THE MEASUREMENT OF IDENTIFICATION BETWEEN MOTHERS AND THEIR ADOLESCENT CHILDREN

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"The Measurement of Identification between Mothers and their Adolescent Children"

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SUMMARY

In this study the identification between adolescent children and their mothers was measured. Following Lazowick (1954) two measures of identification for each mother-child pair were obtained from a Semantic Differential and where possible identification was also rated by a psychiatrist. The subjects, who ranged in age from 14 to 19 years, were divided into two groups, matched for age and verbal intelligence. The control group was composed of adolescents randomly chosen from a local comprehensive school and the patient group came from the Young People's Unit of a psychiatric hospital. The mothers of both these groups also participated in the study. In addition to the Semantic Differential all subjects completed the Taylor Manifest Anxiety Scale and the Mill Hill Vocabulary Scale.

Previous research had suggested that patient groups and groups scoring highly on measures of anxiety or abnormal personality would show defective identification with their mother when compared with normal groups. In this study these findings were generally not confirmed. Although some minor differences were found between the patient and control groups, no differences were found between groups composed of extreme scorers on the Manifest Anxiety Scale.

Different types of reasons for this failure to confirm hypotheses derived from previous studies were discussed.

The psychiatrists' rating of identification was not found to correlate with identification measures obtained from the Semantic Differential. In view of this the question of the validity of such measures of identification was considered.
INTRODUCTION

1. The Freudian Theory of Identification

The concept of identification was first described by Freud (1917) to account for the pathology of melancholia. The concept was later expanded, modified and assigned more importance by Freud to become a major mechanism of personality development.

The notion of identification is confused because Freud often used the same term to refer to basically different concepts and also because references to identification are scattered through his different books. Throughout Freud's writing the notion of identification is constantly changing, the one constant feature in all the descriptions being that identification is invariably based on "an emotional tie with an object", typically the parent. For the most part the tie has as its context the "attachments and antagonisms" of the Oedipus Complex and in Freud's final conceptualization, identification is seen as the mechanism by which this complex is resolved.

Freud's (1914) paper, "On Narcissism" is the first to have importance for the theory of identification, although identification is not here referred to by name. In this paper the idea of an attachment to another based on other than direct sexual impulse and desire is first put forward. This type of attachment is termed "anaclitic object choice"; this is an object choice which is pre-sexual in character and is based on a learning or dependency relationship with the mother or a caring person. This anaclitic relationship is the primary basis of one of the two mechanisms of identification, which for a long time remained fused in Freud's thinking. The first of these mechanisms is anaclitic identification, identification as a function of loss of love; the second form of identification, aggressive identification, is a function of fear of the aggressor.

The first explicit mention of identification appears in
Freud's essay 'Mourning and Melancholia' (1917). Here Freud explains the pathogenesis of the extreme self-criticism and self-reviling found in abnormal grief reactions, when a loved object (person) is lost. Here Freud describes how the libido, withdrawn from the lost object, is taken into the ego and serves to establish an identification of the ego with the lost object. Such an identification can not succeed in its aim of recapturing the lost loved object, and so the ego (self) identified with the missing object is reviled.

In later papers (1924, 1927) Freud realised the importance of identification as the means by which the Oedipus Complex could be resolved. In 'the Passing of the Oedipus Complex' Freud describes how the child's ego turns away from the Oedipus Complex. Object cathexes which lead to the child's being threatened are given up and are replaced by identifications. For example, by identifying with the father, the aggressor causing castration anxiety, the boy child can both resolve his anxiety and regain the lost mother. The authority of the father is introjected into the ego and there forms the kernel of the superego. "The superego, or conscience, takes its severity from the father, perpetuates his prohibition against incest and insures the ego against a recurrence of libidinal object cathexes." The libidinal trends, belonging to the Oedipus Complex, are thus in part desexualised and sublimated.

Freud argues that this process is more than the mere repression of the complex, "in its ideal form it is equivalent to the destruction and abrogation of the complex". He argues that if the ego does not achieve more than the repression of the complex, then the complex will persist unconsciously in the id and will later express itself in some pathogenic effect. Freud in a later work (1927) argued that it is advantageous, especially where all neurotics are concerned to assume the existence of a complete unresolved Oedipus Complex, (i.e. defective identification).

By the mechanism of identification then, cathected objects
can be reinstated within the ego. Freud (1927) in "The Ego and the Id" argues that this kind of substitution plays a great part in determining the form taken on by the mature ego and that it contributes materially to the building up of character. "The character of the ego is a precipitate of abandoned object cathexes." If the ego's object identifications become too numerous, intense and incompatible then a pathological outcome is to be anticipated. The ego becomes disrupted because of the individual identifications split off from each other by resistances.

Both mechanisms of identification discussed earlier are of crucial importance to personality development. As mentioned before, if the child is dependent on the parent's love, then separation or withdrawal of love leads to anaclitic identification. If on the other hand dependence is on survival and freedom from pain then identification with the aggressor occurs. It is probable that both these mechanisms operate simultaneously, the parents both loving and hating the child, and that the balance between the two determines the course and character of identification. This formulation has received empirical support from Sears, Maccoby and Levin, who found that parental punishment by withdrawal of love, rather than physical punishment alone, led to an increased superego or conscience and to guilt.

Freud emphasises that identification involves imitation of the model, but he argues that it is not the immediate image of the model (parent) which is copied, but rather the ideal standard reflecting the parent's aspirations. The child identifies with the parent's superego.

It is difficult to summarise Freud's views on identification since they are ambiguous and since they changed over the years. It is perhaps fair to say, however, that Freud describes identification most often as a process involving the "sequential interplay of forces internal and external which impel the child to take on the characteristics of the parents". (Bronfenbrenner 1960). It is in this sense of process that the term identification is used when we speak of anaclitic or aggressive identifi-
ication. Alternatively, however, identification is used as a term to describe the product or outcome of the above process - the product being the resultant similarity in the characteristics of the child and model.
2. Criticisms and modifications of the Freudian Theory of Identification

Many criticisms and modifications to the Freudian theory of identification have been proposed and some of these will be considered in this section.

Stoke (1954) argues that Freud does not distinguish clearly between behavioural identification, where the child exhibits the same overt behaviour as the parent and emotional identification which refers to the emotional tie (for Stoke always positive) between the child and the parent. Murphy (1947) also stressed the need to distinguish between behavioural and emotional identification and argued that a third form, attitudinal identification should also be distinguished. Murphy defined identification as "the tendency to view oneself as one with another person and to act accordingly". That is to say the more similar the qualities an individual sees in himself and another (model), the more strongly he identifies with the other. This emphasis on the perceived as well as the actual similarity to others will be discussed later.

Stoke also questioned whether fear of physical punishment played a part in the development of an adequate superego. He relied only on anaclitic identification to explain the development of conscience and guilt. The study of Sears et al, previously cited, seems to support this statement.

Mowrer (1950) is more accepting of the Freudian view of identification. He too distinguishes two mechanisms of identification, developmental and defensive identification and these seem in fact very similar to those described by Freud. Mowrer, however, takes issue with Freud's basic notion that sexual object choice precedes rather than follows identification. Mowrer argues that a boy, for example, first identifies with the father and then as a consequence of this directs his libidinal impulses towards women.

Knight (1940) challenges Freud's view of identification as
a one-way process, the child alone actively internalising or learning. Knight argues that identification should be described as the relationship or condition of similarity, identification as a relationship being the combination of both introjective and projective processes.

Kardiner (1939) questions Freud's implicit assumption that the process of identification is unconscious. Kardiner redefines identification recognising a conscious and a secondary unconscious form. Kardiner states that identification occurs when a person imitates another admired person; this is called an "enriching" type of identification, because through it the personality is enlarged. This tends to be a conscious phenomenon. The unconscious, projective type of identification is regarded as "impoverishing", because here the person substitutes phantasy vicarious experience for action.

Kardiner thus regards one form of identification as equivalent to conscious imitation. Davis (1947) argues that identification is a development from imitation, that identification is equivalent to imitation without the model being physically present. Symonds (1947) clarifies the distinction between the two by arguing that "identification refers to the action of the entire personality, while imitation is more restrictive in terms, referring to isolated skills or acts. Kardiner's fairly straightforward definition of identification as equivalent to imitation seems thus not to be generally acceptable.

