A PSYCHOLOGICAL STUDY

OF BATTERING PARENTS

BY

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In the past five years the physical abuse of children by their parents has received increasing attention both in this country and in the United States of America. Few objective or comparative accounts have been published however.

This investigation represents an objective attempt to identify the battering parent and thus to facilitate prevention.

In the first part of this study, twenty parents suspected of battering their children were compared with supposedly normal parents. Three psychological tests were used comparatively. These were: the Wechsler Adult Intelligence Test, Cattell's Sixteen Personality Factor Tests and Schaefer and Bell's Parent Attitude Research Instrument.

In the second part of the investigation, the questionnaire responses of fifteen battering parents were compared with those of fifteen parents whose children had received accidental injury in the home.

Significant differences emerged between the responses of battering and non-battering parents in both parts of the study.

The major differentiating feature of the battering fathers was their more introverted temperament. This implies that they are less socially participant than non-battering fathers, less enthusiastic in their responses to life, and colder in their emotional reactions toward other people. The likelihood of a schizoid process underlying this temperamental difference was discussed.
The major differentiating feature of the battering mothers was their lack of ego-integration, implying poor impulse control and reality adjustment. The relationship between this and immaturity was discussed.

Other features which characterised battering parents as a whole were their lowered verbal ability, and heightened aggression. Stress associated with economic and marital difficulties was also a significant feature of the battering parent, as were stresses in the mother connected with pregnancy.
The author wishes to express her gratitude to Professor P.R. Davis who supervised this thesis.
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CHAPTER 1. - Introduction

The battered child is always with us in one form or another. Despite the evidence produced by investigators such as Sears, Maccoby and Levin (1957), Leikovitz, Walder and Eron (1963) and Bandura and Walters (1963), concerning the negative effects of corporal punishment on conscience formation, and the reinforcing effects on aggressive behaviour, of the aggressive model, physical assault on children continues to be used as a widespread disciplinary technique. (see, for example John and Elizabeth Newson (1963)).

As Gil (1968) and the N.S.P.C.C. reports of Skinner and Castle (1969) and Kerr and Castle (1972) have shewn, there are widespread differences, both regional and national in reporting childhood abuse. As a result, we cannot know with any certainty, how many children are injured in this way each year. Only the most seriously hurt are discovered in casualty departments, by health visitors, social workers, and less frequently by general practitioners.

Nor is child battering a new phenomenon, although it seems to shew wide cultural variations, both today and in the past. (See, for example, Erikson (1951) and Whiting (1953)).

According to Radbill (1968), "Spare the rod and spoil the child", goes back to the Bibliotheca Scholastica of 1663, and itself reflected Biblical precept, which predated it.

More recently, the Newsons (1963) have given clear evidence of the widespread use of smacking in an ordinary urban population. Thus the majority of one year olds were smacked by their mothers at some time or another in the Newsons' Nottingham sample. True there is a class trend, with somewhat fewer middle class mothers smacking than those
lower down the socio-economic ladder, but as the Newsons say, "It would appear that the baby who is unsmacked at a year has little reason to expect that this lenience will continue past the toddler stage". (p.205). This is in fact confirmed in their later study of four year olds (See Newson and Newson, 1968).

Lest it be objected that the ordinary smacking of children has nothing to do with child battering, it must be pointed out that the Newsons (1963) found willingness on the part of working class mothers to consider the use of much more severe forms of punishment. Thus, they say, "Working class mothers ... often referred to the use, or the threat, of strap or stick or belt and to 'good hiddings' in the punishment of older but still pre-school children. Often too, we were told of what the parents didn't do to the children: 'mind you I wouldn't mark them or anything like that', the inference being, presumably, that marking the child is not uncommon in the mother's experience".

The literature on child assault that has proliferated in the past six or seven years seems to treat it as a special syndrome and thus fosters the attitude that some special personality abnormality must underlie it. Despite the recognition of psychiatrists who have treated battering parents that the latter do not fit into a recognisable pathological slot, the search for their specific aetiology continues, or stops at the point where a plausible a priori "explanation" is put forward.

On the one hand, for example, we hear Steele and Pollock (1968) insist, of the battering parents, that "They do not fall into any single one of our usual psychiatric diagnostic categories. On the contrary, they present the wide spread of emotional disorders seen in any clinic population-hysteria, hysterical psychosis, obsessive compulsive neuroses, anxiety states, depression, schizoid personality traits, schizophrenia, character neurosis and so on. It was not possible to make a simple diagnosis in most patients." p. 108-109.
Yet on the other hand the dogmatism with which these authors schematize the early experiences of their same diverse population, forces a conclusion that battering parents form an entity of some sort, albeit not one that meets the normal psychiatric criteria, loose to the point of formlessness though these are.

So it is said, again by these authors that "without exception, in our study-group of battering parents (numbering sixty families in all) there is a history of having been raised in the same style which they have recreated in the pattern of rearing their own children. Several had experienced severe abuse in the form of physical beatings, from either mother or father; a few reported never having had a hand laid on them. All had experienced, however, a sense of intense, pervasive continuous demand from their parents. This demand was in the form of expectation of good submissive behaviour, never making mistakes, prompt obedience, sympathetic comforting of parental distress and shewing approval and help of parental action". p.111. (Steele and Pollock, 1968).

There follows in this and the later volume by the same and associated authors detailed descriptions of the "derailment of the normal mothering function" suffered both by the battering parents themselves and now by their abused victims, their own children. However, they do not exhaustively explore this conception of faulty mothering. Despite their reference to the ubiquitous Rhesus who is conveniently at hand to prove the connexion between "having been mothered" and "consequent mothering", neither Steele and Pollock (1968), Kauffman (1966), nor Galdston (1966), etc., really know the connexions between antecedant cause and subsequent behaviour. They are rather in the position of Freud, who initially believed that his patients had all witnessed the Primal Scene and became neurotically ill as a result of the repression of this horrific vision! Fortunately Freud recognised the persuasiveness of human fantasy. His later disciples appear to have forgotten this lesson.
Whatever the incidence and it seems impossible to calculate in the absence of central national registries, it seems inconceivable that all those parents perpetrating the act of child assault, despite the diversity of presenting psychopathology, should have received a common childhood precipitating experience. This is to carry environmentalism to the point of absurdity.

It is true that Steele and Pollock (1968) add; "Unquestionably social and economic difficulties and disasters put added stresses in people's lives and contribute to behaviour which might otherwise remain dormant. But such factors must be considered as incidental enhancers rather than necessary and sufficient causes" p.105. They go on to say that not all unemployed or poorly housed people beat or torment their children. By the same token one might well ask, "Do all those whose experience of mothering was inadequate become batterers?" The history of deprived children does not, for example, support such a notion. (See Ainsworth, (1962)).

Steele and Pollock have formed the basis of this initial critical evaluation for several reasons. In the first place it is their psychiatric study which forms the core of Helfer and Kempe's first volume, "The Battered Child". (1968). In the second place Steele's and Pollock's "findings" become the unchallenged truth of the second volume "Helping the Batterer Child" (Helfer and Kempe (1972)). In the third place, a great deal of what has since been written on the subject consciously or otherwise, directly quotes these truths without advancing any further evidence in support or rebuttal. For example, Okell (1971) states: - "Commonly these parents were brought up in harsh rejecting conditions or in an atmosphere of indifference and criticism and experienced abuse themselves. Consequently they tend to lack the ability to mother their young children". P.125
Or again Court states (1969):—

"Battering mothers ... expect the infant to meet their own dependency needs. They do not have the resources to be emotionally nurturing and protective" p.12.

Such comments by workers currently engaged on research to elucidate the aetiology of battering is disappointing in as much as it seems to pre-empt the issue.

Prior to 1962 little was known about the syndrome, called by Kempe, "The Battered Baby Syndrome". Hypotheses regarding some sort of disease process to explain repeated long bone fractures were current then, and it was not until 1953 that Silverman first suggested that the injuries exposed by X-rays were very likely deliberately caused.

From that time on the physical pathology has been more and more expertly investigated with increasing awareness that milder bruising especially to the face may be a warning of more serious injuries to come if no remedial action be taken. Greater understanding of the use to which the law can and should be put to protect the child has also been made. Paulsen (1968) and Okell and Butcher (1969) consider legal consequences. Yet the proper psychological exploration of the causes of battering, seems to have lagged behind.

Virtually no psychometric assessments of battering parents have been made. The few that have been made by Waite, (See Helfer and Kempe (1968) ), Elmer (1967), Helnick and Hurley (1969), Schneider (1972) and Gibbens and Walker (1956), will be reviewed in Chapter 2.

With few exceptions the findings, even of these studies are scanty in the extreme and most are confined to some brief estimate of intelligence.

All the other work consists of psychiatric pronouncement without any attempt at objective comparison with other gro
or quantification of observations. Indeed, as has been suggested, nearly all the work in this country relies on direct quotation from the studies of Kempe and his associates (1968) and (1972) in disregard of the many social, class and racial differences which are bound to make the wholesale application of American results to the British scene, inappropriate. All these works will be referred to in the appropriate place, and their relevance to the results of the present study evaluated in full in Chapter 2.

In the main then, the theories put forward to explain the phenomenon of childhood battery rely rather heavily on psychoanalytic hypotheses, which in their nature rely on delving back into the patient's early childhood experience. Because of the bias of Freudian and post-Freudian theory in favour of reductive explanations of all psychopathological phenomena, the kind of question asked will always refer to such experience. Other questions, especially those having an hereditarian bias, will go unasked. Not that this follows from Freud's own thinking, but that aspect of his instinctual theories which carried the clear implication that individual differences in part flow from genetic differences, have been studiously ignored by subsequent generations of psycho-analysts.

Thus, all explanations to date emphasise the following possibilities:

1. That the battering parent was himself the victim of physical assault or severe parental hostility in early childhood (See Helfer and Kempe (1968) and (1972)).
2. This deprived him of the later capacity to pass on good parenting to his children, partly because of the frustration which his own treatment engendered, and partly because, as a child, he identified with the aggressor whom he then acts out at the point when his own child is "naughty" or "demanding" (See Court (1969)).
3. That the battering parent lacked the essential experience of love and acceptance in childhood which builds
up what Erikson (1951) has called Basic Trust. In consequence he is forever suspicious and cut off from the support of his contemporaries. (See Court, 1970).

4. In consequence of (3) the battering parent is likely to live from crisis to crisis, each arising less from the actual events of his life, than from his lack of inner emotional resources and the outer support of friends and family that in other situations diminishes the impact of the domestic disasters that commonly occur. (See Court, 1970, and Okell, 1971).

Because of the emphasis here upon early childhood environment the possibility of fundamental cognitive or temperamental differences have tended to be played down or glossed over. Thus, on the one hand Kempe (1968) says batterers come from all levels of intelligence, while on the other the psychologist, Waite (1968) sketchily reported in the same place speaks of their greater tendency toward a style of thought that is "action-orientated". (p.135).

Equally, sociological predisposers, are dismissed to second or even third place with little real exploration of their importance.

The purpose of the present study then becomes very clear. It is to try to ask some of the unasked questions regarding the factors associated with childhood battering in an attempt to broaden the heuristic canvas upon which the batterer's portrait has so far been formed. The more exact statement of aims will be outlined in the next Chapter 2, but before this is done the definition and incidence of the condition must first be outlined.

For the purpose of this study the battered child will be taken to mean any child under the age of four years of age who has been non-accidentally injured by his parent or guardian. This follows Kempe's (1968) definition, except that it is confined to young children in the first four years of life. As is shewn in Table 9.III where the ages found in the two samples
studied are reported, battering, in most investigations seems to occur most commonly in younger children. This is in part because any assault to a young child is liable to have more serious consequences, and partly, perhaps in the nature of the particular frustrations caused to the parent in caring for a very young, demanding, and at times inconsolable infant. The whole significance of the age of the child in relation to the age of the parent is more fully covered in Chapter 9.

The question of the incidence of childhood battering is at the present time apparently unknowable. For the United States, estimates reported by Gil (1968) show wide variation according to the state reporting. Thus for California the rate reported was 59 per 1000,000 population, while for Arkansas, with the lowest apparent incidence, the figure was 8 per 1000,000. Clearly, different degrees of vigilance by those reporting or finding cases, must in part account for such wide discrepancies. The age covered also affects these statistics. These figures covered the whole range of childhood.

As a result of a sample study carried out in California, Gil (1968) put the likely upper limit of child abuse in the U.S.A. taken nationally as between 13.3 and 21.4 per 1000 of the population.

Figures for this country are not really available on a comparable basis. The most recent count of cases reported to a national registry of that society by N.S.P.C.C. inspectors is 292 for the year 1970 (Kerr and Castle 1972). Many suspected cases of child abuse do not however come to the attention of the N.S.P.C.C. and the proportion of the total who do is not known.

Because there is no compulsory reporting in this country it is not really possible to be sure what the annual incidence is, nor whether it is an increasing or decreasing number.
In view of the highly subjective way in which the abusive parent has been studied and reported in the literature by workers such as Helfer and Kempe, (1968) (1972) and others, it was felt highly desirable to approach the problem from a different angle in the hope thereby, of facilitating the objective identification of battering parents.

Broadly stated there are thus three main aims underlying the present study. They are :-

1. To attempt an objective description of battering parents.
2. To provide data of a quantitative kind about them, capable of being compared to similar data about normal parents.
3. To investigate the psychology of the battering parent in terms which relate to the normal person and not, as has so far been done in psychopathological terms.

Clearly these are over ambitious aims stated as crudely as this. Given the resources available, a fully comprehensive, objective, comparative account could not be achieved by one person. Only certain aspects of the field could be covered. The choice of aspects has been governed by two factors :-

1. The fact that the present author was working as a psychologist to a team of researchers who were social workers and therefore better able than she to explore in depth the kind of day to day data which comes up in case work interviews. The opportunity was therefore open to take a different approach to the same problems.

2. Previous studies of a strictly psychological kind were made the first point of departure using earlier work to help in the selection of hypotheses.
In this way it was hoped to be able to challenge some of the current psychiatric myths concerning the battered child as reviewed in the last chapter.

Review of the Psychometric Literature

The very few psychometric accounts of the battering parent which exist, fall into two categories:

1. Those which report the results of intellectual assessments, among which are numbered the work of Cameron, Johnson and Camps (1966), Bennie and Schole (1969), Gibbens and Walker (1956) and Waite (reported in Helfer and Kempe (1968) ch. 6.)

2. Those by Elmer (1967), Melnick and Hurley (1969), and Schneider in (1972) which have attempted to make personality assessments of the battering parent.

1. Against the broad statement of Steele and Pollock's, (1968) derived presumably from Waite's testing, (1968), that battering parents' I.Q.'s ranged from low borderline figures in the 70's to superior ratings of 130, may be set the following:

i) Cameron and Johnson and Camps (1966) reviewing twenty nine cases seen in the London Hospital, found that none of the parents fell into the above-average category of intelligence, while some 34% of the mothers and 18% of the fathers fell into the "very low" category.

ii) Bennie and Schole (1969) reporting on ten cases of battering in Glasgow, found 5 adults to be mentally subnormal, 1 low average, 1 dull and 3 above average.

iii) Gibbens and Walker (1956), in a paper published for the Institute for the Study and Treatment of Delinquency in London, found their largest category of I.Q. to be in the 70-90 bracket. This indeed made up over 53% of their sample.
The implications from all three studies is that, although some instances can be found of above average, and even superior intelligence, the trend for these British studies is a marked skew toward the lower end of the distribution curve. Battering parents, imperfectly represented as they are in these small studies, seem to be somewhat less intelligent than the normal population. Unfortunately the details of the testing from each investigation are not available, so that firm conclusions cannot be drawn. On the face of it, it seems as though the battering parents in this sample tended toward the lower end of the normal distribution. However, without knowing what kind of test was used we cannot be sure of this. The descriptive literature in contrast, implies not so much an overall quantitative deficit as a qualitative difference.

Thus, the Colorado team (Helfer and Kempe 1968) speak of the batterer as an "actor" rather than a "speaker". Court (1969) too says that "Feelings and fantasies tend to be expressed in action rather than words" (p.3); while Galdston (1966) emphasises the abusive parent's difficulty in abstraction and symbolisation.

The hypothesis distilled from this scant data is that, although of equal practical abilities, the battering parent will shew poorer capacity to think verbally, that is symbolically. How this will be translated into operational terms will be more fully discussed in Chapter 3 where the full details of the Wechsler Adult Intelligence Tests used for this part of the study will be given.

2. Turning to the personality field, only two previous studies which attempt to explore this in a quantitative way were available at the time this study was begun. These were the work reported by Elmer in her book "Children in Jeopardy" (1967) and the report of Melnick and Hurley's (1969). Schneider's (1972) questionnaire results only came out after
testing was completed and will be discussed at a later stage in Chapter 6. Elmer (1967) used the Parent Attitude Research Instrument by Schaefer and Bell (1958a) to explore differences in attitudes toward child rearing in her abusive parents. She claimed that differences were found in several areas, although she reported no statistical calculations of confidence. These were:

1. Irritability toward the children.
2. Marital conflict.
3. Attitude toward homemaking, more reluctant attitudes being shewn by the battering parents.
4. Ascendancy of the mother in the home, with the battering mothers feeling themselves to be more ascendant in the home.
5. Seclusive traits in the mother, the battering mother tending to be more withdrawn.
6. Exclusion of outside influences with the battering mothers tending in the exclusive direction.

All of these attitudes are consistent with much of what has descriptively been written of the isolation and insufficiency of the battering parent. Davoren (1968) thus writes:

"Another characteristic shared by abusive parents is that they have very meagre relationships with others".

Okell (1971) says:

"The marital relationship often heightens feelings of isolation, for the couple are rarely able to give one another emotional support".

Silver (1968) speaks of their suspiciousness in the face of help, and generally the comments of workers in the field have given support to most of Elmer's questionnaire findings.
The other personality study, by Melnick and Hurley (1969) used the Thematic Apperception Test and the California Test of Personality to study ten abusive and ten normal mothers. Their findings are summarised as follows:

On the two tests the battering parents scored significantly differently from the control cases on five scores. These were:

1. A higher index of pathology on the T.A.T.
2. A lower score for self esteem on the C.T.P.
3. A higher level of frustration of their dependency needs on the T.A.T.
4. A lower capacity to meet needs for nurturance on the T.A.T.
5. A less openly rejecting attitude to their children in the C.T.P.

Of the five findings the last seems the most unexpected. The authors' explanation was in terms the subjects' defensiveness. Again these findings concur with the psychiatric literature.

These are the only two studies which have, to date, reported quantitatively verifiable results on the personality idiosyncracies of battering parents. Both were based on very small samples, and both samples were in fact strongly skewed towards the lower end of the socio-economic scale. Both included a lot of Black subjects. However, both suggest that it would be worthwhile attempting a fuller quantitative personality assessment of battering parents in this country.

The Elmer study (1967) deals more in surface attitudes, and in view of the desirability of setting up some self-scoring screening device which might facilitate the prevention of battering it was decided to repeat the P.A.R.I. as used by Elmer, to see whether her difference or others could be shewn in a local sample. The Melnick and Hurley study
(1969) has a limitation in its choice of tests. Although differences were found on some basic personality variables, the T.A.T. in particular, is a very subjective test to score and interpret. It was thought for this study that a better device would be the Sixteen Personality Factor Test of Cattell (1970) which would cover the same ground as the T.A.T. and hopefully go beyond it.

Thus measures of general pathology are available, together with norms enabling comparisons with a variety of nosological groups. Also basic traits measurements can be made in similar areas to those investigated by Melnick and Hurley (1969). For example, the Q3 scale of the 16 PF might be thought to cover similar behaviour as the Self Esteem index on the C.A.T.; the A scale of the 16 PF probably covers similar behaviour to that tapped by the Need-Nurturance of the T.A.T.; while the Q2 scale probably refers to dependence needs.

The 16 PF test, fully described in Chapter 3, has the great advantage that norms from healthy and mentally abnormal people are available. Its construction derives from a theory of personality which is rooted in the study of the normal and not as in the case of the T.A.T. geared to explore, according to analytical concepts, psychopathology. The gain in using such a method to obtain deeper insight into the nature of the battering parent, is that one can monitor their responses over a wide spectrum of personality traits known to vary in predictable ways in the general population. In addition, information is available about the way the test is responded to by people in known psychiatric groupings. Thirdly, information is available regarding the extent to which hereditary and environmental factors influence the scores. Detailed hypotheses set up to be tested in terms of 16 PF scores, will be described fully in Chapter 3.

Thus with (1) an intellectual assessment (2) an
attitude scale and (3) a broad personality trait test, it was hoped to realise the aims set out in the beginning of the chapter. That is:

To attempt an objective quantitative and comparative description of a sample of battering parents.

It is proposed to:

1. Describe the tests carried out to test specific hypotheses set up for operational investigation in Chapter 3.

2. Describe the sample in Chapter 4.

3. To give the results of the tests in Chapters 5 to 9.

4. To draw an overall portrait of the battering parent as revealed by the results, and to link this with aspects of the literature relevant to the results in Chapter 9.

5. To summarise and suggest future possibilities for research in the final chapter.
CHAPTER 3

The particular choice of tests for this study was determined both by the subjects under investigation and by the nature of previous work in this field.

The short form of the Wechsler Adult Intelligence Scale chosen was selected because it affords independent measures of verbal and non-verbal abilities, thus facilitating a comparison of the two groups sampled on these two functions.

The Parent Attitude Research Instrument was chosen in the hope of providing data which might aid in the prevention of battering. A further consideration was its previously demonstrated usefulness in an American study (Elmer 1967). The Sixteen Personality Factor Test was chosen as it affords an objective technique which has already been successfully employed in a wide variety of diagnostic situations.

The questionnaire was specially devised to be used by Health Visitors co-operating in this study. Items were based on case study material and the descriptive literature.
The Tests

Three tests were selected to be taken by all the Battering and Control parents who made up the sample of this investigation. These tests were the short form of the Wechsler Adult Intelligence Scale (W.A.I.S.) Cattell's Sixteen Personality Factor Questionnaire (16 P.F.) and Schaefer and Bell's Parent Attitude Research Instrument (P.A.R.I.). These will be described in this order below.

The Wechsler Adult Intelligence Scale

In 1944 Wechsler published the Wechsler Bellevue Intelligence Scale, the first of its kind to be made available for the specific measurement of adult intelligence. A point scale rather than an age scale, it did away with the inappropriate M.A. ; C.A. ratio for the calculation of adult I.Q.'s and broke new ground in providing a rationale for the comparison of adult abilities throughout the life cycle.

To a large extent this scale has now been superseded by the newer Wechsler Adult Intelligence Scale, published in 1955. The new scale is an improved version of the earlier test, but like it, retains the essential format of ten subtests, five each, forming two separate sub-scales, the Verbal scale yielding a Verbal I.Q. and a Performance Scale yielding a Performance I.Q. Together the two scales provide a global measure of intellect (See Wechsler 1958). The subtests which make up the test are described as follows. (See Appendix 15-18).

Verbal Scale. This includes a comprehension subtest containing general information items such as "What is the thing to do if while sitting in the cinema you were the first person to see smoke and fire?". The Digit Span subtest is a simple memory for digits test. The Similarities test requires the subject to derive the essential similarity from pairs of nouns such as, "dog and lion", "fly and tree", "liberty and justice".
The Arithmetic subtest is self explanatory, while the Vocabulary subtest contains a list of 40 words which the subject must define well enough to show a basic understanding of the concepts involved.

The Performance Scale. This consists of five non-verbal subtests including: The Picture Completion subtest wherein pictures are submitted to the subject in which he has to detect an omission. The Digit Symbol test is a simple coding task. The Object Assembly test consists of four jigsaw puzzles of increasing complexity. The Block Design Test derives essentially from the Koh's Block test, in which printed patterns of red and white forms have to be duplicated with wooden blocks. The Picture Arrangement subtest consists of comic-strip arrays which have to be re-arranged "to tell a story".

The full W.A.I.S. takes at least one hour properly to administer, and would have been too demanding for this investigation. Nevertheless it was deemed essential to include some individually administered intelligence test to the subjects in this investigation in order to ascertain whether or not it really was true, as Steele and Pollock (1963) have said, that all levels of ability are found among battering parents.

Wechsler defines intelligence (1953) as "the global capacity to act purposefully, to think rationally and to deal effectively with his environment" p. 7. Clearly the ability to care for a young infant must require a certain minimum of the ability to act purposively and to deal effectively with the environment, let alone the ability to think rationally.

To solve the problem a short form of the test was selected which would retain the best features of the full scale while avoiding extra time used by redundant tests.
Doppelt (1956) has reported on the use of various short scales of the W.A.I.S., some of which have very high correlations with the total score obtained by the use of the full scale. Thus he reports that the use of the Comprehension and Vocabulary subtests alone gives a .912 correlation with total score. The use of the Comprehension and Similarities subtests alone has a correlation with the total score of .908. The use of the Block Design and Object Assembly subtests alone has a correlation with total score of .902. The short form of the W.A.I.S. selected for this investigation makes use of the fact, as reported by Wechsler (1958), that in addition to the G factor of general intelligence which runs through all the subtests and accounts for some 50% of the total test variance, most factorial studies of the test show that in addition, there are several other group factors of which the verbal factor measuring verbal comprehension, and the spatial factor measuring the capacity to organise discrete spatially perceived units into larger configurations, are the most important and regularly appearing.

The subtests having the highest loadings on the Verbal factor are the Vocabulary, Similarities and Comprehension subtests. Those having the highest loadings on the Spatial factor are the Block Design and Object Assembly subtests (See Appendix p.2). By using this combination of five subtests one is capitalising on the fact that relatively independent measures can be obtained for verbal and non-verbal intelligence since the correlation between the two sub-scales is only .079 for the age group tested.

Maxwell (1957) has also shown that validities are highest when a combination of verbal and performance tests are used in setting up a short version of the test.

A further consideration is the reliability of the subtests included. As may be seen from Table 31 the reliabilities of the selected subtests are among the highest reported by Wechsler (1958).
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**Table 3.1**

Thus the five subtests selected appear to have good reliability, good validity in terms of correlation with total score, and good factorial validity.

On the basis of what has appeared in the social work and psychiatric literature concerning the battering parent's style of thought, it was predicted that the battering parents would be likely to score below the control parents in terms of verbal ability, but to shew no difference in mean performance scores.

This is in line with references already made to Waite's work, reported in Helfer and Kempe (1968), to Court's (1969) references to the substitution of behaviour for words, and to Galdston's reference (1970) to their difficulty in abstraction and symbolisation.
The Parent Attitude Research Instrument

This test is a questionnaire devised by Schaefer and Bell (1958a). Based on the work of Mark (1953) and Schoben (1949), the questionnaire was designed to elicit differences in parent attitudes that are related to consequent differences in their children's behaviour. To those questions of Schoben and Mark which factor analysis suggested made meaningful clusters, Schaefer and Bell made their own additions. After several pilot trials one hundred and fifteen statements were retained, reputedly covering twenty-three different areas of parent-child interaction. The areas covered by the scale are the following:

1. Verbalisation
2. Fostering Dependency
3. Seclusion
4. Breaking the Will
5. Martyrdom
6. Fear of Harming the Baby
7. Marital conflict
8. Strictness
9. Irritability
10. Exclusion of Outside Influences
11. Deification of the parents
12. Suppression of Aggression
13. Rejection of the Homemaking Role
14. Equalitarianism
15. Approval of Activity
16. Avoidance of Communication
17. Inconsiderateness of the Husband
18. Sexual Suppression of the Child
19. Ascendancy of the Mother in the Home
20. Intrusiveness
21. Comradeship
22. Accelerating Development
23. Dependency of the Mother
Each of these factors is represented by a sub-scale in the test consisting of the five most reliable items for that scale (See Appendix pp's 6-11 and 14).

Reliabilities for the final scales range from .46 for the Equalitarianism scale to .77 for Deification of the Mother scale. Most fall around 0.7 for test-retest. Of Validity, Schaefer and Bell (1958a) say:

"Although predictive validity studies have not yet been done on the P.A.R.I. the studies surveyed in the literature could be cited as evidence supporting concurrent validity". p.353.

