social status and the moral development of the child. British Journal of Educational Psychology, 1934, 1: 75-95.

30. HARTSHORNE, H. et al. Studies in the nature of character. New York: Macmillan, 1928-30 (3 vols.)

31. HAVIGHURST, R.J. How the moral life is formed. Religious Education, 1962, 57: 432-439.

32. HAVIGHURST, R.J. and TABA, H. Adolescent character and personality. Wiley, New York, 1961.

33. HOFFMAN, M.L. The role of the parent in the child's moral growth. Religious Education, 1962, 57: S-18 to S-33.

34. HOFFMAN, M.L. Child rearing practices and moral development: generalization from empirical research. Child Development, 1963, 34: 295-318.

35. JERSILD, A.T. Child psychology. New York, Prentice-Hall, Inc, 1947.

36. JOHNSON, R.C. Early studies of children's moral judgements. Child Development, 1962, 33: 603-605.

37. JOHNSON, R.C. A study of children's moral judgements. Child Development, 1962, 33: 327-354.

38. KAGAN, J. The concept of identification. Psychological Review, 1958, 65: 296-305.

39. KELLMER PRINGLE, M.L. and EDWARDS, J.B. Some moral concepts and judgements of junior school children. British Journal of Social and Clinical Psychology, 1964, 3(3): 196-215.

40. KOHLBERG, L. The development of children's orientations toward a moral order. I. Sequence in the development of moral thought. Vita Humana 6, 1963: 11-33.

41. KOHLBERG, L. Development of moral character and moral ideology, in Hoffman, M.L. and Hoffman, L.W. (Eds.), Review of child development research, Vol.1. Russell Sage Foundation, New York, 1964: 383-431.

42. LERNER, E. Constraint areas and moral judgement in children. Menesha, Wisc.: Banta, 1937.

43. LOVELL, K. Educational psychology and children. University of London Press, 1965.

44. LURIA, Z. et al. Response to transgression in stories by Israeli children. Child Development, 1963, 34: 271-280.

45. LYNES, M. An examination of 'The Family Relations Test' using 13-year old normal schoolchildren. Dissertation, Durham University Department of Psychology.

46. MacKINNON, D.W. Violation of prohibitions, in Murray, H.A., Exploration in personality. New York: Oxford University Press, 1953: 491-501.

47. MALLER, J.B. General and specific factors in character. Journal of Social Psychology, 1934, 5: 97-102.

48. MISCHEL, W. Preference for delayed reinforcement and social responsibility. Journal of Abnormal and Social Psychology 1961, 62: 1-7.

49. MISCHEL, W. Delay of gratification, need for achievement, and acquiescence, in another culture. Journal of Abnormal and Social Psychology, 1961, 62: 543-552.

50. MORRIS, J.F. The development of adolescent value judgements. British Journal of Educational Psychology, 1958, 28: 1-14.

51. O'CONNOR, N. and HERMELIN, B. Speech and thought in severe subnormality. Pergamon Press, 1962.

52. PECK, R.F. and HAVIGHURST, R.J. The psychology of character development. John Wiley and Sons Inc., New York, London, 1960.

53. PETERSON, D.R. et al. Parental attitudes and child adjustment. Child Development, 1959, 30: 119-130.

54. PIAGET, J. The moral judgement of the child. Glencoe, Ill., Free Press, 1948.

55. PRESTON, C.F. The development of moral judgement in young people. Dissertation Abstracts (Social Psychology), 1964, 27 (4): 2999-3001.

56. ROE, A. Early determinants of vocational choice. Journal of Counseling Psychology, 1957, 4: 212-217.

57. ROE, A. and Siegelman, M. A parent-child relations questionnaire. Child Development, 1963, 34: 355-369.

58. SCHAEFER, E.S. A circumplex model for maternal behaviour. Journal of Abnormal and Social Psychology, 1959, 59: 226-235.

59. SCHAEFER, E.S. A configurational analysis of children's reports of parent behaviour. Journal of Consulting Psychology, 1965, 29 (6): 552-557.

60. SCHAEFER, E.S. Children's reports of parental behaviour: an inventory. Child Development, 1965, 36 (2): 413-424.

61. SCHAEFER, E.S. Child's Report of Parent Behaviour Inventory (revised version) Department of Health, Education and Welfare, Public Health Service, National Institutes of Health, Bethesda, Maryland, 1967.

62. SCHAEFER, E.S. and LAUTERBACH, C.G. Mapping the projections of child variables upon a spherical parent behavior model and vice versa. Paper delivered at the American Psychological Association Conference, Chicago, September 1965.

63. SEARS, R.R. et al. Patterns of child rearing. Evanston: Row-Peterson, 1957.

64. SIEGELMAN, M. Evaluation of Bronfenbrenner's questionnaire for children concerning parental behaviour. Child Development, 1965, 36: 163-174.

65. STEPHENSON, G.M. The development of conscience. Routledge and Kegan Paul, 1966.

66. STRANG, R. Children's moral concepts: a tentative taxonomy. Education, 1964, 85 (2): 67-77.

67. TANSLEY, A.E. and GULLIFORD, R. The education of slow learning children, Routledge and Kegan Paul, 1960.

68. TERMAN, L.M. Genetic studies of genius. Stanford, California: Stanford University Press, 1925.

69. TUMA, E. and LIVSON, N.H. Family socioeconomic status and adolescent attitudes to authority. Child Development, 1960, 31: 387-399.

70. UNGER, S.M. Relation between intelligence and socially-approved behaviour: a methodological cautionary note. Child Development, 1964, 35: 299-301.

71. VALENTINE, C.W. Psychology and its bearing on education. Methuen, 1955.

72. VERNON, P.E. Intelligence and attainment tests. University of London Press, 1961.

73. VERNON, P.E. Personality tests and assessments. Methuen, 1962.

74. WECHSLER, D. The measurement of adult intelligence (3rd Edn.) Baltimore: The Williams and Wilkins Co., 1944.

75. WECHSLER, D. Wechsler intelligence scale for children, Psychological Corporation, 1949.

76. WHITEMAN, P.H. and KOSIER, K.P. Development of children's moralistic judgements: age, sex, I.Q., and certain personal-experiential variables. Child Development, 1964, 35: 831-841.

H.M.S.O. Publications

77. Classification of occupations, 1960.

78. Education pamphlet No.5: Special educational treatment, 1946.

79. Education pamphlet No. 46: Slow learners at school, 1964.

Reports of the Chief School Medical Officer, Ministry of Education

80. The Health of the School Child, 1939-45.

81. The Health of the School Child, 1946-7.

Statutory Instruments

82. Handicapped Pupils and School Health Service Regulations, 1945.

83. School Health Service and Handicapped Pupils Regulations, 1953.

A P P E N D I X

First KOHLBERG STORY SITUATION and SET QUESTIONS.

1. Joe is a fourteen year old boy who wanted to go camping. His father promised him he could go if he saved up the money himself. So Joe worked hard at his paper round and saved up the £10 that it cost to go camping and a little more besides. But just before Joe was going to go camping his father changed his mind. Some of his friends decided to go to a big football match in London and Joe's father was short of the money it would cost. So he told Joe to give him the money he had saved from the paper round. Joe wanted to go camping, so he thought of refusing to give his father the money.

1a. Should Joe refuse to give his father the money? Why?

1b. Does his father have the right to tell Joe to give him the money?

1c. Does giving the money have anything to do with being a good son?

1d. Why should a promise be kept?

1e. Which is worse, a father breaking a promise to his son or a son breaking a promise to his father?

SITUATION I - GLOBAL RATING GUIDE

Type 1.- oriented to passive obedience and compliance.

1. Value. No orientation to assessing the purposes involved. going to camp is not a purpose but a permitted gratification, e.g., "he can go another year instead." Saving money is not identified with purpose. No evaluation of father.

2. Choice. Should give money to father.

3. Sanction. Possibility of trouble with father.

4. Property rules and rights. Little sense of ownership rights.

5. Son role. Should give to obey, comply.

6. Authority. Simply a fact that father has power to demand money, may invoke ownership of son.

8. Justice. Little sense of the injustice of the broken promise, tho' knows that it is wrong to break promises, Some sense that if the father told the boy he could go, he should let him.