The concept of identification seems, therefore, complex and confused. Lair (1949) argues that difficulties arise through failure to distinguish between the different forms of identification. Stoke (1950) attributes the confusion to use of the Oedipus Complex as a frame of reference. His own definition of identification is "that a child gives its emotional allegiance to a parent and tries to duplicate in its own life the ideas, attitudes and behaviour of the parent with whom it is identifying".

There remains, however, one area of general agreement - that identification is a learning process. One recent theory
about what is actually learned and how this happens will be considered later.

3. Two alternative theories of identification: A learning theory and a sociological approach to the problem

(a) Sanford (1955) takes the position that identification as an explanatory concept is not necessary. He emphasised the possibility that parental love and punishment need not result in internalisation of the parent's attitudes but rather reinforce behaviour directly in accord with simple learning principles. Child development can therefore be described in these terms without invoking identification or introjection.

Miller and Dollard took the same line and also suggested that identification varies as a function of the degree to which the model is a "loved or prestigeful person". Bandura, Ross and Ross (1963) proved this point experimentally when they found that children modelled their behaviour to a marked extent on that of adults who controlled resources, i.e. on those with prestige.

Sanford then argued that the term identification should be abandoned. He thought the term too vague to be usefully descriptive and he thought that it had been employed in too many different ways.

Bronfenbrenner (1960) thought this a mistaken view. He argued that Freud did not ask how and why a particular piece of
behaviour was learned; he was interested in the tendency of the child to take on "not merely discrete elements of the parental model, but a total pattern". Moreover the acquisition of such a pattern is accomplished with an emotional intensity which reflects the operation of motivational forces of considerable power.

(b) Talcott Parsons (1951, 1953) presented a sociological theory of identification. He postulated initially that a general motive to become like another existed in all people. Parsons argued that not only the moral standards of the parents are incorporated in identification, but that the cognitive and expressive features of the parents and therefore of their culture are also assimilated.

Parsons asserts that at any given stage the child identifies not with the parent as a person, but with the reciprocal role relationship that is functional to the child at a particular time. Successive levels of identification therefore represent progressive differentiations of ever more complex role relationships between the child and parents and ultimately society.
4. Identification and Mental Illness

Balint (1943), Kagan (1958) and others like Freud regard identification with mature adult models, in particular with the parents, as essential for the healthy growth and development of personality. Balint, for example, states that "identification provides the bridge that leads across from self-love to love of others, love of external reality". Mowrer (1950) sees identification as basic to object relations.

As discussed earlier, Freud regarded the non-resolution of the Oedipus Complex by identification as common to all neurotics. He described in more detail how faulty identification leads to particular pathogenic features in two discrete types of neurotic disorder. In melancholia, or reactive depression, the ego which has become identified with the lost object is reviled; in the rare cases of multiple personality the ego becomes split because too many incompatible identifications have occurred.

Erikson and Mowrer, both taking Freudian theory as their starting point, have also put forward general theories linking neuroticism with failures in different stages of the identification process.

Mowrer (1953) holds that the neurotic is characterised by a weak superego due to incomplete introjection and integration of exemplary social values. "This condition of insufficient identification with defective idealised self-image prevents harmonious interaction with social objects". Mowrer, therefore, regards neuroticism as the result of defective, under-developed identification.

Erikson (1950) opposes this view of the development of neurosis. He sees neurosis as the product of over-identification. Erikson argues that all children seek to define themselves, to find their identity. In neurosis the ego has fallen prey to over-identification, "which isolates the individual from his budding identity and from his milieu". He sees adolescents as particularly prone to over-identification with the heroes of
cliques and gangs, "such heterogeneous, unpatterned identifications leading to role conflicts".

Thus these two theories generate two inconsistent hypotheses; that neurosis is the product of either over or under-identification.

5. The measurement of identification between parents & children both normal and neurotic

Several studies have been carried out which attempt to measure identification between child and parent. In all of these the implicit assumption is made that if identification is a process essential to the healthy development of personality, then the outcome of this process should be demonstrably different in normal people and in people in whom identification is presumed to have been defective, e.g. in neurotics.

(a) The first study to be considered is that of Sopchak (1952). He measured the tendency towards abnormality of personality in a group of 108 first year students with the MMPI. Those judged as "tending to abnormality" in this study were those scoring at a significantly high level on one or more of the MMPI scales. His measures of identification were also derived from the MMPI; these were the similarity among (i) the answers which the subject (S) gave in taking the MMPI in the usual way, (ii) the
answers given when S was instructed to answer as would Father and Mother and (iii) the answers given when S was instructed to answer as would "most people".

Identification scores were obtained by counting the number of items which the individual answered in the same manner for himself and for his Father, or Mother, or most people. Thus identification scores obtained by this method represent identification with the subject's "image" of the person with whom he is identifying himself. No measure of the actual similarity of answers between parents and adolescent children is obtained. Sopchak argues that it is doubtful whether measurement of the actual similarity of MMPI items would yield a more valid test of the relationship.

His results were as follows:-

(1) Normal men tend to identify more with fathers than mothers.
(2) Men tending to abnormality a) show a greater lack of identification with their fathers than with their mothers, and b) also fail to identify with their mothers.
(3) Women tending to abnormality show a lack of identification with their fathers, but this lack is not as strong as in the case of men.
(4) For women, positive identification with the mother is apparently a correlate of some types of abnormality.
(5) For both men and women, mean identification scores indicate greater identification with the parent of the same sex than of the opposite.
(6) For both men and women, failure to identify with father, rather than mother is more closely associated with trends towards abnormality.

The results of this study therefore indicate that identification and abnormality are linked but that the relationship between the two is complex and probably sex-linked; both under- and over-identification occurring in women but only under-identification was found in men.
(b) Stewart (1958) set out to explore the relationship between scores on Taylor's Manifest Anxiety Scale (MAS) and Mother-Son identification, here defined operationally in terms of discrepancies between Q-Sorts of mothers and sons. Ninety-two adolescent boys described themselves on the 76 item Q-Sort in three ways, (A) as they perceived themselves, (B) as they would like to be and (C) as they thought their mothers would like them to be. Fifty-four of their mothers sorted (A) as they perceived themselves and (B) as they would like their sons to be.

Few statistically significant results were obtained, but Stewart concluded that "boys with low MAS scores were satisfied with themselves, met their perception of their mothers' ideal for them and perceived themselves as being the kind of person their mother actually wanted them to be."

In this study no MAS scores were reported and no indication is given of what constituted a "low MAS score".

(c) Jones (1954) approached the problem of identification from the standpoint of Kelly's (1955) Personal Construct Theory and thus used the Role Construct Repertory Grid Test as his measure of identification.

Jones argues that identification is first of a relatively undifferentiated nature. "Gradually more and more specific performances are copied and correlative personality characteristics (self-concepts) constructed. Syndromes of characteristics found in models are presumed to go together in others. Our identifications therefore guide our perceptions of others: we see what we expect to see or its opposite."

The aim of this study was to measure the identification of normal and "neuro-psychiatric" males, (Anxiety neurotics and mild schizophrenics) with different male figures. The RCRG was thus designed to elicit male figures.

With the Rep. Test identification can be studied idiographically, with individuals ranked in order of their acceptability as models, and nomothetically, with subjects ranked as to their
mean tendency to identify with all other or with particular others.

Results relevant to this study are as follows:

(1) Neuropsychiatric patients (NPs) tended to both over- and under-identification with particular persons (supporting therefore both Erikson and Mowrer).

(2) Normal males show a significant tendency to identify more strongly with father than mother. NPs do not show this tendency.

(3) Amount of identification with father is positively related to amount of identification with other male figures.

(d) The next study to be considered is that of Lazowick (1950), entitled "On the Nature of Identification". The present investigation is closely based on this study so it will be considered in some detail. Lazowick, using Osgood's terminology, presents a mediation theory of identification.

Lazowick argues that identification consists in more than the learning of specific Stimulus-Response connections (i.e. in more than the imitation that Kardiner proposed); the subject does not only behave like the model in situations where specific reactions have been learned. Identification consists in the alteration of personality structure, perceptions or meanings, thus behaviour similar to that of the model is exhibited without each and every Response pattern being learned. Meanings, not specific behavioural tendencies, are learned and these collectively make up the individual's frame of reference. The relation between the subject's set of meanings (sub-sets of behaviour imitated from the model) and the model's set of meanings is what Lazowick defines as identification. He therefore used the Semantic Differential, Osgood's measure of connotative meaning, to measure identification between adolescents and their parents.