Since then Schaefer and Bell (1958b) have published details of a factor analysis of the twenty three scales shewing factor loadings for each of the statements with the scales they are designed to cover. These shewed considerable variation, few loadings amounting to more than .85, most falling much below this. In addition, a factor analysis by Zuekerman and Ribback (1958) derived three main super-factors from the twenty-three scales which suggests that broad dimensions of Authoritarianism, Hostility/Rejection and Democratic Attitudes may have better validity than the primary scale factors. However, work by Elmer (1967), specifically on abusive and neglectful parents, found several differences between the scores of abusive and non-abusive parents on the following primary scales:

2. Irritability
3. Marital Conflict
7. Attitude towards Homemaking
9. Ascendancy of the Mother
10. Seclusiveness of the Mother
19. Exclusion of Outside Influences

She did not report the significance, statistically speaking, of these differences.
Use of the Test in the Present Study

Although the test is designed to be self recording, it was soon found that this was not a suitable technique with suspicious battering parents, some of whom had rather poor verbal comprehension for the written word. Accordingly after initial pilot use, with parents not used in the analysis of final results, it was decided to read out each statement to the subject and to fill in his or her response after she or he had indicated her opinion.

Four possibilities are provided for each statement, scored as follows:

- Strongly Agree score = 5
- Moderately Agree score = 4
- Moderately Disagree score = 2
- Strongly Disagree score = 1

Each statement was scored after completion by the subject, and a total score obtained for each scale ranging from a possible lowest score of 5 to a possible maximum score of 25.

The full questionnaire, consisting of 115 statements was used in this way on thirteen battering and thirteen control cases, and an analysis of variance carried out. This suggested that only sixteen of the one hundred and fifteen statements in any way differentiated the two groups! (See Table 3 II). In view of the fact that the test was proving very time consuming, and wearisome to the subjects, it was decided to use a shortened version for the remainder of the subjects.

The new scale consisted of thirty statements with the same format of agree/disagree response as was used in the longer test. It included all the statements which had been found to be able to distinguish between the thirteen battering and thirteen control subjects.
### Table 3.11

<table>
<thead>
<tr>
<th>Statement</th>
<th>Interaction between Diagnostic Status and Sex</th>
<th>Control/Experimental P.</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>8.3077</td>
<td>0.025 &gt; P &gt; 0.01</td>
</tr>
<tr>
<td>12</td>
<td>5.9535</td>
<td>0.05 &gt; P &gt; 0.025</td>
</tr>
<tr>
<td>29</td>
<td></td>
<td>0.1 &gt; P &gt; 0.05</td>
</tr>
<tr>
<td>31</td>
<td>7.2580</td>
<td>0.025 &gt; P &gt; 0.01</td>
</tr>
<tr>
<td>34</td>
<td></td>
<td>0.1 &gt; P &gt; 0.05</td>
</tr>
<tr>
<td>36</td>
<td></td>
<td>0.25 &gt; P &gt; 0.05</td>
</tr>
<tr>
<td>42</td>
<td>3.7978</td>
<td>0.1 &gt; P &gt; 0.05</td>
</tr>
<tr>
<td>56</td>
<td>3.6571 (0.1 &gt; P &gt; 0.05)</td>
<td>3.6571</td>
</tr>
<tr>
<td>65</td>
<td>4.3269</td>
<td></td>
</tr>
<tr>
<td>70</td>
<td></td>
<td>0.1 &gt; P &gt; 0.05</td>
</tr>
<tr>
<td>75</td>
<td>4.5676</td>
<td>&lt; 0.05</td>
</tr>
<tr>
<td>77</td>
<td>3.2703</td>
<td>0.01 &gt; P &gt; 0.05</td>
</tr>
<tr>
<td>83</td>
<td>4.0000</td>
<td>0.1 &gt; P &gt; 0.05</td>
</tr>
<tr>
<td>88</td>
<td>4.3214</td>
<td>0.1 &gt; P &gt; 0.05</td>
</tr>
<tr>
<td>93</td>
<td>3.375</td>
<td>0.1 &gt; P &gt; 0.05</td>
</tr>
<tr>
<td>115</td>
<td>9.5870</td>
<td>&lt; 0.01</td>
</tr>
</tbody>
</table>

+ For a full list of all statements used in the P.A.R.I., see Appendix pp 6 - 11.
In addition, those statements contributing to the scales of "Strictness", "Fear of Harm the Baby", and "Ascendancy of the Mother" which had not differentiated were also included, plus a few extra statements chosen in order to give balance to a scale which otherwise would have seemed very biased to the subjects taking it. The new scale is given in the Appendix. p.12-13.

The Sixteen Personality Factor Test

The Sixteen Personality Factor questionnaire, originally published in 1949, now runs to six separate forms designed to be used with subjects of various educational and motivational levels. It is fully described and evaluated in the Handbook for the 16 PF by Cattell (1970). Form C was selected for this study, as it is considered by Cattell to be appropriate for average adults, demanding a slightly lesser vocabulary demand than either of forms A or B (See Cattell 1954). As will be seen in Chapter 4, the social class composition of the sample justified the selection of Form C of this test. The 1969 edition was used although, being a new version, final norms are not yet available. Those that are published and made available in this country by the National Foundation for Educational Research's Test Division are American, their British norms being still in preparation (see M.F.E.R. 1968). However, the main comparisons between experimental and control subjects has involved a straight comparison of raw scores, so that the question of inappropriate norms has not arisen. Where the American (tentative) norms have been used as in the calculation of Sten and Specification scores reference has been made to this limitation in the relevant place. Here, too however, the use of a control group, means that whatever bias has been introduced through the use of foreign norms, bears with equal weight on experimentals and controls.

Form C of the test consists of 95 separate questions each to be answered by the respondent as "true", "false", "
or "don't know". A response set tendency to agree on the part of subjects has been eliminated by the provision of equal numbers of questions requiring "yes" or "no" answers to receive a high score. (see Appendix pp's 19 - 25). As far as possible the test was used as a self rating scale, but the examiner remained present in most cases to help where necessary with filling out the answer sheet. For the most part the test proved easy to administer and readily acceptable to the subject. Unlike the P.A.R.I., which by reason of length, content and format, had to be used almost entirely as a controlled interview, the 16.PF was much more readily comprehended by all the subjects even the experimental mother of eighteen who had an I.Q. on the W.A.I.S. verbal scale of 44 but who, miraculously, could read! Cattell (1970) has said that it seems to make no difference whether the test is used as a group technique or as an individual test in which the examiner reads out each statement to the subject and then records his or her response.

It would most certainly have been better to have been able to give two forms, C and D of the 16.PF, if only to have improved the reliability of the scale scores. However, as each family interviewed required at least four hours contact, including the testing of each parent and their child, this has effectively excluded the desirable practice of parallel testing. Reliability of the G scale is not specifically reported by Cattell. For the A form of the test, retest reliability coefficients over a two month period are stated as follows (Cattell 1952).

```
A B C E F G H I L M N O Q1 Q2 Q3 Q4
.85 .63 .75 .85 .78 .84 .88 .87 .76 .71 .74 .77 .83 .81 .70 .7
```

As may be seen from the list above, the 16.PF is designed to measure sixteen primary personality factors, or as Cattell terms them "source traits" to distinguish them from the second order so called "surface traits".
In the present investigation the items relating to factor B, the intelligence factor, were excluded on the grounds that the W.A.I.S., already described, would afford both a better and a more comprehensive measure of cognitive capacity, and on account of the relatively poor reliability of the Cattell intelligence scale. The remaining fifteen factors are described below.

**Factor A.** This scale is named Sizothymia-Affectothymia by Cattell. It has to do with sociability. Low scorers are rather aloof, withdrawn and cold. High scorers are said to be easy going, good natured and attentive to other people. It was predicted, on the basis of the supposed personality idiosyncracies reported in the literature that battering parents would score significantly below the controls on this factor. Court, 1970, speaks of the battering parents' isolation and Davoren, 1968, of their alienation, a factor found too by Elmer, 1967.

**Factor C.** This is the chief measure, on the 16.PF of Ego strength. Low scorers on this scale are liable to shew excessive emotional liability in the face of stresses. They are liable to be evasive of responsibilities, and to have a low threshold for acting on the impulse of the moment. They are people, in the main, poorly adapted to the demands of reality. High scorers stand out for their capacity for calmness when frustrated, for their good adjustment to reality demands, for their overall emotional balance and ability for affective control.

Again it was predicted from what had been written about battering parents that they would tend to be low scorers compared to the control group. Thus Kaufman (1966) has said "Regardless of the core fantasy associated with the parents' attack upon the child, the point in time at
which the attack occurs, requires a major distortion of reality for the parent to be able to carry out a brutal assault on the child". Goldston (1966) too, speaking at the same conference as Kaufmann refers to the battering parent's use of projection and his need to act out his impulses. There is a general agreement summed up by the most recent reports of Helfer and Kempe (1972) concerning the overall poor personality integration of the battering parent.

**Factor E.** Cattell speaks of this scale as measuring submissiveness at the negative and dominance at the positive pole. Low scores indicate a mild, considerate, cooperative personality; a person inclined to be diplomatic rather than assertive and brash. At the high end of the continuum are found highly aggressive, independent hostile individuals. In view of claims by Goldston (1970) and Court (1970) that battering parents are no more aggressive than others only less controlled in their expression of aggression, no prediction was made in the direction of raised scores for the battering parents.

**Factor F.** This factor is known as Surgency by Cattell, and is said to reflect an individual's degree of sociability. The surgent person is inclined to be more optimistic, cheerful and expressive, while the desurgent individual is pessimistic, introspective, and taciturn. Surgency scores have marked correlations with occupational preferences and success. Thus artists, administrators and physicists are said to be low scorers, while airline hostesses, and sales managers are high scorers! Desurgency is also associated with almost all forms of physical and mental illness and contributes manifestly to the second order Extraversion-Introversion factor (see below). It is said to be low in persons whose environment has been punishing and pessimism-creating.

The literature abounds with claims that battering parents have themselves had critical, hostile, punitive and unrewarding...
environments. (See Helfer and Kempe (1968) (1972), Elmer (1967), Court (1969). Accordingly it was predicted before testing began, that F would be another differentiating factor as between battering parents and controls, with the expectation that batterers would be inclined to score lower F scores than their normal counterparts.

Factor G. This scale is primarily a measure of super-ego, strength or conscience control. Low scorers are apt to be frivolous, fickle and self-indulgent, while high scorers are likely to be persevering, conscientious and bound by a sense of duty. Scale G correlates negatively with delinquency, sociopathic behaviour and homosexuality: positively with school success, general achievement and leadership. This is a somewhat ambiguous factor, known to be especially subject to faking and also to get low values by people who though steady and law-abiding, are critical of the status-quo. In view of the ambiguity of this scale no pre-test prediction was made for it.

Factor H. This scale contrasts the timidity, shyness and threat-sensitivity of the low scorer with the social boldness and adventurousness of the high scorer. Cattell (1970) says of it "It has been shewn to have appreciable constitutional and autonomic associations and, at the high-shyness pole, may represent the much discussed innate "leptosomatic" temperament, with high autonomic tenseness and over reactivity". p.91. H has been found to have significant correlations with schizophrenia, and was predicted to be likely to differentiate battering parents (-) from normal parents (+), because workers with the former have found them to be notably isolated and defensive. (See Helfer and Kempe (1968) (1972), Okell (1971).)

Factor I. This is regarded as a tough versus tenderminded scale. Thus high scorers would be expected to show marked dependency and gentleness; fastidiousness and imaginativeness. Low scorers by contrast would be expected to be self-
reliant, hard, practical and unsentimental. This distinction goes back to the pre-history of psychology having been initially put forward by William James. Cattell (1970) believes Factor I to be largely environmentally conditioned, while Eysenck (1954) has written at length linking it to Extraversion-Introversion and thus to a genetically based dimension. No independent prediction was made for this factor.

**Factor L.** The essential pattern underlying this scale is "Protension" or projection and inner tension, according to Cattell. Low scorers are said to be unsuspecting, pliant, and ready to forget difficulties, while high scorers tend, on the contrary, to be jealous, dogmatic, tyrannical and suspicious. Although L+ is not in itself an abnormal manifestation, high L scores are found in people suffering from paranoid disorders, suggesting that under tension, the tendency of the person with high L will be to manifest paranoid psychopathology.

Silver (1968), Halfer and Kempe (1972) and Court (1970), have all testified to the "prickly" and suspicious nature of the battering parent. The views of Benedek (1938) and Erikson (1951) have been used by such writers to develop a link between the battering parent's present lack of trust and inability to "mother", and her own inadequate experience of being properly cared for in her own infancy. Whatever the cause, the frequent reference to suspiciousness in such parents suggests that Factor L would reflect this characteristic.

**Factor M.** This scale contrasts, at the negative pole, the down-to-earth practical person who tends to be prosaic and steady with the more impractical, imaginative escapist personality. On the one hand in the presence of other "healthy" signs such as high M scorers may be artistic people with unusual imaginative gifts. On the other hand,
and in the absence of ability or control, they tend to be immature and overwrought, bordering on the hysterical. There seemed no a priori reason to anticipate that this would in fact differentiate between the battering parents and the normal parents.

**Factor N.** Factor N contrasts naivete on the low score end of the continuum, with shrewd sophistication at the positive pole. It has relatively poor validity, and was not thought likely to distinguish between the groups under investigation.

**Factor Q.** This factor reflects tranquility of personality and pervading mood on the low score end with guilt proneness and apprehensiveness on the high score end. High scores have been found in delinquents, suggesting that in certain people a pervading feeling of unworthiness triggers off their acts of delinquency, (Alexander and Staub, 1931), which in turn invokes the punishment that temporarily assuages their guilt. Although it has been said by Silver (1968) that battering parents do not express guilt over their assault on the child, it seems likely that the reason for this is, as has already been mentioned, the break in their reality sense at the point at which the assault takes place. Thus it might be thought that they do not see the connexion between their act of battery and the consequent injury to the child. Paradoxically it is the child's crying or other persistently negative behaviour which potentiates their free floating guilt proneness, and precipitates the assault. Thus Court (1969) states "They may perceive the baby as persecuting and criticising them, or they may identify with a crying baby and batter it in an effort to punish their own 'bad' selves" p.2. It is this free floating guilt proneness which is thought to underlie this factor rather than a specific guilt for a particular act. For these albeit somewhat tortuous reasons it was predicted that battering parents would in fact score higher Q scores on the 16PF.

**Factor Q1.** This factor is that of Radicalism versus Con-
servatism. It has been found in studies by Eysenck (1954) to predict actual membership of Communist, Fascist, Quaker, Pacifist and other groups. However, Cattell (1970) claims a broader meaning than mere political affiliation, saying that it represents a general liking or distrust for social innovation, and is found highly scored among people who are well informed, socially questioning and experimental in the realm of ideas. Differences were not forecast for the present study.

Factor Q2. This factor has to do with a person's tendency to group-dependency at the negative pole, contrasted with another's independence at the positive pole. Although this is a major contributor to the Extraversion-Introversion second order factor which will be discussed below, it seems likely that it has considerable social class connexions for a British sample. Thus studies such as those of Wilmott and Young (1957) (1960), Bott (1957) and many others, suggest that group dependency, as shown in a tendency to be status-assenting rather than status dissenting is a feature of the urban working class in general. Given that both the battering and control groups were likely to be largely drawn from that social stratum, differences were not anticipated on this dimension.

Factor Q3. This factor is one which reflects the degree of self sentiment integration present in an individual. It seems to be relevant to Freud's concept (1921) of the Ego Ideal. People with a developed Ego Ideal or Self Sentiment, (a phrase which has become something of an archaism in modern psychology), have a clear view of a socially approved way of behaving to which they attempt to conform. High scorers tend to control impulse, and are apt to be precise and even compulsive. Low scorers tend to be lax, careless of rules, possess poor foresight, and enjoy following their urges as they arise. Although factor Q3 might seem to have associations with Factor C, Ego Strength, it differs from it, representing not so much the true
capacity for integration, as the desire to put on "front". Perhaps it comes closer to what Jung has referred to as the "Persona" aspect of personality - the "mask", as contrasted with the "Anima" or "inner truth" of the personality. However, even to present a consistent "persona" to the outside world, some degree of self sentiment would be required; some ideal, that is, to be followed if not always attained. In view of the pre-occupation with the absence of a sense of worthwhileness and inner confidence which is referred to by such authors as Steele and Pollock (1968), Court (1970) and Okell (1971), it was predicted that battering parents would score lower on Factor Q3 than normal parents.

Factor Q4. This scale reflects what Cattell calls "Ergic Tension", more usually referred to, perhaps, as "Drive Level". People with high scores on Q4 are likely to be tense, frustrated and fretful. In contrast low scorers seem relaxed, torpid even, and composed. Cattell (1970) admits that this factor has connexions with Factor C (Ego Strength) and also with Factor O (Guilt Proneness), but claims, however, that "all three factors are demonstrably distinct despite positive inter-correlations." p.108. It was thought probable that battering parents might score more highly on this factor than normal parents in view of the references in the literature to the prevalence of crisis in their lives, if for no other reason. Thus Okell (1971) singles out the likelihood of crisis as a suggestive indicator that battering rather than inadvertent accident is a cause of infant injury. Elmer (1967), too, discusses this factor.

Second Order Factors

Although Cattell has emphasised that the main function of the 16PF Test is to measure the sixteen primary factors, he also discusses at some length the possibility of deriving higher order factors from the scales. He says: "It is a
mistake, generally, to work at the secondary level only, for one loses a lot of valuable information present initially at the primary level. On the other hand one gets a more complete picture by knowing the scores on the second order, in addition to those on the primaries". (Cattell, 1970, p.112). Eysenck (1969) has dismissed Cattell's primary factors as "not replicable". "Only at the third order factor level do we encounter replicable factors and these are not Cattell's factors but N (Neuroticism) and E (Extraversion-Introversion". p.228.

These are harsh strictures especially when it is realised that the investigation to which Eysenck (1969) refers has included a curious hodge-podge of Cattell's items drawn, seemingly at random, from four of the six forms of the test extant. One wonders what would happen if one were to select items across tests from Eysenck's inventories or from any other battery of tests for that matter. The factors derived from all these investigations represent only correlations among scores, not entities located within the individuals making the scores. Change the test content and it seems likely one will marginally change the factor loadings.

Additionally Eysenck's claim that the second order factors extracted by his analysis of Cattell's data were not Cattell's factors seems atypically naive, since the only differences between Cattell's Ex via-Invia and Eysenck's Extraversion-Introversion lies in Cattell's more lively semantic inventiveness in naming his factors. The same seems to hold for Cattell's Adjustment versus Anxiety factor as used in relation to the 16PF and Eysenck's Neuroticism, an unpopular term, and misleading too, in that it does not reflect the bipolarity that its progenitor is at such pains to establish in his earlier writings in this field. (See Eysenck, 1947). At all events for this investigation the practice recommended by Cattell has been followed, not without reward, as Chapter 9 will reveal.
Thus, in addition to the fifteen primaries to which reference has been made in preceding sections, two of the four second order factors described by Cattell, have also been calculated, for the experimental and control subjects and the significance of the difference between them calculated. The second order factors assessed in this study will be:

I. Exvia-Invia, more usually referred to in the psychological literature as Extraversion-Introversion (E-I) and
II. Anxiety vs. Adjustment or Neuroticism. (N).

Cattell (1970) reports the following loadings on the first factor: E-I p.121

<table>
<thead>
<tr>
<th>Scale</th>
<th>Females</th>
<th>Males</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>.85</td>
<td>.62</td>
</tr>
<tr>
<td>E</td>
<td>.26</td>
<td>.41</td>
</tr>
<tr>
<td>F</td>
<td>.66</td>
<td>.84</td>
</tr>
<tr>
<td>H</td>
<td>.52</td>
<td>.73</td>
</tr>
<tr>
<td>Q2</td>
<td>-.72</td>
<td>-.78</td>
</tr>
</tbody>
</table>

Cattell (1970) reports the following loadings on the second factor: N p.121

<table>
<thead>
<tr>
<th>Scale</th>
<th>Females</th>
<th>Males</th>
</tr>
</thead>
<tbody>
<tr>
<td>O</td>
<td>-.86</td>
<td>-.8</td>
</tr>
<tr>
<td>N</td>
<td>-.52</td>
<td>-.18</td>
</tr>
<tr>
<td>L</td>
<td>.55</td>
<td>.69</td>
</tr>
<tr>
<td>0</td>
<td>.82</td>
<td>.80</td>
</tr>
<tr>
<td>Q3</td>
<td>-.44</td>
<td>-.43</td>
</tr>
<tr>
<td>Q4</td>
<td>.82</td>
<td>.93</td>
</tr>
</tbody>
</table>

Details for their calculation are given in the manuals (See Cattell (1952) (1954)).

When account is taken of the predictions made for the primary factors it follows that battering parents as a whole
might reasonably be expected to be more Introverted, and make higher Neuroticism scores. A certain ambiguity about the appropriateness of the Neuroticism second order factor to the battering parents was recognised however. Had a psychoticism factor been available this would seem to have been the likelier bet for the battering parents. As such this is not available in the Cattell armoury. However, recent work on Specification scores seemed partly to answer the need. In this system a set of weights can be applied to the Sten or "standard ten" scores made by a group or an individual, which enables the psychologist to compare the obtained mean with that of a stated reference group.

Two groups are relevant to this study, the Neurotic group and Psychotic group. Unfortunately it is not possible to calculate significances using this system but it is hoped that broad trends of similarity will advance the question of what, if any, diagnostic grouping the battering parent conforms to. Full details for the application of these weights are given on pages 266 and 274 respectively in Cattell 1970.

The Validity of the 16PF Test

There is a sense in which the concept of a personality test's validity is meaningless. What is to be one's criterion for Ego Strength, Independence and the like? Personality traits manifest themselves in a variety of situations as varied as life itself. Validity is therefore a good deal less straightforward than the assessment of the validity of a test of ability or achievement, complex as either of these may be.

However, to be of any use a personality test must have some correlation at some point with some form of manifest behaviour. Statements already made about the known correlations of each of the primary factors with specified behaviours, or with people in certain situations or occupations are all relevant to the test's criterion validity.
The scales vary in their criterion validity. Thus scale C is recognisably lowered in all forms of mental disorder as is scale F. Likewise scale O's higher incidence in delinquents and scale N's correlation with schizophrenic disorders show the reality of the factors under discussion. Others are considerably more ambiguous and accordingly less meaningful, as for example is true of Factor N. Other factors are likely to be less valid differentiators in a certain setting as would be true in the present case of Factor Q2. These associations are fully discussed in Cattell, 1970.

Construct validities are more readily calculated and more readily understood though whether they furnish as good a test of the test's "meaning" is more questionable, since factorial elegance is one thing, psychologically meaningful test factors are another.

Cattell gives the following "direct" or construct validities which show in each case the correlation of the scale with the factor measured by it. Loadings for Factors M, N and O and Q2, have been omitted pending further work on the new edition of Form C.

Analytic Statement of Direct Validities for Form C for each of the Factor Scales. From Cattell p.36 (1970)

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>I</th>
<th>L</th>
<th>Q1</th>
<th>Q3</th>
<th>Q4</th>
</tr>
</thead>
<tbody>
<tr>
<td>.62</td>
<td>.54</td>
<td>.46</td>
<td>.76</td>
<td>.55</td>
<td>.61</td>
<td>.63</td>
<td>.71</td>
<td>.57</td>
<td>.49</td>
<td>.63</td>
<td>.69</td>
</tr>
</tbody>
</table>

Summary of the Uses to be made of the 16PF

1. Fifteen primary factors will be calculated and compared. Those predicted as likely to show differences between Battering and Control parents are :-

2. Two second order factors will be calculated for both groups:

i) Extraversion-Introversion
ii) Neuroticism

Both are thought likely to differentiate with especial emphasis on the first.

3. Specification scores for:

a) Neurotics and
b) Psychotics are to be calculated, with the prediction that battering parents will match more closely to the Psychotic than to the Neurotic reference group.

NOTE

Details of statistical methods used are given in the Appendix, P.28.
The Health Visitor Questionnaire

This questionnaire was the only technique specially devised for this study and as will be explained in Chapter 4 was applied to a different sample of subjects, both battering and non-abusive from the sample to whom the standardised tests already described were given. The items were dictated by the need to include only questions sufficiently straightforward to be remembered by the health visitors carrying out this part of the study.

They were to use the questionnaire as the basis for a structured interview not as a form to be filled out in the presence of the respondent. The other criterion for the inclusion of the items, was that there was some evidence from the literature on the battering parent or from a reading of case studies, that the item would be likely to differentiate the battering from the non-battering parent. In all, eighteen items were included after considerable discussion with medical officers and the health visitors who would be responsible for implementing the survey. The questionnaire is given in full in the Appendix, pp 26-27.

The first five items were included only for identification. Items 6, 7 and 8 were included because of references by Elmer (1967), Court (1969) and Skinner and Castle (1969) to the association between pregnancy and battering. Items 11, 14 and 15 were included because of Nelder and Kempe's (1968) and (1972) emphasis in their descriptive data upon the isolation of the battering parent. Items 16, 17 and 18 were an attempt to reflect, in simple form, Elmer's description, in her very different sample, of the disorganisation of the battering parent's home life. Other items were derived from a close reading of case histories of cases seen at Denver house in the other part of this investigation (See Chapter 4.)

All the respondents were interviewed in their own homes as part of a follow-up procedure concerning the accident survey being carried out in the County of Surrey.
CHAPTER 4

The Sample

Two separate investigations have been carried out, involving two different samples. In the first investigation, psychological testing was carried out on forty individual adults. Twenty of these were parents who were confidently suspected of having physically assaulted their infants or young children. These battering parents were pair matched with twenty other parents of whom battering or other child rearing problems were not suspected.

This sample of forty has had to be further subdivided owing to uneven numbers of mothers and fathers. Thus twelve mothers in all were tested and their matched normal controls. This sample is referred to as the Matched Mothers' sample.

As only eight fathers in each case were co-operative, only eight matched pairs of battering and non-battering mothers and fathers could be used to form the Matched Pairs sample.

In the second investigation the battering parents were drawn from a much larger number of parents reporting accidents in the home to a child under the age of two years. In all, fifteen families of suspected battering were discovered from the files of the Surrey County Council Register of Accidents in the home to Children under the Age of Two Years. These cases were matched with a randomly drawn equal number of true accident cases. Both groups were interviewed by County health visitors with a questionnaire.

It is proposed to describe each of the two main sampling techniques separately.

1. The Testing Sample

Sources from which subjects were drawn

There were two sources of subjects. The first was from
the K.S.P.C.C.'s research unit for Battered Babies. This unit draws its cases from the London Boroughs of Kensington and Chelsea, Camden, and Westminster.

Cases of non-accidentally injured children under the age of four years are referred to the unit by hospital casualty departments, in the main, as well as by health visitors and social workers.

The other source for this study was from the county of Surrey. A few of the battered children picked up through the register of accidents to children under the age of two, to which reference has already been made, were available for further investigation, and were seen in their own homes along with their parents for psychological testing.

Control cases for all the battered cases were available through health visitors working in the areas referring the battering parents. A form, setting out anonymous details of the battered children and their families was sent to the appropriate Health Visitor, together with an explanatory letter and a letter for her to leave with any family likely to consider cooperating with the project. (See pp. 3-5 Appendix.) She then endeavoured to match a normal family willing to be tested. The criteria for matching were as follows:

1. Area of referral
6. Age of child
5. Age of each parent
2. Ordinal position of the battered child
3. Type of living accommodation
4. Nationality

The success with which these control cases were matched with the battering parents may be inferred from Tables 4 I and 4 II.
1. **Area of Referral**

As may be seen from Table 4.I, the overall proportion of London and Surrey cases was the same for experimental and control cases, but within the pairs there was considerable mismatching. This arose from the refusal of some fathers to cooperate necessitating the rematching of these cases with controls in which the father was also unavailable. The overriding consideration however was to secure as accurately as possible the matching of the children's ages, if necessary at the cost of mismatching for area.