Type 2. - oriented to keeping and using what you get.

1. Value. Orientation to purpose of going to camp and to holding on to money. No evaluation of the father.

2. Choice. May be uncertain, but favours refusing the father.

3. Sanction. Assumes father can't force the issue.

4. Property rules. Simple fact that the boy earned, it is his money.

5. Son rule. No concern to be nice in the son role.

6. Authority. If father wants money, he can earn it.

8. Justice. Promise is seen as bad in disappointing expectation of gratification.

Type 3. - Nice boy with some sense of rights.

1. Value. May invoke belief that father is oriented to boy's own best welfare, or to family's in the situation, has an unselfish goal and knows best.

2. Choice. Conflict between being nice boy and maintaining purpose and rights. Tends to say that 'boy doesn't have to give the money but I would.' Efforts at compromise by giving some money, insuring it will be paid back, etc.

3. Sanctions. Assumes no negative sanctions by father.

4. Property rules. Has a right to the money. Some sense that worked hard for the money, deserves a reward.

5. Son role. Some idea of being nice, unselfish, sacrificing, grateful for past care.

6. Authority. c.f. 1, 2, 5. Doesn't invoke authority of father but being nice.

8. Justice. Some assimilation of breaking promises to not being a good son or father, not caring about one another, etc.

Type 4. - oriented to an internalized sense of the father's authority.

1. Value. Accepts that boy should sacrifice his interests. May be some case that to boy's long range interests to do so, or that will even out in the end. Aware of promise issue.

2. Choice. Give the money to father.

3. Sanction. A sense of the potential power of the father without actually invoking sanctions.

4. Property rules. see 6.

5. Son role. To show respect or not detract from, go against father's authority.

6. Authority. Some invocation of authority of the father on a categorical basis apart from justifying compliance in this situation as nice. Subsumes father under a class of persons deserving respect and reward. Tends to distinguish father's authority to determine whether boy goes to camp (or what he does with the money) and his right to take the boy's money.

8. Justice. Promise assimilated to maintainance of parent-child authority system. Boy would lose respect for father if broke promise, etc. Not a categorical contractual attitude. But genuine attitude that one should keep one's word.

Type 5 - Oriented to a sense of contractual rights in the situation in terms of which the diffuse father-son relationship is irrelevant.

1. Value. Some sense of value of planning, maintaining purpose. As generally legitimate, as to be encouraged. Issue is, of maintaining rights rather than of keeping the money, of doing what one wants.

2. Choice. Refuse the money. Little uncertainty.

3. Sanction. None invoked, may have some practical sense of the father causing difficulty with no punitive symbolic value.

4. Property rules. Sense of the boy's right to the money.

5. Son role. Maybe some sense that a good son might compromise in some ways.

6. Authority. Father has no right to ask in this situation, tho' may also mention the legal definition of a father having rights over a minor's property, e.g., 'he could but shouldn't in this case'.

8. Justice. Not an actual focus on the injustice of the father, the fact that being a bad father. More focus on the promise, etc. as giving the son rights in the situation, than as 'unfair'. Refuse because father broke his word.

Type 6. - oriented to the father's injustice but in an evaluative rather than retaliative way. Otherwise like Type 5.

KOHLBERG TEST OF MORAL JUDGEMENT

	Situation 1	Sitn. 2	Sitn. 3	Sitn. 4	Sitn. 5	Sitn. 6	Sitn. 7	Sitn. 8	Moral Maturity Score.
B1	2	2	1(3)	2	2(1)	1(2)	1	1	154
B2	1	1(4)	1(3)	2	1	1	2	1	146
B3	5(2)	3	1(3)	3(1)	1	2	4(2)	4(1)	254
B4	2	5	4	2(1)	3(5)	2	2	3	292
B5	2(1)	2(3)	1	1(2)	1	1(3)	2	1	150
B6	2(4)	3	6(5)	2	1(2)	2	1	2	246
B7	1	2	1(2)	1	1(2)	2	2	2	158
B8	1(2)	2(1)	1(2)	2	1	1	1	1	129
B9	3(2)	4(1)	1(5)	1	1	1	1(2)	1	167
B10	2(5)	4	1(2)	2	1	1(2)	1	1	183
B11	2	2	1(3)	3(1)	3(6)	2	1(2)	1	204
B12	1(2)	1(4)	1(3)	2(1)	1	1(3)	1	1	142
B13	2	4(1)	1(5)	1	1(2)	1(3)	1	1	167
B14	2(1)	1(4)	1(2)	1	1(2)	2(1)	1	1	138
B15	1(2)	2	2	1	2	3(1)	2	1(2)	175
B16	1	1	2	1(2)	1	1(3)	1	1	125
B17	2	4(1)	1(3)	2(3)	2	2(1)	1	1(4)	196
B18	2(1)	2(1)	1	1	1(2)	2(1)	2	2	154
B19	1(2)	1	1	2(1)	1	1	1	1(2)	117
B20	5	1(4)	2(1)	1	1(3)	2(1)	1(4)	1(5)	217
B21	2	4	1(2)	1	1	3(4)	1(2)	1(2)	192
B22	2(5)	5(2)	6	2	3(6)	4	2(3)	1	329

KOHLBERG TEST OF MORAL JUDGEMENT

Subject.	Situation 1	Sitn. 2	Sitn. 3	Sitn. 4	Sitn. 5	Sitn. 6	Sitn. 7	Sitn. 8	Moral Maturity Score.
G1	2(5)	2(3)	3	2(1)	1	2	1	1	188
G2	4	2(3)	6	2	2	1(3)	2	2	275
G3	1	1(4)	1(2)	1(3)	1	3	2(1)	1	158
G4	1(2)	1	1	2	1	1(2)	1	1	121
G5	1(3)	2	1(3)	4(1)	1	3	1	1	179
G6	1	2(1)	1(2)	2(1)	1	1	1	1	121
G7	2	5	1(3)	2	3(6)	3(1)	2(3)	2	267
G8	5	4	1	1(4)	3	2	2	2	263
G9	1(2)	2	1	1	1	1	1	1	117
G10	1(2)	1	1(2)	1	1(2)	3	2	1	150
G11	2	4(1)	1(3)	2(1)	1	3(5)	1	3(1)	204
G12	2	2	1(2)	2	1	1	1	1	142
G13	2(3)	6(5)	1(3)	1	3(6)	3(4)	2(3)	1	267
G14	2	5(2)	1(3)	2	3(6)	1(3)	1(2)	1	221
G15	2	2	1(2)	2(5)	2	1(3)	2	1(5)	204
G16	2(1)	2(3)	1(3)	3(2)	2(5)	3(1)	2(1)	1(4)	217
G17	1	2	1	1	1	1(3)	1	2	133
G18	1	1	1	1	1	1(3)	2	1(5)	138
G19	2	1	1(3)	1(3)	1	3(5)	2	1	175
G20	2	2	1(3)	2	3(6)	3	1(2)	1(3)	221
G21	2(1)	2	2	1	1	1	1	2	146
G22	2(1)	2	2	1(2)	1	1(3)	2	2	171
G23	3	1(4)	1(3)	4(1)	1	2	1	1	183
G24	2	2	1	2(1)	1	1	1	1	133
G25	1(4)	1	1	1	1	1(2)	2	1	129
G26	2(1)	1	1	2	1	1	1(3)	1	129
G27	1	1	1(3)	1(3)	1	1(3)	2(1)	1	133
G28	2(1)	2(1)	1	1	1	1	1	1	117

WECHSLER INTELLIGENCE SCALE FOR CHILDREN

	Verbal		Performance		Full Scale	
	Scale Score	I.Q.	Scale Score	I.Q.	Scale Score	I.Q.
B1	19	61	–	–	–	–
B2	20	62	27	68	47	62
B3	34	80	37	82	71	79
B4	37	84	36	80	73	80
B5	16	57	21	60	37	54
B6	26	70	26	67	52	65
B7	20	62	21	60	41	57
B8	14	55	12	47	26	46
B9	27	71	21	60	48	62
B10	19	61	30	72	49	63
B11	29	74	45	93	74	81
B12	35	81	30	72	65	75
B13	25	69	22	61	47	62
B14	19	61	11	46	30	49
B15	22	65	24	64	46	61
B16	20	62	23	62	43	59
B17	29	74	41	87	70	78
B18	35	81	39	85	74	81
B19	23	66	38	83	61	72
B20	36	82	34	78	70	78
B21	42	90	40	86	82	87
B22	32	77	42	89	74	81