Lazowick studied two groups of students, one normal and one "potentially neurotic". His normal group was the lowest 10% of scorers of 268 males and 150 female students on Gryce's revision
of the MAS. His potentially neurotic group consisted in the top 10% of scorers. Both selected groups of students and such mothers as would co-operate completed Semantic Differentials where the concepts Myself, Father, Mother, Husband, Wife, Man, Woman, Pleasant, and Unpleasant were rated on scales loading on the three major factors isolated by Osgood, (Evaluation, Potency and Activity). The index of identification was the D (i.e. the general similarity) between profiles.

From the Semantic Differentials of the Adolescent-Mother pairs, two measures are available:

(i) **Direct Identification**, the profile similarity between the adolescent's concepts and the parent's concepts.

(ii) **Inferred Identification**, the profile similarities of the adolescent's ratings of "Myself" and "Mother" and "Father".

The results were as follows:

(i) **Direct Identification**

(1) The Low Anxiety subjects (LA gp) showed greater semantic similarity (i.e. identification as measured by the Semantic Differential) with same sex parents than did High Anxiety subjects (HA gp).

(2) LA men showed greater semantic similarity to their mothers, as well as fathers, than LA women.

(ii) **Inferred Identification**

(1) LA males and females showed greater profile similarity between "Myself" and "Father" or "Mother" respectively than HA males and females.

(2) LA males saw "more similarity between "Myself" and "Father" than "Myself" and "Mother". LA females did not make the corresponding distinction.

Lazowick's study seems open to several criticisms: the student groups he describes as "normal" and "neurotic" may be neither. The lowest 10% of scorers on the MAS does not constitute
a statistically normal group and may possibly not constitute a clinically normal group either. A group which acknowledges almost no anxiety (seven or less items endorsed) may be a group of "Repressors" (Blackburn, 1965, Byrne, 1964, Lazarus and Alfert, 1964) which although acknowledging no anxiety, may in fact be anxious. The group Lazowick describes as "neurotic" were only neurotic in so far as they scored highly on the MAS (26 plus items endorsed), they had no history of mental illness.

Lazowick provides a clear theoretical justification for regarding identification as equivalent to the sharing of the same sets of meanings by child and parent. But although it is theoretically possible for semantic similarity as measured by the Semantic Differential, to be equivalent to the psycho-analytic concept of identification, Lazowick provides no concrete evidence that this is the case; that is he did not have any external criterion of identification based on clinical assessment.

(e) Beitner (1961) followed Lazowick in using a Semantic Differential as a measure of identification. He set out to measure differences in identification with parents between a group of male hospitalised paranoid schizophrenics, a group of male anxiety neurotics and two control groups. He found that compared to normal subjects paranoid schizophrenics showed a generally poor identification with both parental figures. The anxiety neurotics also showed this poor identification with both parents and in addition showed "confusion in sexual identification". Both results therefore support the notion that abnormal personalities will show defective identification.
6. Summary

In the five studies considered above identification has been measured in different ways and in different populations. Identification, separately defined by each author, has been measured with all the popular idiographic measures such as semantic differentials, Q-Sorts and Repertory Grids. Such disparate measures of identification have been compared between different groups of normal and "abnormal" subjects. The subjects termed "abnormal" in these studies are by no means homogeneous: in three of the studies, abnormality is defined in terms of statistically abnormal scores on test measures of anxiety and other personality characteristics and in the other two studies, the abnormal groups consist of patients in psychiatric hospitals, with a known psychiatric diagnosis. The age of the subjects in these studies also varies, from the late teens to the middle twenties. (The precise age range of the subjects is stated in none of the studies.)

In view of the wide differences existing between these studies it is perhaps surprising that one similar result consistently emerges from them; that normal subjects identify significantly most closely with their same-sex parent. These studies also consistently report significant differences between normal and "abnormal" subjects on measures of identification, but the nature of differences reported varies between the studies, i.e. as predicted, abnormal subjects show some sort of faulty identification with their parents.

Following the theories of Erikson and Mowrer, both under- and over-identification between child and parent have been found in the "abnormal" groups of these studies. Results concerning abnormal men are generally consistent: "abnormal" male subjects all showed significantly poor (low) identification with their fathers and in some studies, but to a lesser extent, with their mothers. Results concerning "abnormal" women are less consistent - they have been found to show both under- and over-identification with their parents. The age of the "abnormal" subjects in these studies did not seem to affect the results; results for
The adolescents and young adult groups were strikingly similar. The present study is similar in design to the five studies considered earlier in that here too the identification scores of a normal and an "abnormal" group are investigated. The groups in this study are however younger (14 to 18 years of age) than in earlier studies, so the results may not be directly comparable. There is too another difference between this and the earlier studies of identification. In these studies it was reasonably argued that the obtained measures of identification were related to identification as defined psychoanalytically but no proof of this was produced. In this study, analytically orientated psychiatrists were asked to rate the degree of identification existing between each mother–child pair known to them, and thus some external criterion of identification was provided against which to validate the more oblique methods of measuring identification used in earlier studies.

This study is most similar to that of Lazowick but some changes in design were made. In Lazowick's study the two groups studied were low (normal group) and high ("neurotic" group) scorers on an anxiety measure; as discussed earlier (page 14), low scorers on a test measure are not a statistically normal group and high scorers do not necessarily constitute a neurotic group. The groups in this study consisted, therefore, of a (randomly chosen) normal group and of a group of young patients in a psychiatric hospital. Both these groups completed Lasowick's anxiety measure (the T.M.A.S.), thus the two groups could also be combined and reconstituted as groups scoring at different poles of the anxiety measure. In this way, therefore all the types of groups used in earlier studies can be considered in this study. Normal subjects can be compared with two types of "abnormal" group, i.e. both with clinically disturbed subjects (psychiatric patients) and with subjects scoring significantly (abnormally) highly on an anxiety measure. (These two groups may of course be identical, if Lazowick was right in calling his high scorers on the MAS potential neurotics.)
The aim of this investigation was to replicate and expand certain features of Lazowick's study.

(1) To compare the identification of adolescents with their mothers (measured as semantic similarity) in a group of patients in the Young Peoples' Unit of a psychiatric hospital and a matched control group of normal adolescents.

(2) To relate these measures of identification to test measures of anxiety.

(3) To relate the test measures of identification to psychiatrists' assessments of identification in the patient group.
HYPOTHESES

On the basis of the studies detailed in the Introduction the following hypotheses can be derived:-

(1) The adolescents forming the Patient Group (PG) will score at a significantly higher level than the control group of normal adolescents (CG) on the Taylor Manifest Anxiety Scale, (TMAS).

(2) When both direct and inferred identification are measured on a semantic differential, CG females will score as more closely identified with their mothers than CG males.

(3) PG females will score as either significantly more or as significantly less identified with their mothers than CG females.

(4) PG males will score as significantly less identified with their mothers than CG males.

(5) High scorers on the TMAS, irrespective of group membership, (High Anxiety Group, HA) will show significantly less identification with their mothers than will low scorers (LA groups).

(6) If semantic similarity is equivalent to the concept of identification used by analytically orientated psychiatrists, then both measures of identification will correlate positively with a rating of identification made by the psychiatrist for each mother-child pair in the Patient Group.
1. Subjects

The subjects of this study were thirty adolescents and their mothers divided into two matched groups – a patient group and a control group.

For practical reasons, the control group (CG) had to be seen before the patient group; the Young Peoples' Unit of the psychiatric hospital from which the patient group (PG) was drawn had only recently been opened when the study was begun. However, from the selection criteria laid down by the Y.P.U. it was possible to anticipate the general features of the patient group, and the control group was therefore chosen to conform with these. The Y.P.U. patients were to be of either sex and were to be aged from 15 to 20. They were preferably to have been living at home with both parents prior to admission. Intelligence and social class were not to be factors influencing admission. Lastly, all the patients were to attend school or employment for part of the day, while receiving treatment in the Unit.

The Control Group was therefore drawn from a local comprehensive school, sited in an area which contained both private and Corporation housing. Twenty boys and girls were randomly selected from different streams within the school. The age range of the selected group was from 14 to 18, with a mean age of 16.1 years. At the 15 year old level the range of ability of the children was wider than at 17/18, the less successful pupils having left by this time. The twenty children completed the test battery at school, throughout one morning in small groups. The Experimenter (E) was available at all times to answer any questions. The mothers of the children (MCG) were then contacted and asked to participate in the study. (Children, one or both
of whose parents were dead, were excluded from the study.) Five of the mothers refused to participate or were not at home when the Experimenter called at a prearranged time. The mothers were seen individually at home. The remaining 75% sample consisted of eight girls and seven boys and their mothers.