2. **Ordinal Position of the Child**

As may be seen from Table 4.I, the ordinal position of the children has been well matched. In itself this factor is of little importance in considering the parents' sample. However as another investigation was running concurrently into the development status of the children it was necessary to include this as a criterion.

3. **Type of Living Accommodation**

As may be seen from Table 4.I this has been closely matched in nearly every case. Only subjects 6 and 9 were not well matched on accommodation. This item was included so that stresses in the home arising from differences in living circumstances would be equalised for the two groups. It was also thought that this would furnish an approximate method for matching socio-economic status. This is not always possible to do on occupational ratings by a health visitor. Mothers are sometimes defensive about their husbands' occupations, and health visitors rarely meet the husbands of the families they visit.

It was however possible for the interviewer carrying out the tests to obtain more reliable information on fathers' occupations which has been summarised in Table 4.III. From
### BATTERING PARENTS

<table>
<thead>
<tr>
<th>CASE NO.</th>
<th>NATIONALITY OF MOTHER</th>
<th>NATIONALITY OF FATHER</th>
<th>AREA</th>
<th>ORDINAL POSITION</th>
<th>ACCOMMODATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Finnish</td>
<td>E</td>
<td>London Only</td>
<td>2/2</td>
<td>R, K &amp; B</td>
</tr>
<tr>
<td>2</td>
<td>E</td>
<td>E</td>
<td>Surrey Only</td>
<td>2/3</td>
<td>R, K &amp; B</td>
</tr>
<tr>
<td>3</td>
<td>E</td>
<td>E</td>
<td>Surrey</td>
<td>1/2</td>
<td>R, K &amp; B</td>
</tr>
<tr>
<td>4</td>
<td>E</td>
<td>E</td>
<td>London</td>
<td>2/2</td>
<td>R, K &amp; B</td>
</tr>
<tr>
<td>5</td>
<td>E</td>
<td>E</td>
<td>London</td>
<td>2/2</td>
<td>R, K shared B</td>
</tr>
<tr>
<td>6</td>
<td>I</td>
<td>I</td>
<td>London</td>
<td>1/2</td>
<td>R, K shared B</td>
</tr>
<tr>
<td>7</td>
<td>E</td>
<td>E</td>
<td>London Only</td>
<td>1/2</td>
<td>R, K shared B</td>
</tr>
<tr>
<td>8</td>
<td>E</td>
<td>E</td>
<td>Surrey Only</td>
<td>1/2</td>
<td>R, K shared B</td>
</tr>
<tr>
<td>9</td>
<td>I</td>
<td>-</td>
<td>London Only</td>
<td>1/2</td>
<td>R/K shared B</td>
</tr>
<tr>
<td>10</td>
<td>E</td>
<td>-</td>
<td>London Only</td>
<td>2/2</td>
<td>own house part</td>
</tr>
<tr>
<td>11</td>
<td>E</td>
<td>-</td>
<td>Surrey</td>
<td>2/2</td>
<td>R, K shared B</td>
</tr>
<tr>
<td>12</td>
<td>Hungarian</td>
<td>-</td>
<td>London Only</td>
<td>2/2</td>
<td>R, K &amp; B</td>
</tr>
</tbody>
</table>

E = English  
I = Irish  
R = Room  
K = Kitchen  
B = Bathroom  
/ indicates B or K is part of a room

---

**TABLE 4.1**
<table>
<thead>
<tr>
<th>NATIONALITY OF MOTHER</th>
<th>NATIONALITY OF FATHER</th>
<th>AREA</th>
<th>ORDINAL POSITION</th>
<th>ACCOMMODATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>E</td>
<td>E</td>
<td>London</td>
<td>Only</td>
<td>2 R K &amp; B</td>
</tr>
<tr>
<td>E</td>
<td>E</td>
<td>London</td>
<td>Only</td>
<td>2 R/K shared B</td>
</tr>
<tr>
<td>E</td>
<td>E</td>
<td>London</td>
<td>Only</td>
<td>Flat in own house</td>
</tr>
<tr>
<td>E</td>
<td>E</td>
<td>London</td>
<td>1/2</td>
<td>2 R K &amp; B</td>
</tr>
<tr>
<td>I</td>
<td>I</td>
<td>London</td>
<td>2/2</td>
<td>2 R shared K &amp; B</td>
</tr>
<tr>
<td>E</td>
<td>E</td>
<td>Surrey</td>
<td>2/2</td>
<td>Own house 5 R</td>
</tr>
<tr>
<td>E</td>
<td>E</td>
<td>Surrey</td>
<td>Only</td>
<td>1 R shared K &amp; B</td>
</tr>
<tr>
<td>Jugoslav</td>
<td>Jugoslav</td>
<td>London</td>
<td>Only</td>
<td>1 R shared K &amp; B</td>
</tr>
<tr>
<td>E</td>
<td>-</td>
<td>London</td>
<td>Only</td>
<td>Own house</td>
</tr>
<tr>
<td>E</td>
<td>-</td>
<td>Surrey</td>
<td>Only</td>
<td>Own house</td>
</tr>
<tr>
<td>I</td>
<td>-</td>
<td>London</td>
<td>5/5</td>
<td>2 R shared K &amp; B</td>
</tr>
<tr>
<td>E</td>
<td>-</td>
<td>Surrey</td>
<td>Only</td>
<td>1 R shared K &amp; B</td>
</tr>
</tbody>
</table>
### AGES OF SUBJECTS

<table>
<thead>
<tr>
<th></th>
<th>MOTHERS N = 12</th>
<th>FATHERS N = 8</th>
<th>CHILDREN N = 12</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MEAN AGE</strong></td>
<td>BATTERING</td>
<td>CONTROL</td>
<td>BATTERING</td>
</tr>
<tr>
<td></td>
<td>22.3 yrs.</td>
<td>24.8 yrs.</td>
<td>23.7 yrs.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>S.D.</strong></td>
<td>3.72</td>
<td>4.02</td>
<td>3.15</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>MEAN DIFFERENCE</strong></td>
<td>-2.4166 yrs</td>
<td>-1.25 yrs</td>
<td>-0.0833 mths</td>
</tr>
<tr>
<td><strong>VARIANCE OF DIFFERENCE</strong></td>
<td>4.0330</td>
<td>4.496</td>
<td>6.815</td>
</tr>
<tr>
<td><strong>D.F.</strong></td>
<td>11</td>
<td>7</td>
<td>11</td>
</tr>
<tr>
<td><strong>t (paired)</strong></td>
<td>-2.0757</td>
<td>-0.786</td>
<td>-0.042</td>
</tr>
<tr>
<td><strong>P</strong></td>
<td>0.17</td>
<td>P&gt;0.05 N.S.</td>
<td>N.S.</td>
</tr>
</tbody>
</table>

**TABLE 4.II**
The Sample Social Class

<table>
<thead>
<tr>
<th>Class</th>
<th>Experimental</th>
<th>Control</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>II</td>
<td>0</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>III+</td>
<td>2</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>III-</td>
<td>3</td>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td>IV</td>
<td>5</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>V</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
</tbody>
</table>

**Totals**

|       | 12 | 12 | 24 |

\[
d.f. = 5 \\
\chi^2 = 8.26 \\
P < 0.20 \text{ N.S.}
\]

**Table 4.III**
this it appears that the groups have been reasonably matched for social class as represented by occupational classification. The $X^2$ value shows an insignificant difference between the groups despite a slight tendency for the batterers to skew toward the lower end of the range.

Some qualitative comment is needed upon the general lifestyle of the subjects as revealed in their living accommodation. Unfortunately fewer of the control were seen at home than was true for the battering families. Although a standard procedure was intended it quickly became clear that to get to see the battering parents at all they would have, for the most part to be visited and at times that suited them. By this time a number of controls had already visited the unit. In the event nine battering and six control families were seen in their own homes, while three battering and six control families were seen at Denver House.

Superficially it did not seem that the types of accommodation differed very much between the groups, although within each group there was wide variation. In both groups there were some incredible conditions being endured by the families concerned. Two families, one with five children (control family), in each group lived in one room. However, it is also true that the experimenter often saw the battering families after some attempt, however inadequate, had already been made to rehouse them, so that the subjective impression may have been misleading. The details summarised in Table 4.I are those which obtained at the time of battering not necessarily at the time of testing.

Although therefore housing stress will be seen to be a relevant factor in the questionnaire sample, for whom no prior matching of accommodation was possible, it must be said that the differences viewed subjectively in the test sample are not great. The control families too, had, in several instances to cope with intolerable housing conditions, while in several cases the living circumstances of the battering families were comfortable and convenient.
4. Nationality

As may be seen from Table 4.1, this is very similar for the two groups as a whole, although, once again there has been some mismatching within pairs, for reasons already given. The majority of the subjects in both groups were English. There were two pairs of Irish mothers and one pair of Irish fathers. The Hungarian mother was originally matched with a Yugoslav family, this being the nearest available equivalent. However, after this had been done the Hungarian mother's partner refused to take the tests so that she had to be matched with another mother without a partner. No match for the Finnish mother was found. In all cases the subjects were fluent English speakers. The subjects in both samples were white. (One Pakistani battering family was eventually dropped from the sample. The mother's English was so bad that an interpreter was necessary, and not very successful, and since it was impossible to find a willing control of similar nationality it was decided to drop the case from the sample).

5. Age of parent

Table 4.11 summarises data on the ages of parents and their battered children. Despite the fact that parental age was one of the variables on which controls were matched, the mean ages of the battering parents tended to be slightly lower than that of the control parents. The control fathers were 1.3 yrs older, on average, than the battering fathers, and the control mothers were 2.5 years older, on average than the battering mothers. While neither of these is a significant difference, the fact that it repeats a trend found to occur in the questionnaire survey (at a significant level) will need to be further discussed (See Chapter 9). At this stage, it can be said that given identical ages of the children, battering parents tend to be slightly younger than non-abusive parents.
6. **The Children**

In any study of battering parents a description of the children is paramount. In the first place one needs to know their ages and whether the frequency varies with age. In the second place, one must know how badly the child has been hurt, since the term battering may mean different things to different people. Is the parent inadvertently smacking "too hard" a different kind of person, psychologically speaking, from one who shakes the child so hard it sustains severe brain damage? In the third place it is of some importance to know how confidently the battering is known to have taken place.

**The Age of the Children**

The ages of the children are summarised in Table 4.II. It is clear that the intention of matching battered with normal children has been entirely successful. Both groups had a mean age of 15.3 months. The implications of the battered child’s age will be fully discussed in Chapter 9. For the moment it is worth commenting that given a top age of referral of four years the mean age is well below the half mark. Roughly two thirds of the sample of battered children fall between 2.6 and 28 months while two thirds of the normal children fall between 3.9 and 27 months. As will be seen in Chapter 9 this is then, quite a typical sample of battered children.

**The Nature of the Injury**

The nature of the children's injuries is summarised in Table 4.IV. Of the twelve children involved only two did not receive serious injury. The parents' generally harsh handling, or expressed fear of injuring the child, formed the reason for these two cases being taken on for support at the Battered Child Research Unit. The selection was not the experimenter's, but the social worker's and the families were tested as part of the current case load. Nine of the other ten children had
received serious injuries necessitating hospital treatment. The tenth child had received a series of minor burns and bruises which the mother admitted having caused. Five of the twelve children were placed in residential nurseries or hospitals as a result of their injuries. A further six were accommodated in day nurseries. Only one child, one of the uninjured subjects, was left at home with its mother throughout the day.

The Question of Battering

The extent to which the child's parent has in fact been the cause of his injury is rarely easy to assess. As Okell (1971) and Gregg and Elmer (1968) have pointed out, this question of assessment can be baffling in certain cases. In the Okell study four expert assessors were unable successfully to classify the case in two out of forty six cases, and were uncertain in a further four cases. Abuse is not always ascertainable. An attempt has been made here to rate the degree of confidence that may be placed in the diagnosis of battering, ranging from the certainty that he has not yet received a significant injury as in case 5 to the mother's confessing outright, that she or her husband has injured the child as in case 2, where the mother ran from her flat telling the neighbours what she had done. As may be seen from Table 4. IV there were three confessed cases, five where the social worker in charge of the case was almost certain of battering in the absence of absolute confession, two less certain cases which were nevertheless being treated as though they were battering families, and the two already referred to where true battering had not (yet) occurred but was strongly feared.

It seems that the children in the present study represent a group of children living in a violent environment of which the majority have already been the victim of severe or very severe injury.
<table>
<thead>
<tr>
<th>CASE NO.</th>
<th>NATURE OF INJURY</th>
<th>CERTAINTY OF BATTERING (Five point scale: 5 = complete certainty)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Fractured skull: severe brain injury</td>
<td>4</td>
</tr>
<tr>
<td>2</td>
<td>Fractured skull</td>
<td>5</td>
</tr>
<tr>
<td>3</td>
<td>Multiple bruises on legs, arms, face. Severe injury to soft palate.</td>
<td>4</td>
</tr>
<tr>
<td>4</td>
<td>Harsh treatment witnessed by social worker. No injury.</td>
<td>1</td>
</tr>
<tr>
<td>5</td>
<td>No injury. Mother reports fear of injuring child</td>
<td>0</td>
</tr>
<tr>
<td>6</td>
<td>Fractured right clavicle.</td>
<td>3</td>
</tr>
<tr>
<td>7</td>
<td>Extensive bruising; head injuries.</td>
<td>4</td>
</tr>
<tr>
<td>8</td>
<td>Repeated burns; bruises.</td>
<td>4</td>
</tr>
<tr>
<td>9</td>
<td>Burn on hand. Bruises to trunk and skin.</td>
<td>5</td>
</tr>
<tr>
<td>10</td>
<td>Serious bruise on cheek; fractured R. humerus, burns between fingers.</td>
<td>4</td>
</tr>
<tr>
<td>11</td>
<td>Bruising and laceration of eye-lid.</td>
<td>5</td>
</tr>
<tr>
<td>12</td>
<td>Fractured skull, burn on leg.</td>
<td>3</td>
</tr>
</tbody>
</table>

**TABLE 4.1V**
II The Questionnaire Sample

As has already been indicated, two different investigations contribute to this report's findings, each based upon a separate sample. For the Questionnaire Sample subjects were interviewed in their own homes by Surrey County Council health visitors using the Questionnaire included in the Appendix (p 26-27).

These subjects were drawn from a register of cases concerning accidents in the home to children below the age of two years. Such a register has been kept by the County Deputy Medical Officer of Health since January, 1972, largely with a view to the identification of suspected cases of child battering.

At the time this investigation was mounted, 500 accident cases had been reported. Of the 500 cases 15 were suspected by the doctor or health visitor involved to have been physically abused by one or other parent. A further six suspicious cases were not included since the evidence for abuse was very ambiguous or non-existent, or the child had been injured by someone other than his parent.

Fifteen other subjects were randomly drawn from the remaining accident cases. No matching was attempted on any criteria, since the cases were already selected by age and county.

Four of the cases interviewed by the health visitor were included in the test sample. The psychologist's findings were however not available to the health visitor interviewing the parents, and the Questionnaire interview took place at a different time from the test interview.

It was unfortunately not possible to have the interviewing for a questionnaire sample undertaken on a "blind" basis as the health visitor knew in every case whether or not battering was suspected. Indeed the questionnaire relies to an extent on
her knowing the family well! It is recognised that from a research point of view it would have been better to have had each interview conducted in ignorance of the diagnosis.

Details of differences found to have occurred in sampling between the two groups will be discussed in Chapter 8 since they constitute the "results" of the questionnaire rather than sampling criteria.

In summary three criteria were followed in selecting this sample.

1. All children, accident and battering subjects, were under two years of age at the time of referral.

2. All children had sustained an injury in the home.

3. The battered children's injuries were thought to be non-accidental.
CHAPTER 5

SIXTEEN PERSONALITY FACTOR QUESTIONNAIRE: THE RESULTS

A factorial analysis of variance was carried out on the raw scores made by the thirty-two subjects in the matched pairs sample. This consisted of eight matched battering and control mothers and their eight matched battering and control husbands.

Results

Of the fifteen factors involved (factor B, the intelligence factor having been omitted from testing), factors A, E, F and M differentiated between the battering and control parents in the matched pairs sample. The details of these results are shown in Table 5.1.

A further factorial analysis of variance was carried out on the matched mothers' sample which consisted of twelve battering and twelve paired control mothers. (Eight in each case formed part of the matched pairs sample).

Results

Only factor C showed discrimination between battering and control mothers as shown in Table 5.1.

In order to elucidate these results more fully 't' tests were carried out on the five factors indicated by the analysis of variance.

Since a pairing effect was not shown to have been important in the analysis of variance, unpaired 't' tests were performed.

Thus 't' tests were carried out for factors A, C, E, F and M for the eight matched pairs of fathers, and separately for the twelve matched pairs of mothers sample. These results are shown in Tables 5.II and 5.III respectively. The same
Discussion of the 16.PF Results

Fathers' Results

The 't' tests for the fathers' sample confirm the matched pairs analysis of variance in shewing very highly significant differences (at the 0.001 level) between battering and control fathers for factors A and F, a highly significant difference (at the 0.01 level) for factor M and a moderately significant (at the 0.05 level) on factor E. (Table 5.II).

In addition factor C appears to discriminate moderately significantly (at the 0.05 level) on the 't' test although it did not shew up in the analysis of variance. Presumably this is a less reliably differentiating factor for the fathers than the four just mentioned.

Mothers' Results

According to the 't' tests employed in the mothers' results, factor C emerged as one of two highly differentiating factors confirming the analysis of variance. In addition, despite its not emerging significantly from the mothers' sample analysis of variance, factor A shewed a difference with a very high level of confidence (0.001) in the 't' test analysis. Less reliable differences emerged from factors E ($P<0.02$) and factor M($P<0.05$). Factor F was of no significance in differentiating between battering and normal mothers. See Table 5.III.

Summary

Thus the most reliable 16. PF factors to differentiate battering from control families were factors A and F for
### ANOVA MATCHED PAIRS

<table>
<thead>
<tr>
<th>FACTOR</th>
<th>D.F.</th>
<th>F.RATIO</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>1 and 7</td>
<td>30.3326</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>E</td>
<td>1 and 7</td>
<td>5.7701</td>
<td>&lt; 0.05</td>
</tr>
<tr>
<td>F</td>
<td>1 and 7</td>
<td>9.5383</td>
<td>&lt; 0.025</td>
</tr>
<tr>
<td>H</td>
<td>1 and 7</td>
<td>9.3658</td>
<td>&lt; 0.025</td>
</tr>
</tbody>
</table>

### ANOVA MATCHED MOTHERS

<table>
<thead>
<tr>
<th>C</th>
<th>D.F.</th>
<th>F.RATIO</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 and 11</td>
<td>5.523</td>
<td>&lt; 0.05</td>
</tr>
</tbody>
</table>

**TABLE 5.1**
### TABLE 5.I

**16.PF TEST RAW SCORES**

**MATCHED FATHERS MEAN SCORES**

<table>
<thead>
<tr>
<th>FACTOR</th>
<th>MEAN</th>
<th>S.D.</th>
<th>DIFFERENCE</th>
<th>MEAN</th>
<th>S.D.</th>
<th>t</th>
<th>P</th>
<th>D.F.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>7.1</td>
<td>1.6</td>
<td>2.6</td>
<td>9.7</td>
<td>1.8</td>
<td>5.62</td>
<td>0.001</td>
<td>14</td>
</tr>
<tr>
<td>C</td>
<td>7.1</td>
<td>1.9</td>
<td>0.9</td>
<td>8.0</td>
<td>1.1</td>
<td>2.16</td>
<td>0.05</td>
<td>14</td>
</tr>
<tr>
<td>E</td>
<td>6.4</td>
<td>1.8</td>
<td>1.1</td>
<td>5.5</td>
<td>2.0</td>
<td>2.15</td>
<td>0.05</td>
<td>14</td>
</tr>
<tr>
<td>F</td>
<td>5.4</td>
<td>1.9</td>
<td>2.7</td>
<td>8.1</td>
<td>2.7</td>
<td>4.28</td>
<td>0.001</td>
<td>14</td>
</tr>
<tr>
<td>M</td>
<td>5.6</td>
<td>1.9</td>
<td>1.6</td>
<td>4.0</td>
<td>2.0</td>
<td>3.03</td>
<td>0.01</td>
<td>14</td>
</tr>
</tbody>
</table>

**TABLE 5.II**

### TABLE 5.II

**16.PF TEST RAW SCORES**

**MATCHED MOTHERS MEAN SCORES**

<table>
<thead>
<tr>
<th>FACTOR</th>
<th>MEAN</th>
<th>S.D.</th>
<th>DIFFERENCE</th>
<th>MEAN</th>
<th>S.D.</th>
<th>t</th>
<th>P</th>
<th>D.F.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>7.1</td>
<td>2.3</td>
<td>1.4</td>
<td>8.5</td>
<td>2.1</td>
<td>3.22</td>
<td>0.001</td>
<td>22</td>
</tr>
<tr>
<td>C</td>
<td>4.8</td>
<td>3.4</td>
<td>3.2</td>
<td>8.0</td>
<td>2.7</td>
<td>6.25</td>
<td>0.001</td>
<td>22</td>
</tr>
<tr>
<td>E</td>
<td>5.8</td>
<td>2.4</td>
<td>1.3</td>
<td>4.5</td>
<td>1.8</td>
<td>2.81</td>
<td>0.02</td>
<td>22</td>
</tr>
<tr>
<td>M</td>
<td>5.4</td>
<td>2.3</td>
<td>1.1</td>
<td>4.3</td>
<td>3.3</td>
<td>2.29</td>
<td>0.05</td>
<td>22</td>
</tr>
<tr>
<td>F</td>
<td>6.3</td>
<td>1.6</td>
<td>0.2</td>
<td>6.5</td>
<td>2.2</td>
<td>-</td>
<td>N.S.</td>
<td>22</td>
</tr>
</tbody>
</table>

**TABLE 5.III**
fathers and factors A and C for the mothers. Similarly the largest differences were shown in these factors. Other smaller and less reliable differences occurred on factors M, C and E for the fathers and factors E and M for the mothers.

The Psychological Significance of the 16PF Results

The tendencies revealed by the 16PF test show that in many of their characteristics, battering parents closely resemble normal parents of the same approximate age and socio-economic status. Where they differ the differences are relatively small. Those differing traits as revealed by the 16PF are discussed below.

FACTOR A. SIZOTOMIA-AFFECTOTOMIA

The low scorer on factor A is described by Cattell (1970) as critical, cool and aloof, distrustful, sceptical, rigid and cold. He is likely to be precise and objective and stand by his own ideas. The high scorer on Factor A is good-natured and easy-going, co-operative, participant, and attentive to people. He is inclined to be soft-hearted, casual and trustful.

This factor was originally interpreted as one that contrasted manic-depressive with the schizophrenic psychotic patients. Subsequent work has supported the conclusion that it is a true "primary" trait which can equally be applied to the normal individual and to the hospitalised psychotic patient.

The battering fathers scored substantially below the control fathers and a similar but less marked trend was shown by the mothers.

It would not be surprising to find a group of volunteer control individuals scoring above the average on overall social ease and participation. But this is by no means the whole explanation. As may be seen from Tables 5.6 and 5.7,
battering parents were in fact subnormally non-participant, whereas the controls in this sample were normally participant.

Cattell claims "an appreciable hereditary influence in determining a person's level of sizothymia-affectothymia. Thus the battering parent appears to be constitutionally more withdrawn and emotionally aloof than the normal parent of his age. Such a finding is in line with predictions made before testing was begun. (See Chapter 9).

FACTOR C. EGO-STRENGTH

According to Cattell (1970), this factor is the main index of normality. He says of factor C, it is "the most general pathological contribution found in neurotics, psychotics, alcoholics and drug addicts". p.84.

Not surprisingly it was the main differentiator for the battering mothers although a similar but less marked and less reliable difference was shewn in the fathers' scores.

Battering parents, according to test scores, shew up as poorly integrated and apparently have poor ego control over impulse. Low C scorers also tend to get emotional when frustrated and easily perturbed. They are liable to get into fights and problem situations.

