Repertory grid technique in research on the psychological therapies

David Anthony Winter

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by

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Abstract

It is contended that research on the psychological therapies requires a measuring instrument sensitive to the specificity of the variables and the individuality of the clients under study. Repertory grid technique is considered to fulfil these requirements, and the study concerns itself largely with the validity and usefulness of this instrument in such research.

Major hypotheses are that: grid measures are meaningfully related to independent measures;

meaningful differences obtain between clients clinically assigned to group psychotherapy and those assigned to behaviour therapy;

and between characteristics predictive of response to these two therapies;

individualised predictions of therapeutic outcome are more successful than general predictions.

The validity of various non-grid measures is also examined, as is the relative ease of change on all measures during therapy.

The hypotheses are tested by the pre-treatment assessment of 64 neurotic out-patients, and the serial re-assessment of 20 of those receiving group psychotherapy and 20 receiving behaviour therapy.

Support is provided for all the major hypotheses.

Certain grid indices of maladjustment are found to be meaningfully interrelated and associated with independent measures, and expected relationships are observed between non-grid measures. Meaningful differences between group and behaviour therapy clients, and between characteristics predictive of response to the two therapies, are found in construing and on non-grid measures. These results support Caine's model of a relationship between adjustment strategies, treatment expectancies, symptoms, and therapeutic response, and also suggest the importance of content of construing in determining the latter.

More individualised than general grid predictions of therapeutic change are confirmed, and this is not a function of a general reduction in extremity of construing. Evidence is also provided that therapeutic change is multidimensional, with greater ease of change at the symptom level.

Implications for treatment selection, outcome criteria, therapeutic strategies, and further research are discussed.

To my parents

No doubt it is a great nuisance that mankind is not uniform but compounded of individuals whose psychic structure spreads them over a span of at least ten thousand years. Hence there is absolutely no truth that does not spell salvation to one person and damnation to another. All universalisms get stuck in this terrible dilemma.

Jung, C.G. (1944), Psychology and Alchemy, Collected works, vol. 12, Routledge and Kegan Paul.

Contents

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CHAPTER ONE

Research on the Psychological Therapies

With the proliferation of new psychological therapies, the meaninglessness of the question 'Is this treatment effective?' becomes increasingly apparent. Bergin's (1971) reformulation of this question, 'What treatment, by whom, is most effective for this individual with that specific problem, and under which set of circumstances?', is more appropriate, but to it one might add 'using this particular criterion of outcome'. One might also wish to ask why it is effective, but such questions of therapeutic process have traditionally been discussed separately from issues of outcome in the literature, an artificial distinction but one which is perhaps understandable if one considers the task facing a reviewer in such a complex area.

It is the aim of the present study to examine the usefulness of one particular technique, the repertory grid, in attempting to answer these questions of treatment selection, process and outcome. Before giving detailed consideration to the repertory grid technique, however, it is necessary to first examine the nature of the major issues and problems which have arisen in previous research on the psychological therapies.

Background: The dearth of acceptable, well-controlled studies of psychotherapy before the last decade may reflect a feeling on the part of the therapists, first expressed by Freud (1922), that a statistical examination of psychotherapy is inappropriate, as much as it does the complexity of the area under study. It did, however, lead Eysenck (1952) to conclude that the available studies 'fail to prove that psychotherapy, Freudian or otherwise, facilitates the recovery of neurotic patients. They show that roughly two-thirds of a group of neurotic patients will recover or improve to a marked extent within about two years of the onset of their illness, whether they are treated by means of psychotherapy or not.' The results of more recent research scarcely offer further encouragement for the psychotherapist and have not caused Eysenck (1960, 1965) to alter his position or Rachman (1972) to arrive at any fundamentally different conclusions from those of Eysenck. As Rachman remarks in his review, 'We do not have satisfactory evidence to support the claim that psychotherapy is effective.' Despite an orientation more sympathetic to psychotherapy than those of Eysenck and Rachman, Truax and Carkhuff (1967) also conclude that 'If all the studies on outcome were to be averaged on the basis of the number of clients involved, it is clear that the overall results would be close to zero effect beyond that observed in comparable clients not receiving counseling or psychotherapy.'

However, Meltzoff and Kornreich (1970) are critical of earlier reviews and more optimistic about the weight of evidence in favour of the efficacy of psychotherapy: 'In short, reviews of the literature that have concluded that psychotherapy has, on the average, no demonstrable effect are based upon an incomplete survey of the existing body of research and an insufficiently stringent appraisal of the data. We have encountered no comprehensive review of controlled research on the effects of psychotherapy that has led convincingly to a conclusion in support of the null hypothesis. On the contrary, controlled research

has been notably successful in demonstrating significantly more behaviour change in treated patients than in untreated controls. In general, the better the quality of the research the more positive the results obtained.'