WECHSLER INTELLIGENCE SCALE FOR CHILDREN

	Verbal		Performance		Full Scale	
	Scale Score	I.Q.	Scale Score	I.Q.	Scale Score	I.Q.
G1	28	72				
G2	24	67				
G3	11	51	21	60	32	51
G4	18	60	12	47	30	49
G5	15	56	19	57	34	52
G6	24	67	40	86	64	74
G7	13	53	10	44	23	Below 46
G8	29	74	37	82	66	75
G9	8	47	15	51	23	Below 46
G10	29	74	26	67	55	67
G11	17	58	22	61	39	56
G12	8	47	16	53	24	Below 46
G13	11	51	12	47	23	Below 46
G14	14	55	19	57	33	51
G15	20	62	13	48	33	51
G16	24	67	24	64	48	62
G17	12	52	16	53	28	48
G18	13	53	13	48	26	46
G19	19	61	36	80	55	67
G20	24	67	29	71	53	66
G21	8	47	12	47	20	Below 46
G22	23	66	29	71	52	65
G23	37	84	34	78	71	79
G24	19	61	19	57	38	55
G25	24	67	21	60	45	60
G26	17	58	7	Bel.44	24	Below 46
G27	26	70	23	62	49	63
G28	26	70	23	62	49	63

WISC - VERBAL

	Chronological Age.	RAW SCORES					TEST AGE EQUIVALENTS FOR RAW SCORES.							
		I	Cn	A	S	V	I	Cn	A	S	V	Mean Test Age.	*Average C.A.	Full Scale Mean Test Age.
B1	16-2	8	11	5	8	31	7-2	9-6	6-10	9-6	10-2	8-8	16-2	
B2	16-0	9	12	7	5	27	7-10	10-6	8-6	6-10	8-10	8-6	16-1	9-3
B3	15-9	10	20	7	9	38	8-6	15-10	8-6	10-6	11-10	11-0	15-10	11-3
B4	15-5	12	18	7	14	39	9-10	15-10	8-6	15-0	12-2	12-3	15-7	11-6
B5	14-10	7	9	4	5	28	6-6	8-2	5-10	6-10	9-2	7-4	15-0	7-9
B6	14-9	12	12	7	4	40	9-10	10-6	8-6	6-2	12-10	9-7	14-11	9-5
B7	14-9	10	9	6	4	32	8-6	8-2	7-10	5-10	10-2	8-1	15-0	8-1
B8	14-9	6	10	5	3	23	5-10	8-10	6-10	5-2	7-10	6-11	14-11	6-10
B9	13-7	9	11	5	7	37	7-10	9-6	6-10	8-6	11-6	8-10	13-9	8-2
B10	13-9	10	9	5	5	21	8-6	8-2	6-10	6-10	7-6	7-7	13-10	8-3
B11	13-2	11	14	7	6	31	8-10	11-10	8-6	7-6	10-2	9-4	13-3	11-0
B12	12-10	11	10	5	11	37	8-10	8-10	6-10	12-6	11-6	9-8	12-8	9-1
B13	12-10	10	10	5	4	28	8-6	8-10	6-10	5-10	9-2	7-10	13-0	7-9
B14	12-1	7	7	5	4	22	6-6	6-10	6-10	5-10	7-6	6-8	12-3	6-4
B15	12-1	6	11	4	3	30	5-10	9-6	6-2	5-2	9-10	7-4	12-3	7-5
B16	12-2	6	9	6	3	21	5-10	8-2	7-10	5-2	7-6	6-11	12-3	7-4
B17	12-0	10	11	6	4	35	8-6	9-6	7-10	5-10	10-10	8-6	12-2	9-10
B18	11-10	7	11	9	9	21	6-6	9-6	10-6	10-6	7-6	8-11	12-0	9-9
B19	12-0	10	6	7	3	24	8-6	6-6	8-6	5-2	7-10	7-4	12-1	8-6
B20	11-8	10	9	8	10	30	8-6	8-2	9-6	11-6	9-10	9-6	11-10	9-6
B21	11-8	12	14	7	9	35	9-10	11-10	8-6	10-6	10-10	10-4	11-10	9-11
B22	11-9	10	12	7	6	26	8-6	10-6	8-6	7-6	8-6	8-8	11-11	9-11

* Average chronological age determined, as verbal and performance tests each done at different times.

WISC - VERBAL

	Chronological Age.	RAW SCORES					TEST AGE EQUIVALENTS FOR RAW SCORES.							
		I	Cn	A	S	V	I	Cn	A	S	V	Mean Test Age.	*Average C.A.	Full Scale Mean Test Age.
G1	16-6	10	11	8	14	24	8-6	9-6	9-6	15-4	7-10	10-2	16-6	
G2	16-4	11	9	7	10	30	8-10	8-2	8-6	11-6	9-10	9-4	16-4	
G3	16-4	10	8	5	3	17	8-6	7-6	6-10	5-2	5-10	6-9	16-5	7-7
G4	16-2	10	9	7	5	23	8-6	8-2	8-6	6-10	7-10	8-0	16-3	7-5
G5	16-0	10	11	5	7	16	8-6	9-6	6-10	8-6	5-10	7-10	16-1	7-10
G6	15-4	12	8	9	9	25	9-10	7-6	10-6	10-6	8-6	9-4	15-4	10-9
G7	15-3	8	11	4	4	22	7-2	9-6	5-10	5-10	7-6	7-2	15-4	6-10
G8	15-0	12	14	8	9	33	9-10	11-10	9-6	10-6	10-6	10-5	15-2	11-2
G9	14-9	9	6	2	3	18	7-10	6-6	4-10	5-2	6-6	6-2	14-11	6-8
G10	14-9	12	11	9	8	32	9-10	9-6	10-6	9-6	10-2	9-11	14-10	9-4
G11	14-5	8	8	5	5	32	7-2	7-6	6-10	6-10	10-2	7-8	14-6	7-10
G12	14-4	8	3	6	3	18	7-2	4-10	7-10	5-2	6-6	6-4	14-5	6-10
G13	14-0	9	8	5	4	13	7-10	7-6	6-10	5-10	4-10	6-7	14-1	6-6
G14	14-0	8	10	6	3	20	7-2	8-10	7-10	5-2	6-10	7-2	14-1	7-8
G15	13-10	10	10	4	6	22	8-6	8-10	5-10	7-6	7-6	7-8	13-11	7-4
G16	13-5	7	9	6	7	29	6-6	8-20	7-10	8-6	9-6	8-1	13-7	8-2
G17	13-6	8	7	5	2	18	7-2	6-10	6-10	4-10	6-6	6-5	13-7	6-6
G18	13-4	9	6	5	3	14	7-10	6-6	6-10	5-2	4-10	6-3	13-5	6-4
G19	13-2	9	9	5	3	26	7-10	8-2	6-10	5-2	8-6	7-4	13-3	8-10
G20	12-11	7	8	7	5	24	6-6	7-6	8-6	6-10	7-10	7-5	13-1	8-2
G22	12-11	4	3	3	2	11	4-10	4-10	5-2	4-10	4-10	4-11	13-0	5-8
G23	12-10	9	10	6	4	20	7-10	8-10	7-10	5-10	6-10	7-5	12-11	8-1
G24	12-10	10	11	7	9	42	8-6	9-6	8-6	10-6	13-2	10-0	12-11	9-10
G25	12-5	9	7	5	2	23	7-10	6-10	6-10	4-10	7-10	6-10	12-7	6-10
G26	12-5	8	8	7	4	23	7-2	7-6	7-10	5-10	7-10	7-3	12-7	7-1
G27	12-5	9	5	6	2	17	7-10	5-2	7-10	4-10	5-10	6-4	12-6	5-10
G28	11-9	8	8	7	6	18	7-2	7-6	8-6	7-6	6-6	7-5	11-10	7-3
G29	11-6	10	8	6	5	20	8-6	7-6	7-10	6-10	6-10	7-6	11-8	7-2

*Average chronological age determined, as verbal and performance tests each done at different times.