+ Note on Sten Scores
These represent standard scores with a mean of 5.5. The ten equal interval points covered by STENS 1-10 cover the 5.S.D. of the normal distribution. The norms used are American, (N.P.E.R. 1968), British norms not yet being available, for Form C. Classwork with students shews close approximation to American student norms.
<table>
<thead>
<tr>
<th>FACTOR</th>
<th>Raw Score</th>
<th>Standard Score</th>
<th>Low Score Description</th>
<th>Standard Ten Score (STEN)</th>
<th>High Score Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td></td>
<td></td>
<td>RESERVED, DETACHED, CRITICAL, ALOOF (Sizality)</td>
<td>1...</td>
<td>OUTGOING, WARMHEARTED, EASY-GOING, PARTICIPATING (Affectothymia, formerly cyclothymia)</td>
</tr>
<tr>
<td>B</td>
<td></td>
<td></td>
<td>LESS INTELLIGENT, CONCRETE-THINKING (Lower scholastic mental capacity)</td>
<td>2...</td>
<td>MORE INTELLIGENT, ABSTRACT-THINKING, BRIGHT (Higher scholastic mental capacity)</td>
</tr>
<tr>
<td>C</td>
<td></td>
<td></td>
<td>AFFECTED BY FEELINGS, EMOTIONALLY LESS STABLE, EASILY UPSET (Lower ego strength)</td>
<td>3...</td>
<td>EMOTIONALLY STABLE, FACES REALITY, CALM, MATURE (Higher ego strength)</td>
</tr>
<tr>
<td>E</td>
<td></td>
<td></td>
<td>HUMBLE, MILD, ACCOMMODATING, CONFORMING (Submissiveness)</td>
<td>4...</td>
<td>ASSERTIVE, AGGRESSIVE, STUBBORN, COMPETITIVE (Dominance)</td>
</tr>
<tr>
<td>F</td>
<td></td>
<td></td>
<td>SOBER, PRUDENT, SERIOUS, TACITURN (Desurgery)</td>
<td>5...</td>
<td>HAPPY-GO-LUCKY, IMPULSIVELY LIVELY, GAY, ENTHUSIASTIC (Surgery)</td>
</tr>
<tr>
<td>G</td>
<td></td>
<td></td>
<td>EXPEDIENT, DISREGARDS RULES, FEELS FEW OBLIGATIONS (Weaker superego strength)</td>
<td>6...</td>
<td>CONSCIENTIOUS, PERSEVERING, STAID, MORALISTIC (Stronger superego strength)</td>
</tr>
<tr>
<td>H</td>
<td></td>
<td></td>
<td>SHY, RESTRAINED, TIMID, THREAT-SENSITIVE (Threat)</td>
<td>7...</td>
<td>VENTURESENE, SOCIALLY BOLD, UNINHIBITED, SPONTANEOUS (Paranoia)</td>
</tr>
<tr>
<td>L</td>
<td></td>
<td></td>
<td>TOUGH-MINDED, SELF-RELIANT, REALISTIC, NO-NONSENSE (Hormia)</td>
<td>8...</td>
<td>TENDER-MINDED, CLINGING, OVER-PROTECTED, SENSITIVE (Premia)</td>
</tr>
<tr>
<td>M</td>
<td></td>
<td></td>
<td>TRUSTING, ADAPTABLE, FREE OF JEALOUSY, EASY TO GET ALONG WITH (Alacia)</td>
<td>9...</td>
<td>SUSPICIOUS, SELF-OPIGNITATED, HARD TO FOOL (Protension)</td>
</tr>
<tr>
<td>N</td>
<td></td>
<td></td>
<td>PRACTICAL, CAREFUL, CONVENTIONAL, REGULATED BY EXTERNAL REALITIES, PROPER (Proseria)</td>
<td>10...</td>
<td>IMAGINATIVE, WRAPPED UP IN INNER URGENCIES, CARELESS OF PRACTICAL (Autia)</td>
</tr>
<tr>
<td>O</td>
<td></td>
<td></td>
<td>FORTHRIGHT, NATURAL, ARTLESS, UNPRETENTIOUS (Artlessness)</td>
<td></td>
<td>MATTERS, BOHEMIAN</td>
</tr>
<tr>
<td>Q1</td>
<td></td>
<td></td>
<td>SELF-ASSURED, CONFIDENT, SERENE (Untroubled adequacy)</td>
<td></td>
<td>SHREW, CALCULATING, WORLDLY, PENETRATING (Shrewness)</td>
</tr>
<tr>
<td>Q2</td>
<td></td>
<td></td>
<td>CONSERVATIVE, RESPECTING ESTABLISHED IDEAS, TOLERANT OF TRADITIONAL DIFFICULTIES (Conservatism)</td>
<td></td>
<td>APPREHENSIVE, SELF-REPROACHING, WORRYING, TROUBLED (Guilt proneness)</td>
</tr>
<tr>
<td>Q3</td>
<td></td>
<td></td>
<td>GROUP-DEPENDENT, A &quot;JOINER&quot; AND SOUND FOLLOWER (Group adherence)</td>
<td></td>
<td>EXPERIMENTING, LIBERAL, ANALYTICAL, FREE-THINKING (Radicalism)</td>
</tr>
<tr>
<td>Q4</td>
<td></td>
<td></td>
<td>UNDISCIPLINED SELF-CONFLICT, follows own urges, careless of protocol (Low integration)</td>
<td></td>
<td>SELF-SUFFICIENT, PREFERS OWN DECISIONS, RESOURCEFUL (Self-sufficiency)</td>
</tr>
<tr>
<td>Q5</td>
<td></td>
<td></td>
<td>RELAXED, TRANQUIL, UNFRUSTRATED (Low ego tension)</td>
<td></td>
<td>CONTROLLED, SOCIALLY PRECISE, FOLLOWING SELF-IMAGE (High self-concept control)</td>
</tr>
<tr>
<td>Q6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>TENSE, FRUSTRATED, OVERWrought (High ego tension)</td>
</tr>
<tr>
<td>FACTOR</td>
<td>Raw Score</td>
<td>Standard Score</td>
<td>Low Score Description</td>
<td>Standard Ten Score (STEN)</td>
<td>High Score Description</td>
</tr>
<tr>
<td>--------</td>
<td>-----------</td>
<td>----------------</td>
<td>-----------------------</td>
<td>---------------------------</td>
<td>------------------------</td>
</tr>
<tr>
<td>A</td>
<td></td>
<td></td>
<td>RESERVED, DETACHED, CRITICAL, ALOOF (Sizohymia)</td>
<td>A</td>
<td>OUTGOING, WARMHEARTED, EASY-GOING, PARTICIPATING (Affectothymia, formerly cyclothymia)</td>
</tr>
<tr>
<td>B</td>
<td></td>
<td></td>
<td>LESS INTELLIGENT, CONCRETE, THINKING (Lower scholastic mental capacity)</td>
<td>B</td>
<td>MORE INTELLIGENT, ABSTRACT-THINKING, BRIGHT (Higher scholastic mental capacity)</td>
</tr>
<tr>
<td>C</td>
<td></td>
<td></td>
<td>AFFECTED BY FEELINGS, EMOTIONALLY LESS STABLE, EASILY UPSET (Lower ego strength)</td>
<td>C</td>
<td>EMOTIONALLY STABLE, FACES REALITY, CALM, MATURE (Higher ego strength)</td>
</tr>
<tr>
<td>D</td>
<td></td>
<td></td>
<td>HUMBLE, MILD, ACCOMMODATING, CONFORMING (Submit-siveness)</td>
<td>D</td>
<td>ASSERTIVE, AGGRESSIVE, STUBBORN, COMPETITIVE (Dominance)</td>
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<tr>
<td>E</td>
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<td></td>
<td>SOBER, PRUDENT, SERIOUS, TACITURN (Desurgery)</td>
<td>E</td>
<td>HAPPY-GO-LUCKY, IMPULSIVELY LIVELY, GAY, ENTHUSIASTIC (Surgency)</td>
</tr>
<tr>
<td>F</td>
<td></td>
<td></td>
<td>EXPEDIENT, DISREGARDS RULES, FEELS FEW OBLIGATIONS (Weaker superego strength)</td>
<td>F</td>
<td>CONSCIENTIOUS, PERSEVERING, STAUD, MORALISTIC (Stronger superego strength)</td>
</tr>
<tr>
<td>G</td>
<td></td>
<td></td>
<td>SHY, RESTRAINED, TIMID, THREAT-SENSITIVE (Thetitia)</td>
<td>G</td>
<td>VENTUROUS, SOCIALLY BOLD, UNINHIBITED, SPONTANEOUS (Pathia)</td>
</tr>
<tr>
<td>H</td>
<td></td>
<td></td>
<td>TOUGH-MINDED, SELF-RELIANT, REALISTIC, NO-NONSENSE (Harrisa)</td>
<td>H</td>
<td>TENDER-MINDED, CLINGING, OVER-PROTECTED, SENSITIVE (Pammisa)</td>
</tr>
<tr>
<td>I</td>
<td></td>
<td></td>
<td>TRUSTING, ADAPTABLE, FREE OF JEALOUSY, EASY TO GET ALONG WITH (Alpha)</td>
<td>I</td>
<td>SUSPICIOUS, SELF-OPIIONATED, HARD TO FOOL (Protension)</td>
</tr>
<tr>
<td>J</td>
<td></td>
<td></td>
<td>PRACTICAL, CAREFUL, CONVENTIONAL, REGULATED BY EXTERNAL REALITIES, PROPER (Proxemia)</td>
<td>J</td>
<td>IMAGINATIVE, WRAPPED UP IN INNER URGENCIES, CARELESS OF PRACTICAL URGES, MATTERS, BOHEMIAN</td>
</tr>
<tr>
<td>K</td>
<td></td>
<td></td>
<td>FORTHRIGHT, NATURAL, ARTLESS, UNPRETENTIOUS (Artlessness)</td>
<td>K</td>
<td>SHREWED, CALCULATING, WORLDLY, PENETRATING (Shrewdness)</td>
</tr>
<tr>
<td>L</td>
<td></td>
<td></td>
<td>SELF-ASSURED, CONFIDENT, SERENE (Untroubled adequacy)</td>
<td>L</td>
<td>APPREHENSIVE, SELF-REPROACHING, WORRYING, TROUBLED (Guilt proneness)</td>
</tr>
<tr>
<td>M</td>
<td></td>
<td></td>
<td>CONSERVATIVE, RESPECTING ESTABLISHED IDEAS, TOLERANT OF TRADITIONAL DIFFICULTIES (Conservatism)</td>
<td>M</td>
<td>EXPERIMENTING, LIBERAL, ANALYTICAL, FREE-Thinking (Radicalism)</td>
</tr>
<tr>
<td>N</td>
<td></td>
<td></td>
<td>GROUP-DEPENDENT, A &quot;JOINER&quot; AND SOUND FOLLOWER (Group adherence)</td>
<td>N</td>
<td>SELF-SUFFICIENT, PREFERENCES OWN DECISIONS, RESOURCEFUL (Self-sufficiency)</td>
</tr>
<tr>
<td>O</td>
<td></td>
<td></td>
<td>UNDISCIPLINED SELF-CONFLICT, FOLLOWS OWN URGES, CARELESS OF PROTOCOL (Low integration)</td>
<td>O</td>
<td>CONTROLLED, SOCIALY PRECISE, FOLLOWING SELF-IMAGE (High self-concept control)</td>
</tr>
<tr>
<td>P</td>
<td></td>
<td></td>
<td>RELAXED, TRANQUIL, UNFRUSTRATED (Low ergic tension)</td>
<td>P</td>
<td>TENSE, FRUSTRATED, DRIVEN, OVERWROUGHT (High ergic tension)</td>
</tr>
</tbody>
</table>

Comments:
Cattell (1970) sums the C factor up as "a factor of dynamic integration and maturity as opposed to uncontrolled disorganised emotionality". p.83.

This factor again obeys pre-test prediction, and as will be seen in Chapter 9 confirms most of the psychiatric literature concerning the battering parent.

FACTOR E. SUBMISSIVENESS-DOMINANCE

This factor contrasts submissiveness in low scorers with assertive independence for high scorers. Low scorers tend to be diplomatic and considerate, they are humble in relation to authority and on the whole dependent on others. High scorers tend on the other hand to shew considerable hostility and rebelliousness. They are demanding and independent.

This factor does not shew big differences for either parent but there was a significant tendency for the battering parents to score higher in E than the control parents. This suggests that Galdston's (1966) insistence that it is not in their potentiality for aggression, but in their capacity to symbolise and to displace aggression that battering parents differ, is incorrect.

Again Cattell (1970) claims that this factor is appreciably influenced by heredity and is usually one distinguishing the sexes.

FACTOR F. SURGENCY

The factor of "surgency" was one of the first personality variables to be successfully isolated by Cattell and is defined by a person's over all "life force". People gaining low surgency scores lack vivacity and drive and tend to be silent, languid and reticent.
Cattell comments (1970), "Surgent persons have generally had an easier, less punishing, more optimism-creating environment". p.87.

The difference in this respect between battering and normal fathers was quite marked; indeed it was the largest difference between them.

Again it would not be surprising for volunteer controls to show enthusiasm and alertness above the average, but as with the A scores, the battering fathers made scores further below the norm than did the control fathers above. There would seem to be a genuine difference here. This difference was correctly predicted before testing began.

**FACTOR M. PRAXERNA-AUTIA**

This factor contrasts the imaginative person given to unreal flights of fancy with the stolid, practical, reality orientated individual. High M scorers tend to have higher anxiety and to be subject to immature, self-centred episodes. The normal parent came closer to the practical end of the continuum while both battering mothers and battering fathers score in the impractical unrealistic direction. However, differences were small.

**SECOND ORDER FACTORS**

Cattell (1952) (1970) proposes several second order factors which may be calculated from the sixteen primary factors.

1. Extraversion-Intraversion

The extraversion-intraversion factor is the most relevant to this study since three of the five primary factors which differentiated the battering from normal parents contribute to this second order factor viz A : E : & F. Accordingly the
second order sten scores for the E-I factor were calculated, and paired 't' tests carried out for fathers and mothers separately. These are shown in Table 5.IX. As before American norms have been used but any bias arising is probably equal for battering and control subjects.

**Discussion**

It is quite clear that battering fathers were significantly more introverted than the control fathers.

The mothers were little different from the control mothers. This is probably largely due to the absence of difference in their F scale score.

Recent work by Cattell (1970) shows the following loadings of the primary factors on the second order factor of Extraversion-Introversion:

- Factor A .85 for women and .62 for men
- Factor E .26 for women and .41 for men
- Factor F .66 for women and .84 for men
- Factor H .52 for women and .78 for men
- Factor Q2 -.72 for women and -.78 for men p.121.

Despite the fact that battering fathers scored above normal fathers on scale E, and did not significantly differ in mean H or Q2 scores, they still appear over-all, to be more introverted than normal fathers.

**Heritability of Extraversion-Intraversion**

The research evidence into the hereditability of E-I concurs. Eysenck (1956) (1969) has variously estimated its hereditary component as 75% and more recently (See Eysenck 1970) as 50%. Mittler (1970) supports an intermediate
Thus one may conclude that battering fathers are, by constitutionally determined temperamental disposition, much less extraverted than is normal.

2. Neuroticism

The other second order factor which is of interest in this study, is that of Neuroticism. In the case of the mothers, as we have seen, there was a highly significant difference in their C scale scores. This scale has been found to be a contributor to the second order neuroticism factor. Thus Souief, Eysenck and White (See Eysenck, 1970), found -0.44 loading for scale C on the N factor for men and -0.37 for women. Cattell (1970) gives much higher loadings of -0.86 and -0.80 for men and women respectively. Accordingly the mean second order N factor scores have been calculated for each group and the paired 't' test results for mothers and for fathers are shewn in Table 5.VIII.

There was a tendency for the battering mothers to get higher scores than the normal mothers but this was not at a significant level. The fathers were even less distinguished by their N scores.

Eysenck (1970) is scathing about Cattell's use of primary factors and insists that only second (or even) third order factors are meaningful. He says (p.228) "Cattell's questionnaires may be used to measure these two type-factors (E-I, & N) and do so probably with the same degree of accuracy as do the Eysenck and Guildford questionnaires, but they should not be used to measure the Cattell primary factors, whose existence receives no support from this investigation"
### 16. PF Test Second Order Factor Scores. Neuroticism

<table>
<thead>
<tr>
<th></th>
<th>Battering Mothers</th>
<th>Control Mothers</th>
<th>Battering Fathers</th>
<th>Control Fathers</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mean Neuroticism Score</strong></td>
<td>6.7</td>
<td>5.6</td>
<td>6.6</td>
<td>6.0</td>
</tr>
<tr>
<td><strong>Mean Difference</strong></td>
<td>1.0416</td>
<td></td>
<td>1.0125</td>
<td></td>
</tr>
<tr>
<td><strong>Variance of Difference</strong></td>
<td>3.2606</td>
<td>2.7377</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>t</strong></td>
<td>1.1066</td>
<td></td>
<td>1.0460</td>
<td></td>
</tr>
<tr>
<td><strong>D.F.</strong></td>
<td>11</td>
<td></td>
<td>7</td>
<td></td>
</tr>
<tr>
<td><strong>P</strong></td>
<td>N.S.</td>
<td></td>
<td>N.S.</td>
<td></td>
</tr>
</tbody>
</table>

**Table 5.VIII**

### 16. PF Test Second Order Factor Scores. Extraversion-Introversion

<table>
<thead>
<tr>
<th></th>
<th>Battering Mothers</th>
<th>Control Mothers</th>
<th>Battering Fathers</th>
<th>Control Fathers</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mean E-I Score</strong></td>
<td>4.6</td>
<td>5.1</td>
<td>3.4</td>
<td>6.0</td>
</tr>
<tr>
<td><strong>Mean Difference</strong></td>
<td>0.4750</td>
<td></td>
<td>2.600</td>
<td></td>
</tr>
<tr>
<td><strong>Variance of Difference</strong></td>
<td>2.5262</td>
<td>2.1480</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>t</strong></td>
<td>0.6513</td>
<td></td>
<td>3.4237</td>
<td></td>
</tr>
<tr>
<td><strong>D.F.</strong></td>
<td>11</td>
<td></td>
<td>7</td>
<td></td>
</tr>
<tr>
<td><strong>P</strong></td>
<td>N.S.</td>
<td></td>
<td>0.02 &gt; P &gt; 0.01</td>
<td></td>
</tr>
</tbody>
</table>

**Table 5.IX**
However, although a close parallel has been found between
the primary factors and the second order factor of E-l in the
present study this has not been so with the N second order
factors. Battering mothers were not generally, nor markedly,
more neurotic at the second order factor level, than their
matched controls. Rather they shewed a specific deficit in
ego-organisation; that is in reality appraisal and adaptation.
They are not necessarily more prone to anxiety, worry and
annoyance. It is their control over impulse, and integration
of experience in which deficits occur, in the absence of a
generalised neurotic temperament.

Furthermore, Eysenck's (1970) strictures derive from an
investigation employing a hybrid form of the various 16.PF
scales given to some 1200 individuals whereas Cattell's (1970)
most comprehensive and recent factor analyses of his primary
scales, derive from their use on some 6476 men and women.

SPECIFICATION SCORES

In his most recent handbook on the 16.PF test, Cattell
(1970) has published specification equations which allow the
psychologist to compare individual or group scores with pub­
lished findings on specified reference groups. These include
"typical" neurotic patients and "typical" psychotic patients.
This procedure has been followed with the battering and normal
mothers and fathers. Their average specification scores are
shewn in Table 5.X. These scores are stated in stens (calculated
from the mean raw scores) with the implication that the higher
the sten the more confidence one may have that the group or
individual matches the reference group.

Discussion of Results of Specification Scores

None of the groups matches to the neurotic nor to the
psychotic profile at all closely. The nearest match was for
### 16. PF Test Specification Scores

#### Neurotic Specification Scores

<table>
<thead>
<tr>
<th></th>
<th>Fathers</th>
<th>Mothers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control</td>
<td>5.4</td>
<td>5.1</td>
</tr>
<tr>
<td>Experimental</td>
<td>5.8</td>
<td>6.4</td>
</tr>
</tbody>
</table>

#### Psychotic Specification Scores

<table>
<thead>
<tr>
<th></th>
<th>Fathers</th>
<th>Mothers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control</td>
<td>5.6</td>
<td>5.1</td>
</tr>
<tr>
<td>Experimental</td>
<td>7.4</td>
<td>5.5</td>
</tr>
</tbody>
</table>

**Table 5.X**

+ Based on STENS calculated from the mean raw scores of each sub-group.
the experimental fathers to the psychotic specification. The difference between control and battering fathers on the psychotic specification score amounts to a difference of 1.2 S.D. These scores confirm the psychiatric literature that few battering parents fall clearly into any well-defined psychiatric classification.

The experimental fathers' closer match to the psychotic than to the neurotic profile was in line with pretest prediction, as is the absence of match by either battering parent group to the neurotic profile.

The latter finding is also consistent with the second order factor findings just discussed.

**SUMMARY OF 16PF TEST FINDINGS**

Although in many respects the battering parents resembled the normal parents in many of the test factors, there were several marked differences.

Predictions that they would differ on factors H, Q3, L, O and Q4 were not borne out. Predictions that battering parents would be poorer in Ego Strength (Factor G), more withdrawn from society (Factor A) and less enthusiastic and venturesome (Factor F) were confirmed. (Factor F for the fathers only). Additionally, battering parents, contrary to expectation, were marginally more aggressive (Factor E) than the control parents and they also tended to be less reality adjusted (Factor M) than normal parents.

Battering fathers shewed a closer tendency to match a psychotic profile than to a neurotic one as was predicted. Battering mothers matched neither the psychotic nor the neurotic profile.
Battering parents resembled normal parents in their mean second order Neuroticism scores. Battering fathers scored significantly lower than the control fathers on the second order factor of Extraversion-Intraversion.
CHAPTER 6. The Results

The Parent Attitude Research Instrument

The results of this test have been analysed in two ways. In the first place a factorial analysis of variance has been made on:

a) the matched pairs sample and
b) the matched mothers' sample.

These results are shewn in Tables 6.1 and 6.11 respectively. In the second place the PARI results have been subjected to a principal components analysis applied to the total sample of forty battering and non-battering subjects' responses to the thirty PARI statements. These results are shewn in Tables 6.1V, 6.V, 6.VI, 6.VII and 6.VIII.

The Analysis of Variance Results

For the matched pairs sample only statements 2, 4, 6, 10 and 22 differentiated between the battering and control parents at an acceptable level. Statements 15 and 20 shewed a non-significant trend toward differentiation.

For the matched mothers' sample the test was even less revealing. Only statements 2 and 22 distinguished between the battering and the non-battering mothers. Statements 4, 15 and 23 shewed a non-significant trend toward differentiation.

Thus, very few of the PARI statements differentiated between the two groups of battering and non-battering parents. Of the items which did so (see Tables 6.1 and 6.11) three came from the factor named by Schaeffer and Bell (1958a) "Fear of Harming the Baby Factor". (nos. 2, 6 and 22. See Appendix p.14). A separate t test on the mean scores made on the five statements contributing to this factor was carried out. The result is
shewn in Table 6.1. It confirms the previous analyses in suggesting a significant difference on this factor. The few statements which do differentiate between the experimental and control subjects, shew very small differences. On the whole, both samples tended to agree or both tended to disagree with the statements. Rarely were there any clear cut divisions between battering and control parents with one sample agreeing while the other disagreed.

"Agree" statements were scored 5 or 4 according to the extent of agreement, while "Disagree" statements were scored 1 on 2. As may be seen from Tables 6.1 and 6.11 even where scores differed, they did so mainly in the extent of agreement and disagreement rather than in direction.

Discussion of Analysis of Variance Results

The "Fear of Harming the Baby" factor results are not very revealing. The experimenter was known to the battering parents as a member of a team concerned with problem families. It is not really surprising that they claimed to fear the consequence of harming the baby more than the control families who were known not to have problems over caring for their children.

These results do not support the work of Elizabeth Elmer (1967) who reported differences in the PARI between her abusive and non-abusive parents on the following factors:

(2) Irritability
(3) Marital conflict
(7) Attitude towards home making
(9) Ascendancy of the mother
(10) Seclusiveness of the mother
(19) Exclusion of outside influences

Elmer's (1967) sample appears to have been rather
**P.A.R.I. MEAN VALUES OF DIFFERENTIATING STATEMENTS**

**FOR MATCHED PAIRS SAMPLE**

<table>
<thead>
<tr>
<th>STATEMENT</th>
<th>BATTERING PARENTS MEAN</th>
<th>CONTROL PARENTS MEAN</th>
<th>D.F.</th>
<th>F.(EXPERIMENTAL VERSUS CONTROLS)</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>4.9</td>
<td>4.0</td>
<td>1+7</td>
<td>12.2500</td>
<td>&lt; .01</td>
</tr>
<tr>
<td>4</td>
<td>2.2</td>
<td>2.3</td>
<td>1+7</td>
<td>7.3521</td>
<td>&lt; .05</td>
</tr>
<tr>
<td>6</td>
<td>3.6</td>
<td>2.0</td>
<td>1+7</td>
<td>11.3753</td>
<td>&lt; .025</td>
</tr>
<tr>
<td>10</td>
<td>3.6</td>
<td>2.6</td>
<td>1+7</td>
<td>11.5592</td>
<td>&lt; .025</td>
</tr>
<tr>
<td>15</td>
<td>2.0</td>
<td>3.0</td>
<td>1+7</td>
<td>5.3947</td>
<td>0.1&gt;P&gt;0.05</td>
</tr>
<tr>
<td>20</td>
<td>4.7</td>
<td>3.9</td>
<td>1+7</td>
<td>5.5024</td>
<td>0.1&gt;P&gt;0.05</td>
</tr>
<tr>
<td>22</td>
<td>4.1</td>
<td>2.8</td>
<td>1+7</td>
<td>12.7278</td>
<td>.01</td>
</tr>
</tbody>
</table>

+ This refers to the interaction of battering versus control effect with sex effect. Thus scores for statement 4 are as follows:

<table>
<thead>
<tr>
<th></th>
<th>BATTERING</th>
<th>CONTROL</th>
</tr>
</thead>
<tbody>
<tr>
<td>MOTHERS</td>
<td>2.6</td>
<td>1.9</td>
</tr>
<tr>
<td>FATHERS</td>
<td>1.7</td>
<td>2.9</td>
</tr>
</tbody>
</table>

**TABLE 6.1**
## Table 6.11

### Mean Values of Differentiating Statements for Matched Mothers Sample

<table>
<thead>
<tr>
<th>Statement</th>
<th>Battering Mothers Mean</th>
<th>Control Mothers Mean</th>
<th>D.F.</th>
<th>F (Experimental vs. Control)</th>
<th>P Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>5.0</td>
<td>4.4</td>
<td>1+11</td>
<td>6.5992</td>
<td>&lt; 0.05</td>
</tr>
<tr>
<td>4</td>
<td>2.5</td>
<td>1.7</td>
<td>1+11</td>
<td>3.1428</td>
<td>0.1 &gt; P &gt; 0.05</td>
</tr>
<tr>
<td>15</td>
<td>2.1</td>
<td>3.2</td>
<td>1+11</td>
<td>3.7288</td>
<td>0.1 &gt; P &gt; 0.05</td>
</tr>
<tr>
<td>22</td>
<td>3.8</td>
<td>2.6</td>
<td>1+11</td>
<td>5.6737</td>
<td>&lt; 0.05</td>
</tr>
<tr>
<td>23</td>
<td>2.6</td>
<td>3.3</td>
<td>1+11</td>
<td>3.665</td>
<td>0.1 &gt; P &gt; 0.05</td>
</tr>
<tr>
<td></td>
<td>Factor Mean</td>
<td>Difference</td>
<td>t</td>
<td>D.F.</td>
<td>P</td>
</tr>
<tr>
<td>----------------</td>
<td>-------------</td>
<td>------------</td>
<td>----</td>
<td>------</td>
<td>--------</td>
</tr>
<tr>
<td>Battering Parents</td>
<td>12.2</td>
<td>3.4</td>
<td>10.5</td>
<td>38</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Control Parents</td>
<td>8.8</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**TABLE 6.111**
different from the present one, including as it did over fifty percent of children under ten months of age, whereas the present investigation included only thirty percent in this age group.

Elmer's (1967) families seem to have been larger and poorer, most being above average size, whereas most of the battered children presently under investigation were only children and the social class differences between present battering families and controls were small. In addition Elmer failed to report the statistical significance of her findings.

It may be that the decision to shorten the test was premature (see Chapter 3). Certainly it makes comparison with Elmer's results difficult. However in an earlier analysis of the full test as used by Elmer and based on thirteen controls and thirteen experimental cases, the factors found by her were not those which differentiated the present batterers from the control families.

II Principal Components Analysis

The principal component analysis carried out on the correlation matrix of the PARI statements was undertaken with two purposes in mind.

i) To reveal what patterns the individual statements would fall into.

ii) To show what clusters the individuals in the sample might form.

The vector loadings for the first three vectors are shown in Table 6.1V. The position of the test statements in a two dimensional space are shown in Tables 6.V and 6.V1. Table 6.V shows the test statements plotted on coordinates representing vectors 1 and 2. Table 6.V1 shows the test statements plotted for coordinates representing vectors 1 and 3. The position of people in terms of these three vectors is shown in Tables 6.Vll and 6.Vlll.
<table>
<thead>
<tr>
<th>PARI STATEMENT</th>
<th>VECTOR 1</th>
<th>VECTOR 2</th>
<th>VECTOR 3</th>
<th>% total contribution</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>17.1777</td>
<td>11.7150</td>
<td>7.4613</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>0.1560</td>
<td>0.1437</td>
<td>0.0789</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>0.0652</td>
<td>0.1809</td>
<td>0.2123</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>0.2597</td>
<td>0.0374</td>
<td>-0.0978</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>0.0340</td>
<td>0.2567</td>
<td>0.2332</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>-0.0895</td>
<td>0.3053</td>
<td>0.0801</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>-0.0523</td>
<td>0.0734</td>
<td>0.4892</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>-0.2053</td>
<td>0.2557</td>
<td>0.0933</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>0.2466</td>
<td>0.0849</td>
<td>0.0552</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>0.2411</td>
<td>0.1450</td>
<td>-0.2149</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>-0.1771</td>
<td>0.1468</td>
<td>0.1587</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>0.0750</td>
<td>0.2116</td>
<td>-0.1091</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>0.1395</td>
<td>0.0325</td>
<td>0.4131</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>0.1561</td>
<td>0.1920</td>
<td>-0.0571</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>-0.1626</td>
<td>0.2773</td>
<td>0.0472</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>0.5055</td>
<td>-0.1543</td>
<td>0.0322</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>-0.2558</td>
<td>-0.0465</td>
<td>-0.1992</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>0.1246</td>
<td>0.1379</td>
<td>-0.1464</td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>0.0716</td>
<td>0.3516</td>
<td>-0.1144</td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>0.1720</td>
<td>0.1171</td>
<td>-0.0273</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>-0.2558</td>
<td>0.1790</td>
<td>-0.1040</td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>0.1680</td>
<td>0.1714</td>
<td>-0.0305</td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>-0.2393</td>
<td>0.1928</td>
<td>0.0106</td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>0.2075</td>
<td>0.0816</td>
<td>-0.2869</td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>-0.1209</td>
<td>-0.0449</td>
<td>0.0783</td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>0.1252</td>
<td>0.1808</td>
<td>0.0264</td>
<td></td>
</tr>
<tr>
<td>26</td>
<td>-0.1881</td>
<td>-0.1474</td>
<td>-0.3103</td>
<td></td>
</tr>
<tr>
<td>27</td>
<td>0.3380</td>
<td>-0.1344</td>
<td>0.1196</td>
<td></td>
</tr>
<tr>
<td>28</td>
<td>-0.1279</td>
<td>0.2789</td>
<td>-0.2315</td>
<td></td>
</tr>
<tr>
<td>29</td>
<td>0.1504</td>
<td>0.2536</td>
<td>0.0757</td>
<td></td>
</tr>
<tr>
<td>30</td>
<td>-0.0511</td>
<td>-0.0429</td>
<td>0.1448</td>
<td></td>
</tr>
</tbody>
</table>

"Strictness" statements
"Ascendancy of the Mother" statements
"Fear of Harming the Baby" statements

TABLE 6.IV
Table 6  \( \vec{V} \)  POSITION OF PARI FACTORS

<table>
<thead>
<tr>
<th>m</th>
<th>0.56433</th>
<th>0.46948</th>
<th>-0.11</th>
</tr>
</thead>
<tbody>
<tr>
<td>f1</td>
<td>-0.37463</td>
<td>0.27978</td>
<td>0.18493</td>
</tr>
<tr>
<td>f2</td>
<td>0.90080E-01</td>
<td>-0.47692E-02</td>
<td>-0.99618E-01</td>
</tr>
</tbody>
</table>

fear of harming the baby

VECTOR 1
Table 6  VI POSITION OF PARI FACTORS ON

<table>
<thead>
<tr>
<th>Factor</th>
<th>Vector 3</th>
<th>Vector 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>fear</td>
<td>0.61231</td>
<td>0.49269</td>
</tr>
<tr>
<td></td>
<td>0.37307</td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.25345</td>
<td>0.100</td>
</tr>
<tr>
<td></td>
<td>-0.14206</td>
<td>0.308</td>
</tr>
<tr>
<td></td>
<td>-0.10541</td>
<td>0.172</td>
</tr>
<tr>
<td></td>
<td>-0.34466</td>
<td>0.581</td>
</tr>
<tr>
<td></td>
<td>-0.46428</td>
<td></td>
</tr>
</tbody>
</table>

Legend:
- 6  fear
- 4
- 2  fear
- 10
- 24
- 30
- 22  fear
- 14  fear
- 18
- 16
- 28
- 26  fear
Table 6 VIII  INDIVIDUALS PLOTTED ON VECTORS

vector 3

vector 1
Discussion of the Principal Components Analysis

As may be seen from Table 6.IV, the first three vectors account for some 36% of the total vector variance. Vector I, the largest, accounting for 17% of the total, appears to contrast the "Strictness" statements (positive loadings), with the "Fear of Harming the Baby" statements, (negative loadings).