The Patient Group, nineteen boys and girls, their ages ranging from 14 to 19, Mean age 16.2 years, who were receiving out-patient or in-patient care at the Young Peoples' Unit of a psychiatric hospital, completed the test battery. They were seen individually and in most cases in the Y.P.U. Again their mothers (MPG) were seen individually at home, four of them being unwilling to complete the tests. The remaining 79% sample consisted of seven girls and eight boys and their mothers.

Success in matching the two groups

The success of the matching was determined by comparing the groups on age, verbal intelligence, social class and occupation.

(1) Age

The age range of the two groups was almost the same and there was no significant difference between their mean ages, as can be seen from Table 1.

Table 1
The Age Range and Mean Age of the Patient and Control Groups

<table>
<thead>
<tr>
<th>P.G.</th>
<th>C.G.</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age range</td>
<td>14-19 years</td>
<td>14-18 years</td>
</tr>
<tr>
<td>Mean age</td>
<td>16.2 years</td>
<td>16.2 years</td>
</tr>
<tr>
<td></td>
<td>S.D. 0.65</td>
<td>S.D. 1.59</td>
</tr>
</tbody>
</table>

The two groups were therefore successfully matched for age.

The mothers of the adolescents in these two groups were not asked to disclose their age, but from E's personal observation the mothers of the two groups seemed very similar in this respect.
(2) Intelligence

Unlike the control group, some members of the patient group had left school at the age of fifteen. It therefore seemed possible that the control group might be more intelligent than the patient group; more of the controls had opted for full-time education after the age of fifteen. However, on a test of verbal intelligence, the Mill-Hill Vocabulary Scale, there was no significant difference between the scores of the two groups. This can be seen in Table 2.

Table 2
Mill-Hill Vocabulary Scores of the Patient and Control Groups

<table>
<thead>
<tr>
<th></th>
<th>P.G. Mean Score</th>
<th>P.G. S.D.</th>
<th>C.G. Mean Score</th>
<th>C.G. S.D.</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>Males</td>
<td>27.375</td>
<td>4.337</td>
<td>25.428</td>
<td>1.177</td>
<td>1.073 N.S.</td>
</tr>
<tr>
<td>Females</td>
<td>23.428</td>
<td>4.562</td>
<td>25.25</td>
<td>5.309</td>
<td>0.66 N.S.</td>
</tr>
<tr>
<td>Both</td>
<td>25.533</td>
<td>4.375</td>
<td>25.33</td>
<td>3.96</td>
<td>0.126 N.S.</td>
</tr>
</tbody>
</table>

The groups were therefore successfully matched for intelligence.

The mothers of the two groups also completed the Mill-Hill Vocabulary Scale, their results can be seen in Table 3.

Table 3
Mill-Hill Vocabulary Scores of the Mothers of the Patient and Control Groups

<table>
<thead>
<tr>
<th></th>
<th>M.P.G. Mean Score</th>
<th>M.P.G. S.D.</th>
<th>M.C.G. Mean Score</th>
<th>M.C.G. S.D.</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mothers of males</td>
<td>34</td>
<td>6.164</td>
<td>29.285</td>
<td>5.699</td>
<td>1.807 N.S.</td>
</tr>
<tr>
<td>Mothers of females</td>
<td>32</td>
<td>6.542</td>
<td>27.857</td>
<td>4.442</td>
<td>1.384 N.S.</td>
</tr>
<tr>
<td>Mothers of both</td>
<td>33.23</td>
<td>6.386</td>
<td>28.571</td>
<td>4.938</td>
<td>2.128 p &gt; 0.05</td>
</tr>
</tbody>
</table>
The difference of five points between the mean scores of the mothers of the two groups on the Mill-Hill Vocabulary Scale is significant at the 0.05 level, however both the mean scores of 33.23 and 28.571 lie within the 25-50 percentile of scores for adults of this age group. Both scores are verbally average. Since these significantly different scores do not imply wide difference in intellectual ability, they should not cause corresponding group difference in the completion of the other two tests in the battery - the Taylor Manifest Anxiety Scale and Semantic differential. Results on both these tests have been found to be unaffected by small differences in verbal intelligence. (See later section on M.H.V., page 28).

(3) Social Class
From the Experimenter's personal observation of housing and from the school attended it seemed that the patient group showed more variation in social class than the control group, which proved more homogeneous in this respect than anticipated.

(4) Current Occupation
All the control group were receiving full-time education. Half of the patient group had left school, two were at Technical College and others had part-time jobs. No attempt was made, because of practical difficulties, to include in the control group any adolescent who had left school, although it was known from the beginning that some of the patients would be working.

Thus it seems that the two groups were well matched for age and intelligence, but that they varied to some extent in current occupation and social class. The age and occupation of the mothers of the two groups was not known. They were found to vary significantly in intelligence and naturally showed the same variation as their children in social class.

The subjects of this study, unlike the adolescents whom Lazowick studied, were either at school or were working, none were University students. It is therefore likely that the subjects of this study are younger than Lazowick's student group
2. The Test Battery

The test battery consisted of three tests, an Osgood Semantic Differential, The Taylor Manifest Anxiety Scale and the Mill-Hill Vocabulary Scale, Set B, Synonyms. (See Appendix A)

(1) The Semantic Differential

The Semantic Differential (Osgood et al 1957) was used in this study to yield two measures of identification, direct and inferred identification (Lazowick 1954). The justification for using a Semantic Differential as a measure of identification has been discussed in the introduction. The Semantic Differential which measures connotative meaning may be used to measure identification when this is defined in terms of shared meanings of parents and children.

The Semantic Differential is essentially "a combination of controlled association and scaling procedures. The subject is provided with a concept to be differentiated and a set of bi-polar adjectival scales against which to do it, his task being to indicate, for each item (pairing of a concept with a scale) the direction of his association and its intensity on a seven-point scale" (Osgood et al 1957, page 20). Each concept is, therefore, described in terms of each scale and a profile for each concept over the scales can be drawn. "The crux of the method" lies in the selection of the concepts and of the descriptive polar terms with which they are to be described.

Selection of the Concepts

The nine concepts used in this Semantic Differential were, with one exception, those used by Lazowick. The concepts "Myself", "Father", "Mother", "Family", "Husband", "Wife", "Man", and "Woman" were all retained, firstly so that the results of the two studies should be comparable and secondly because these concepts seem relevant to the subject under investigation -
identification. Lazowick's concepts "pleasant" and "unpleasant" were omitted because these are of a different type; the other concepts are all people. "Best Friend" replaces these concepts as the practice concept. This concept is a person concept as are all the others and is one which makes sense to most people. Ratings made by the subjects of "Best Friend" were not included in the final analysis, the concept only being included so that the subjects would be fully familiar with the task before judging the concepts of importance to the study.

Selection of Scales

Nine seven-point scales were selected and these like Lazowick's scales, were chosen to represent each of the three major factors or dimensions of semantic space isolated by Osgood et al. (1957). The scales Dirty-Clean\textsuperscript{\textdagger}, Sad-Happy\textsuperscript{\textdagger}, and Unfair-Fair were chosen to represent the Evaluative dimension; Strong-Weak\textsuperscript{\textdagger}, Gentle-Rough and Soft-Hard were chosen to represent the Potency dimension and Fast-Slow\textsuperscript{\textdagger}, Excitable-Calm and Active-Passive\textsuperscript{\textdagger} were chosen to represent the Activity dimension. (Scales marked with an asterisk were among those used by Lazowick in his study.) Lazowick's scales were altered more radically than the concepts because it was felt that the scales chosen should seem relevant to the description of person concepts.

Knapper and Warr (1965) found that the meaning of a scale depended on the concept being judged - that hard, for example, meant one thing when a person was being judged and another when stones were being considered. The concepts in this study are all the names of people, so the scale meanings should remain relatively, but not completely, stable. Presly (1969) found considerable variation in inter-scale relations even between concepts in one concept class, but this variation should be minimised by using scales which are generally relevant to all concepts.

The number of scale points used in this study was seven, the number suggested by Osgood. This number was however chosen for convenience, as it has been found that the number of scale points used has little effect on results when the number of points
is artificially varied (Knapper and Warr).