WISC - PERFORMANCE

	Chron. Age.	RAW SCORES					TEST AGE EQUIVALENTS FOR RAW SCORES							
		PC	PA	BD	OA	Cg	PC	PA	BD	OA	Cg	Mean Test Age.	*Average C.A.	Full Scale Mean Test Age.
B1														
B2	16-1	14	12	8	16	28	15-6	7-2	10-6	8-0	9-0	10-0	16-1	9-3
B3	15-10	12	30	30	22	37	11-6	12-6	12-6	10-6	10-6	11-6	15-10	11-3
B4	15-9	12	28	20	23	34	11-6	10-6	10-6	11-6	10-0	10-10	15-7	11-6
B5	15-2	7	20	6	24	14	6-6	8-2	7-2	13-0	6-6	8-3	15-0	7-9
B6	15-0	12	16	6	22	32	11-6	7-6	7-2	10-6	9-6	9-3	14-11	9-5
B7	15-2	7	23	15	8	38	6-6	8-6	9-6	5-2	10-10	8-1	15-0	8-1
B8	15-0	9	4	10	7	20	8-6	5-6	8-6	4-10	6-10	6-10	14-11	6-10
B9	13-11	7	17	6	17	24	6-6	7-10	7-2	8-6	7-10	7-7	13-9	8-2
B10	13-11	7	26	9	24	20	6-6	9-6	8-6	13-0	6-10	8-10	13-10	8-3
B11	13-4	14	34	10	26	28	15-6	14-6	8-6	15-6	8-10	12-7	13-3	11-0
B12	12-5	10	23	14	15	22	9-6	8-6	9-6	7-2	7-6	8-5	12-8	9-1
B13	13-1	8	8	14	10	28	7-6	6-6	9-6	5-10	8-10	7-8	13-0	7-9
B14	12-5	6	4	2	16	10	5-6	5-6	4-10	7-10	5-10	5-11	12-3	6-4
B15	12-5	8	6	15	15	20	7-6	6-2	9-6	7-6	6-10	7-6	12-3	7-5
B16	12-4	8	4	18	18	18	7-6	5-6	10-6	8-6	6-10	7-9	12-3	7-4
B17	12-3	15	24	17	24	22	15-10	9-2	10-6	13-0	7-6	11-2	12-2	9-10
B18	12-1	13	29	16	22	17	14-0	11-6	10-6	10-6	6-10	10-8	12-0	9-9
B19	12-2	12	21	26	22	27	11-6	8-2	12-2	10-6	6-2	9-8	12-1	8-6
B20	12-0	9	20	27	19	29	8-6	8-2	12-2	9-6	8-10	9-5	11-10	9-6
B21	11-11	13	26	6	21	27	14-0	9-6	7-2	10-6	6-2	9-6	11-10	9-11
B22	12-0	14	28	10	24	24	15-6	10-6	8-10	13-0	7-10	11-2	11-11	9-11

* Average chronological age determined, as verbal and performance tests each done at different times.

WISC - PERFORMANCE

	Chronological Age.	RAW SCORES					TEST AGE EQUIVALENTS FOR RAW SCORES.							
		PC	PA	BD	OA	Cg	PC	PA	BD	OA	Cg	Mean Test Age.	*Average C.A.	Full Scale Mean Test Age.
G1														
G2														
G3	16-5	7	8	6	17	51	6-6	6-6	7-2	8-2	13-10	8-5	16-5	7-7
G4	16-3	5	4	6	12	37	4-10	5-6	7-2	6-6	10-6	6-11	16-3	7-5
G5	16-2	8	20	6	17	22	7-6	8-2	7-2	8-6	7-6	7-9	16-1	7-10
G6	15-4	11	22	35	25	46	10-6	8-6	14-6	14-6	12-6	12-1	15-4	10-9
G7	15-5	8	6	5	10	14	7-6	6-2	6-6	5-10	6-6	6-6	15-4	6-10
G8	15-4	10	29	6	26	56	9-6	11-6	7-2	15-6	15-6	11-10	15-2	11-2
G9	15-1	8	6	6	10	31	7-6	6-2	7-2	5-10	9-6	7-3	14-11	6-8
G10	14-11	11	10	22	14	24	10-6	6-10	11-6	7-2	7-10	8-9	14-10	9-4
G11	14-6	8	20	6	15	34	7-6	8-2	7-2	7-2	9-10	8-0	14-6	7-10
G12	14-6	10	6	7	14	14	9-6	6-2	7-10	7-2	6-6	7-5	14-5	6-10
G13	14-2	6	14	4	6	30	5-6	7-6	5-2	4-10	9-6	6-6	14-1	6-6
G14	14-2	14	8	4	16	12	15-6	6-6	5-2	7-10	6-2	8-3	14-1	7-8
G15	14-0	10	6	0	18	2	9-6	6-2	4-10	8-6	5-10	7-0	13-11	7-4
G16	13-8	9	8	6	18	36	8-6	6-6	7-2	8-6	10-6	8-3	13-7	8-2
G17	13-7	6	4	6	11	29	5-6	5-6	7-2	6-2	8-10	6-8	13-7	6-6
G18	13-5	9	6	4	8	17	8-6	6-2	5-2	5-2	6-10	6-4	13-5	6-4
G19	13-4	17	28	5	21	25	15-10	10-6	6-6	10-6	8-2	10-4	13-3	8-10
G20	13-3	9	13	9	17	43	8-6	7-2	8-2	8-6	11-10	8-10	13-1	8-2
G21	13-1	6	8	6	6	24	5-6	6-6	7-6	4-10	7-10	6-5	13-0	5-8
G22	12-11	10	22	16	18	14	9-6	8-6	10-6	8-6	6-6	8-8	12-11	8-1
G23	12-11	13	29	5	20	20	13-6	11-6	6-6	9-6	6-10	9-7	12-11	9-10
G24	12-9	7	6	10	8	25	6-6	6-2	8-6	5-2	8-2	6-11	12-7	6-10
G25	12-8	6	6	6	9	39	5-6	6-2	7-2	5-2	10-10	7-0	12-7	7-1
G26	12-7	6	4	2	6	12	5-6	5-6	4-10	4-10	6-2	5-4	12-6	5-10
G27	11-11	7	4	9	17	18	6-6	5-6	8-2	8-2	6-10	7-0	11-10	7-3
G28	11-10	6	6	4	12	36	5-6	6-2	5-2	6-6	10-6	6-9	11-8	7-2

* Average chronological age determined, as verbal and performance tests each done at different times

ATTAINMENT TESTS

	Reading Ages		Vocabulary	
	Schonell R1	Holborn (Word Recognition)	Schonell Diagnostic English Tests (Raw Scores)	
			Timed	Untimed
B1	6.1	6-6	0	22
B2	6.8	7-6	5	23
B3	7.5	9-3	5	41
B4	9.9	11-3	11	36
B5	N/S	2 words	0	14
B6	12.4	13-9	16	39
B7	10.6	13-9	9	30
B8	5.1	1 word	2	21
B9	9.0	10-3	6	23
B10	6.8	6-9	0	17
B11	6.4	6-6	1	28
B12	7.5	7-9	3	29
B13	5.2	5 words	4	21
B14	5.4	6-0	0	15
B15	5.7	7 words	0	24
B16	5.4	6 words	0	10
B17	7.4	7-3	5	30
B18	6.6	6-6	2	13
B19	5.1	4 words	0	17
B20	6.0	6-6	7	22
B21	8.1	9-0	6	28
B22	6.0	6-3	4	23