Spontaneous Remission: Central to Eysenck's argument is his assertion that spontaneous remission is observed in two-thirds of untreated neurotic clients over a two-year period, but this estimate has not gone unchallenged. As Kiesler (1966) has pointed out, the studies on which Eysenck based his original estimate hardly concern a representative sample of neurotics: one was carried out on a sample of clients sufficiently disturbed to require hospitalisation (Landis, 1937), the other on a sample of insurance claimants (Denker, 1946), presumably less disturbed, with the prospect of monetary secondary gain from their initial visit to their G.P., and failure of some to return for subsequent visits possibly being more a function of relief of financial than of emotional depression (Kiesler, ibid.). Both groups received some treatment, albeit not intensive psychotherapy, and the criteria of improvement used were not sufficiently precise.

Bergin (1971), reviewing the literature, arrived at the more modest estimate of a median spontaneous remission rate for neurosis of 30%, adding that this figure is an 'abstraction that masks a heterogenous collection of processes'. It is also based on a most heterogeneous collection of studies, as Rachman (ibid.) has pointed out: in some, the clients in the sample were not neurotic; in others, they were hospitalised or receiving some kind of psychiatric care; and in others, the sample was too small or insufficient evidence was provided to arrive at a spontaneous remission figure. Subotnik (1972) concludes from his review that spontaneous remission is minimal, pointing to methodological deficiencies in research on the issue, as well as the fact that such research has failed to demonstrate that improvement is a function of time, as the spontaneous remission hypothesis would require. As Bergin and Suinn (1975) point out, Eysenck's mathematical formula for spontaneous remission only predicts a remission rate of 67% in neurotics over a two-year period, and application of the formula in controlled studies where the duration of therapy is less than this (i.e. in most cases) tends to produce large differences between treated subjects and controls, contrary to Eysenck's argument.

Malan (1973), in questioning both Eysenck's and Bergin's estimates of spontaneous remission rate, emphasises the need for controlled studies of the natural course of neurosis. Those studies that are available (e.g. Greer and Cawley, 1966) suggest differences in the spontaneous remission rate between different diagnostic categories within the spectrum of neurotic disorders, so that the use of a general spontaneous remission figure is unacceptable. Malan et al. (1968) have also indicated the necessity of using the same criteria in the assessment of spontaneous remission as in that of therapeutic outcome: they have found considerably less remission in an untreated group on individualised dynamic criteria than on external criteria such as symptoms.

The occurrence of spontaneous remission per se would not argue against the capacity of psychological therapies to provide relief from neurotic disorders, even if, as suggested by the often reported decrease in differences between therapy and control groups from time of termination to follow-up, this is only by means of a catalytic action on a basically natural process (Frank, 1973). The processes which are operative in

spontaneous remission may be essentially the same as those which are operative in successful therapy, whether they be conceptualised in psychoanalytic terms, such as 'corrective emotional experiences' in personal relationships (Alexander and French, 1946); in behavioural terms, such as modification of reinforcement schedules in the client's environment; in terms of mobilisation of the client's coping strategies; or finally in terms of modification of his expectancies (Goldstein, 1960). Whatever its nature, however, the phenomenon of spontaneous remission emphasises the importance of the inclusion of appropriate control groups in studies of therapeutic outcome.

The Average Therapeutic Effect: In attempting to explain the generally unimpressive findings on the effectiveness of psychotherapy, Bergin (1963, 1966, 1971) has observed that a number of studies, while demonstrating little difference in the average amount of change between treated and control groups, have revealed a significant increase at post-treatment assessment in the variance of scores on outcome measures in the treated groups. This led him to conclude that psychotherapy was causing improvement in some cases and deterioration in others, so that a null 'average therapeutic effect' could be obtained by lumping together these two types of case even when powerful therapeutic processes were operating. Investigation of the factors which lead to positive or negative therapeutic effects has largely centred on the therapist variables of empathy, warmth, and genuineness, with the suggestion that high levels of these conditions are associated with therapeutic improvement and low levels with deterioration (Truax and Carkhuff, 1967). However, it is over-simplistic to consider characteristics of the therapist in isolation from those of the client and the particular therapeutic technique, as well as the interaction of these variables, and Bergin (1971) remarks that clients who are initially more disturbed seem to be more likely to deteriorate. Rachman (ibid.) points out that deterioration can also occur in the absence of therapy and that such 'spontaneous deterioration' is related to diagnostic grouping.

There has been criticism of Bergin's selection of the evidence and of the methodological adequacy of studies quoted as supporting the increased variance argument (May, 1971; Shapiro, 1975), and May concludes from his review that 'there is no convincing evidence that, in situations where psychotherapy is on the average ineffective, there is greater outcome variation than in a control group.' Most of the studies reported make the assumption that positive change on the outcome dimensions employed is unidirectional for all clients and, as Yalom (1971) points out, when increased variance after therapy is found in such circumstances it could be due to the invalidity of this assumption.