Vector 2, representing 11% of the total variance, seemed to contrast the "Ascendancy of the Mother" statements (higher positive loadings), with the "Strictness" statements (negative and lower positive loadings). Vector 3 gives a less clear cut picture, the only meaningful indication being a contrast within the "Fear of Harming the Baby" factor statements. Thus at the positive end of this vector, lie two of the "Fear of Harming the Baby" statements (2 and 6). At the negative end lies statement 26, which says:

"A mother's greatest fear is that in a forgetful moment she might let something bad happen to the baby".

It will be remembered that this factor over all tended to differentiate between the battering and the control parents. This one statement however, appears not to follow that trend. Presumably the battering parents found it too close to the truth to tolerate, and therefore disagreed out of denial, while for the normal parents it was not true and they too disagreed.

This may also explain why the mean factor scores on the "Fear of harming the Baby" factor, while statistically different, did not show a more clear cut distinction than they did. (See Table 6.III).

It should be noted, however, that a number of other statements, outside those relevant to the named factors also appear on all these vectors. It would therefore, seem that although the Schaefer and Bell factors do appear in recognisable form from the principal components analysis, they do not do so in a pure form.
These results are represented topographically in Tables 6.V and 6.VI. From these may be seen the groupings of the PARI factors as named by Schaefer and Bell (1953a) on the principal components vectors derived from the present data.

Table 6.V shews that in addition to these Schaefer and Bell factors, another cluster cutting across their factor groupings has emerged. This includes the statements, 1, 9, 13, 17 and 21. This may be very easily named a "Parent Dominance" cluster, including as it does statements like,

9. "The child should be taught to revere his parents above all other grown-ups", or
13. "A wise parent will teach a child early just who is boss".

All the statements included in this cluster may be seen in the appendix pp. 12-13.

Thus overall there is some evidence to support the 'reality' of three of Schaeffer and Bell's factors on the PARI for the present sample of battering and non-batterers parents.

However, when an attempt is made to use the PARI statements to differentiate between the battering and the control families, the PARI as we have already seen from the analysis of variance results, is not appropriate. The "people clusters" as shewn in Tables 6.VII and 6.VIII reveal a random array bearing little relation to the separation of the sample subjects into a "Battering Cluster" and a "Normal Cluster". Table 6.VII shews a slight tendency to differentiate battering from normals in terms of Vector 1. The shaded areas shew parallel but separated answers for the two samples with the battering parents gaining more negative Vector 1 scores while more of the controls tend to appear located in the positive zone of Vector 1.
This vector, as will be remembered contrasted "Fear of Harming the Baby" at the negative pole, with "Strictness" at the positive pole. Mean scores from each group are as follows:

<table>
<thead>
<tr>
<th>Battering Parents</th>
<th>Control Parents</th>
</tr>
</thead>
<tbody>
<tr>
<td>12.2</td>
<td>8.8 Fear of Harming Baby</td>
</tr>
<tr>
<td>10.8</td>
<td>12.0 Strictness</td>
</tr>
</tbody>
</table>

It appears therefore that in vector terms battering parents are characterised by relatively low "Strictness" scores and relatively high "Fear of Harming" scores; while control parents are characterised by relatively higher "Strictness" scores and lower "Fear of Harming" scores.

At first sight it might seem strange that battering parents are less not more strict than normal parents. In an earlier analysis on thirteen cases this trend was even more marked. However, a closer examination of the responses taken in conjunction with other differentiating statements in that analysis, suggested not that the battering parents were in fact less strict, but that they had considerable difficulty in the assumption of the normal parental role. This trend barely emerges in this study, only one statement to the effect that "Having to be with the children all day gives a woman the feeling that her wings have been clipped" really falls into this category. Nevertheless the explanation about the strictness trend needs to be borne in mind. This point is taken up more fully in Chapter 9 where its relevance to other research by Elmer (1967) and Schneider (1972) is considered.

It must be remembered that:

1. The differentiation as shown in Table 6.VII is far from clear cut.
(2) The "Strictness" scores did not shew clear and significant differences between the two samples in the analysis of variance, although the "Fear of Harming" scores did shew significant differences between abusive and non-abusive parents.

(3) The trend plotted on Table 6.8, slight as it is, is the only one to suggest that the PARI is at all able to discriminate between the two samples.

This confirms the previous analysis of variance results in shewing the PARI as a poor tool for picking out abusive parents. A similar attempt by Schneider (1972) to differentiate between thirty abusive and thirty non-abusive families in terms of their responses to a parent attitude questionnaire appears to have encountered similar difficulties.

In Schneider's questionnaire using different items from the PARI statements, 4 main clusters emerged. These referred to:

1. Isolation and loneliness
2. Expectations of children
3. Relationship to their parents and children
4. Upset and angry feelings

The clusters of people who emerged, however, were not clear cut across the battering/normal division but yielded two types of normals and three types of abusives. Given the fact that there were only sixty people altogether this does not speak very highly for the predictive questionnaire's discriminating ability. However, Schneider (1972) concluded: "It is significant that no abusives had a normal profile and no non-abusives had a pure type abuses profile." P.279. In the case of the PARI even so much as this cannot be claimed.
SUMMARY OF THE PARI RESULTS

In summary, the PARI has not proved very useful in differentiating between abusing and normal parents.

The reason may be that they are not so very different in their spoken attitudes towards their children. This point is taken up again in Chapter 9. It is one which was found to be true in Elmer's (1967) study.

Battering parents, it seems, claim similar attitudes towards child rearing. They certainly answer questionnaires in this area, similarly to normal people.

The differences between them and normal parents are thus not at the level of surface attitudes, but as will be more fully discussed in Chapter 9 lie nearer the centre of the core personality.
Wechsler Adult Intelligence Scale

1. A factorial analysis of variance of the verbal and performance IQ results of the Matched Pairs Sample, shewed significant differences between the results of the battering and control parents' verbal IQs but not in their performance IQs. These results are summarised in Table 7.1.

2. A factorial analysis of variance of the verbal and performance IQ results of the matched mothers' Sample, shewed no significant differences in either verbal or performance IQ results. Details of this analysis are also shewn in Table 7.1.

3. Paired 't' tests were then carried out for the fathers' sample and for the mothers' sample. The results of this analysis are shewn in Table 7.11.

The 't' test analysis for the fathers confirmed the analysis of variance on the matched pairs sample. Thus the control fathers were found to have significantly higher verbal IQs than the battering fathers, but the difference between the fathers' performance IQs was not significant.

The 't' test on the matched mothers' sample shewed that although the control mothers' scores on both the verbal and performance IQs were more heterogeneous, the difference between their mean scores on both scales did not reach significance. The trend, however, was a similar one to the fathers' trend with substantially, but not significantly, lower verbal IQs for the battering mothers while their performance IQs were little different. In fact battering mothers' mean performance IQs were four points higher than the control mothers' mean performance IQs.
4. Mean differences between the verbal and performance I.Q.s for each sub-group were calculated and the significance of these differences assessed by t tests. The results of this calculation are shewn in Table 7. III. As will be seen the trend was a consistent one toward superiority of performance I.Q.s over verbal I.Q.s for the battering parents, and a reverse trend for the control parents. These differences were significant at the .05 level for the battering fathers, and at the .01 level for the control mothers.

**Discussion of the Intelligence Test Results**

The results conform very much to pre-test prediction. While practical abilities shewed little difference between the two groups of battering and control parents, their verbal intelligence shewed considerable and consistent variation. In the case of the fathers, in whom the difference reached the 0.05 level of significance, the control fathers scored on average at the upper limit of the normal range, while the battering fathers scored at the lower limit, a difference of eighteen I.Q. points. With the mothers the trend was similar but less extreme (and not significant), amounting to a difference of eleven I.Q. points.

The significance of verbal disability for general personality functioning is increasingly well understood. Piaget has stated, (1967) that, "Language is a necessary if not a sufficient condition for the construction of logical operations" p. 98.

The work of Bernstein (1961) (1971) reveals the vast difference in style of speech and therefore of thought patterns between privileged and underprivileged individuals.
WECHSLER ADULT INTELLIGENCE SCALE

ANOVA MATCHED PAIRS

<table>
<thead>
<tr>
<th></th>
<th>D.F.</th>
<th>F. RATIO</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>VERBAL I.Q.</td>
<td>1 and 7</td>
<td>6.16</td>
<td>&lt; 0.05</td>
</tr>
<tr>
<td>PERFORMANCE I.Q.</td>
<td>1 and 7</td>
<td>0.25</td>
<td>N.S.</td>
</tr>
</tbody>
</table>

ANOVA MATCHED MOTHERS

<table>
<thead>
<tr>
<th></th>
<th>D.F.</th>
<th>F. RATIO</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>VERBAL I.Q.</td>
<td>1 and 11</td>
<td>2.28</td>
<td>N.S.</td>
</tr>
<tr>
<td>PERFORMANCE I.Q.</td>
<td>1 and 11</td>
<td>0.79</td>
<td>N.S.</td>
</tr>
</tbody>
</table>

TABLE 7.1
### WECHSLER ADULT INTELLIGENCE SCALE t TEST RESULTS

<table>
<thead>
<tr>
<th></th>
<th>BATTERING MOTHERS</th>
<th>CONTROL MOTHERS</th>
<th>BATTERING FATHERS</th>
<th>CONTROL FATHERS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MEAN VERBAL I.Q.</strong></td>
<td>97</td>
<td>108</td>
<td>93</td>
<td>111</td>
</tr>
<tr>
<td><strong>S.D.</strong></td>
<td>18.4</td>
<td>26.6</td>
<td>13.0</td>
<td>17.3</td>
</tr>
<tr>
<td><strong>DIFFERENCE</strong></td>
<td>11</td>
<td></td>
<td>18</td>
<td></td>
</tr>
<tr>
<td><strong>D.F.</strong></td>
<td>11</td>
<td></td>
<td>7</td>
<td></td>
</tr>
<tr>
<td><strong>t</strong></td>
<td>1.5126</td>
<td></td>
<td>2.4704</td>
<td></td>
</tr>
<tr>
<td><strong>P</strong></td>
<td>N.S.</td>
<td></td>
<td>&lt; 0.05</td>
<td></td>
</tr>
</tbody>
</table>

| **MEAN PERFORM.ANCE I.Q.** | 100 | 96  | 101 | 108 |
| **S.D.** | 10.5 | 18.6 | 15.7 | 12.7 |
| **DIFFERENCE** | -4 | | 7 | |
| **D.F.** | 11 | | 7 | |
| **t** | -0.8915 | | 0.8074 | |
| **P** | N.S. | | N.S. | |

**TABLE 7.11**
VERBAL/PERFORMANCE I.Q. DIFFERENCES FOR BATTERING AND CONTROL PARENTS

<table>
<thead>
<tr>
<th></th>
<th>BATTERING MOTHERS</th>
<th>BATTERING FATHERS</th>
<th>CONTROL MOTHERS</th>
<th>CONTROL FATHERS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DIFFERENCE</strong></td>
<td>-3</td>
<td>-8</td>
<td>+12</td>
<td>+3</td>
</tr>
<tr>
<td><strong>D.F.</strong></td>
<td>22</td>
<td>14</td>
<td>22</td>
<td>14</td>
</tr>
<tr>
<td><strong>t</strong></td>
<td>1.02</td>
<td>2.43</td>
<td>3.2</td>
<td>0.89</td>
</tr>
<tr>
<td><strong>P</strong></td>
<td>N.S.</td>
<td>0.05</td>
<td>0.01</td>
<td>N.S.</td>
</tr>
</tbody>
</table>

**TABLE 7.III**
These differences emerge, it seems, from the most recent survey, at an early stage, and by seven years of age lead to a four year lag in underprivileged children's reading ages— one facet of verbal ability in action. (See Davie, Butler and Goldstein, 1972).

Thus the difference between the control fathers' mean score of 111 and the battering fathers' mean score of 93 on the verbal scale of the W.A.I.S. must not be understood as merely representing differences in their recent educational opportunities. Such a difference, especially when it stands beside their essential similarity in practical ability, as measured by performance I.Q. most probably represents differences in early childhood experience producing essentially different styles of thought.

For the battering fathers, one would infer an experience of relative cognitive poverty, of the kind described by Bernstein (1961). This not only involves paucity of vocabulary and over simplification of syntax but seems to infiltrate deeper thought processes.

Thus Josephine Klein (1965) summarizing the evidence on the cognitive consequences of verbal impoverishment, suggests the following differences between the verbally competent and the verbally incompetent.

1. She suggests that the more elaborate language of, for example, the middle class child, encourages a problem solving approach to any difficulties which may arise. Because various possibilities of action are stated explicitly to the privileged child he can evolve a system of thought, and rules for the solution of difficulties.

2. Out of this problem solving approach arises a more optimistic attitude towards life.
3. Having a better organised view of his life, planning for distant goals becomes a possibility.

4. This, in turn, facilitates postponement of immediate impulse gratification and thus fosters good ego development in that child who learns to adapt more appropriately to reality. He is also likely to develop better super-ego development, since the child has received verbal guide lines to socially acceptable behaviour. Because they have been explicitly stated for him, it becomes easier for him to internalize norms of good behaviour.

The relationship between the battering fathers' lowered verbalisation and their lowered A. and F. scores on the 16.PF Test will be discussed in Chapter 9. For the moment it is enough to infer from the poorer verbalisation as shewn in W.A.I.S. scores, a likelihood that the battering fathers are likely to shew poorer capacity for abstraction, planning, postponement or redirection of impulse, lowered optimism and self confidence compared to the controls. In addition, and more obviously, they are less likely to be able to discuss their difficulties with their wives and with other people outside the family. Thus the ways open to them of reducing tension through verbal expression are fewer than is true for the control fathers.

The finding that battering parents shew a reverse trend to the control parents in the discrepancies between their verbal and performance I.Q.s, is consistent with what has already been said. It reinforces the argument concerning their general lack of control over impulse and a tendency to act out problems rather than to think them through.

Such a tendency has been found by the Gluecks (1950) in a comparative study of fifty delinquent and fifty non-delinquent
boys. In their study the delinquent boys shewed an average discrepancy of -9.55 points between verbal and performance I.Q.s, and the non-delinquent boys a discrepancy in the reverse direction of +7.65 points.

The Gluck (1950) concluded that such a discrepancy was consistent with the acting out and concrete style of thought, thought to be typical of the delinquent boy. A similar interpretation fits for the battering parent.

Summary

In all, the battering parent, especially the father is found to be comparatively deficient in his capacity for verbal thought. This carries with it not only the implication that communication will accordingly be impoverished, a handicap in the lives of people already inept at social inter-action, but also that action is less subject to internal control than would otherwise be true. Verbal lacks also imply limitation of the understanding of cause and effect, and a tendency to think in essentially concrete terms bound by the here and now. The relative verbal inadequacy of the battering parent in relation to the normal parent puts him therefore, considerably at the mercy of his own impulses.

This is an important difference, occurring as it does within a social class. Although most of the studies of verbal impoverishment have focused on the working class-middle class distinction, there is no reason to assume that a relative impoverishment within a social class band will carry a different psychological meaning.
CHAPTER 8 - The Health Visitor Questionnaire

The sample for this part of the study has been described in Chapter 4. To some extent it dictated the content of the questionnaire used. The cases who were interviewed were the parents of young children who had sustained accidents in the home. They were families who were notified to the Assistant County Medical Officer's register and accordingly were families where further contact would be made through the health visitor.

For this reason questions had to be straightforward and couched in non-psychological terms. Ideally they were to form a prognostic index for future use in suspected cases of battering or where battering was feared. They had to be of a kind likely to discriminate between accidental injuries and abuse, since this was in fact the main aim of the questionnaire. The questions were based as far as possible on leads already available from literature. In most cases these came from the work of Helfer and Kempe (1965) (1972), and from the work of Elmer (1967) (1968) and others, as has been explained in Chapter 3. The questions, set out beside the results, are shown in Table 8.1. The questionnaire may also be found in the Appendix p.26-27.

THE RESULTS

The questionnaire responses, as seen in Table 8.1, show that parents suspected of battering their children differ from parents whose children sustain accidental injury in the home in the following ways:

1. In the first place it is clear that the supposed battering parents were somewhat younger than their counterparts among the accident sample. This is a statistically significant difference among mothers and the fathers. The difference was substantial, 5 years in the mothers and 7 for the fathers, suggesting greater immaturity in the abusing parents.
2. There was more doubt concerning the paternity of the injured child among alleged battering families than in the accident cases. In the latter case the Health Visitor was quite certain that in every instance the child was the natural child of both parents. In the case of the suspected battering parents doubt was expressed in five cases out of the fifteen.

3. More of the supposed battering parents had been thought to have sought termination of the pregnancy of the child now reported injured. This was true in three cases of the battering group and possibly true in a further five. Of none of the accident cases was advice on termination thought to have been requested.

4. Relevant to the last finding is the striking fact, perhaps the most important of all the findings, that in far more of the supposed battering cases was the mother within seven months of her last delivery or miscarriage. Ten of the fifteen cases where non-accidental injury was suspected were within seven months of pregnancy. Of only two of the accident cases was this true. Only one mother in each group was actually pregnant at the time of the injury.

5. The Health Visitor appeared to know the non-battering families better than she knew the battering families. The replies were coded on a three point scale with a score of one for a report of knowing the family "slightly", or "hardly at all"; of two for "quite well"; of three for "very well" or since a given date of two or more years.
<table>
<thead>
<tr>
<th>Questions</th>
<th>Results</th>
<th>Statistic</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Child's name</td>
<td>Mean age for A = 15 0-7.45</td>
<td>t = 0.83</td>
<td>N.S.</td>
</tr>
<tr>
<td></td>
<td>Mean age for B = 13 0-5.26</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>A's peak age = 13-18 mths.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>B's peak ages= i) 0-6 mths.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ii) 19-24 mths.</td>
<td>$X^2 = 3.52$</td>
<td>N.S.</td>
</tr>
<tr>
<td>2. Child's date of birth</td>
<td>Yes = 15A</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Yes = 10B</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>More doubt in B $X^2 = 4.5$</td>
<td>.05+</td>
<td></td>
</tr>
<tr>
<td>3. Is the child the natural child of both parents?</td>
<td>Yes = 15A</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Yes = 10B</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>More doubt in B $X^2 = 4.5$</td>
<td>.05+</td>
<td></td>
</tr>
<tr>
<td>4. Mother's age</td>
<td>Av. age of A = 29</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Av. age of B = 24</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Difference = 7 yrs. $t = 3.55$</td>
<td>.01+</td>
<td></td>
</tr>
<tr>
<td>5. Father's age</td>
<td>Av. age of A = 34</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Av. age of B = 27</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Difference = 7 yrs. $t = 2.18$</td>
<td>.05+</td>
<td></td>
</tr>
<tr>
<td>6. Mother's pregnancies</td>
<td>2 A group within 7 mths of pregnancy.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>10 B group within 7 mths of pregnancy.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>$X^2 = 8.86$</td>
<td>.01+</td>
<td></td>
</tr>
<tr>
<td>7. Was the pregnancy which led to the birth of the injured child accepted by mother</td>
<td>See question 8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Was advice about termination of pregnancy with this child sought?</td>
<td>No = 15 in A group</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>No = 7 in B group</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Yes = 3 in B group</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>H.V. uncertain in 5B group terminations.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Probably sought more often in B group $X^2 = 10.4$</td>
<td>.01+</td>
<td></td>
</tr>
<tr>
<td>9. Marital status of parents</td>
<td>Married = 15 A group</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Married = 12 B group</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>No real difference $X^2 = 2.04$</td>
<td>N.S.</td>
<td></td>
</tr>
</tbody>
</table>

* indicates an acceptable level of confidence.
10. Number of children living at home: A = 1.7*, B = 2.0. No real difference

11. Does the child's mother have a relative or friend nearby? Yes = 12 A group, Yes = 10 B group. No real difference

12. Is the mother's relationship with the injured child usually:
   a) critical and hostile or
   b) accepting or
   c) warm and loving?
   Critical = 1 A group, Critical = 3 B group. No real difference

13. Is there any reason to suppose that this mother has ever injured her child? Yes = 0 A group, Yes = 4 B group. No = 15 A group, No = 8 B group. ? = 0 A group, ? = 3 B group. Tend to greater likelihood in B group $x^2 = 5.2$ N.S.

14. Did the H.V. have any difficulty in establishing a good relationship with this family? No = 15 A group, No = 13 B group. No real difference

15. How well do you know this family? (Rated on a 3 point scale)
   H.V. knows A group better. $x^2 = 14.43$ .01+

16. Is there any unusual degree of marital stress in the home? Yes = 8 A group, Yes = 7 B group $x^2 = 7.77$ .01+ More marital stress in B group.
<table>
<thead>
<tr>
<th>Questions</th>
<th>Results</th>
<th>Statistic</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>17. Is there any unusual degree of financial stress in the home?</td>
<td>Yes = 1 A group</td>
<td>$x^2 = 4.5$</td>
<td>.05⁺</td>
</tr>
<tr>
<td></td>
<td>Yes = 7 B group</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>More financial stress in B group.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18. Is there any unusual degree of stress arising out of housing conditions?</td>
<td>Yes = 1 A group</td>
<td>$x^2 = 10.66$</td>
<td>.01⁺</td>
</tr>
<tr>
<td></td>
<td>Yes = 9 B group</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>More housing stress in B group.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
6. The last finding relates to the three final questions in the inquiry, those dealing with different types of stress at home. Quite striking was the higher incidence among the reported battering families of all three types of stress.

Thus in one half of the battering cases there was marital and financial stress compared to one case of financial and no cases of marital stress in the true accident families. Among supposed battering families there was an even greater degree of stress associated with poor housing, whereas among the true accident cases, only one family had a housing problem, the same family as that said to be in some financial stringency.

SUMMARY OF POSITIVE FINDINGS

The picture of the family liable to injure one of its own children is far from complete from a short questionnaire of this kind. Nevertheless we can get some fairly clear pointers to the kind of situation associated with assault on the child. This would appear to include problems within the marriage itself including conflict over the paternity of the children, conflict over the injured child from the time of the mother's pregnancy with him in fact, as well
as financial and housing problems. The relative immaturity of the parents to deal with these pressures may be a further consideration.

In addition to these factors, perhaps a danger signal to alert the health visitor, is the recency of the mother's last pregnancy. At a time when she has not fully recovered either physically or emotionally from this experience she may well be less able to withstand the frustrations and demands of caring for a young child.

NEGATIVE FINDINGS

In an inquiry of this kind where two groups are to be compared, it is always interesting to look as well at the findings which do not differentiate the two groups under scrutiny. In the present instance it is of some importance to note that, in the first place the children whose injuries were thought not to be accidental were almost exactly the same age as those whose injuries were truly accidental. The average age of the latter was 15 months, the former was 13 months. Of course it must be remembered that the result in this case is limited by the upper age limit on the reporting of all cases. Whether there are in fact even more battered children among the over two year olds cannot be known from this inquiry. When the results are grouped to show the relative percentage occurring in each six monthly grouping, it looks as though there are interesting differences (see Table 8.II)

<table>
<thead>
<tr>
<th>Age (in months)</th>
<th>Distribution in Percentages</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Group B</td>
</tr>
<tr>
<td>0 - 6</td>
<td>33.3</td>
</tr>
<tr>
<td>7 - 12</td>
<td>6.6</td>
</tr>
<tr>
<td>13 - 18</td>
<td>20.0</td>
</tr>
<tr>
<td>19 - 24</td>
<td>40.0</td>
</tr>
<tr>
<td>chi-squared 3.52</td>
<td>Not significant</td>
</tr>
</tbody>
</table>

TABLE 8.II
Thus the accident sample's most frequent occurrence is in the early toddler age group between thirteen and eighteen months at a stage when one expects children to have a fair number of tumbles, etc. The supposedly battered children have two peak ages, the early infancy stage between birth and six months and again in the late "toddlerhood" stage between eighteen and twenty-four months. It is tempting to speculate that, whereas in the accident cases, the injury arises out of the developmental stage of the child, in the non-accident cases it is the parents' response to the helplessness and especially the insistent crying of the young infant on the one hand and on the other to the "wilfulness" of the negativistic eighteen to twenty-four months old. However, statistical tests do not support this speculation, indicating for this sized sample, at least, such differences in the two distributions arise by chance and might well be cancelled out in another sample of similar cases. This remains to be explored further with a larger sample.

Other questions which shewed no differences between the two groups were those relating to marital status, the availability of friends, the mother's expressed relationship with her child, and any previous record of injury to the child. The average size of family in the two samples did not differ either.

**DISCUSSION**

Of the seventeen items used, nine differentiated between the parents of children accidentally injured and those in whom abuse was suspected. While the very small size of the sample precludes unqualified generalisation, the role played by those factors explored, all of them factors currently operating in these families' lives appears to have been considerable, even in a relatively well provided area such as the county of Surrey.
There seems good reason to deduce that the overall living circumstance of the abusive parents was less favourable than the control cases in terms of housing, financial security and marital disharmony, immaturity and isolation. Thus, whatever the importance of other aspects of the subjects' psychopathology, it seems important not to ignore existing pressures in the lives of potentially battering parents, if violence is to be avoided.

Despite the disclaimers about the importance of such factors by Helfer and Kempe and their associates (1968) and (1972), there is reason to believe that they may constitute the final trigger that potentiates violence. Such a belief is in keeping with Elmer's findings (1967) and (1968). Her samples were American, poor and black as will be more fully discussed in Chapter 9. Nevertheless she was impressed by many very similar features operating negatively in the home lives of her abusive parents. Similarly Schloesser (1964) and Simons (1966) have also emphasised the immaturity factor found here to be associated with battering.