ATTAINMENT TESTS

	Reading Ages		Vocabulary	
	Schonell R1	Holborn (Word Recognition)	Schonell Diagnostic English Tests (Raw Scores)	
			Timed	Untimed
G1	9.8	12-0	8	27
G2	10.0	10-9	10	20
G3	7.6	7-6	4	25
G4	9.9	12-6	10	22
G5	5.8	6-3	0	18
G6	8.9	10-6	12	35
G7	5.9	6-3	1	21
G8	7.2	7-9	3	22
G9	7.1	7-6	1	20
G10	8.2	9-9	4	27
G11	8.1	7-9	1	12
G12	8.2	9-6	0	9
G13	8.2	8-0	1	16
G14	7.0	6-9	5	20
G15	6.7	6-6	0	16
G16	6.4	6-6	8	25
G17	7.3	7-6	0	14
G18	6.0	6-6	0	16
G19	6.9	6-9	2	20
G20	7.8	7-6	2	17
G21	5.6	6 words	0	14
G22	6.3	6-9	1	16
G23	5.6	6-3	0	42
G24	7.3	7-6	2	19
G25	5.6	6-3	0	17
G26	6.0	6-3	6	14
G27	6.3	6-6	6	25
G28	8.0	8-9	1	16

BENE-ANTHONY TEST OF FAMILY RELATIONS

DISTRIBUTION OF ITEMS (DEGREE OF INVOLVEMENT)

Subject.	Mother.	Father.	Total. M. & F.	Sibs.	Others.	Self.	No-body	
B1	5	4	9	26	0	0	33	
B2	12	7	19	34	0	5	10	
B3	15	11	26	23	0	1	18	
B4	16	8	24	18	0	2	24	
B5	3	4	7	11	0	4	46	
B6	10	4	14	24	0	0	30	
B7	10	6	16	20	0	0	32	
B8	5	9	14	22	0	0	32	
B9	11	1	12	28	0	2	26	
B10	9	7	16	27	0	4	21	
B11	4*	-	4	19	13+1θ	4	27	*Grandmother (more the mother figure.) θ Grandfather.
B12	13	2	15	9	0	3	41	
B13	9	2	11	15	0	1	41	
B14	3	3	6	32	0	1	29	
B15	13	12	25	31	0	4	8	
B16	12	4	16	42	0	1	9	
B17	12	10	22	32	0	0	14	
B18	5	2	7	36	0	0	25	
B19	18	16	34	24	0	2	8	
B20	10+2	2+1	15*	40	0	0	13	*Inc.3 for both M.& F.
B21	10	2	12	20	0	0	36	
B22	10	4	14	16	0	3	35	
	217	121		549	14	37	558	
Mean	9.86	5.5		24.54	.63 (N=1)	1.68	25.36	
Totals (All children)	520	292		1290	17 (N=2)	85	1194	
Mean (All children)	10.4	5.84		25.8	.34	1.7	23.88	

BENE-ANTHONY TEST OF FAMILY RELATIONS

DISTRIBUTION OF ITEMS (DEGREE OF INVOLVEMENT)

Subject	Mother.	Father.	Total M.& F.	Sibs.	Others.	Self.	Nobody	
G1	14+5	8+2	29*	0	0	1	38	*Inc. 7 for both M.& F. Only child.
G2	3	4	7	42	0	2	17	
G3	13	0	13	29	0	2	24	
G4	12	12	24	33	0	2	9	
G5	0	12	12	23	0	1	32	
G6	7	3	10	46	0	3	9	
G7	17	10	27	17	0	0	24	
G8	5	2	7	42	0	1	18	
G9	6	3	9	23	0	0	36	
G10	-	8	8	22	0	0	38	
G11	17	9	26	12	0	3	27	
G12	14	-	14	17	0	4	33	
G13	7	7	14	32	0	4	18	
G14	12	1	13	32	0	1	22	
G15	13	8	21	33	0	1	13	
G16	20	10	30	28	0	2	8	
G17	15	20	35	17	0	3	13	
G18	17	4	21	17	3*	4	23	*Insisted - "friends"
G19	7	6	13	26	0	1	28	
G20	7	1	8*	26	0	2	32	*Matron & husband.
G21	4	-	4	37	0	2	25	
G22	17	7	24	28	0	0	16	
G23	13	13	26	20	0	1	21	
G24	12	6	18	28	0	2	20	
G25	14	2	16	14	0	1	37	
G26	20	7	27	23	0	5	13	
G27	10	6	16	23	0	0	29	
G28	2	0	2*	52	0	0	14	*Matron & husband.
	303	171		742	3	48	637	
Mean	10.82	6.11		26.5	.11	1.71	22.75	

BENE-ANTHONY TEST OF FAMILY RELATIONS

SIBLING INVOLVEMENT

NUMBER OF CHILDREN IN FAMILY

	Siblings									No. of children in family
	1	2	3	4	5	6	7	8		
B1	11 *	10	5							4
B2	15 *	19								3
B3	6 *	5	1	11						5
B4	18 *									2
B5	* 11									2
B6	4	7	13							4
B7	3	5	12					Twins		4
B8	1	11 *	1	0	9					6
B9	* 4	2	2	3	5	5	6	1	Children's Home.	9
B10	8	13 *	6							4
B11	* 12	7								3
B12	9 *									2
B13	* 4	2	0	2	0	4				7
B14	8	3 *	14	7						5
B15	* 14	17								3
B16	2	6	20 *	14						5
B17	10 *	5	8	2	7					6
B18	14	9	13 *							4
B19	8	3 *	13							4
B20	8 *	8	17	7						5
B21	5	3	3 *	8	1					6
B22	1	2 *	0	2	1	10			Children's Home.	7

* = position of Subject.

BENE-ANTHONY TEST OF FAMILY RELATIONS

SIBLING INVOLVEMENT

NUMBER OF CHILDREN IN FAMILY

	Siblings									No. of children in family
	1	2	3	4	5	6	7	8		
G1										1
G2	13 x	7	21							4
G3	x 8	11	10							4
G4	5	10 x	4	10	4					6
G5	x 19	4								3
G6	6 x	7	2	4	11	5			+ 11 applying to all siblings.	7
G7	5 x	12								3
G8	10	13 x	4	9	6					6
G9	x 4	1	2	3	3	10				7
G10	3	2	8	8 x						5
G11	x 11	1								3
G12	17 x									2
G13	2	1	6 x	5	14	4				7
G14	12 x	5	5	10						5
G15	x 11	8	14							4
G16	1	4	4	6 x	4	9				7
G17	17 x									2
G18	13 x	4								3
G19	6 x	6	2	1	1	10				7
G20	4 x	2	12	0	1	1	5	1	Children's Home.	9
G21	4	5 x	4	4	11	0	1	8	Children's Home.	9
G22	9	2 x	14						+ 3 applying to all siblings.	4
G23	20 x									2
G24	10	7 x	11							4
G25	x 5	5	4							4
G26	12	11 x								3
G27	x 10	7	2	4						5
G28	20	4	3 x	3	4	1	1	16	Children's Home.	9

x = position of subject.

BENE-ANTHONY TEST OF FAMILY RELATIONS

PARENT - CHILD ATTITUDES

Outgoing & incoming feelings - POSITIVE

	Mild Positive				Strong Positive				
	Father		Mother		Father		Mother		
	Out-going	In-coming	Out-going	In-coming	Out-going	In-coming	Out-going	In-coming	
B1	1	1	2	1	0	0	1	0	
B2	1	1	3	3	0	0	1	1	
B3	4	1	4	5	0	0	2	0	
B4	2	2	4	4	0	1	2	2	
B5	0	1	2	0	0	0	0	1	
B6	0	1	3	3	0	0	1	0	
B7	0	3	4	1	0	0	1	0	
B8	0	3	0	2	0	0	0	0	
B9	0	0	5	5	0	0	0	0	
B10	1	3	2	0	0	0	0	1	
B11	0	0	0	3	0	0	1	0	
B12	0	0	7	3	0	0	1	0	
B13	1*	1	1	4	0	0	1	3 *	* + 3 shared with Mother.
B14	1	0	2	1	1	0	0	0	
B15	4	2	3	6	2	4	2	2	
B16	0	4	3	3	0	0	1	1	
B17	0	0	3	4	0	0	1	0	
B18	0	0	1	3	0	1	0	0	
B19	1	2	6	1	1	4	5	2	
B20	0*	0*θ	2	2	0	1	3	3 *	* + 2 shared with Mother. θ + 1 shared with Mother.
B21	0	0	3	5	0	0	1	1	
B22	2	1	3	4	0	0	1	0	
	18	26	63	63	4	11	25	17	