Order of Presentation

(i) Concepts - The "practice" concept "Best Friend" was always rated first. Following this the concepts were rated in one of two orders. Order 1 was Myself, Father, Mother, Family, Husband, Wife, Man, Woman. Order 2 was the reverse of Order 1. The two orders were randomly allocated to the subjects.

(ii) Scales - The scales were used in only one order (See Appendix A). In this order, scales representing the different factors occur in the order, E(valuative scale) followed by a P(otency scale) then an A(ctivity scale), EPA, EPA. On five of the scales the "socially desirable" pole was on the left, and on the remaining four on the right.

The statistic D (Osgood et al 1957) was used in this study, as it was in Lazowick's, as a measure of the dissimilarity between the Semantic Differential profiles of Mothers and their adolescent children. D, a general expression for dissimilarity between profiles may be expressed thus,

$$D = \sum (x_{j1} - x_{j2})^2$$

Cronbach and Gleser (1953) argue that it is preferable to use D rather than $D^2$ as a measure of similarity, since the larger the differences between people the more exaggerated they are when squared. D has also been found to be less skewed in distribution than $D^2$, although D too is not normally distributed.

The statistic D was chosen in preference to other measures of profile similarity/dissimilarity since the operations, such as Q-Sorts and product-moment correlations between persons, ignore the differences in scatter between the profiles. This is unacceptable for if any of the profiles are relatively flat, the index of similarity will be highly unreliable (Cronbach and Gleser 1953).
The Manifest Anxiety Scale

The fifty item version of the Taylor Manifest Anxiety Scale (M.A.S.) was used in this study to yield a measure of anxiety. This anxiety measure was used since Lazowick used Gryce's Revision of the M.A.S. in his study. No reference to Gryce's revision could be found in the British literature. In this study the M.A.S. was used purely as a measure of anxiety and not as a measure of "potential neuroticism".

The M.A.S. was first described by Taylor (1953). The scale originally consisted of 65 items from the M.M.P.I. and 135 buffer-items. High split-half reliability (Taylor, 1953) and test-retest reliability (Hilgard et al, 1951) were found for the scale in this form and manifest anxiety was therefore conceptualised as an enduring personality characteristic.

Bechtoldt (1953) carried out an internal consistency item-analysis on the M.A.S. as described by Taylor, and reduced the test to a fifty item scale, made up of those items which had the highest correlation with the total score. This fifty item version has been used most frequently in all subsequent research and has been used in this study.

Scores on the M.A.S. have been found to correlate positively with other measures of anxiety.

(i) Correlations ranging from 0.4 - 0.7 have been found with other questionnaire measures of anxiety, e.g. Mandler and Sarason's Test Anxiety Questionnaire (1957).

(ii) Mandler et al (1961) found a correlation of 0.6 between M.A.S. scores and the highest of a series of scores on physiological variables indicative of anxiety. Similarly, Kelly and Walter (1968) found a correlation of 0.24 between M.A.S. scores and Measures of "basal" forearm blood flow.

(iii) Correlations of 0.4 - 0.6 have been found with clinical evaluations of anxiety. (Buss, 1955 etc.).

It is also widely agreed that there is an element common both to measures of anxiety such as the M.A.S. and to measures of neuroticism, such as the M.P.I., E.P.I., Bernreuter, N.S.Q.,
etc., although the degree of association and its identification is controversial. Cattell (1963), however, even at the second-order factor level, uses anxiety and neuroticism as distinct concepts. He argues that the M.A.S., because of its derivation from the M.M.P.I., "mixes various other neurotic dimensions into anxiety". The M.A.S. therefore, according to Cattell, is not a "pure" measure of anxiety. Others regard all questionnaires of the M.A.S. type as measures of one neuroticism/anxiety factor.

Less satisfactorily perhaps, M.A.S. scores have been found to correlate highly with scores on Edward's Social Desirability Scale \( r = -0.84 \), Edwards, 1950) and with scores on Byrne's Repression-Sensitisation Scale \( r = 0.91 \), Joy, 1963).

Research by Matarazzo et al (1955, 1961), Rubin and Townsend (1955) and others has shown that there are significant differences between groups of psychiatric patients and matched control groups and secondly that there are differences within psychiatric populations on the M.A.S.

Many of the studies cited above include normative data for normal and psychiatric groups. The mean scores for normal adult and adolescent groups on the M.A.S. were found in all studies to be in the region of 13-14. The scores of different psycho-neurotic groups vary more widely from 26-34, the size of the mean score presumably depending on the constitution of the group.

The M.A.S. therefore seems a relatively valid measure of reported anxiety. M.A.S. scores correlate significantly and positively with questionnaire, clinical and physiological measures of anxiety and also differentiate successfully between normal and psychiatric groups. In none of the studies, however, is a high M.A.S. score, when obtained by a normal subject, reported to be diagnostic of neurosis; this assumption was made by Lazowick, although high scores are characteristic of neurotic groups.

(3) The Mill-Hill Vocabulary Scale

The Mill-Hill Vocabulary Scale (MHV), Set B, Synonyms, was completed by each subject in the study. This test was included
as a check on the matching of the two groups studied. The results were not considered in relation to the scores obtained in the Semantic Differential, since there is no evidence that intelligence is related to Semantic Differential responses (Neuringer, 1963).

The MHV, set B, can be completed quickly and gives a relatively accurate assessment of verbal intelligence. Yates (1956) argued that "vocabulary is probably the best single measure of intelligence available, nevertheless prediction from vocabulary to intellectual level can be made only with a wide margin of error".

3. The Psychiatrists' Ratings

Two psychiatrists were mainly involved in the treatment of the adolescents (PG) in the Y.P.U. The psychiatrists were provided with a 5-point scale on which to assess the degree of identification between the adolescent and his or her mother, and one rating was made for each pair (See Appendix B).

The two psychiatrists agreed beforehand on what they meant by identification, but said they found difficulty in assessing this. They said that in practice they defined adolescents as closely identified with mother if in interview sessions they generally accepted mother's point of view. They regarded as less identified with mother the adolescents who took up a critical and hostile attitude to mother in these sessions.

No psychiatric rating of identification was available for the control group.
RESULTS

1. Notation

In this section the following notation will be used to describe the different groups:

1. Control group adolescents .......... CG
2. Mothers of CG ........................  MCG
3. Patient group adolescents .......... PG
4. Mothers of PG ......................... MPG

When males (or females) only are being considered (M) or (F) will follow the description of the group, e.g. Control group adolescent males will be written CG(M). When the full group is being considered (M F) will be added after the group notation.

2. Hypothesis 1: PG will score at a significantly higher level than CG on the Taylor Manifest Anxiety Scale, (M.A.S.).

Table 4
Mean M.A.S. scores of CG and PG

<table>
<thead>
<tr>
<th></th>
<th>Mean MAS score</th>
<th>s.d.</th>
<th></th>
<th>Mean MAS score</th>
<th>s.d.</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>CG(M)</td>
<td>13.714</td>
<td>5.699</td>
<td>PG(M)</td>
<td>20</td>
<td>8.602</td>
<td>1.532</td>
</tr>
<tr>
<td>CG(F)</td>
<td>21</td>
<td>6.614</td>
<td>PG(F)</td>
<td>24.428</td>
<td>6.736</td>
<td>0.925</td>
</tr>
<tr>
<td>CG(M+F)</td>
<td>17.6</td>
<td>7.116</td>
<td>PG(M+F)</td>
<td>22.066</td>
<td>8.095</td>
<td>1.652</td>
</tr>
</tbody>
</table>

As can be seen from Table 4, PG do not score significantly more highly than CG on the M.A.S., although the scores do lie in the predicted direction. It is of interest to note that within CG the mean M.A.S. score of CG(F) is significantly higher than the mean score of CG(M), (t=2.112, p>0.05).
Table 5
Mean M.A.S. scores of MCG and MPG

<table>
<thead>
<tr>
<th></th>
<th>Mean MAS score</th>
<th>s.d.</th>
<th>Mean MAS score</th>
<th>s.d.</th>
<th>t</th>
<th>NS</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCG(M)</td>
<td>10</td>
<td>7.819</td>
<td>MPG(M)</td>
<td>19.5</td>
<td>9.746</td>
<td>1.923</td>
</tr>
<tr>
<td>MCG(F)</td>
<td>11.875</td>
<td>7.457</td>
<td>MPG(F)</td>
<td>13</td>
<td>6.886</td>
<td>0.685</td>
</tr>
<tr>
<td>MCG(M F)</td>
<td>11</td>
<td>7.685</td>
<td>MPG(M F)</td>
<td>16.466</td>
<td>9.12</td>
<td>0.685</td>
</tr>
</tbody>
</table>

No predictions were made about the M.A.S. scores of MPG and MCG. From Table 5 it can be seen that MPG and MCG do not differ significantly on the M.A.S.; although the scores of MPG are higher than those of MCG.