Uniformity Myths: The assumption of unidirectionality of positive outcome for different clients is an example of the many 'uniformity myths' that have plagued the area of research on psychotherapy (Kiesler, 1966). Only relatively recently has the trend of research been towards greater specification of client variables, therapist variables, therapy variables, and outcome variables and away from assuming the homogeneity of each of these groups.

Client Variables: Descriptions of the 'good psychotherapy client' which may be found in the literature, and their encapsulation in acronyms, suggests a consensus which is not apparent on examining the evidence of adequately designed studies of the relationship between client variables and aspects of treatment selection and response to

treatment. Thus Luborsky et al. (1971), on the basis of their review of 166 studies, state that the individual who is likely to respond to psychotherapy is characterised by 'psychological health or adequacy of personality functioning, absence of schizoid trends, motivation, intelligence, anxiety, education and social assets, and experiencing' in the early sessions, but Bergin and Suinn (1975) question the adequacy of the outcome criteria used in most of the studies reviewed by these authors.

The most consistent findings in this area concern actuarial variables: thus, selection of clients for psychotherapy has generally been found to be related to upper social class, and socioeconomic variables also appear to be important factors in determining length of stay in therapy and treatment outcome (Garfield, 1971). This relationship may be a function of the preference of middle-class therapists for clients who are similar to themselves (Hollingshead and Redlich, 1958); or of the relationship between higher social class and 'psychological-mindedness', construing of the complaint as psychological rather than physical, and the associated expectations of treatment (Brill and Storrow, 1960; Overall and Aronson, 1962; Goin et al., 1965), congruence of therapy and expectations having been generally found to be related to length of stay in therapy and positive outcome (e.g. Heine and Trosman, 1960; Heine, 1962; Levitt, 1966; Caine and Wijesinghe, 1976). Other actuarial variables which have been the subject of a considerable amount of study are education, generally positively related to length of stay in treatment and favourable outcome; and age and sex, which do not appear to significantly affect response to treatment (Garfield, ibid.; Luborsky et al., ibid.). Diagnostic classification is also seemingly unrelated to treatment response, except at a symptomatic level, where presence of schizoid traits has generally been found to be a poor prognostic sign, as has absence of anxiety (Luborsky et al., ibid.); and in behaviour therapy, where focal problems are more responsive to treatment than are more diffuse complaints, and certain treatments are particularly appropriate to certain complaints (e.g. Marks, 1974; Chesser, 1976; Shepherd and Durham, 1977). There is some evidence that 'the healthier the patient is to begin with, the better the outcome' (Luborsky et al., ibid.), although conflicting findings may be a result of a positive relationship of felt psychological disturbance, but a negative relationship of behavioural disturbance, to improvement (Truax and Carkhuff, ibid.), or of a curvilinear relationship of initial disturbance to amount of change (Miller and Gross, 1973), so that studies obtaining different results may merely be sampling from different parts of the population.

The evidence as to the relationship of psychological test variables to response to treatment is even less clear than that concerning non-test variables (Fulkerson and Barry, 1961), and the most consistent finding, that of an association between positive outcome and high I.Q., may be compounded by the relationship of the latter variable with social class (Garfield, ibid.). Garfield observes that variables given the same names in different studies may be defined and measured differently, with consequent differences in the results obtained. In addition, it seems likely that there is an interaction between the measures used to predict change and the outcome measures chosen, and Fiske et al. (1964) found that therapeutic change was not predictable from measures independent of the outcome measures employed. In view of these difficulties, the best way of predicting a client's eventual therapeutic outcome, and

that with the highest face validity, may be the observation of his response to the first few therapy sessions, or to a therapy analogue situation, and several studies have employed this approach in the investigation of client variables in psychotherapy and behaviour therapy (e.g. Matthews et al., 1974; Malan, 1975).

Nevertheless, there is some promising work under way by Caine and his colleagues (Caine et al., 1973; Caine and Wijesinghe, ibid.), who, by relating certain personal adjustment strategies to treatment expectancies and consequent response to treatment, are attempting to develop a framework for the allocation of clients to different forms of psychological therapy. The findings of these authors require replication in an investigation using more adequate outcome criteria, and the present study includes an attempt to fulfil this requirement.