BENE-ANTHONY TEST OF FAMILY RELATIONS

PARENT - CHILD ATTITUDES

Outgoing & incoming feelings - POSITIVE

	Mild Positive				Strong Positive			
	Father		Mother		Father		Mother	
	Out-going	In-coming	Out-going	In-coming	Out-going	In-coming	Out-going	In-coming
G1	1	1	6	3	0	0	1	1
G2	1	0	0	1	1	0	0	0
G3	0	0	4	5	0	0	0	0
G4	1	2	0	2	2	2	0	0
G5	4	2	0	0	0	0	0	0
G6	1	1	0	1	1	0	1	0
G7	0	0	4	7	0	0	0	1
G8	0	0	0	2	0	0	0	0
G9	1	0	1	2	0	0	0	0
G10	3	4	0	0	0	0	0	0
G11	3	1	3	5	1	0	1	1
G12	0	0	3	6	0	0	1	2
G13	0	2	1	4	1	0	0	1
G14	1	0	6	6	0	0	0	0
G15	1	1	5	4	0	0	2	0
G16	2	1	5	5	2	2	1	2
G17	4	2	3	4	3	3	2	3
G18	0	1	3	5	3	0	1	0
G19	1	0	3	3	0	0	0	0
G20	0	0	2	2	0	0	1	0
G21	1	0	0	2	0	0	1	0
G22	0	0	5	7	0	0	2	2
G23	5	6	2	1	1	0	1	1
G24	1	2	2	5	1	0	1	2
G25	2	0	5	5	0	0	3	1
G26	2	2	3	4	2	0	6	1
G27	1	3	3	4	0	0	2	0
G28	0	0	0	0	0	0	0	0
	36	31	69	95	18	7	27	18

BENE-ANTHONY TEST OF FAMILY RELATIONS

PARENT - CHILD ATTITUDES

Outgoing & incoming feelings - NEGATIVE

Subject.	Mild Negative				Strong Negative			
	Father		Mother		Father		Mother	
	Out-going	In-coming	Out-going	In-coming	Out-going	In-coming	Out-going	In-coming
B1	1	1	1	0	0	0	0	0
B2	2	2	1	1	1	0	0	2
B3	4	1	1	3	0	1	0	0
B4	1	1	2	2	0	1	0	0
B5	1	2	0	0	0	0	0	0
B6	1	0	1	2	0	2	0	0
B7	0	2	2	2	0	1	0	0
B8	4	2	0	2	0	0	0	1
B9	0	1	0	1	0	0	0	0
B10	1	1	3	2	0	1	0	1
B11	0	0	0	0	0	0	0	0
B12	1	0	1	1	1	0	0	0
B13	0	0	0	0	0	0	0	0
B14	0	1	0	0	0	0	0	0
B15	0	0	0	0	0	0	0	0
B16	0	0	2	2	0	0	0	0
B17	3	5	3	1	0	2	0	0
B18	0	1	0	1	0	0	0	0
B19	4	2	0	3	1	1	1	0
B20	0	1	0	0	0	0	0	0
B21	1	1	0	0	0	0	0	0
B22	0	1	0	2	0	0	0	0
	24	25	17	25	3	9	1	4

BENE-ANTHONY TEST OF FAMILY RELATIONS

PARENT - CHILD ATTITUDES

Outgoing & incoming feelings - NEGATIVE

	Mild Negative				Strong Negative			
	Father		Mother		Father		Mother	
Subject	Outgoing	Incoming	Outgoing	Incoming	Outgoing	Incoming	Outgoing	Incoming
G1	5	0	1	2	0	1	0	0
G2	2	0	1	1	0	1	0	0
G3	0	0	1	3	0	0	0	0
G4	2	3	2	1	0	0	3	4
G5	3	3	0	0	0	0	0	0
G6	0	0	1	4	0	0	0	0
G7	2	3	3	2	3	2	0	0
G8	0	2	1	1	0	0	0	1
G9	2	0	1	2	0	0	0	0
G10	0	1	0	0	0	0	0	0
G11	2	1	2	5	0	1	0	0
G12	0	0	0	1	0	0	1	0
G13	3	2	1	1	0	1	0	0
G14	0	0	0	0	0	0	0	0
G15	4	2	0	1	0	0	1	0
G16	0	2	2	3	0	2	2	2
G17	2	3	1	2	1	2	0	0
G18	0	0	5	3	0	0	0	0
G19	3	1	0	1	0	1	0	0
G20	1	0	0	1	0	0	0	1
G21	0	0	0	1	0	0	0	0
G22	6	1	0	1	0	0	0	0
G23	1	0	4	4	0	0	0	0
G24	1	1	1	1	0	0	0	0
G25	0	0	0	0	0	0	0	0
G26	0	1	1	4	0	0	1	0
G27	0	3	0	4	2	0	1	0
G28	0	0	0	2	0	0	0	0
	39	29	28	51	6	11	9	8

BENE-ANTHONY TEST OF FAMILY RELATIONS

(1) Denial & Idealisation
(exaggeration of pos. & denial of neg. feelings)

(2) Paranoid Tendency
(projecting neg. feelings)

Subject	Outgoing Positive	Outgoing Negative	Incoming Positive	Incoming Negative	Self
B1	12	7	9	7	0
B2	13	12	12	16	5
B3	14	12	12	11	1
B4	14	8	10	10	2
B5	7	1	7	16	4
B6	10	10	9	9	0
B7	8	13	6	9	0
B8	14	6	9	7	0
B9	14	8	9	9	2
B10	10	12	8	13	4
B11	11	10	12	4	4
B12	11	3	9	1	3
B13	10	3	12	1	1
B14	14	9	12	3	1
B15	13	14	14	15	4
B16	15	16	13	14	1
B17	14	15	11	14	0
B18	14	11	10	8	0
B19	16	15	15	12	2
B20	14	16	12	13	0
B21	12	5	8	7	0
B22	8	9	7	6	3

BENE-ANTHONY TEST OF FAMILY RELATIONS

(1) Denial & Idealisation
(exaggeration of pos. & denial of neg. feelings)

(2) Paranoid Tendency
(projecting neg. feelings)

Subject	Outgoing Positive	Outgoing Negative	Incoming Positive	Incoming Negative	Self
G1	8	6	10	5	1
G2	14	14	12	10	2
G3	13	11	9	9	2
G4	15	14	14	16	2
G5	14	7	10	4	1
G6	16	14	16	10	3
G7	12	13	10	9	0
G8	13	14	9	13	1
G9	14	4	8	6	0
G10	11	7	8	4	0
G11	11	7	10	10	3
G12	7	6	10	8	4
G13	11	10	10	15	4
G14	14	12	9	10	1
G15	14	14	13	13	1
G16	15	13	15	15	2
G17	14	11	14	13	3
G18	8	11	8	14	4
G19	11	12	8	8	1
G20	14	5	10	5	2
G21	11	10	8	12	2
G22	11	18	10	13	0
G23	10	16	8	12	1
G24	11	12	14	9	2
G25	12	6	9	3	1
G26	17	7	11	15	5
G27	13	10	9	7	0
G28	18	10	13	13	0

BENE - ANTHONY TEST OF FAMILY RELATIONS

NEGATIVE SCALE OF INHIBITION

Subject	1	2	2/3	3	4	5
B1			X			
B2			X			
B3				X		
B4		X				
B5		X				
B6		X				
B7				X		
B8				X		
B9		X				
B10			X			
B11		X				
B12		X				
B13		X				
B14		X				
B15			X			
B16			X			
B17				X		
B18		X				
B19			X			
B20			X			
B21		X				
B22		X				
		11	7	4		

BENE - ANTHONY TEST OF FAMILY RELATIONS

NEGATIVE SCALE OF INHIBITION

Subject	1	2	2/3	3	4	5
G1			X			
G2			X			
G3		X				
G4						X
G5			X			
G6				X		
G7					X	
G8		X				
G9	X					
G10		X				
G11				X		
G12		X				
G13			X			
G14			X			
G15				X		
G16						X
G17			X			
G18				X		
G19				X		
G20		X				
G21			X			
G22				X		
G23				X		
G24			X			
G25		X				
G26				X		
G27		X				
G28		X				
	1	8	8	8	1	2

BENE - ANTHONY TEST OF FAMILY RELATIONS

EGOCENTRIC STATES

(1) auto-aggressive
(2) auto-errotic

Subject	Self Positive	Self Negative	Maternal over-protectiveness	
B1	0	0	5*	*Allocated to all children. "Mother worries about all of us"
B2	1	4	4	
B3	1	0	0	
B4	1	1	2	
B5	1	3	0	
B6	0	0	0	
B7	0	0	0	
B8	0	0	0	
B9	0	2	0	
B10	4	0	0	
B11	3	1	2	
B12	1	2	7	
B13	1	0	0	
B14	1	0	0	
B15	2	2	2	
B16	0	1	3	
B17	0	0	0	
B18	0	0	2	
B19	2	0	3	
B20	0	0	0	
B21	0	0	2	
B22	2	1	6*	*Allocated to all children.