In summary, Tables 4 and 5 indicate that the mean scores of PG and MPG are generally higher than the mean scores of CG and MCG, but none of the differences is significant.

3. Hypotheses 2 to 4: Differences between the groups on measures of identification.

When both (a) direct and (b) inferred identification are measured it is predicted in hypothesis 2, that CG(F) will score as more closely identified with mother than CG(M); in hypothesis 3, that PG(F) will score as either significantly more or significantly less identified with mother than CG(F), and in hypothesis 4, that PG(M) will score as significantly less identified with mother than CG(M).

(a) Comparison of PG and CG on a measure of direct identification with mother

Measures of direct identification with mother were obtained by comparing the concept profiles of each mother-child pair and expressing the similarity between them in terms of the D measure described earlier, (see page 26). In this way a D measure was obtained from each pair for each of the eight concepts rated.

The D scores were initially analysed concept by concept in
eight two-way analyses of variance. For ease of calculation, the scores of two of the thirty pairs of subjects chosen at random, were discarded at this point, so that the numbers were equal in the four groups of subjects - CG(M) and (F), PG(M) and (F). In these two-way analyses, the components of variance consisted of a between groups component, a between sexes component and an interaction component (GxS). Although the distribution of D is not known, an analysis of variance can still be applied. Norton (cited in Lindquist, 1956) showed that even extreme departures from normality of distribution of group scores had little effect on the distribution of F.

If a significant Group x Sex interaction effect be demonstrated for a concept by the analysis of variance, t-tests between the means of the sub-groups can then legitimately be carried out as a direct test of hypotheses 2 to 4 for that concept. One would consider the hypothesis confirmed if a majority of the eight t-tests pertaining to it (one for each concept) were significant.

Hypotheses 2 to 4 will be tested as follows:

**Hypothesis 2:** One-tailed t-tests (Guildford, 1956) will be used to test the significance of the difference between the mean D scores of CG(F) and CG(M).

**Hypothesis 3:** Two-tailed t-tests will be used to test the significance of the difference between the mean D scores of PG(F) and CG(F).

**Hypothesis 4:** One-tailed t-tests will be used to test the significance of the difference between the mean D scores of PG(M) and CG(M).

<table>
<thead>
<tr>
<th>Table 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>(See over)</td>
</tr>
</tbody>
</table>
Table 6

Table of F ratios derived from the eight analyses of variance

<table>
<thead>
<tr>
<th>Components of variance</th>
<th>I (Myself)</th>
<th>II (Father)</th>
<th>III (Mother)</th>
<th>IV (Family)</th>
<th>V (Husband)</th>
<th>VI (Wife)</th>
<th>VII (Man)</th>
<th>VIII (Woman)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between groups</td>
<td>0.589</td>
<td>0.082</td>
<td>7.066*</td>
<td>0.149</td>
<td>0.427</td>
<td>0.037</td>
<td>0.196</td>
<td>0.036</td>
</tr>
<tr>
<td>Between sexes</td>
<td>0.037</td>
<td>0.182</td>
<td>0.176</td>
<td>0.85</td>
<td>0.699</td>
<td>0.018</td>
<td>1.913</td>
<td>0.039</td>
</tr>
<tr>
<td>Interaction, G x S</td>
<td>5.127</td>
<td>0.01</td>
<td>0.076</td>
<td>0.202</td>
<td>0.1</td>
<td>0.34</td>
<td>0.265</td>
<td>0.6</td>
</tr>
</tbody>
</table>

* p > 0.05
It can be seen from Table 6 that from the eight analyses of variance only one significant result emerged (and that could statistically have arisen by chance). PG obtained a very much higher identification score than CG when rating the concept "mother" i.e. PG, in line with previous studies, showed less identification with mother on this concept than CG.

Since none of the interaction components was significant, no direct tests of hypotheses 2 to 4 were carried out.

The D scores of each mother-child pair were then averaged across the concepts. This mean D score is taken to be the overall identification score of each mother-child pair and seems to be equivalent to the identification scores on which Lazowick based his conclusions. A similar two-way analysis of variance was performed on these scores. Again the between groups, the between sexes and the interaction components were found to be non-significant, (see Table 7).

**Table 7**

<table>
<thead>
<tr>
<th>Component of variance</th>
<th>F</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Between groups</td>
<td>0.1465</td>
<td>NS</td>
</tr>
<tr>
<td>Between sexes</td>
<td>0.3851</td>
<td>NS</td>
</tr>
<tr>
<td>Interaction, G x S</td>
<td>0.1373</td>
<td>NS</td>
</tr>
</tbody>
</table>

Since none of the interaction effects proved to be significant, none of the hypotheses could be confirmed.

Only one of the between groups components was significant, thus in general PG as a whole did not differ significantly from CG on the direct identification measure. No between sex differences were significant.

(b) **Comparison of PG and CG on a measure of inferred identification with mother**

The measures of inferred identification with mother were
obtained by comparing the adolescent's profiles of the concepts "mother" and "myself" and by expressing the similarity between the two in terms of the D measure. In this way, then, the adolescent's perception of the similarity between his concept of "self" and his concept of "mother" is obtained.

A two-way analysis of variance was again used as a preliminary test. The same predictions were made for this measure as were made for the direct measure of identification, (see section 3(a)). Again here only if the interaction component were found to be significant could t-tests legitimately be performed.

Table 8
F Ratios Derived from the Two-way Analysis of Variance of Inferred Identification Scores

<table>
<thead>
<tr>
<th>Components of variance</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between groups</td>
<td>2.339</td>
</tr>
<tr>
<td>Between sexes</td>
<td>0.049</td>
</tr>
<tr>
<td>Interaction, G x S</td>
<td>1.058</td>
</tr>
</tbody>
</table>

As can be seen from Table 8 the interaction component derived from analysis of the inferred identification scores did not prove to be significant. Thus with the inferred identification scores, hypotheses 2 to 4 were not confirmed.


Positive correlations were predicted between psychiatrists' ratings of identification and measures of identification derived from the semantic differential.

Kendall rank correlation coefficients (Siegel, 1956) were calculated between the following measures: the psychiatrist's rating (PR), the mean direct D measure, and the inferred D measure. A non-parametric coefficient of correlation was used with this data, since as stated earlier the distribution of D is not known and since the numbers within the groups is low.
Table 9
Kendall Rank Correlation Coefficients between the Psychiatrists' Ratings and Semantic Differential Measures of Identification

<table>
<thead>
<tr>
<th>Measures correlated</th>
<th>Y</th>
<th>z</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean D &amp; Inferred D</td>
<td>-0.022</td>
<td>-0.011</td>
</tr>
<tr>
<td>Mean D &amp; PR</td>
<td>-0.292</td>
<td>-1.46</td>
</tr>
<tr>
<td>Inferred D &amp; PR</td>
<td>0.049</td>
<td>0.245</td>
</tr>
</tbody>
</table>

Neither of the measures of identification derived from the semantic differential correlated significantly with the psychiatrists' ratings of identification, (see Table 9). Also the correlation between the two measures of identification is near zero, suggesting they are quite independent measures.

5. The high and low anxiety groups

Since hypothesis 1, that PG would score significantly higher than CG on the M.A.S., was not confirmed, the total sample was regrouped to form a low and a high anxiety group, (LAG and HAG). These groups were formed so that Lazowick's finding that a high anxiety group scored as less identified with their parents than a low anxiety group could be tested. Lazowick's finding forms the basis of hypothesis 5: HAG will score as significantly less identified with mother than LAG on the direct and inferred identification measures.

Lazowick's group of high anxiety subjects scored 26 or more on the Taylor Manifest Anxiety Scale (M.A.S.) and his low anxiety group scored 7 or less on this measure. In this group of subjects, only 14 subjects scored at the extremes of the range of M.A.S. scores. Here HAG consisted of subjects scoring 26 or more on the M.A.S. and LAG of subjects scoring 10 or less. Had Lazowick's criterion for LAG been employed, only one subject would have fallen in LAG.

Although these groups were formed irrespective of original group membership it was found that six of the eight subjects
forming HAG were in fact from PG, of the six forming LAG, two were from PG.