Concrete difficulties seem therefore to play a real part in predisposing parents, already prone to personality and cognitive problems of one kind or another, toward violent abuse of their infant children.
The preceding chapters have shown that in many respects the battering parent resembles any other parent. As Steele and Pollock say (1968), "If all the people we studied were gathered together, they would not seem much different from a group picked by stopping the first several dozen people one would meet on a downtown street". p.106.

Even in the range of assaults perpetrated on their children "there seems to be an unbroken spectrum ... ranging from the breaking of bones and the fracture of skulls through severe bruising to severe spanking and mild 'reminder pats' on the bottom" op.cit.p.104.

Similarly the parents encountered in this study ranged both in their behaviour toward their children and in their ages and intellectual competence, in their attitudes and in their basic personality configurations, across the normal distribution in many respects as did the control groups with whom at every point they have been compared.

Having said that, and emphasised their diversity, it is equally important to show at which points they do appear to form an homogenous group, different in well marked ways from other parents who do not injure their children.

In highlighting the idiosyncrasies of the group, one would not wish to insist on some select syndrome which neatly marks them off from others. In fact the"causes" of battering, if such can be properly said to emerge from a study of significant associations, are multi-faceted. As will be shown in this and the following chapter, battering most probably arises in the presence of a fair number of negative indications. There are predisposers in the subject's constitution almost certainly, a possibility never considered before, it seems. There are traits which
have probably developed under the influence of a highly adverse environment. There are triggers in the present social situation of the family and in the hormonal balance of the mother at the time of assault on the child. Many characters are required adequately to represent the "battering syndrome".

The Ages of the Subjects

1. The Parents

In both samples studied in this report the battering parents tended to be younger than their controls. In the tested sample this was despite attempts at matching, suggesting that even when the age of the child and the size of the family were matched, as was true here, then the parental age tended to be slightly lower for the battering parents. Although these were not significant differences in the test sample, they were significant in the questionnaire sample.

Thus, in the test sample, battering mothers were more than two years younger than their matched controls, and the fathers more than a year younger. In the questionnaire sample differences were five and seven years respectively.

Comparison with other reports is not easy as each has its own criteria for selection. Gil, (1968) reporting the results of a National Opinion Research Centre investigation carried out under the aegis of the University of Chicago in 1965, quotes 25% falling into the 20-25 age bracket, and another 25% in the 30-35 bracket, these being the modal values. But the whole study was concerned with assaulted children throughout the years of childhood, so tells us little. Steele and Pollock (1968) merely report a parental age range from 18 to the 40's with the majority in their 20's.

Elmer (1967) and (1968) gives no parental ages. Even if she did, the ages of her subjects were deliberately restricted to the first year of life in one of her reports which could
unfairly bias towards young parenthood, in comparison with the present study which deals with a wider child age range.

The two NSPCC national studies, reported by Skinner and Castle (1969) and Kerr and Castle (1972), came close to the present findings, and being British surveys unlike the others referred to, are probably the most relevant. The average ages of the parents in these two studies compared to the two samples presently discussed, are shewn in Table 9.I.

For the mothers, the ages are very similar. For the fathers, more variation from study to study occurred. In general it seems likely that the battering parents tend to be slightly younger than other parents, given the ages of their children but the trend is not absolutely clear.

2. The Age of the Child

No difference was found in the children's ages in the tested sample, for the good reason that the greatest care was taken to avoid such a difference. Nevertheless it is of some importance to know what are the especially vulnerable ages. Given that the tested sample ranged from infancy to four years, it seems that the younger child is more likely to be the one to get hurt.

Elmer (1967) claims 56% of her sample were under ten months but gives no upper age limit beyond saying the incidence probably tails off after 2-3 years. Gil's sample (1968) covered the whole childhood range but if one breaks down the figures available for the under threes, then the mean age was 18 months as is shewn in table 9.II.

The NSPCC surveys, taking reports on battered children up to the age of four years give mean ages of battered children of 14.5 months in 1968 and 19.5 months in 1972. Silver (1968) states his sample were under three and one
## COMPARISON OF AGES IN DIFFERENT SAMPLES

<table>
<thead>
<tr>
<th>SOURCE</th>
<th>MOTHERS</th>
<th>FATHERS</th>
<th>CHILDS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>MEAN AGE</td>
<td>MEAN AGE</td>
<td>MEAN AGE (months)</td>
</tr>
<tr>
<td>TEST SAMPLE</td>
<td>22</td>
<td>24</td>
<td>15.3</td>
</tr>
<tr>
<td>QUESTIONNAIRE</td>
<td>24</td>
<td>27</td>
<td>13.0</td>
</tr>
<tr>
<td>N.S.P.C.C. 1969</td>
<td>22</td>
<td>23</td>
<td>14.5</td>
</tr>
<tr>
<td>N.S.P.C.C. 1972</td>
<td>23</td>
<td>25</td>
<td>19.5</td>
</tr>
</tbody>
</table>

**TABLE 9.I**
half years of age, while Cameron, Johnson and Camps (1966) give a mean age of 14.3 months and nearly 80% under two years of age. All these data are summarised in Table 9.III.

The figures seem to disfavour the younger children, possibly supporting the claim made by Kerr and Castle (1972) that the younger the child the greater the likelihood of injury. However, as would be expected the hospital referrals are likely to contain younger children, since the younger the child the more serious the type of injury likely to be sustained.

Mean ages can be deceptive however, for as the results of questionnaire study herein reported implied, the true accident cases had a peak incidence at the age of 13-18 months, whereas the battered babies with whom they were compared, had two peak ages, at 1-6 months, the age of helpless crying, and the late toddler period from 18-24 months, when negativism is at its peak. The sample was too small to prove a significant trend, but it is worth bearing in mind, when asking, not, "When is the child most vulnerable?" but "When is he most provoking?". This is in line with Okell's (1971) comment to the effect that there are two particular periods of development that are especially stressful to the battering parent. The first is the period of helplessness, the second is the later period of annoyance associated with the messiness of toilet training. She omits to point out, however that, apart from toilet training, the second half of the second year can also be acutely provoking for the parent, coinciding as it does, with what Erikson (1951) has, with good reason called, the Stage of Autonomy.

Whatever the reasons, then, most battered children appear to be under twenty months at most, although there are signs, as yet not properly substantiated, that the age distribution may be bi-modal.
### Breakdown of Children's Ages

From "Incidence and Demography" by David G. Gil in Helfer R.E. and Kempe C.H. (1968)

<table>
<thead>
<tr>
<th>Ages in Months</th>
<th>Midpoint</th>
<th>Frequency</th>
<th>( X(\text{Midpoint} \times \text{Frequency}) )</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 - 12</td>
<td>6</td>
<td>4</td>
<td>24</td>
</tr>
<tr>
<td>12 - 24</td>
<td>18</td>
<td>6</td>
<td>108</td>
</tr>
<tr>
<td>24 - 36</td>
<td>30</td>
<td>4</td>
<td>120</td>
</tr>
</tbody>
</table>

\[
\sum_{\text{Midpoints}} X = 14 \quad 252
\]

**Mean =** \[
\frac{252}{14} = 18 \text{ months}
\]

**Table 9.11**
## COMPARISON OF AGES, AGE RANGE AND TYPE OF REFERRAL IN DIFFERENT SAMPLES

<table>
<thead>
<tr>
<th>SOURCE</th>
<th>MEAN AGE IN MONTHS</th>
<th>UPPER AGE LIMIT</th>
<th>TYPE OF REFERRAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>TEST SAMPLE</td>
<td>15.3</td>
<td>4 yrs.</td>
<td>Hospital</td>
</tr>
<tr>
<td>QUESTIONNAIRE SAMPLE</td>
<td>13.0</td>
<td>2 yrs.</td>
<td>Mainly hospital</td>
</tr>
<tr>
<td>N.S.P.C.C. (1969)</td>
<td>14.5</td>
<td>4 yrs.</td>
<td>Mixed 25% medical</td>
</tr>
<tr>
<td>N.S.P.C.C. (1972)</td>
<td>19.5</td>
<td>4 yrs.</td>
<td>Mixed 20% medical</td>
</tr>
<tr>
<td>GIL (1968)</td>
<td>18.0</td>
<td>3 yrs.</td>
<td>Mixed quota sample</td>
</tr>
<tr>
<td>CAMERON, JOHNSON, &amp; CAMPS (1966)</td>
<td>14.3</td>
<td>4.5 yrs.</td>
<td>Hospital</td>
</tr>
</tbody>
</table>

### TABLE 9.III
Intellectual Functioning

Compared to the findings of Steele and Pollock (1968) our I.Q. range is, if anything more extreme, ranging from a low point of 44 in one battering mother to a high of 133 for the performance I.Q. of one battering father. Nevertheless the central tendency was toward the population mean, with controls and batterers having very closely similar performance I.Q.s, differing only by four and seven points for mothers and fathers respectively. The verbal abilities manifested by the two groups of parents showed much more disparity. The mothers scored a difference in average verbal I.Q. of eleven points, while that for the fathers was even greater at eighteen points, the latter significant at the 0.5 level. All these differences have been summarised in tables 7.1 and 7.11 and referred to in Chapter 7.

The extent to which these findings are supported by other reports is not really known since none of the other investigators reports on other than global measures. Any deficit in verbal capacity could only manifest in the total score, which would be lowered, as indeed was the case.

The present findings are fully supported by the descriptive literature, which comments on the battering parents' action orientation. (See Waite (1968) and Court (1970)). They confirm for the fathers, the prediction made before testing was begun. The practical consequences of the relative verbal poverty of the battering parent is considerable.

In the first place it lowers his potentiality for communication. This finding is illustrated in the questionnaire results where health visitors report knowing the battering families less well than the accident cases. Such an incommunicativeness would be exacerbated by the lowered scores on Scale A of the 16.PF Test, which was also significantly lowered in battering parents. The tendency to withdrawal,
reflected in the lowered A scale scores, is thus reinforced by their having inadequate abilities to help overcome this non-participancy. Such a finding is paralleled in the work of Elmer (1967) who says, "The abusive mothers were far more isolated from outside sources of help and companionship than the non-abusive. They tended to have fewer contacts of any kind in the world outside the home." p.46.

Steel and Pollock (1968) comment in this connection, "The abusing parent tends to lead a life that is described as alienated, asocial or isolated". P.119.

These statements are echoed by comments of Young (1964) although her sample was very different from those usually included among the battered child syndrome including older children, and children persistently tortured by their parents.

A further consequence of the impoverished verbal function of the battering parent, is the reduced capacity to deflect or otherwise discharge aggressive impulses. This has already been described in references to the work of Galdston (1970) and of Steele and Pollock (1968). The person short on linguistic resources needs to find some other outlet for expressive release. Like the two year old prone to temper tantrum, so too, the inarticulate adult (or older child) is liable to 'let fly' and literally.

When, as in the case of the battering parent, the charge of aggression is greater, the consequences are obvious. Hitherto the emphasis has been on the relative incapacity for deflection and symbolisation of aggression. There has been a curious insistence on the battering parent's being no more aggressive than the norm. Both Galdston (1966) (1970) and Kempe (1968) (1972) insist on this. From the present study it seems that this is not true. Although the differences in the E scale scores on the 16.PF Test were not great, they were definite and significant. Slightly enhanced drive levels
and grossly lowered controls seem an obvious assumption to predicate for men and women who break through a normally powerful taboo found amongst most primate species.

A third consequence of poor verbal ability is that planning is more difficult. This is as true at the level of holding the steps of a train of thought in mind, as it is in terms of making specific arrangements for household or child care, payment of bills, etc. Concepts clarify, and make more efficient one's overall cognitive processes. Oléron's (1957) work with the deaf, Vigotsky's (1962) with people of all ages, and much else besides, confirms the importance, at all levels, of language as a tool in planful problem solving. Not, as has been already said, that language alone "creates thought". The child of two, "pre-pre-conceptual", is as intelligent as Kohler's apes, but language enhances thought, raises it to the position where logical operations become possible; that is facilitates systematic abstraction and ordered cognition.

The crises, reported for example by Helfer and Kempe (1972), and arising with remarkable frequency in the lives of the battering parents, are less puzzling viewed in this light. Random living, in other than the most beneficient domestic conditions, is apt to give rise to crises.

A final consequence of lowered verbalisation is its association with lowered optimism. The reasoning behind this is the suggestion by Klein (1965) that not having been successful in one's problem solving, nor understanding the reason for one's failure, fosters a sense of despair and lack of confidence in the future.

Support for this, from this study, comes from the greatly lowered F scale scores by the fathers, shewing an overall gloominess and lack of vitality in their emotional set.
Elmer's report (1967) that in her study abusive parents were much more likely to score high on the Anomie scale shews a similar trend; so, too, does her finding that the abusive parents felt much more frustrated with their lot than the non-abusive parents.

Something of a vicious circle seems to operate. Being less able and less enthusiastic, they are the more likely to get into situations of dissatisfaction or set up relationships that are disappointing. This confirms the lack of confidence, and breeds a feeling that life itself is against one, and that one is alienated from others.

Attitudes of Battering Parents

In addition to the intellectual differences which have just been discussed together with some associated personality trait differences, it was expected to be able to find some clear cut surface attitudes toward child-rearing that would distinguish the battering parents from normal parents.

It will be remembered that Elmer (1967) found differences in her battering group on the following P.A.R.I. scale items:

1. Irritability
2. Marital conflict
3. Rejection of homemaking attitude
4. Ascendant role of the mother within the home
5. Seclusiveness of the mother in relation to contacts outside the home.

None of these features distinguished the present sample of battering parents. The only P.A.R.I. differences were on a vector which seemed to contrast the parent fearful of
harming the baby at one pole with the strict parent at the opposite pole. This vector separated battering from control parents with some but not complete success.

At the time, this was explained in terms of the battering parents' self-consciousness in the interview over injury items and her necessity to show expected concern. The strictness was thought to be associated not so much with more permissiveness on the part of the abusing parent, as with a possible reluctance in assuming the parental role.

It seems likely also, that the claim not to be so strict as the normal reflects a kind of defensiveness in their spoken attitudes toward their children. Such an explanation was used by Melnick and Hurley (1969) in their very similar finding that their battering parents claimed to reject their children less than their normal controls.

Similar results are shown on the questionnaire study. Health visitors were asked to assess the parents on a three point scale concerning attitudes of acceptance or hostility toward the injured child. No differences were found between the true accident cases and the abused cases.

Because of defensiveness and perhaps too because of a certain lack of insight in areas where their defensive attitudes are not mustered, battering parents cannot readily be distinguished from ordinary parents in terms of their spoken opinions about child rearing.

The most recent and comprehensive research in this field of attitude measurement of abusive parents reported by Schneider (1972) confirms this disappointing fact. Despite the most elaborate construction and analysis of her questionnaire, the percentage of misclassification remained disturbingly high.

Steele and Pollock (1968), have spoken about the abusive
parents "sense of righteousness" in relation to his child. This is a somewhat loaded interpretation of what may more simply be lack of awareness of the normal attitudes to child rearing. People who have difficulty in making and sustaining relationships outside the home are less likely to expose their attitudes to socialising forces. To communicate with others is to allow the possibility of social learning. This is accepted axiomatically of childhood socialisation. For adults, failure to interact socially diminishes learning opportunities and consequently discourages insight into child rearing practices.

Parents of first children, and most of the battered children in the present study were single children, as was true in Elmer's fifty families (1968), have a learning task to accomplish which prior preparation can never fully meet. Hence, after all, the popularity of Baby Care manuals, women's magazine articles advising on child rearing and the like. Battering parents avoid social contacts both informal and official. Also they are not likely to read much, given a verbal skill that is marginally within the normal range. Thus they are less likely to find out about current accepted mores regarding child rearing. This is certainly not the whole explanation of their deficient pattern of child care. There is no single, nor simple reason for this, as clearly emerges from a study of this kind. But it is a pity, so to concentrate, as has been done by most psycho-analytically orientated writers in the field, on the early experiences of abusive parents, that one forgets to focus on current lacks and handicaps that might perhaps be more easily rectified.

Davoren (1968), describing her social work with such parents very vividly describes a home scene as follows:

"Her seven month old daughter was sitting in her high chair, eating with us, holding up her hands upright in the air parallel to her body, as she ate quickly and well from the spoon which her mother was offering her."
On the same day I visited another mother from our study who had her second child a seven month old too, and saw the same rigid arm holding performed."

What is striking is not only the abnormal behaviour, but the apparent lack of sensitivity to the possibly opinion of the social worker in respect of the behaviour. It is this insensitivity founded on ignorance together with defensiveness, that seems to explain why attitude scales cannot reveal the true nature of battering parents' real opinions. Thus they claim to feel the same as the next mother about home making, encouraging the child's activities and interests and so on. In fact they may think that this reflects the truth. But this surface similarity masks some very real differences in behaviour.

**Personality Traits**

Three of these have already been reviewed in the section on cognitive differences in battering parents, that is social withdrawal, aggression and lack of vitality and enthusiasm.

In addition there were two other clear cut differences on the 16.PF test. The first was the markedly lowered scores for the battering mothers especially, on the C scale of the 16.PF which relates to ego control and identity formation. The lack of identity definition implied in the lowered C scores ties in suggestively with what has just been said about lack of insight. To have insight one must have some sense of one's own continuity and integrity. Deficient ego definition makes self evaluation difficult if not impossible. Without a sense of continuity one acts on the spur of the minute without any sense of the inner "I" monitoring behaviour in terms of reality demands.

Obviously this too is linked with verbal impoverishment. Klein (1965) links both ego and super ego development to verbal adequacy.
The battering parent, especially the mother, lacks a real sense of herself as a person and perhaps is not helped by being marginally less mature than the norm. This makes it difficult to be self-critical.

The final trait difference to emerge from the 16.PF test results, was the raised M scale scores, indicating an impracticality and lack of reality acceptance on the part of the battering parents. This once again links in with all the other findings and helps to explain their unreal expectations of their children, so dramatically described by Davoren (1968) and others who have watched the abusive parent in her interaction with her child.

Second Order Factors and Specification Scores

Two second order factor scores were calculated, 1. Neuroticism, or Anxiety versus Adjustment and, 2. Introversion-Extraversion, or Exvia-Invia.

On the first there was no difference and on the second there was a marked and significant trend for the battering fathers to be more introverted than the control fathers.

The Specification scores paralleled these findings. Neither battering parent matched the neurotic specification more than the normals, but the battering fathers shewed a trend, the significance of which could not be assessed, toward a psychotic match.

Although it was predicted that battering parents would be more neurotic in terms of the second order factor than the normals it now seems that this was based upon a misconception. While it is true that the defective ego-integration so marked in the battering mothers, might make the assumption of mal-adjustment in neurotic terms plausible, this is not so. The stress, conflict, anxiety and guilt associated with the typical neurotic in both test and clinical terms is apparently missing from the mental make-up of the abusive parent.
She is inadequate but not conflict ridden; poorly integrated but withdrawn, not forever seeking to assuage personal inadequacy in pursuing interpersonal solutions. Perhaps the mistaken hypothesis arises out of a literature, in which workers have tended to project their own conflicts, and the anxieties that they would feel, were they in the battering parent's circumstances!

The introversion of the battering father is as expected. That this, and his absence of anxiety leads him toward the psychotic "solution" rather than the neurotic is now obvious and consistent, but was not foreseen as clearly as it should have been.

This explains all those 16PF primary scales which it was predicted would differentiate between the two groups and did not. In every case they were scales contributing to the higher order factor of Neuroticism. viz. scales H, L, O, Q3 and Q4. It is now clear that the battering parent's abnormality is not of the anxiety ridden kind. Is there perhaps an element of denial on the part of the workers who have striven for their "rescue"? It is very hard to witness the violence of the abusive parent and avoid one of two reactions. One is anger, in which case one cannot effectively work with such patients. The other is to believe that they are but the victims of a past, similar to that which the now off load onto their child, and that they, in common with the social worker, feel concern "really" for the child, and anxiety to rehabilitate themselves in society. Certainly they feel frustration with their circumstances, but their reaction is more one of withdrawal and escape than anxious concern. The hereditary component of the Extraversion dimension has already been considered at some length in Chapter 5. That this is probably a fundamental dimension of temperament, linked very probably to body configuration and to genetic predisposition generally is widely accepted. Eysenck (1956) (1970) has discussed this very fully, and Cattell (1970) has also referred to the relevance of Sheldon's (1942) "Leptosomatic" body type in this connexion.
We seem to be dealing with a true dimension of temperament, and the conclusion must follow that the battering father especially has not only a negative past, but also a negative heredity, loaded against his success as a parent and a human being, unpopular as such a thesis is today. The battering mother, though less than normally participant is not generally introverted. She is essentially deficient in integration and control. She too, like her partner, is not especially prone to anxiety of a neurotic kind.

Social Factors

From a passing reference to the hereditary disposition of the battering parent we turn back to the present influences in his life.

Social Class

Details of the social class of the tested sample were given in Chapter 4, where it was shewn that the majority in both groups fell into the Registrar General's occupational Classification of Class III or Class IV. Social class was not specifically asked in the questionnaire sample for reasons already explained. It seemed likely from the comments made about housing and financial stress that the battering parents were less well off than the accident cases in that study and possibly somewhat lower down the socio-economic ladder. However age is a factor here and the battering parents were considerably younger than the accident cases. No precise conclusions regarding their exact social class can therefore be made.

To what extent are the present samples then typical of other battering parents? Without knowing this the value of the findings is limited.

We have heard much of the fact that battering knows no social class boundaries. Thus Steele and Pollock say (1968),
"They were from all socio-economic strata - laborers, farmers, blue-collar workers, white-collar workers, and top professional people" p.106. Gil, (1968) reporting more accurately in the same volume, states, that some ten per cent in the NORC survey to which reference has already been made fell into an educational category indicating some education beyond high school. This probably indicates a middle class status equivalent to the British grading of Class II or I.

However, other studies, not based on the Denver Colorado unit, give rather different indications. Thus all Elmer's subjects in her "Fifty Families Study" (1968) fell into Class IV and V and were, further, predominantly black, a certain indication of lower economic status. Her sample in the "Children in Jeopardy" study (1967) was very similar.

In the N.S.P.C.C.'s first survey in 1969, Classes I and II were not represented at all. In the 1972 study only 2.56% came into Class II and again none in Class I a definite skew toward the lower end of the socio-economic ladder. (See Skinner and Castle (1969) and Kerr and Castle (1972) ). 48%, the largest grouping, were in fact unskilled (Class V) whereas for the population at large the largest proportion came into Class III.

Despite the Denver Colorado team's claims that the middle class contributes its share to the battering statistics it seems that for the most part batterers either come from the lower working class, or that the middle class batterer goes undiagnosed, a second possibility, given the extraordinary reluctance on the part of General Practitioners to report cases of battering. +

In this respect it seems therefore that the present samples are fairly typical of most instances of battering that come to light.

+ private communication
Associated Stresses

Whatever the basis upon which socio-economic status is calculated, it has far reaching psychological and sociological consequences ranging from physical and mental health, nutrition, educational opportunity and achievement, suicide proneness, longevity, and too many more.

In the questionnaire study, it seems likely that class has been associated certainly with more financial stress, possibly with more housing stress, and with marital stress. These factors all emerged in the questionnaire study. These factors were not studied in the tested sample. Housing, in particular, was a matched variable.

Biological Factors

A further important pressure upon the battering family undoubtedly was the effect of a recent pregnancy. In the questionnaire sample this was found to be true in ten out of the fifteen battering families but only two of the true accidental injury cases. In addition the mothers were thought to have sought an abortion of the injured child, (in eight cases among the battering parents, but none among the accidents), suggesting that for them pregnancy is experienced as a greater stress than is true of the accident cases. To be under the physical and emotional influence of a recent pregnancy, and to be provoked by a child whom one had wished to abort, must represent an exquisite form of frustration, especially in circumstances of poor housing and financial strain.

It is odd that previous workers belittle the effects of these concrete and obvious strains in the lives of the battering parents.

Elmer (1967), it is true, has shewn some real awareness of these burdens saying that, "The repeated association of abuse with variables concerning childbearing is striking" p.78, and goes on to refer to the idea first put forward by Bibring(1961)
that pregnancy is a biologically determined maturational crisis. She has also acknowledged the fact that, "The complex of circumstances and personalities characterizing the abusive families in our study was causing them to live under constant stress of a kind unknown to our non-abusive families". op. cit. p.42.

The Colorado group, however, seem to date, to have been so pre-occupied with the vicissitudes of their clients' earliest experience of Basic Trust, that they have played down the role of these less esoteric but seemingly important current instigators to violent behaviour. Of "social economic and demographic factors" Steele and Pollock say (1968), "basically they are somewhat irrelevant to the actual act of child beating" p.108.

Were one actually present at the time of the assault, one might suppose that the hormonal level engendered by recent pregnancy might in the presence of a screaming, unwanted child being cared for in overcrowded circumstances, be the final triggers to an act which is prevented from occurring in a hundred other homes by the very absence of this concatenation of circumstances.
CHAPTER 10. SUMMARY AND CONCLUSIONS

In considering the final conclusions which emerge from this study, it must be remembered that both the small size of the sample and the limited number of tests used must make any conclusions tentative. No final generalisation concerning the psychological "causes" of battering could be made on the basis of a study subject to these necessary limitations. Such conclusions, therefore, must be regarded as suggestive leads to future research.
From what has already been said, it seems that conditions giving rise to child abuse are multifaceted.

The relative immaturity of the parents and the mother especially, coupled with their relative poverty of verbal communication, with all that this implies poses one difficulty. Their poor hold on reality and a compensating tendency to resort to escapist tactics, make them less competent to cope with the demands of parenthood than others. In addition, the temperament of the father produces a withdrawn unsociable reaction to the rest of society, while the hostility of them both is no encouragement to outside intervention.

Pregnancy occurring in the setting of other immediate stresses such as poor housing and financial circumstances may prove the final instigation to a violent outburst.

So far the portrait painted has tended to treat the parents as though their psychopathology was shared. At some points this is so. Both are rather asocial and aggressive beyond the average. Both tend to share impoverished language skills. But the mothers are especially lacking in inner controls, making them more likely than the fathers to act out their impulses without due thought or realisation of the consequences.

The fathers are little support to the mothers at a time when they need warmth, encouragement and the acceptance of their dependency needs. The fathers are the last people to provide these emotional props. Temperamentally they are somewhat cold and unenthusiastic. Their schizoid temperament may be some sort of defence for them but it must be experienced as an attack by the mother, already stressed by too many demands upon her inadequate resources. The kind of support
that is usually said to be required by young mothers if they are to participate adequately in the symbiotic relationship of mother and infant, is likely to be greatly lacking in these marital situations.

Thus the references by caseworkers to collusion of the parents in the act of battering, so that one may act while the other stands by passively, seem particularly apt. But it appears that it is the collusion of active aggression in the face of passive withdrawal, rather than a conspiratorial collusion.

The inadequacies of the one parent mesh all too precisely with the deficiencies of the other. They form a sadly complementary pair.

Although the pattern of the battering parents' lives is liable to all manner of insufficiencies, it seems that, especially in the role of parents, are they most at risk. For it is at that point, quintessentially, that cooperation toward a common goal is most needed, and this requires a degree of maturity on the one hand, and participation on the other, which are the principle ingredients lacking in the make-up of the battering individual.

Much of what has emerged in this study has confirmed other investigations. The new contributions to our understanding of the battering parents' psychological characteristics seem to be the following points:—

1. The emergence of a particularly clear cut difference between the fathers on the Extraversion-Introversion dimension with all that that implies in hereditary terms, may serve as a correction to the heavily environmentalist emphasis by Steele and Pollock (1972) upon the abusive parents' early history. While not in any way minimising the possible effects of early experience on later personality, there is insufficient proof
from any source that the whole of one's parenting capacity is acquired within the first year of life. Even quite traumatic separation experiences, damaging as they undoubtedly are, are, not now thought to have the absolutely irreversible effects that Bowlby (1951) once claimed. Rutter (1972) warns one to be more circumspect in assuming that what is presently disruptive is perpetually so.