BENE - ANTHONY TEST OF FAMILY RELATIONS

EGOCENTRIC STATES

(1) auto-aggressive
(2) auto-errotic

Subject	Self Positive	Self Negative	Maternal over-protectiveness	
G1	1	0	5	
G2	2	0	3	
G3	1	1	1	
G4	1	1	2	
G5	0	1	0	
G6	1	2	0	
G7	0	0	0	
G8	1	0	0	
G9	0	0	0	
G10	0	0	5*	*Older sister - Mother figure.
G11	1	2	0	
G12	4	0	7	
G13	1	0	1	
G14	0	1	1	
G15	1	0	2	
G16	2	0	0	
G17	3	0	5	
G18	4	0	6	
G19	1	0	0	
G20	0	2	0	
G21	0	1	1	
G22	0	0	6	
G23	1	0	2	
G24	1	1	3	
G25	1	0	0	
G26	0	5	4	
G27	0	0	0	
G28	0	0	0	

BENE - ANTHONY TEST OF FAMILY RELATIONS

OVER-PROTECTION/OVER-INDULGENCE

Subject	Over-protection Maternal	Over-indulgence Paternal	Over-indulgence Maternal
B1	0 + 5/4	0	0 + 2/4
B2	4	1	0
B3	0	0	0
B4	2	0	3
B5	0	0	1
B6	0	0	0
B7	0	0	0
B8	0	0	0
B9	0 + 5/9	0	0
B10	0	0	0
B11	2	0	0 + 3/3
B12	7	0	3
B13	0	0 + 5/7	0 + 5/7
B14	0	2	1
B15	2	5	4
B16	3	0	3
B17	0	0	0
B18	2	0	5
B19	3	1	2
B20	0	0	0
B21	2	0	0
B22	0 + 6/7	0	0

+ = shared items/No. of children.

BENE - ANTHONY TEST OF FAMILY RELATIONS

OVER-PROTECTION/OVER-INDULGENCE

Subject	Over-protection	Over-indulgence	
	Maternal	Paternal	Maternal
G1	5	1	2
G2	3	1	2
G3	1	0	1
G4	2	5	0
G5	0 + 4/3	0 + 1/3	2 + 3/3
G6	0	0	0
G7	0	0	0
G8	0	0	0
G9	0	0	0
G10	5	3	3
G11	0	0	0
G12	7	-	3
G13	1	0	2
G14	1	0	0
G15	2	0	0
G16	0	0	0
G17	5	0	2
G18	6	0	2
G19	0 + 7/7	0	0
G20	0 + 6/9	0 + 3/9	0 + 4/9
G21	0	0	0
G22	6	0	2
G23	2	5	2
G24	3	1	0
G25	0	0	0
G26	4	2	2
G27	0 + 2/5	0 + 4/5	0
G28	0	0	0

+ = shared items/No. of children.

1) LIKE A BIT LIKE NOT LIKE 

2) LIKE A BIT LIKE NOT LIKE 

3) LIKE A BIT LIKE NOT LIKE 

4) LIKE A BIT LIKE NOT LIKE 

5) LIKE A BIT LIKE NOT LIKE 

6) LIKE A BIT LIKE NOT LIKE 

7) LIKE A BIT LIKE NOT LIKE 

8) LIKE A BIT LIKE NOT LIKE 

9) LIKE A BIT LIKE NOT LIKE 

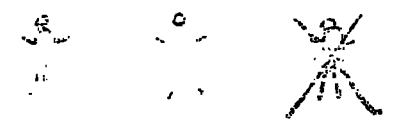
10) LIKE A BIT LIKE NOT LIKE 

11) LIKE A BIT LIKE NOT LIKE 

12) LIKE A BIT LIKE NOT LIKE 

13) LIKE A BIT LIKE NOT LIKE 

14) LIKE A BIT LIKE NOT LIKE 

15) LIKE A BIT LIKE NOT LIKE 

16) LIKE A BIT LIKE NOT LIKE 

SCORES ON SCHAEFER-TYPE TEST

	Induction (1st figure) V Sensitization (2nd figure) — Mother.									Induction (1st figure) V Sensitization (2nd figure) — Father.								
									Totals									Totals
B1																		
B2	2	2	3	3	1	3	2	3	19	3	1	3	1	2	3	2	2	17
	3	2	2	3	2	2	1	2	17	2	2	1	3	2	1	2	3	16
B3	2	3	3	1	3	3	3	3	21	3	2	2	1	3	2	3	1	17
	3	3	3	3	2	3	1	2	20	2	2	1	2	1	1	1	1	11
B4	3	1	1	1	2	2	3	2	15	3	1	1	1	2	1	3	1	13
	2	3	3	3	1	3	3	1	19	1	1	1	3	1	3	1	3	14
B5	2	2	1	2	3	3	3	1	17	1	2	2	1	2	3	2	3	16
	1	1	2	1	3	2	1	3	14	2	1	1	3	2	3	2	3	17
B6	2	3	2	1	3	3	1	1	16	1	2	1	2	3	1	2	2	14
	3	3	1	2	1	2	2	1	15	2	3	1	1	2	3	1	3	16
B7	2	3	3	1	3	3	3	3	21	1	2	2	3	3	3	3	1	18
	3	3	1	2	2	3	1	2	17	3	1	1	2	2	1	2	2	14
B8	2	1	1	2	1	1	2	1	11	3	1	2	1	3	2	1	2	15
	3	3	2	1	2	3	2	2	18	2	1	2	2	1	1	1	1	11
B9	3	3	3	1	3	3	3	3	22	3	2	3	3	3	3	2	2	21
	3	3	1	2	3	3	1	2	18	2	3	1	2	3	3	1	3	18
B10	2	2	1	1	3	3	3	3	18	2	2	2	1	3	3	3	2	18
	3	2	1	3	1	2	2	1	15	1	1	3	2	1	3	2	1	14
B11	3	1	1	2	3	3	3	1	17	1	1	1	1	3	3	1	1	12
	1	3	3	1	2	1	2	2	15	2	2	1	1	1	1	1	2	11
B12	2	2	1	1	2	3	3	2	16	3	2	3	1	3	2	3	1	18
	1	1	1	1	1	1	1	3	10	1	1	2	2	3	1	3	2	15
B13	3	3	3	3	3	3	2	1	21	1	3	3	1	3	3	2	1	17
	1	1	2	1	1	1	2	1	10	1	1	2	1	1	1	1	1	9
B14	3	3	1	1	3	2	2	2	17	1	3	3	3	3	3	3	3	22
	1	3	3	1	1	2	3	1	15	3	1	3	1	1	1	1	1	12
B15	2	2	2	3	3	3	3	2	20	2	2	2	3	3	3	2	2	19
	1	2	2	2	2	2	1	1	13	1	3	1	2	1	2	1	2	13
B16	1	3	3	3	3	3	1	1	18	2	2	2	3	3	3	1	2	18
	3	2	3	1	1	3	1	3	17	3	2	3	2	2	1	1	1	15
B17	3	2	3	3	3	2	3	1	20	3	2	3	1	1	2	1	3	16
	3	3	2	3	3	3	2	3	22	3	3	1	3	3	3	3	2	21
B18	2	1	2	2	2	3	2	3	17	2	2	2	3	3	3	3	1	19
	1	2	3	1	1	1	1	1	11	1	1	3	1	1	2	2	1	12
B19	3	2	3	2	3	3	3	3	22	1	3	3	2	3	2	3	2	19
	2	1	2	2	1	3	3	3	17	1	1	1	1	2	2	1	2	11
B20	3	1	3	3	1	3	1	1	16	1	3	2	2	1	3	2	1	15
	1	1	1	1	1	2	1	1	9	2	1	3	1	1	1	1	1	11
B21	3	1	3	3	3	3	3	1	20	2	3	2	2	3	3	3	1	19
[illegible]	2	3	1	1	3	3	1	1	15	1	1	3	1	2	1	3	1	13
B22	1	2	3	3	2	2	3	3	19	2	1	2	3	3	3	3	3	20
	3	1	2	3	3	1	2	3	18	3	1	1	2	1	2	1	1	12