Since HAG and LAG only contained eight and six subjects respectively it was not thought feasible to sub-divide the two groups in terms of sex. Since previous analyses of the data had not shown sex to be a factor significantly affecting the results, this was not thought to be of importance.

The similarity of HAG and LAG on the selected variables (see page 21) was not known, since the subjects had been regrouped. HAG and LAG were therefore compared on the variables age and verbal intelligence – the two variables for which the most accurate measurements could be made.

### Table 10
Comparison of the Age and Mill Hill Vocabulary Scores of HAG and LAG

<table>
<thead>
<tr>
<th></th>
<th>HAG</th>
<th>LAG</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean Age</td>
<td>16.16 yrs.</td>
<td>16.08 yrs.</td>
</tr>
<tr>
<td></td>
<td>s.d. 0.72</td>
<td>s.d. 1.23</td>
</tr>
<tr>
<td>Mean M.H.V. score</td>
<td>25.5</td>
<td>25.83</td>
</tr>
<tr>
<td></td>
<td>s.d. 5.26</td>
<td>s.d. 2.91</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.04</td>
</tr>
</tbody>
</table>

As can be seen from Table 10 no significant differences were found between the age and verbal intelligence of HAG and LAG. The groups are therefore as well matched in this classification as in the original control/patient classification.

6. **Differences between HAG and LAG on Measures of (a) direct and (b) inferred identification**

As with CG and PG, it was predicted that HAG and LAG would differ on measures of identification with mother. In hypothesis 5 it was predicted that HAG would obtain higher identification scores than LAG, i.e. that HAG would be less identified with mother than LAG.
(a) Direct Identification

Differences between the mean identification D scores of HAG and LAG were analysed in a one-way analysis of variance for each of the eight concepts, (Guildford 1956). Here the hypothesis will be confirmed if the between groups component of variance is found to be significant.

Table 11

F ratios derived from eight one-way analyses of variance

<table>
<thead>
<tr>
<th>Component of variance</th>
<th>I (Myself)</th>
<th>II (Father)</th>
<th>III (Mother)</th>
<th>IV (Family)</th>
<th>V (Husband)</th>
<th>VI (Wife)</th>
<th>VII (Man)</th>
<th>VIII (Woman)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between groups</td>
<td>0.982</td>
<td>0.209</td>
<td>0.161</td>
<td>0.479</td>
<td>3.011</td>
<td>0.001</td>
<td>0.008</td>
<td>0.122</td>
</tr>
</tbody>
</table>

None of the above F ratios was found to be significant.

As can be seen from Table 11, there is no significant difference between the groups for any of the eight concepts, thus hypothesis 5 is not confirmed for the direct identification measure.

(b) Inferred Identification

HAG and LAG scores on the inferred identification measure were also compared in a one-way analysis of variance.

Table 12

F Ratio Derived from a One-way Analysis of Variance of the Inferred Identification Measure

<table>
<thead>
<tr>
<th>Component of Variance</th>
<th>F</th>
<th>NS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>0.001</td>
<td>NS</td>
</tr>
</tbody>
</table>
As can be seen from Table 12, no significant difference between HAG and LAG was found on the measure of inferred identification. Thus hypothesis 5 is not confirmed for either of the identification measures.
DISCUSSION

Examination of the results shows that none of the six hypotheses has been confirmed. The failure of this study to reproduce earlier findings may be considered in both general and particular terms.

1. The age and psychological maturity of the subjects

As stated previously one of the main differences between this and earlier studies lies in the fact that the groups considered in this study were probably significantly younger than those of other studies. The subjects considered here were all of school age, although some had in fact fairly recently left school. None were at university or in permanent employment as was the case for the other groups studied. The difference in age may in fact be crucial. Erikson (1950), Talcott Parsons (1953) and others all argue that throughout adolescence relationships with parents and others are constantly changing. It may well be argued therefore that it was only to be expected that different results would be obtained from a younger, less mature group of early adolescents than from older subjects, especially when the measures considered were concerned with mother-child relationships.

Accepting then that the younger age of this group may have made results obtained from older populations to some extent inapplicable, it would however still have been predicted that some differences between a normal and a patient group would have been shown on this measure of identification with mother. From Freud onwards, many writers discussing child development have emphasised the importance of the mother-child relationship and of the child's identification with mother for healthy mental maturation. However again other writers, e.g. Douvan and Adelson (1966) emphasise the rebellion against the parents that occurs as a normal feature of
adolescence. In order to become independent the child must revolt against the parent's attitudes and values, although later, perhaps in early adulthood, moving back again to accept them, especially when the early relationship has been good. In terms of this formulation then all children become less 'identified' with and move away from their parents in middle to late teens. Every adolescent of this age strives to obtain a separate ego-identity (Erikson, 1950) and in this sense is passing through a confused and disturbing stage of development. Since in this sense all adolescents of this age reject their parents, perhaps it is not surprising that the normal control group did not differ from the patient group on the direct identification measure. The normal group also were in the "rebellious phase" when parental values are rejected. Patients in the Young People's Unit may in fact only be termed 'ill' in that the problems common to all adolescents are for them intensified and made intolerable. Their parents too may be less able to tolerate this period of revolt. In this study, the mothers of the patients were in fact found to score as being more anxious than the mothers of the control group, but the difference between the mean scores was not significant.

This notion of the disturbance of the "normal" child at this phase in adolescence may also explain why CG did not differ significantly from PG on the anxiety measure. It can be argued that the stage which Erikson terms "Identity versus Role-Confusion" is intrinsically anxiety provoking and thus all adolescents at this stage score highly on measures of anxiety. McAllister and Marshall (1969) have provided some empirical support for this notion. They found that children's scores on the Junior M.P.I. increased with age, i.e. at 14 children scored higher on the neuroticism factor than at 11. (It will be remembered that M.P.I. scores have been found to be significantly related to M.A.S. scores in adults.) Again it was found here that the scores of MCG and MPG were much closer to other reported normal mean M.A.S. scores (13-14) than the scores of either CG or PG.

These findings are consistent with current results obtained
from patients in the Young People's Unit on other test measures. They have been found to score significantly higher on almost all conventional psychological personality tests (e.g. the Hostility and Direction of Hostility Questionnaire, Caine et al (1967)) than adult psychiatric patients.

If then the identification of the subjects of this study with the ir mothers has been measured as suggested at the period of minimum identification (of maximum revolt), it is not surprising that they have been found to score differently from the older subjects of other studies, who were presumably at a different stage in their relationship with mother.

2. Differences between CG and PG

Thus far reasons why PG and CG did not show the predicted differences have been considered. Now the actual differences between the groups will be discussed. Although the disturbance of the "normal" adolescent has been stressed, the fact still remains that the majority of adolescents work through this phase without psychiatric help. Features distinguishing the patients from the control group must surely exist.

Semantic profiles of the concept "mother" were found to differentiate between CG and PG. CG and MCG rated the concept "mother" more similarly than did PG and MPG, i.e. the normal adolescents rated "mother" as mother rated "mother", but patients and their mothers did not. As stated previously this statistically significant difference could have arisen by chance, but the size of this difference compared to the others (see Table 6) would seem to contra-indicate this. The groups were not found to differ in their ratings of any other concepts nor did they differ on the inferred identification measure.

PG were found to score more highly than CG on the Manifest Anxiety Scale, but this finding was not significant. It will be remembered that CG, presumably a normal group, scored at a high level on the anxiety measure.
It seems very likely that the M.A.S., a test designed for adults, is not a valid measure of anxiety in adolescent groups. A test designed to measure anxiety/neuroticism in adolescents of different ages might possibly have been more successful in differentiating between CG and PG.

The mothers of PG also scored at a higher level than the mothers of CG, but this finding too was not significant.

3. Differences between the sexes.

The often reported finding that normal female adolescents identify more closely with their mother than do males could not be demonstrated here. In none of the analyses of results performed was sex found to be a factor significantly affecting the results. No interaction or sex effects were found to be significant, in any of the analyses.