So with childhood rejection and even violence; no doubt this is the least enviable experience to receive as a child, but it seems naive to accept on face value that this has in fact been the experience of all battering parents, and equally naive to expect the pattern to be inevitably repeated whatever the conditions that will obtain in the individual's future life pattern.

What seems to be lacking here is an appreciation of the contribution coming from within the individual's personality itself. A biologically determined temperamentally coldness and lack of warmth clearly can be a crucial determinant when other factors are negatively weighted against the situation.

2. The second new emphasis is a due consideration of intellectual factors in the abusive parents' situation. We know that few are mentally subnormal within the meaning of the Act. This does not mean that they are fully competent to cope with a situation which taxes resources already under pressure. Those who are well endowed with the capacity to reason, to communicate and to consider, are apt to underestimate the strain undergone by people not grossly unintelligent but just slightly below the average in many of their intellectual experiences. The effects of having an I.Q. of 93 are not all that noticeable, but when adverse environmental circumstances have to be faced and other personality attributes make life more difficult, even such a small deficit can have its negative influence.

3. The combination of traits to produce a schizoid trend has
also not been considered in past work. Again, recognition of this trend may act as a corrective to the tendency of social workers to identify with their clients and see them in their own image. Social workers are usually warm and participant as a group. Battering parents are, it seems, likely to be cold and withdrawn, maybe as a result of life's knocks, but also by reason of the temperamental slant together with the type of defences this generates, here of a schizoid type. True, Laing (1964) and Szasz (1973) have insisted that this is all due to the "double blind" life situation in which the schizoid person has been reared. This is wholly to disregard the immense weight of careful genetic research that has gone into the investigation of the schizophrenic process. Much of this is summarized by Mittler (1970).

It seems very likely that the abusive father has a distinct biological handicap in his temperament and unless one wishes to fly in the face of the evidence, this, along with all the other contributants needs to be given due weight.

4. In contrast to the preceding points, the role of current social factors have received more emphasis in the present study than has become the vogue in work dealing with child abuse. In contrasting accidental injury with abusive acts against the child one gets a much clearer picture of the relative strength of relevant forces at work. In the Colorado studies, which least emphasise the role of social determinants in the causation of battering, no kind of comparative study has been attempted. In Elmer's studies (1967) (1968) other reference groups have been used, enabling contrasts to be meaningfully drawn between different types of parent. Perhaps that is why, like the present investigation, her work stresses rather than belittles the effect of current living experiences. In her case however, her sample has been so different from the present one on racial grounds that the influences she quotes as being relevant could not have been accepted as important a priori. In fact both pregnancy's "maturational crisis", and housing and financial pressures are apparently indifferent to race! Present factors must be duly understood in seeking an amelioration of the abused child's life style.
This raises the difficult question of treatment, in the sense that one wants to know what is the most relevant form of intervention to protect and safeguard the child at risk of battering.

It is not surprising to find that after some years of work in this field, Helfer and Kempe et al (1968) now speak less of "attempts to lessen intra-psychic conflict" p.138, and more of the fact that it "is not realistic to expect a substantive maturation to occur". p.42. (Helfer and Kempe, 1972). Other means of intervention besides those of depth treatments suited to the unravelling of neurotic conflicts must be sought.

Suggested Treatment Innovations

1. One obvious amelioration, or indeed preventative factor, could be an improved policy for contraception and abortion in the interests of preventing child abuse. Even the enhanced risk of later birth complication reported by Wynne and Wynne (1973) seems a price worth considering if the safety and perhaps the life of the born children is to be safeguarded. The need for more readily available sterilisation especially where this is actively sought by the patient is also worth consideration.

The author is aware of doctors' dissuading and even refusing to carry out sterilisation on young mothers who have admitted battering their children, on the grounds of the mother's youth. In a field fraught with value judgements one could perhaps allow such a mother to be her own best judge.

2. A further factor could be the realisation that there is not one special syndrome that, once recognised, will alert the vigilant doctor or social worker, but that a balanced assessment of all the factors in the life style, personality and social circumstances of the individual family, must be
made and sometimes made fast, if tragic consequences are to be avoided. The very fact that the battering parent resembles most other parents in much of what he presents to us, should help to avoid a complacent assumption that abuse could not occur with "such parents".

3. The realisation that where there are strong precipitating personality factors these are of a kind not too readily open to change, might persuade policy makers to concentrate scarce resources on supportive agencies within the community such as, for example, residential centres where whole families can be helped to cope with the very demanding early months of their children's development. Where help is available and new learning experience inevitable, there might be a real chance that the particular situations precipitating abuse could be averted.

4. Where it is felt that such a procedure is over optimistic, that is where personality inadequacies are so great that no amount of "holding" will contain an explosive situation, then it is important to be able to take the child swiftly into a place of safety without this necessarily meaning a criminal charge against the parents. Though proof is lacking, it seems at times, that abuse is not reported, in the first place, for fear of implicating the parents in criminal proceedings. Thus the child is abused and the abuse probably repeated before action is taken. If punitive action against the parent were less the rule than it is recommended to be in police and even N.S.P.C.C. circles, then protection of the child might be improved. This is not the place to pursue the legal implications of this recommendation. Indeed it is likely that the law as it stands is perfectly effective. It is the implementation of the law that may need modification.

5. The final recommendation is for an improved general awareness of the over-all consequences of child directed aggression in all its forms. In a society that often seems to condone corporal punishment of children by teachers and other adults, the climate is created in which, under duress

+ private communications from health visitors and social workers.
of inner and outer promptings, extremes may be reached all the more easily because the model of violent punishment is so freely available for all to witness. If people restricted their use of such forms of discipline, they might contribute to a lessening of its use, while at the same time improving their own children's self-control over their own violent impulses.

Future Research

The present investigation has thrown up some interesting leads, but it has been conceived on a limited scale and confined to small samples.

1. Future work should especially be concerned to explore more fully age factors in the abused child. It would be of great interest to follow the implications that battering occurs at different ages from accidental injury. The role of the health visitor could here be enhanced as a first line of prevention since she is expressly charged with health education in the community. In general the continued use of the questionnaire herein described on a much larger sample, is to be recommended and is, in fact, being undertaken.

2. The part played by the father is especially interesting but needs exploration with much larger samples. The fact that much social work takes place without the worker ever seeing the fathers suggests that revised practice with the express purpose of supporting the mother and getting through to the father, might well further our understanding of the factors involved here.

3. In the absence of valid attitude questionnaires for use with battering parents a self rating technique incorporating the differentiating items from the PARI and the 16PF and the health visitor questionnaire could usefully be used on a quota sample of new parents. Eventually data would be built up enabling one to see whether valid differences in parent behaviour were confirmed in the ongoing sample. This would serve as further validation of the findings reported here.


68. Silverman, F.N. 'THE ROENTGEN MANIFESTATIONS OF UNRECOGNISED SKELETAL TRAUMA IN INFANTS' Am. J. Reontgenol 69 (2) 413-426, 1953.
69. Simons, B. et al. 'CHILD ABUSE' New York State J. of Medicine, 2783. 1966.


APPENDIX
SHORTENED FORM OF W.A.I.S.

Use the subtests 1) Comprehension, 2) Similarities, 3) Vocabulary, 4) Block Design, and 5) Object Assembly, and find the scaled scores for each. Then for

a) Sum of the scaled scores on tests 1, 2 and 3 (which can be thought of as yielding an overall "vg" I.Q.) we have

<table>
<thead>
<tr>
<th>Age</th>
<th>Expected mean</th>
<th>S.D.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(18-19) yrs.</td>
<td>30</td>
<td>8.09 (.124)</td>
</tr>
<tr>
<td>(25-34) yrs.</td>
<td>30</td>
<td>8.04 (.124)</td>
</tr>
<tr>
<td>(45-54) yrs.</td>
<td>30</td>
<td>8.09 (.124)</td>
</tr>
</tbody>
</table>

(to facilitate calculations the inverses of S.D.s are given in brackets)

b) The correlation between tests \((1 + 2 + 3)\) and \((4 + 5 - 3)\) are very low, namely -

\[
\begin{array}{ccc}
0.112 & 0.079 & 0.131 \\
\end{array}
\]

c) So that a "space-performance" (sp) I.Q., roughly independent of the "vg" I.Q., is given by tests \((4 + 5 - 3)\). For the latter combination of tests

<table>
<thead>
<tr>
<th>Age</th>
<th>Expected mean</th>
<th>S.D.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(18-19) yrs.</td>
<td>10</td>
<td>4.55 (.220)</td>
</tr>
<tr>
<td>(25-34) yrs.</td>
<td>10</td>
<td>4.55 (.220)</td>
</tr>
<tr>
<td>(45-54) yrs.</td>
<td>10</td>
<td>4.49 (.223)</td>
</tr>
</tbody>
</table>

d) S.D.s of the difference between \((1 + 2 + 3)\) and \((4 + 5 - 3)\) are

\[
\begin{array}{ccc}
8.80 (.114) & 8.92 (.112) & 8.73 (.115) \\
\end{array}
\]

e) Standard errors of measurement are

<table>
<thead>
<tr>
<th></th>
<th>for &quot;vg&quot; I.Q.s</th>
<th>for &quot;sp&quot; I.Q.s</th>
</tr>
</thead>
<tbody>
<tr>
<td>S.E.</td>
<td>3.31</td>
<td>3.44</td>
</tr>
<tr>
<td></td>
<td>3.31</td>
<td>3.97</td>
</tr>
</tbody>
</table>

EXAMPLE

Suppose a subject, 25 years of age, gets the following scaled scores:

<table>
<thead>
<tr>
<th>Test</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scale</td>
<td>13</td>
<td>15</td>
<td>17</td>
<td>14</td>
<td>16</td>
</tr>
</tbody>
</table>

f) Verbal (vg) standardized score = \((45-30)/8.04 = 15 \times 0.124 = 1.860\)
   "   I.Q. = 100 + 15 \times 1.860 = 127.9

g) Performance (sp) standardized score = \([(30 - 17) - 10] \times 0.220 = 0.660\)
   "   I.Q. = 100 + 15 \times 0.660 = 109.9

h) Abnormality of difference between verbal (45) and performance (13) scores

\[
\begin{array}{c}
\frac{45 - 13} - (30 - 10) \times 0.112 = 1.344 (91\% \text{ile})
\end{array}
\]

i) 95% confidence limits
   for "vg" I.Q. are 127.9 + 1.96 \times 3.44 = 127.9 + 6.7 = 121.2 and 134.6
   for "sp" I.Q. are 109.9 + 1.96 \times 4.24 = 109.9 + 8.3 = 118.2
Regression Weights for Factor Scores on W.A.I.S.  
(age groups combined)

**TESTS**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>&quot;vg&quot;</td>
<td>.16</td>
<td>.09</td>
<td>.19</td>
<td>.08</td>
<td>.44</td>
<td>.08</td>
<td>.06</td>
<td>.00</td>
<td>.04</td>
</tr>
<tr>
<td>II</td>
<td>&quot;sp&quot;</td>
<td>-.16</td>
<td>-.02</td>
<td>-.13</td>
<td>-.04</td>
<td>-.48</td>
<td>.01</td>
<td>.22</td>
<td>.49</td>
<td>.15</td>
</tr>
</tbody>
</table>

**Approximate weights**

| I  | -.2 | .1 | .2 | -.1 | .4 | .1 | .1 | - | - | - |
| II | -.2 | -.1 | - | -.5 | .2 | .5 | .2 | .4 |

**Example** (for any adult age group)

Scores: 13 10 15 7 17 6 10 14 7 16
St.scores: 1 0 1.7 -1 2.3 -1.3 0 1.3 -1 2

Score on Factor I: 1.23; Standard Error 0.96
(constant in all cases)

Score (standardized): 1.23/.96 = 1.28: I.Q. =
100 + 15 x 1.38 = 119.2

Score on Factor II: -0.27; Standard Error 0.80 (constant)

Score (standardized): -0.27/0.80 = 0.34: I.Q. =
100 - 15 x 0.34 = 94.9

Correlation between factor scores: r = 0.10 (negligible)

Standard Error of difference of factor scores unstandardized is 1.19

Abnormality of difference between factor scores
= [1.23 - (-0.27)] / 1.19 = 1.26 (89.5 %ile)
**APPLICATION FOR CONTROL FAMILY**

<table>
<thead>
<tr>
<th>Age of Mother</th>
<th>Age of Father</th>
</tr>
</thead>
<tbody>
<tr>
<td>___ years ___ mths.</td>
<td>___ years ___ mths.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Age of Child</th>
<th>Ordinal Position of Child</th>
</tr>
</thead>
<tbody>
<tr>
<td>___ years ___ mths.</td>
<td>___ of ___</td>
</tr>
</tbody>
</table>

**Nationality**

**Type of Housing Accommodation**

**Attendance of Child at Day Nursery**

Please fill in name and address of family willing to co-operate:

Please return form to: Mrs. C. Hyman, Denver House, 316 Ladbroke Grove, London W.10. Tel: 01 - 969 - 1212.
Dear

I am writing to you from Denver House Research Department.

I am asking health visitors to leave these letters with families whom they think might be able to help me. Our Department is trying to find ways of helping people who have problems with their children. To do this, I am giving a number of tests of different kinds to the families who seek our help. I also need to compare their results with those of ordinary families living in the same part of town. That is why I am asking for your help.

I would like you to come to Denver House, 316, Ladbroke Grove (the entrance is round the corner in Portobello Road). When you come, I would like to ask you some general knowledge quiz-type questions, and some questions about your attitudes and feelings, and I should also like to give a simple developmental test to your child.

I shall also want to see your husband one evening by arrangement, to do exactly the same tests with him. All this will only take about two hours for each adult. Your child will be seen at the same time as one of you. Some of you will have several children. We only need to see one child in each family. Your health visitor will tell you which one we want to test.

All the results of the test will remain confidential. Your names will not be put on test papers. We are paying a small fee (five pounds) to each family who is able to cooperate with us.

If you are willing to help, one of us can call round to make an appointment with you. Please tell your health visitor if you would like to take part or telephone Mrs. C. Hyman, Denver House -

The telephone number is 969 1212/5

Yours sincerely,

(Mrs.) C. A. Hyman, M.A.B.Sc.(Econ.)
The Psychological Assessment of Battered Children and their Families

The psychological assessment of families involved in battering is presently being planned as part of the therapeutic study undertaken by the Battered Child Research Department of the National Society for the Prevention of Cruelty to Children.

It is hoped to see twenty families at the Department's Centre at Denver House, 316, Ladbroke Grove, London, W10 5LR in the course of the next twelve to fifteen months. It is hoped to compare the results of intelligence and personality tests obtained from the parents in the study, with similar scores from tests given to comparable sample of non-battering parents. It is also intended to compare the scores of battered infants on the Bayley Developmental Scales with the scores obtained by a matched group of non-battered infants. For this reason, we are seeking the cooperation of Health Departments already in touch with the research project. We should like to be introduced to suitable families in the area, willing to participate in this scheme.

Families will be matched, where possible, on the following indices:

1. Age of parents
2. Age of child
3. Marital status of parents
4. Colour
5. Child's day care outside the home
6. Type of living accommodation (ratio of rooms to number of people in family)
7. Ordinal position of child.

The parents will be asked to take the following tests:

1. The short form of the Wechsler Adult Intelligence Scale
2. The Goldstein Scheerer Colour Form Test
3. The Hussey Family Attitude Questionnaire
4. The Cattell 16 Personality Factor Test

Each adult will need about two hours to complete the battery of tests, and the Bayley Developmental Scales will be given to the child while one of the parents is taking the adult tests. An evening appointment can be arranged for fathers participating in the scheme. A payment of £5/- per family is being offered.

After the names and addresses have been supplied by the Health Department, we shall make all further appointments and arrangements directly with the families. All names and test material will be treated with strict confidentiality. Further details may be obtained from Mrs. C. Hyman, who will be conducting the tests with an assistant.
Read each of the statements below and then rate them as follows:

A    a    d    D
strongly agree    mildly agree    mildly disagree    strongly disagree

Indicate your opinion by drawing a circle around the "A" if you strongly agree, around the "a" if you mildly agree, around the "d" if you mildly disagree, and around the "D" if you strongly disagree.

There are no right or wrong answers, so answer according to your own opinion. It is very important to the study that all questions be answered. Many of the statements will seem alike but all are necessary to show slight differences of opinion.

<table>
<thead>
<tr>
<th>Agree</th>
<th>Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Children should be allowed to disagree with their parents if they feel their own ideas are better. A a d D</td>
<td></td>
</tr>
<tr>
<td>2. A good mother should shelter her child from life's little difficulties. A a d D</td>
<td></td>
</tr>
<tr>
<td>3. The home is the only thing that matters to a good mother. A a d D</td>
<td></td>
</tr>
<tr>
<td>4. Some children are just so bad they must be taught to fear adults for their own good. A a d D</td>
<td></td>
</tr>
<tr>
<td>5. Children should realise how much parents have to give up for them. A a d D</td>
<td></td>
</tr>
<tr>
<td>6. You must always keep tight hold of baby during his bath for in a careless moment he might slip. A a d D</td>
<td></td>
</tr>
<tr>
<td>7. People who think they can get along in marriage without arguments just don't know the facts. A a d D</td>
<td></td>
</tr>
<tr>
<td>8. A child will be grateful later on for strict training. A a d D</td>
<td></td>
</tr>
<tr>
<td>9. Children will get on any woman's nerves if she has to be with them all day. A a d D</td>
<td></td>
</tr>
<tr>
<td>10. It's best for the child if he never gets started wondering whether his mother's views are right. A a d D</td>
<td></td>
</tr>
<tr>
<td>11. More parents should teach their children to have unquestioning loyalty to them. A a d D</td>
<td></td>
</tr>
<tr>
<td>12. A child should be taught to avoid fighting no matter what happens. A a d D</td>
<td></td>
</tr>
<tr>
<td>13. One of the worst things about taking care of a home is a woman feels that she can't get out. A a d D</td>
<td></td>
</tr>
<tr>
<td>14. Parents should adjust to the children some rather than always expecting the children to adjust to the parents. A a d D</td>
<td></td>
</tr>
</tbody>
</table>

* Permission is granted to anyone to reproduce this material with proper acknowledgment, without permission of the authors or of the Society for Research in Child Development.
15. There are so many things a child has to learn in life there is no excuse for him sitting around with time on his hands.  
   Agree  Disagree A a d D

16. If you let the children talk about their troubles they end up complaining even more.  
   Agree  Disagree A a d D

17. Mothers would do their job better with the children if fathers were more kind.  
   Agree  Disagree A a d D

18. A young child should be protected from hearing about sex.  
   Agree  Disagree A a d D

19. If a mother doesn't go ahead and make rules for the home the children and husband will get into troubles they don't need to.  
   Agree  Disagree A a d D

20. A mother should make it her business to know everything her children are thinking.  
   Agree  Disagree A a d D

21. Children would be happier and better behaved if parents would show an interest in their affairs.  
   Agree  Disagree A a d D

22. Most children are toilet trained by 15 months of age.  
   Agree  Disagree A a d D

23. There is nothing worse for a young mother than being alone while going through her first experience with a baby.  
   Agree  Disagree A a d D

24. Children should be encouraged to tell their parents about it whenever they feel family rules are unreasonable.  
   Agree  Disagree A a d D

25. A mother should do her best to avoid any disappointment for her child.  
   Agree  Disagree A a d D

26. The women who want lots of parties seldom make good mothers.  
   Agree  Disagree A a d D

27. It is frequently necessary to drive the mischief out of a child before he will behave.  
   Agree  Disagree A a d D

28. A mother must expect to give up her own happiness for that of her child.  
   Agree  Disagree A a d D

29. All young mothers are afraid of their awkwardness in handling and holding the baby.  
   Agree  Disagree A a d D

30. Sometimes it's necessary for a wife to tell off her husband in order to get her rights.  
   Agree  Disagree A a d D

31. Strict discipline develops a fine strong character.  
   Agree  Disagree A a d D

32. Mothers very often feel that they can't stand their children a moment longer.  
   Agree  Disagree A a d D

33. A parent should never be made to look wrong in a child's eyes.  
   Agree  Disagree A a d D

34. The child should be taught to revere his parents above all other grown-ups.  
   Agree  Disagree A a d D
<table>
<thead>
<tr>
<th></th>
<th>Agree</th>
<th>Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>35.</td>
<td>A child should be taught to always come to his parents or teachers rather than fight when he is in trouble.</td>
<td>A a d D</td>
</tr>
<tr>
<td>36.</td>
<td>Having to be with the children all the time gives a woman the feeling her wings have been clipped</td>
<td>A a d D</td>
</tr>
<tr>
<td>37.</td>
<td>Parents must earn the respect of their children by the way they act.</td>
<td>A a d D</td>
</tr>
<tr>
<td>38.</td>
<td>Children who don't try hard for success will feel they have missed out on things later on.</td>
<td>A a d D</td>
</tr>
<tr>
<td>39.</td>
<td>Parents who start a child talking about his worries don't realise that sometimes it's better to just leave well enough alone.</td>
<td>A a d D</td>
</tr>
<tr>
<td>40.</td>
<td>Husbands could do their part if they were less selfish.</td>
<td>A a d D</td>
</tr>
<tr>
<td>41.</td>
<td>It is very important that young boys and girls not be allowed to see each other completely undressed.</td>
<td>A a d D</td>
</tr>
<tr>
<td>42.</td>
<td>Children and husbands do better when the mother is strong enough to settle most of the problems.</td>
<td>A a d D</td>
</tr>
<tr>
<td>43.</td>
<td>A child should never keep a secret from his parents</td>
<td>A a d D</td>
</tr>
<tr>
<td>44.</td>
<td>Laughing at children's jokes and telling children jokes makes things go more smoothly.</td>
<td>A a d D</td>
</tr>
<tr>
<td>45.</td>
<td>The sooner a child learns to walk the better he's trained.</td>
<td>A a d D</td>
</tr>
<tr>
<td>46.</td>
<td>It isn't fair—that a woman has to bear just about all the burden of raising children by herself.</td>
<td>A a d D</td>
</tr>
<tr>
<td>47.</td>
<td>A child has a right to do his own point of view and ought to be allowed to express it.</td>
<td>A a d D</td>
</tr>
<tr>
<td>48.</td>
<td>A child should be protected from jobs which might be too tiring or hard for him.</td>
<td>A a d D</td>
</tr>
<tr>
<td>49.</td>
<td>A woman has to choose between having a well run home and hobnobbing around with neighbours and friends.</td>
<td>A a d D</td>
</tr>
<tr>
<td>50.</td>
<td>A wise parent will teach a child early just who is boss.</td>
<td>A a d D</td>
</tr>
<tr>
<td>51.</td>
<td>Few women get the gratitude they deserve for all they have done for their children.</td>
<td>A a d D</td>
</tr>
<tr>
<td>52.</td>
<td>Mothers never stop blaming themselves if their babies are injured in accidents.</td>
<td>A a d D</td>
</tr>
<tr>
<td>53.</td>
<td>No matter how well a married couple love one another, there are always differences which cause irritations and lead to arguments.</td>
<td>A a d D</td>
</tr>
<tr>
<td>54.</td>
<td>Children who are held to firm rules grow up to be the best adults.</td>
<td>A a d D</td>
</tr>
</tbody>
</table>
55. It's a rare mother who can be sweet and even tempered with her children all day.  A a d D

56. Children should never learn things outside the home which make them doubt their parents' ideas.  A a d D

57. A child soon learns that there is no greater wisdom than that of his parents.  A a d D

58. There is no good excuse for a child hitting another child.  A a d D

59. Most young mothers are bothered more by the feeling of being shut up in the home than by anything else.  A a d D

60. Children are too often asked to do all the compromising and adjustment and that is not fair.  A a d D

61. Parents should teach their children that the way to get ahead is to keep busy and not waste time.  A a d D

2. Children pester you with all their little upsets if you aren't careful from the first.  A a d D

3. When a mother doesn't do a good job with children it's probably because the father doesn't do his part around the home.  A a d D

4. Children who take part in sex play become sex criminals when they grow up.  A a d D

5. A mother has to do the planning because she is the one who knows what's going on in the home.  A a d D

6. An alert parent should try to learn all her child's thoughts.  A a d D

7. Parents who are interested in hearing about their children's parties, dates and fun help them grow up right.  A a d D

8. The earlier a child is weaned from its emotional ties to its parents the better it will handle its own problems.  A a d D

9. A wise woman will do anything to avoid being by herself before and after a new baby.  A a d D

0. A child's ideas should be seriously considered in making family decisions.  A a d D

1. Parents should know better than to allow their children to be exposed to difficult situations.  A a d D

2. Too many women forget that a mother's place is in the home.  A a d D

3. Children need some of the natural meanness taken out of them.  A a d D

4. Children should be more considerate of their mothers since their mothers suffer so much for them.  A a d D

5. Most mothers are fearful that they may hurt their babies in handling them.  A a d D

6. There are some things which just can't be settled by a mild discussion.  A a d D

7. Most children should have more discipline than they get.  A a d D
78. Raising children is a nerve-wracking job.  
79. The child should not question the thinking of his parents.  
80. Parents deserve the highest esteem and regard of their children.  
81. Children should not be encouraged to box or wrestle because it often leads to trouble or injury.  
82. One of the bad things about raising children is that you aren't free enough of the time to do just as you like.  
83. As much as is reasonable a parent should try to treat a child as an equal.  
84. A child who is "on the go" all the time will most likely be happy.  
85. If a child has upset feelings it is best to leave him alone and not make it look serious.  
86. If mothers could get their wishes they would most often ask that their husband be more understanding.  
87. Sex is one of the greatest problems to be contended with in children.  
88. The whole family does fine if the mother puts her shoulders to the wheel and takes charge of things.  
89. A mother has a right to know everything going on in her child's life because her child is part of her.  
90. If parents would have fun with their children, the children would be more apt to take their advice.  
91. A mother should make an effort to get her child toilet trained at the earliest possible time.  
92. Most women need more time than they are given to rest up in the home after going through childbirth.  
93. When a child is in trouble he ought to know he won't be punished for talking about it with his parents.  
94. Children should be kept away from all hard jobs which might be discouraging.  
95. A good mother will find enough social life within the family.  
96. It is sometimes necessary for the parents to break the child's will.  
97. Mothers sacrifice almost all their own fun for their children.  
98. A mother's greatest fear is that in a forgetful moment she might let something bad happen to the baby.  
99. It's natural to have quarrels when two people who both have minds of their own get married.
<table>
<thead>
<tr>
<th></th>
<th>Agree</th>
<th>Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>100. Children are actually happier under strict training</td>
<td>A</td>
<td>a</td>
</tr>
<tr>
<td>101. It's natural for a mother to &quot;blow her top&quot; when children are selfish and demanding.</td>
<td>A</td>
<td>a</td>
</tr>
<tr>
<td>102. There is nothing worse than letting a child hear criticisms of his mother.</td>
<td>A</td>
<td>a</td>
</tr>
<tr>
<td>103. Loyalty to parents comes before anything else.</td>
<td>A</td>
<td>a</td>
</tr>
<tr>
<td>104. Most parents prefer a quiet child to a &quot;scrappy&quot; one.</td>
<td>A</td>
<td>a</td>
</tr>
<tr>
<td>105. A young mother feels &quot;held down&quot; because there are lots of things she wants to do while she is young.</td>
<td>A</td>
<td>a</td>
</tr>
<tr>
<td>106. There is no reason parents should have their own way all the time, any more than that children should have their own way all the time.</td>
<td>A</td>
<td>a</td>
</tr>
<tr>
<td>107. The sooner a child learns that a wasted minute is lost forever the better off he will be.</td>
<td>A</td>
<td>a</td>
</tr>
<tr>
<td>108. The trouble with giving attention to children's problems is they usually just make up a lot of stories to keep you interested.</td>
<td>A</td>
<td>a</td>
</tr>
<tr>
<td>109. Few men realize that a mother needs some fun in life too.</td>
<td>A</td>
<td>a</td>
</tr>
<tr>
<td>110. There is usually something wrong with a child who asks a lot of questions about sex.</td>
<td>A</td>
<td>a</td>
</tr>
<tr>
<td>111. A married woman knows that she will have to take the lead in family matters.</td>
<td>A</td>
<td>a</td>
</tr>
<tr>
<td>112. It is a mother's duty to make sure she knows her child's innermost thoughts.</td>
<td>A</td>
<td>a</td>
</tr>
<tr>
<td>113. When you do things together, children feel close to you and can talk easier.</td>
<td>A</td>
<td>a</td>
</tr>
<tr>
<td>114. A child should be weaned away from the bottle or breast as soon as possible.</td>
<td>A</td>
<td>a</td>
</tr>
<tr>
<td>115. Taking care of a small baby is something that no woman should be expected to do all by herself.</td>
<td>A</td>
<td>a</td>
</tr>
</tbody>
</table>
Appendix A
Richard Q. Bell

SAMPLE COPY OF FINAL FORM IV (PARI) *

INVENTORY OF ATTITUDES ON FAMILY LIFE AND CHILDREN

each of the statements below and then rate them as follows:

<table>
<thead>
<tr>
<th>Agree</th>
<th>Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>a</td>
</tr>
<tr>
<td>d</td>
<td>D</td>
</tr>
</tbody>
</table>

A strongly agree, a mildly agree, d mildly disagree, D strongly disagree.