SCORES ON SCHAEFER-TYPE TEST

	Induction (1st figure) V Sensitization (2nd figure) — Mother.									Induction (1st figure) V Sensitization (2nd figure) — Father.									
									Totals									Totals	
G1																			
G2																			
G3	2	1	2	1	3	1	2	2	14	1	2	1	2	3	3	2	1	15	
	3	3	3	3	2	3	3	3	23	3	3	2	3	2	3	3	2	21	
G4	2	3	2	2	3	1*	3	2	18	3	1	3	2	3	3	2	2	19	
	1	1	3	1	2	2	1	1	12	2	2	1	2	1	1	1	1	11	
G5	1	2	3	2	1	3	2	1	15	1	3	1	1	3	2	2	2	15	
	1	1	1	3	1	1	1	1	10	2	2	2	2	1	1	1	1	12	
G6	3	3	2	2	2	1	3	2	18	1	2	2	2	3	3	3	2	18	
	3	2	2	3	2	2	1	2	17	3	1	1	2	2	2	2	2	15	
G7	1	3	2	1	2	1	2	1	13	1	3	1	2	3	3	3	3	19	
	3	3	1	1	3	2	3	3	19	1	3	3	3	3	3	1	3	20	
G8	2	3	2	3	3	3	3	2	21	2	3	2	3	3	3	3	1	20	
	1	2	2	2	2	1	1	2	13	2	2	3	3	3	3	2	3	21	
G9	2	1	2	3	3	3	2	1	17	3	1	2	1	3	3	2	1	16	
	1	1	1	2	1	2	2	2	12	2	2	1	2	2	1	2	1	13	
G10	1	2	1	1	1	1	2	3	12	1	1	1	3	1	2	1	3	13	Mother dead.
	1	1	1	1	2	1	1	1	9	1	3	3	3	3	3	3	3	22	2 years.
G11	2	2	2	3	3	3	3	3	21	3	3	2	1	3	2	3	3	20	
	1	1	2	1	1	1	2	1	10	2	2	1	2	2	1	1	1	12	
G12	2	1	1	1	3	3	3	3	17	1	1	1	1	1	2	2	2	11	
	1	1	2	1	1	1	1	1	9	1	1	3	3	1	1	2	1	13	
G13	2	2	2	3	3	2	3	2	19	1	1	1	1	3	2	2	1	12	
	1	1	2	1	2	2	2	1	12	1	1	1	2	2	3	1	2	15	
G14	2	1	3	1	3	1	3	1	15	3	3	2	1	1	3	1	3	17	
C	1	2	1	3	2	1	2	2	14	1	2	1	3	1	1	3	1	13	
G15	3	2	1	3	3	2	2	2	18	3	2	2	2	3	3	2	3	20	
	2	3	1	2	2	1	3	3	17	1	3	1	1	2	1	1	2	12	
G16	3	1	3	3	3	3	3	2	21	3	1	2	1	3	1	3	1	15	
	2	3	2	1	3	1	3	2	17	1	2	3	2	3	3	1	1	16	
G17	2	3	1	3	3	2	3	2	19	2	2	1	3	3	3	2	1	17	
	1	3	2	1	3	1	2	3	16	3	2	2	1	1	1	3	2	15	
G18	1	2	1	2	3	3	3	2	17	1	1	2	2	3	3	2	1	15	
	3	3	1	3	2	2	1	2	17	2	3	1	3	2	2	1	3	17	
G19	1	1	1	1	2	1	1	1	9	3	1	1	1	1	1	1	2	11	
	3	3	2	3	3	1	3	1	19	2	2	1	2	1	2	1	3	14	
G20	3	2	3	1	2	3	3	2	19	3	3	1	3	3	1	1	3	18	
	1	2	1	1	1	1	1	1	9	1	2	3	1	2	3	1	2	15	
G21	3	3	3	2	3	2	2	3	21										Children's Home - all female.
	2	1	3	2	1	2	3	1	15										
G22	3	1	3	3	3	3	2	1	19	3	1	1	3	3	3	2	3	19	
	2	2	2	2	2	1	3	3	17	3	2	2	1	1	1	1	1	12	
G23	2	2	2	2	3	3	2	1	17	1	1	2	2	3	3	2	1	15	
	1	1	2	2	1	2	2	2	13	2	1	1	2	1	2	1	1	11	

SCORES ON SCHAEFER-TYPE TEST

	Induction (1st figure) / Sensitisation (2nd figure) — Mother.								Total	Induction (1st figure) / Sensitisation (2nd figure) — Father.								Total
G24	3	2	3	1	3	3	2	2	19	1	3	1	3	3	3	2	2	18
	1	1	1	1	1	1	2	1	9	1	2	2	1	2	2	3	1	14
G25	2	3	3	3	3	3	3	3	23	2	2	3	3	3	2	2	1	18
	3	1	2	2	1	1	1	1	12	1	1	2	1	1	1	2	2	11
G26	2	3	1	3	3	3	3	2	20	3	1	3	3	3	3	3	3	22
	3	2	3	2	3	2	2	2	19	2	2	3	2	3	2	2	2	18
G27	2	3	1	3	3	3	3	3	21	3	2	3	2	3	3	3	3	22
	3	2	3	2	3	2	2	2	19	2	1	3	2	1	2	2	2	15
G28	3	1	3	3	3	3	3	1	20	3	1	3	2	3	3	2	1	18
	2	2	2	1	2	2	2	2	15	2	2	2	2	2	2	2	2	16

FATHER'S OCCUPATION AND SOCIAL CLASS

B1	Labourer (Labourer - others)	V
B2	Oil Rig Superintendent Engineer (Technologist)	I
B3	Refuse Collector (Labourer - others)	V
B4	Gate Attendant (Guards & Related Workers)	IV
B5	Chemical Production Process Worker	IV
B6	Moulder (Foundry)	III
B7	" "	III
B8	Foundry Worker - Labourer	V
B9	-	
B10	Labourer.	V
B11	-	
B12	Agricultural Worker	IV
B13	Joiner	III
B14	Dustman (Labourer - others)	V
B15	Canteen Worker	V
B16	Burner - Iron & Steel Works	III
B17	Crane Operator	III
B18	Bricklayer	III
B19	Labourer - (Labourer - others)	V
B20	Welder	III
B21	Clerk	III
B22	-	

- = Father deceased or child illegitimate or in a children's home.

FATHER'S OCCUPATION AND SOCIAL CLASS

G1	Labourer (Labourer - others)	V
G2	Window Cleaner.	V
G3	Labourer (Labourer - others) (deceased 6 months)	V
G4	Bus Conductor.	IV
G5	Construction Worker. (Rigger)	IV
G6	General Labourer (Labourer - others)	V
G7	Burner - Iron & Steel Works.	III
G8	Chemical Production Process Worker - Foreman.	III
G9	General Labourer (Labourer - others)	V
G10	Foundry Worker - Labourer.	V
G11	Fitter	III
G12	-	
G13	Bricklayer.	III
G14	Dustman (Labourer - others)	V
G15	Foreman, Chemical Industry.	III
G16	Electrician.	III
G17	Van Driver.	III
G18	Bobbin Worker/Plastics Manufacture.	IV
G19	General Labourer (Labourer - others)	V
G20	-	
G21	-	
G22	Attendant, Public Convenience. (Service Worker)	IV
G23	Crane Operator.	III
G24	Chemical Production Process Worker.	IV
G25	Gardener.	IV
G26	Labourer (Labourer - others)	V
G27	Moulder (Foundry)	III
G28	-	

- = Father deceased or child illegitimate or in a children's home.