4. Differences between the high and low anxiety groups (HAG and LAG)

Lazowick's finding that a high anxiety group scored as less identified with mother than a low anxiety group was not found to hold up in this study. The fact previously discussed of the different age of the two sets of subjects may again have contributed to this failure, but other factors also seem important. It will be remembered that Lazowick's low anxiety group was composed of subjects scoring seven or less on the Manifest Anxiety Scale. In this study for practical reasons LAG was formed of subjects scoring 10 or less. The high anxiety groups of both studies were composed of subjects scoring 26 or more. In Lazowick's terms then, LAG in this study were more anxious, less "normal" than the low anxiety group of his study. This difference between the two low anxiety groups may have been a factor which contributed to the fact that no differences between LAG and HAG were found here. This factor would seem to be of relatively minor importance however, since, as in Lazowick's study, the two groups compared still differed widely in their scores on the M.A.S. As discussed in the introduction, Lazowick termed his high and low anxiety
groups "potentially neurotic" and "normal". In this population of subjects the M.A.S. was not found to distinguish between CG and PG and therefore for this younger group Lazowick's descriptive labels were found to be inappropriate.

Studies by Byrne (1964) and Blackburn (1965) and others were also cited earlier when these descriptive labels, "neurotic" and "normal" were considered. They argued that extreme scorers at each pole on tests of anxiety or of neuroticism were abnormal, both in the statistical and the clinical sense. They termed these extreme scoring groups repressors and sensitizers. They argued that normals obtained mean scores lying between the two extremes rather than very low scores. Some empirical support for this notion has been achieved. Lazarus and Alfert (1964) found that repressors and sensitizers both react more abnormally to stress, both psychophysiological and psychologically, than normal groups. If the contention that extreme scorers on test measures of anxiety/neuroticism are both abnormal is accepted, then perhaps it is only to be expected that LAG and HAG would not differ on measures of identification; they may both be abnormal groups. The surprising result in this context seems to be that of Lazowick. Perhaps in answer to this however, the argument could be put forward that although repressors and sensitizers are both non-normal, they are not in consequence identical and therefore similar results on the measure of identification need not be anticipated.

5. The size of the groups

In earlier sub-sections explanations for particular failures to reproduce previous findings have been considered. However, aside from theoretical explanations, the small numbers in the sub-groups must also be considered as a factor affecting the results. The sub-groups studied in the analyses of variance (see Tables 6, 8 and 11) only contained from six to eight subjects, thus for significant results to have been obtained really large differences between mean scores would have had to exist.
However, many of the results were not only not significant but did not even lie in the predicted direction. Thus it seems unlikely that the small numbers alone could account for the failure of the predictions; theoretical reasons must also be adduced.

6. The psychiatrists' rating of identification

The final results to be considered are the correlations between the psychiatrists' ratings of identification and the measures of identification derived from the Semantic Differential. From Table 9 it can be seen that these correlations were all non-significant.

In the survey of the previous literature no mention of the use of a psychiatrist's rating of identification or of any other external criterion for validation was found. All authors seem to have been content to justify their use of idiographic measures of identification on theoretical grounds alone. The implication made in almost all the studies measuring identification by these methods is that what they are measuring is identification as defined psychoanalytically.

In this study an attempt was made to provide some external criterion, in the form of a psychiatrist's rating of identification, for the identification measures derived from the Semantic Differential. The reliability and the validity of these ratings is not known however, and therefore the external criterion provided for the Semantic Differential measures of identification may itself be invalid. On the simplest level however, an analytically orientated psychiatrist's rating of identification would seem to provide a face-valid rating of Freudian identification and the fact remains that the Semantic Differential measures did not correlate with this. It is thus difficult to know what Lazowick's measure of identification defined in terms of shared meanings, is describing or measuring.

From Table 9 it can also be seen that the two measures of identification, direct and inferred, derived from the Semantic
Differential did not correlate, thus making the question of validity of Lazowick's measures even more difficult.

7. **Summary**

None of the six hypotheses was fully confirmed. Only minimal differences were found between the patient and control groups and no differences at all were found between the low and high anxiety groups. One reason why the predicted differences were not found between the groups may lie in the fact that the subjects of this study were younger and consequently at a different stage of psychological development than those of earlier studies. It was argued that all groups at this stage of development may show similar disturbances of identification. The small numbers in the groups may also have made the predicted differences less likely to appear. The question of whether idiographic measures do in fact tap the degree of identification as understood by Freud and others was also discussed.
REFERENCES


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Bandura, A., Ross, Dorothea and Ross, Sheila A. (1963) "A comparative test of the status envy, social power and secondary reinforcement theories of identificatory learning", J. abnorm. soc. Psychol. 66
INSTRUCTIONS

Look at what is written at the top of the first page of the booklet. Then consider the first scale:

Strong___: _____ : _____: _____: _____ : _____ : Weak
       Very Moderately Fairly Neutral Fairly Moderately Very
       or both

If you think the idea "Best Friend" is related to one or other end of this scale, put a cross in the appropriate position. For example, if you think that "Best Friend" is very strong put a cross thus:

Strong X___: _____: _____: _____: _____: _____: Weak

In the same way, on the second scale, if you think "Best Friend" is "moderately clean", put a cross thus:

Dirty___: _____: _____: _____: _____: X___: Clean

If the idea at the top of the page has no connection with either end of the scale, or if the connection is equally strong on both sides, put the cross in the middle.

Do the same thing for each scale in turn on each page. Work fairly quickly and try not to look back at previous pages once you have finished them. Thank you very much.
<table>
<thead>
<tr>
<th>Concept</th>
<th>Scale</th>
<th>Concept</th>
<th>Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strong</td>
<td></td>
<td>Weak</td>
<td></td>
</tr>
<tr>
<td>Dirty</td>
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<td>Fast</td>
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<td>Happy</td>
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<tr>
<td>Active</td>
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<td>Passive</td>
<td></td>
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</tbody>
</table>
SELF-RATING QUESTIONNAIRE

Name: ____________________________

Date: ________________________

Instructions: Please fill in this form by putting a circle around the "True" or "False" following each statement. If you find it difficult to decide, ask yourself whether you think the statement is on the whole true or false and put a circle round the appropriate word.

REMEMBER TO ANSWER EACH STATEMENT

1. My sleep is fitful and disturbed ............ True False
2. I have had periods in which I lost sleep over worry ..... True False
3. I have very few fears compared with my friends. True False
4. I believe I am no more nervous than most others . True False
5. I have nightmares every few nights ............ True False
6. I have had a great deal of stomach trouble ... True False
7. I frequently notice my hand shakes when I try to do something .... True False
8. I suffer from attacks of diarrhoea ............. True False
9. I worry over money and business ............... True False
10. I am troubled by attacks of nausea ............ True False
11. I am often afraid that I am going to blush ... True False
12. I feel hungry almost all the time ............... True False
13. I am entirely self-confident ..................... True False
14. I do not tire quickly ......................... True False
15. It makes me nervous to have to wait .......... True False
16. Sometimes I become so excited that I find it hard to get to sleep ............ True False
17. I/
17. I am usually calm and not easily upset ..... True False
18. I have periods of such great restlessness that I cannot sit long in a chair ........ True False
19. I am happy most of the time ............... True False
20. I find it hard to keep my mind on a task or job .......... True False
21. I feel anxiety about something or someone almost all the time ............. True False
22. I shrink from facing a crisis or difficulty . True False
23. I wish I could be as happy as others seem to be ........ True False
24. I frequently find myself worrying about something ........ True False
25. I certainly feel useless at times ............ True False
26. I sometimes feel that I am about to go to pieces .............. True False
27. I sweat very easily even on cool days ....... True False
28. Life is a strain for me much of the time .... True False
29. I worry over possible misfortune ............. True False
30. I am unusually self-conscious ............... True False
31. I hardly ever notice my heart pounding and I am seldom short of breath ............ True False
32. I cry easily .................................. True False
33. I have been afraid of things or people that I know could not hurt me ........ True False
34. I am inclined to take things hard ............ True False
35. I have very few headaches .................... True False
36. I must admit that I have at times been worried beyond reason over something that really did not matter ................ True False
37. I cannot keep my mind on one thing .......... True False
38. I am easily embarrassed ...................... True False
39. At times I think I am no good at all ........ True False
40. I am a highly strung person .................. True False
41. Sometimes when embarrassed, I break out in a sweat which annoys me greatly ...... True False
42. I blush no more often than others ............. True False
43. I am more sensitive than most other people .. True False
44. I/
44. I practically never blush ................... True False
45. I have sometimes felt that difficulties were piling up so high that I could not overcome them ........ True False
46. I work under a great deal of tension ......... True False
47. My hands and feet are usually warm enough .... True False
48. I dream frequently about things that are best kept to myself .......... True False
49. I lack self-confidence ......................... True False
50. I am very seldom troubled by constipation .... True False
Psychiatrists' Rating Scale of Identification

Closely identified with mother

Not identified with mother