Indicate your opinion by drawing a circle around the "A" if you strongly agree, around the "a" if you mildly agree, around the "d" if you mildly disagree, and around the "D" if you strongly disagree.

There are no right or wrong answers, so answer according to your opinion. It is very important to the study that all questions be answered. Many of the statements will seem alike but all are necessary to show slight differences of opinion.

<table>
<thead>
<tr>
<th>Agree</th>
<th>Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>a</td>
</tr>
<tr>
<td>d</td>
<td>D</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Agreement</th>
<th>Statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Children should realize how much parents have to give up for them.</td>
</tr>
<tr>
<td>a</td>
<td>You must always keep tight hold of baby during his bath for in a careless moment he might slip.</td>
</tr>
<tr>
<td>d</td>
<td>Child will be grateful later on for strict raining.</td>
</tr>
<tr>
<td>D</td>
<td>Child should be taught to avoid fighting no matter what happens.</td>
</tr>
<tr>
<td>A</td>
<td>If a mother doesn't go ahead and make rules for the home the children and husband will get into roubles they don't need to.</td>
</tr>
<tr>
<td>a</td>
<td>All young mothers are afraid of their awkwardness in handling and holding the baby.</td>
</tr>
<tr>
<td>d</td>
<td>Sometimes it's necessary for a wife to tell off her husband in order to get her rights.</td>
</tr>
<tr>
<td>D</td>
<td>Strict discipline develops a fine strong character.</td>
</tr>
<tr>
<td>A</td>
<td>The child should be taught to revere his parents above all other grown-ups.</td>
</tr>
<tr>
<td>a</td>
<td>Living to be with the children all the time gives a woman the feeling her wings have been clipped.</td>
</tr>
<tr>
<td>d</td>
<td>It is very important that young boys and girls not be allowed to see each other completely undressed.</td>
</tr>
<tr>
<td>D</td>
<td>Children and husbands do better when the mother is strong enough to settle most of the problems.</td>
</tr>
</tbody>
</table>
13. A wise parent will teach a child early just who is boss.  Agree Disagree A a d D
14. Mothers never stop blaming themselves if their babies are injured in accidents.  Agree Disagree A a d D
15. Children who are held to firm rules grow up to be the best adults.  Agree Disagree A a d D
16. It's a rare mother who can be sweet and even tempered with her children all day.  Agree Disagree A a d D
17. Children should never learn things outside the home which make them doubt their parents' ideas.  Agree Disagree A a d D
18. A mother has to do the planning because she is the one who knows what's going on in the home.  Agree Disagree A a d D
19. An alert parent should try to learn all her child's thoughts.  Agree Disagree A a d D
20. A child's ideas should be seriously considered in making family decisions.  Agree Disagree A a d D
21. Too many women forget that a mother's place is in the home.  Agree Disagree A a d D
22. Most mothers are fearful that they may hurt their babies in handling them.  Agree Disagree A a d D
23. Most children should have more discipline than they get.  Agree Disagree A a d D
24. As much as is reasonable a parent should try to treat a child as an equal.  Agree Disagree A a d D
25. The whole family does fine if the mother puts her shoulders to the wheel and takes charge of things.  Agree Disagree A a d D
26. A mother's greatest fear is that in a forgetful moment she might let something bad happen to the baby.  Agree Disagree A a d D
27. Children are actually happier under strict training.  Agree Disagree A a d D
28. Few men realize that a mother needs some fun in life too.  Agree Disagree A a d D
29. A married woman knows that she will have to take the lead in family matters.  Agree Disagree A a d D
30. Taking care of a small baby is something that no woman should be expected to do all by herself. Agree Disagree A a d D
<table>
<thead>
<tr>
<th>Behavior</th>
<th>Score</th>
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<tr>
<td>Verbalisation</td>
<td>20</td>
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<tr>
<td>Fostering dependency</td>
<td>1</td>
</tr>
<tr>
<td>Seclusion</td>
<td>21</td>
</tr>
<tr>
<td>Breaking will</td>
<td>13</td>
</tr>
<tr>
<td>Martyrdom</td>
<td></td>
</tr>
<tr>
<td>Fear of harming</td>
<td>2</td>
</tr>
<tr>
<td>Marital conflict</td>
<td></td>
</tr>
<tr>
<td>Strictness</td>
<td>3</td>
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<tr>
<td>Irritability</td>
<td></td>
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<td>Exclusion</td>
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<td>Deification</td>
<td>9</td>
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<tr>
<td>Suppression</td>
<td>4</td>
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<td>Rejection of homemaking</td>
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<tr>
<td>Equalitarianism</td>
<td>24</td>
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<tr>
<td>Activity</td>
<td></td>
</tr>
<tr>
<td>Communication</td>
<td></td>
</tr>
<tr>
<td>Inconsiderate husband</td>
<td>28</td>
</tr>
<tr>
<td>Sexual suppression</td>
<td>11</td>
</tr>
<tr>
<td>Ascendancy of mother</td>
<td>5</td>
</tr>
<tr>
<td>Intrusiveness</td>
<td>19</td>
</tr>
<tr>
<td>Comradeship</td>
<td></td>
</tr>
<tr>
<td>Accelerating development</td>
<td></td>
</tr>
<tr>
<td>Dependency of mother</td>
<td>30</td>
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**SUMMARY**

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<tr>
<th>Low Scores</th>
<th>High Scores</th>
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</thead>
<tbody>
<tr>
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</table>
### 2. COMPREHENSION

1. Clothes  
2. Engine  
3. Envelope  
4. Bad company  
5. Cinema  
6. Taxes  
7. Iron  
8. Child employment  
9. Forest  
10. Deaf  
11. Town land  
12. Marriage  
13. Still waters  
14. Swallow

### 4. SIMILARITIES

1. Orange—Banana  
2. Coat—Dress  
3. Axe—Saw  
4. Dog—Lion  
5. North—West  
6. Eye—Ear  
7. Air—Water  
8. Table—Chair  
9. Egg—Seed  
10. Poem—Statue  
11. Wood—Alcohol  
12. Praise—Punishment  
13. Fly—Tree

### 3. ARITHMETIC

<table>
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<th>Score</th>
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<td>0 1</td>
<td></td>
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<td>2.</td>
<td>15&quot;</td>
<td>0 1</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>15&quot;</td>
<td>0 1</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>15&quot;</td>
<td>0 1</td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>30&quot;</td>
<td>0 1</td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>30&quot;</td>
<td>0 1</td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>30&quot;</td>
<td>0 1</td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>30&quot;</td>
<td>0 1</td>
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</tr>
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<td>9.</td>
<td>30&quot;</td>
<td>0 1</td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td>30&quot;</td>
<td>0 1</td>
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<tr>
<td>11.</td>
<td>60&quot;</td>
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<td>12.</td>
<td>60&quot;</td>
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</tr>
<tr>
<td>13.</td>
<td>60&quot;</td>
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<tr>
<td>14.</td>
<td>120&quot;</td>
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</table>

### 5. DIGIT SPAN

**Digits Forward**

5-8-2  
6-9-4  
6-4-3-9  
7-2-8-6  
4-2-7-3-1  
7-5-8-3-6  
6-1-9-4-7-3  
3-9-2-4-8-7  
5-9-1-7-4-2-8  
4-1-7-9-3-8-6  
5-8-1-9-2-6-4-7  
3-8-2-9-5-1-7-4  
2-7-5-8-6-2-5-8-4  
7-1-3-9-4-2-5-6-8

**Digits Backward**

2-4  
5-8  
6-2-9  
4-1-5  
3-2-7-9  
4-9-6-8  
1-5-2-8-6  
6-1-8-4-3  
5-3-9-4-1-8  
7-2-4-8-5-6  
8-1-2-9-3-6-5  
4-7-3-9-1-2-8  
9-4-3-7-6-2-5-8  
7-2-8-1-9-6-5-3
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<tr>
<th>SCORE 2, 1 or 0</th>
<th>6. VOCABULARY</th>
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<tr>
<td>Ship</td>
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<tr>
<td>Penny</td>
<td></td>
</tr>
<tr>
<td>Winter</td>
<td></td>
</tr>
<tr>
<td>Repair</td>
<td></td>
</tr>
<tr>
<td>Breakfast</td>
<td></td>
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<tr>
<td>Fabric</td>
<td></td>
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<tr>
<td>Slice</td>
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<td>Assemble</td>
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<td>Hasten</td>
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<td>Sentence</td>
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<td>Regulate</td>
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<td>Commence</td>
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<td>Ponder</td>
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<td>Terminate</td>
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<td>Obstruct</td>
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<td>Remorse</td>
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<td>Sanctuary</td>
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<td>Matchless</td>
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<td>Calemity</td>
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<td>Ominous</td>
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<td>Encumber</td>
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<tr>
<td>Plagiarize</td>
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<td>Impale</td>
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</tr>
<tr>
<td>ravesty</td>
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<tr>
<td>8. PICTURE COMPLETION</td>
<td>9. BLOCK DESIGN</td>
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<tr>
<td><strong>SCORE</strong></td>
<td><strong>TIME</strong></td>
</tr>
<tr>
<td>1. Knob</td>
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</tr>
<tr>
<td>2. Tail</td>
<td>2</td>
</tr>
<tr>
<td>3. Nose</td>
<td>3</td>
</tr>
<tr>
<td>4. Handle</td>
<td>4</td>
</tr>
<tr>
<td>5. Diamond</td>
<td>5</td>
</tr>
<tr>
<td>6. Water</td>
<td>6</td>
</tr>
<tr>
<td>7. Nose piece</td>
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</tr>
<tr>
<td>8. Peg</td>
<td>8</td>
</tr>
<tr>
<td>9. Oar lock</td>
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</tr>
<tr>
<td>10. Pins or Lugs</td>
<td>10</td>
</tr>
<tr>
<td>11. Flag</td>
<td>11</td>
</tr>
<tr>
<td>12. Dog tracks</td>
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</tr>
<tr>
<td>13. Cornwall</td>
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</tr>
<tr>
<td>14. Stacks</td>
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</tr>
<tr>
<td>15. Leg</td>
<td>15</td>
</tr>
<tr>
<td>16. Arm image</td>
<td>16</td>
</tr>
<tr>
<td>17. Finger</td>
<td>17</td>
</tr>
<tr>
<td>18. Shadow</td>
<td>18</td>
</tr>
<tr>
<td>19. Stirrup</td>
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<tr>
<td>20. Snow</td>
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</tr>
<tr>
<td>21. Eyebrow</td>
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**10. PICTURE ARRANGEMENT**

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<thead>
<tr>
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<td>Nest</td>
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</tr>
<tr>
<td>House</td>
<td>60''</td>
<td>0 2 4</td>
</tr>
<tr>
<td>Hold up</td>
<td>60''</td>
<td>0 4</td>
</tr>
<tr>
<td>Louise</td>
<td>60''</td>
<td>0 4</td>
</tr>
<tr>
<td>Enter</td>
<td>60''</td>
<td>0 4</td>
</tr>
<tr>
<td>Flirt</td>
<td>60''</td>
<td>0 2 4</td>
</tr>
<tr>
<td>Fish</td>
<td>120''</td>
<td>0 2 4</td>
</tr>
<tr>
<td>Taxi</td>
<td>120''</td>
<td>0 2 4</td>
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**11. OBJECT ASSEMBLY**

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<th><strong>Time</strong></th>
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<td>Manikin</td>
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</tr>
<tr>
<td>Profile</td>
<td>120''</td>
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<tr>
<td>Hand</td>
<td>180''</td>
</tr>
<tr>
<td>Elephant</td>
<td>180''</td>
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</table>
WHAT TO DO: Inside this booklet are some questions to see what attitudes and interests you have. There are no “right” and “wrong” answers because everyone has the right to his own views. To be able to get the best advice from your results, you should want to answer them exactly and truly.

If a separate “Answer Sheet” has not been given to you, turn this booklet over and tear off the Answer Sheet on the back Page.

Write your name and all other information asked for on the top line of the Answer Sheet.

First you should answer the four sample questions below so that you can see whether you need to ask anything before starting. Although you are to read the questions in this booklet, you must record your answers on the answer sheet (next to the same number as in the booklet).

There are three possible answers to each question. Read the following examples and mark your answers at the top of your answer sheet where it says “Examples.” Fill in the left-hand box if your answer choice is the “a” answer, in the middle box if your answer choice is the “b” answer, and in the right-hand box if you choose the “c” answer.

EXAMPLES:
1. I like to watch team games.
   a. yes, b. occasionally, c. no
2. I prefer people who:
   a. are reserved,
   b. (are) in between,
   c. make friends quickly.
3. Money cannot bring happiness.
   a. yes (true)   b. in between   c. no (false)

In the last example there is a right answer—kitten. But there are very few such reasoning items.

Ask now if anything is not clear. The examiner will tell you in a moment to turn the page and start.

When you answer, keep these four points in mind:

1. You are asked not to spend time pondering. Give the first, natural answer as it comes to you. Of course, the questions are too short to give you all the particulars you would sometimes like to have. For instance, the above question asks you about “team games” and you might prefer football to cricket. But you are to reply “for the average game,” or to strike an average in situations of the kind stated. Give the best answer you can at a rate not slower than five or six a minute. You should finish in a little more than half an hour.

2. Try not to fall back on the middle, “uncertain” answers except when the answer at either end is really impossible for you — perhaps once every four or five questions.

3. Be sure not to miss anything out but answer every question, somehow. Some may not apply to you very well, but give your best guess. Some may seem personal; but remember that the answer sheets are kept confidential and cannot be scored without a special stencil key. Answers to particular questions are not inspected.

4. Answer as honestly as possible what is true of you. Do not merely mark what seems “the right thing to say” to impress the examiner.
1. I think my memory is better than it ever was.
   a. yes,  b. in between,  c. no.

2. I could happily live alone, far from anyone, like a hermit.
   a. yes,  b. occasionally,  c. no.

4. When going to bed, I:
   a. drop off to sleep quickly,
   b. in between,
   c. have difficulty falling asleep.

5. When driving a car in a line of traffic, I feel satisfied:
   a. to remain behind most of the other cars,
   b. in between,
   c. only after I've reached the front of the line.

6. At a party I let others keep the jokes and stories going.
   a. yes,  b. sometimes,  c. no.

7. It's important to me not to live in messy surroundings.
   a. true,  b. uncertain,  c. false.

8. Most people I meet at a party are undoubtedly glad to see me.
   a. yes,  b. sometimes,  c. no.

9. I would rather exercise by:
   a. fencing and dancing,
   b. in between,
   c. wrestling and cricket

10. I smile to myself at the big difference between what people do and what they say they do.
    a. yes,  b. occasionally,  c. no.

11. In reading about an accident I like to find out exactly how it happened.
    a. always,  b. sometimes,  c. seldom.

12. When friends play a joke on me, I usually enjoy it as much as the others, without feeling at all upset.
    a. true,  b. in between,  c. false.

13. When someone speaks angrily to me, I can forget the matter quickly.
    a. true,  b. uncertain,  c. false.

14. I like to “dream up” new ways of doing things rather than to be a practical follower of well-tried ways.
    a. true,  b. uncertain,  c. false.

15. When I plan something, I like to do so quite alone without any outside help.
    a. yes,  b. occasionally,  c. no.

16. I consider myself less “highly strung” than most people.
    a. true,  b. in between,  c. false.

17. I get impatient easily with people who don't decide quickly.
    a. true,  b. in between,  c. false.

18. I have sometimes, even if briefly, had hateful feelings towards my parents.
    a. yes,  b. in between,  c. no.

19. I would rather tell my innermost thoughts to
    a. my good friends,
    b. uncertain,
    c. a diary.

21. I always have lots of energy at times when I need it.
    a. yes,  b. in between,  c. no.
2. I am more annoyed by a person who:
   a. tells off-colour jokes and embarrasses people,
   b. uncertain,
   c. is late for an appointment and inconveniences me.

3. I greatly enjoy inviting guests and amusing them.
   a. true, b. uncertain, c. false.

4. I feel that:
   a. some jobs just don’t have to be done as carefully as others,
   b. in between,
   c. any job should be done thoroughly if you do it at all.

5. I have always had to fight against being too shy.
   a. yes, b. in between, c. no.

6. It would be more interesting to be:
   a. a bishop, b. uncertain, c. a colonel.

7. If a neighbour cheats me in small things, I would rather humour him than show him up.
   a. yes, b. occasionally, c. no.

8. I like a friend who:
   a. is efficient and practical in his interests,
   b. in between,
   c. seriously thinks out his attitudes toward life.

   It worries me if I hear others expressing ideas that are contrary to those that I firmly believe.
   a. true, b. in between, c. false.

9. I am over-conscientious, worrying over my past acts or mistakes.
   a. yes, b. in between, c. no.

10. If I were good at both, I would rather:
    a. play chess,
    b. in between,
    c. go bowling.

32. I like to join people who show lively group enthusiasm.
    a. yes, b. in between, c. no.

33. I put my faith more in:
    a. insurance,
    b. in between,
    c. good fortune.

34. I can forget my worries and responsibilities whenever I need to.
    a. yes, b. sometimes, c. no.

35. It’s hard for me to admit when I’m wrong.
    a. yes, b. sometimes, c. no.

36. In a factory it would be more interesting to be in charge of:
    a. machinery or keeping records,
    b. in between,
    c. talking to and hiring new people.

38. Minor distractions seem:
    a. to irritate me,
    b. in between,
    c. not to worry me at all.

39. I am quite happy to be waited on, at appropriate times, by personal servants.
    a. often, b. sometimes, c. never.

40. I would rather live in a town:
    a. artistically laid out, but relatively poor,
    b. uncertain,
    c. that is rough, prosperous, and booming.

41. People should insist more than they now do that moral laws be followed.
    a. yes, b. sometimes, c. no.

42. I have been told that, as a child, I was rather:
    a. quiet and kept to myself,
    b. in between,
    c. lively and always active.
43. I enjoy routine, constructive work, using a good piece of machinery or apparatus.
   a. yes, b. in between, c. no.

44. I think most witnesses tell the truth even if it becomes embarrassing.
   a. yes, b. in between, c. no.

45. When I meet a new person I would rather:
   a. discuss his politics and social views,
   b. in between,
   c. have him tell me some good, new jokes.

46. I try to make my laughter at jokes quieter than most people's.
   a. yes, b. in between, c. no.

47. I never feel so wretched that I want to cry.
   a. true, b. uncertain, c. false.

48. In music I enjoy:
   a. military band marches,
   b. uncertain,
   c. violin solos.

49. I would rather spend two weeks in the summer:
   a. bird-watching and walking in the country with a friend or two,
   b. uncertain,
   c. being a leader of a group in a camp.

50. The effort taken in planning ahead:
   a. is never wasted,
   b. in between,
   c. is not worth it.

51. Inconsiderate acts or remarks by my neighbours do not make me touchy and unhappy.
   a. true, b. uncertain, c. false.

52. When I know I'm doing the right thing, I find my task easy.
   a. always, b. sometimes, c. seldom.

53. I would rather be:
   a. in a business office, organizing and seeing people,
   b. in between,
   c. an architect, drawing plans in a quiet room.

54. Things go wrong for me:
   a. rarely, b. occasionally, c. frequently.

55. In most things in life, I believe in:
   a. taking a gamble,
   b. in between,
   c. playing it safe.

56. Some people may think I talk too much.
   a. likely, b. uncertain, c. unlikely.

57. I admire more:
   a. a clever, but undependable man,
   b. in between,
   c. a man who is average, but strong to resist temptations.

58. I make decisions:
   a. faster than many people,
   b. uncertain,
   c. slower than most people.

59. I am considered a cooperative person.
   a. yes, b. in between, c. no.

60. I am more impressed by:
   a. acts of skill and grace,
   b. in between,
   c. acts of strength and power.

61. I prefer to:
   a. keep my problems to myself,
   b. in between,
   c. talk about them to my friends.
64. If a person doesn't answer when I make a suggestion, I feel I've said something silly.
   a. true,   b. in between,   c. false.

65. I learned more in my school days by:
   a. going to class,
   b. in between,
   c. reading books.

66. I avoid getting involved in social responsibilities and organizations.
   a. true,   b. sometimes,   c. false.

67. When a problem gets hard and there is a lot to do, I try:
   a. a different problem,
   b. in between,
   c. a different attack on the same problem.

68. I get strong emotional moods—anxiety, anger, laughter, etc.—that seem to arise without much actual cause.
   a. yes,   b. occasionally,   c. no.
   (End, column 4 on answer sheet.)

69. My mind doesn't work as clearly at some times as it does at others.
   a. true,   b. in between,   c. false.

70. I am happy to oblige people by making appointments at times they prefer, even if it is a bit inconvenient to me.
   a. yes,   b. sometimes,   c. no.

72. I have occasionally had a brief touch of faintness, dizziness, or light-headedness for no apparent reason.
   a. yes,   b. uncertain,   c. no.

73. I would rather do without something than put a waiter or waitress to a lot of extra trouble.
   a. yes,   b. occasionally,   c. no.

74. I live for the "here and now" more than most people do.
   a. true,   b. uncertain,   c. false.

75. At a party, I like:
   a. to get into worthwhile conversation.
   b. in between,
   c. to see people relax and completely let go.

76. I speak my mind no matter how many people are around.
   a. yes,   b. sometimes,   c. no.

77. If I could go back in time, I'd rather meet:
   a. Columbus,
   b. uncertain,
   c. Shakespeare.

78. I have to stop myself from getting too involved in trying to straighten out other people's problems.
   a. yes,   b. sometimes,   c. no.

79. In a shop or supermarket, I would prefer to:
   a. design and do window displays,
   b. uncertain,
   c. be a cashier.

80. If people think poorly of me, I can still go on calmly in my own mind.
   a. yes,   b. in between,   c. no.

81. If an old friend seems cold and reserved to me, I usually:
   a. just think "He's in a bad mood."
   b. uncertain,
   c. worry about what I may have done wrong.

82. More trouble arises from people:
   a. changing and meddling with ways that are already satisfactory,
   b. uncertain,
   c. turning down new, promising methods.

83. I greatly enjoy talking to people about local problems.
   a. yes,   b. sometimes,   c. no.

84. Prim, strict people don't seem to get along well with me.
   a. true,   b. sometimes,   c. false.
85. I think I’m less irritable than most people.
a. true, b. uncertain, c. false.
86. I may be less considerate of other people than they are of me.
a. true, b. sometimes, c. false.
87. I would just as soon let someone else have all the worry of being in charge of an organization of which I am a member.
a. true, b. uncertain, c. false.
88. I am bored:
a. often, b. occasionally, c. seldom.
89. People say that I like to have things done my own way.
a. true, b. occasionally, c. false.
90. I find it wise to avoid too much excitement because it tends to wear me out.
a. yes, b. occasionally, c. no.
91. At home, with a bit of spare time, I:
a. use it chatting and relaxing,
b. in between,
c. arrange to fill it with special jobs.
92. I am shy, and careful, about making friendships with new people.
a. yes, b. occasionally, c. no.
93. I think that what people say in poetry could be put just as exactly in plain prose.
a. yes, b. sometimes, c. no.
94. I suspect that people who act friendly to me can be disloyal behind my back.
a. yes, generally, b. occasionally, c. no, rarely.
### ANSWER SHEET: THE 16 P. F. TEST, FORM (C OR D)

**EXAMPLES:**

1. I like to watch team games.
   - a. yes,  
   - b. occasionally,  
   - c. no.

2. I prefer people who:
   - a. are reserved.  
   - b. (are) in between,  
   - c. make friends quickly.

3. Money cannot bring happiness.
   - a. yes (true),  
   - b. in between,  
   - c. no (false).

### NAME
- **FIRST**
- **MIDDLE INITIAL**
- **LAST**

### ADDRESS
- (OR OCCUPATION OR AS INSTRUCTED)

### SEX
- (WRITE M OR F)
- (NEAREST YEAR)

### AGE
- (NEAREST YEAR)

### DATE

### OTHER
- (AS INSTRUCTED)

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(As printed or 1969 edition of these tests.)
ACCIDENTS IN THE HOME TO CHILDREN UNDER TWO YEARS OF AGE

Information to be obtained by health visitors:

1. Child's name

2. Child's date of birth

3. Is the child the natural child of both parents? 
   If not state the nature of the relationship to each parent.

4. Mother's age

5. Father's age

6. List dates of mother's pregnancies including current pregnancy if applicable.
   Date: ___________________________ Outcome (Full term, premature, miscarriage, etc.): ___________________________
   ___________________________ ___________________________
   ___________________________ ___________________________
   ___________________________ ___________________________
   ___________________________ ___________________________
   ___________________________ ___________________________

7. Was the pregnancy which led to the birth of the injured child accepted emotionally by the mother?

8. Was advice about termination of pregnancy with this child sought?

9. Marital status of parents

10. Number of children living at home

11. Does the child's mother have a relative or close friend living nearby?

12. Is the mother's relationship with the injured child usually:
   A) critical and hostile
   B) accepted
   C) warm and loving
13. Is there any reason to suppose that this mother has ever injured her child?

14. Did the Health Visitor have any difficulty in establishing a good relationship with this family?

15. How well do you know this family?

16. Is there any unusual degree of marital stress in the home?

17. Is there any unusual degree of financial stress in the home?

18. Is there any unusual degree of stress arising out of housing conditions?

Date
Signature

Address
Notes on Statistical Methods Employed

1. Rankits were performed on the data to determine whether normal order statistics could be applied and were found to be appropriate. The method followed that recommended by Harter, H.L. Biometrika, 48.151-165.

2. Paired t tests, where appropriate, were used according to the formula:

$$t = \frac{d-0}{sd/\sqrt{N-1}}$$

3. Unpaired t tests where appropriate, were calculated according to the following formula:

$$t = \frac{\text{Difference}}{\sqrt{\frac{E(X-M_1)^2}{N_1-1} + \frac{E(X-M_2)^2}{N_2-1} + R}}$$

4. Chi Square tests (except for 2x2 tables: see note 5) were calculated according to the following formula:

$$X^2 = \sum_{e} (\frac{(fo-fe)^2}{fe})$$

5. Chi Square tests for 2x2 tables were calculated according to the following formula:

$$X^2 = \frac{(ad-bc)^2}{(a+c)(b+d)(c+d)(a+b)}$$

Appendix 3. p682-683.

7. The principal components Analysis, employed the Fortran IV Program for Computation and Display of Principal Components, devised by Wahlstedt, W. C. and Davis, J. D.