Therapist Variables: A number of dimensions have been employed to categorise therapists in the investigation of their influence on therapeutic outcome, and Luborsky et al. (ibid) feel that the major factors to have emerged from these endeavours are therapist's attitude and interest patterns, empathy, and experience, and similarity of client and therapist. Much of the early research focused on the A-B categorisation, which it was claimed could separate Type A therapists, who were more effective with schizophrenic clients, from Type B therapists, who were more effective with neurotics (Whitehorn and Betz, 1954, 1957, 1960; McNair et al., 1962). However, Bednar and Mobley (1969, 1971) have questioned the methodological adequacy of this research, and in more rigorous studies have found no evidence that Type A and Type B therapists differ in the quality of their therapeutic relationships, or in their perceptions of and preferences for schizophrenic and neurotic clients. Also, as Truax and Mitchell (1971) point out, 'we have no idea what the A-B categories actually measure nor what there is about these categories that leads to client change'.

Truax and his colleagues (e.g. Truax and Carkhuff, ibid.) have carried out a considerable amount of research on the therapist qualities which Rogers (1957) regarded as being necessary and sufficient conditions for therapeutic personality change, viz. accurate empathy, non-possessive warmth, and genuineness. Truax and Mitchell feel that the research evidence suggests an association between these therapist variables and positive therapeutic outcome 'with a wide variety of therapists and counsellors, regardless of their training or theoretic orientation, and with a wide variety of clients or patients .... in a variety of therapeutic contexts'. However, many of the studies in this area make the not necessarily justified assumption of a self-evident relationship between increased self-exploration by the client and positive outcome. Also, the reliability and validity of the scales used to rate the therapist qualities have been questioned (e.g. Shapiro, 1969; Chimsky and Rappapart, 1970), as has the adequacy of the research designs employed (Shapiro, 1976). In his review, Shapiro (1976) points to the fairly weak associations found between therapist conditions and outcome, which leave much room for the influence of client variables and the client-therapist interaction, the lack of consideration of which by the Truax group has been criticised by May (ibid.) and Rachman (ibid.). Shapiro agrees with the conclusion of Bergin and Suinn (ibid.) that the only consistent evidence for the importance of empathy, warmth, and genuineness has been in therapeutic conditions of a highly specific client-centred orientation, that orientation from which the proposals of their theoretical importance were originally derived. That these therapist qualities are not necessary conditions for positive outcome,

at least in the field of behaviour therapy, has been demonstrated by reports of the effectiveness of automated treatment techniques (e.g. Cotler, 1970; Donner, 1970; Baker et al. 1973).

While the importance of the therapist's professional experience has been questioned by Truax and Carkhuff (ibid.), Bergin's (1971) review of studies of psychotherapeutic outcome does suggest an association between level of experience and positive outcome. Also, while studies of client-therapist similarity in relation to treatment outcome have produced conflicting findings, possibly as a result of the relationship being curvilinear (Carson and Heine, 1962; Mendelsohn and Geller, 1965) or only of relevance with certain variables (Swenson, 1967), they do provide a further reminder that therapy is an interactive process whose components can only artificially be considered in isolation. In this regard, it should be mentioned that Caine and his colleagues (Caine, 1970; Caine and Leigh, 1972) have provided evidence that the attitudes to treatment of therapists are based on the same personal adjustment strategies as they feel underly clients' treatment expectancies, thus suggesting an area in which the matching of clients, therapists and treatments may be particulary important.

Therapy Variables: While individual, psychodynamically-oriented psychotherapy is the focus of concern of most of the studies reviewed above, psychotherapy in its generic sense subsumes a very wide variety of therapeutic techniques. However, despite the claims of proponents of these various techniques, large-scale reviews of comparative studies have found little difference in improvement rates between different therapies (Meltzoff and Kornreich, ibid.; Robach, 1971; Luborsky et al., 1975), and Luborsky et al. (1971) report that the most common factor in the relationship of treatment factors to outcome is the number of therapy sessions. In their 1975 review, Luborsky et al. pointed out that the majority of clients did benefit from the therapies considered, and that, as most of the studies reviewed concerned differences in amount, rather than quality, of improvement between different treatments, the conclusion should not be drawn from their findings that random assignment of clients to treatments is in order. Some differences that were found were that the use of pharmacological agents tended to be more effective than psychotherapy, but that a combination of both these approaches was superior to either taken separately; and, with regard to the matching of types of patient to types of treatment, there were suggestions that psychotherapy combined with an appropriate medical treatment was indicated for psychosomatic conditions, while behaviour therapy was the treatment of choice for circumscribed phobias, a conclusion also arrived at by Meltzoff and Kornreich (ibid.).

The reported general lack of superiority of behaviour therapy over psychotherapy is perhaps surprising in view of the claims made for it by many authors and Eysenck's (1960) exclusion of 'psychotherapeutic methods based on learning theory' from his conclusions on the ineffectiveness of psychotherapy. However, many of the studies of behaviour therapy outcome have used student volunteers as subjects, whereas only investigations of clinical populations were included in the Luborsky et al. (1975) review. This review also did not consider the treatment of habit disorders, an area in which behaviour therapists have reported success and where, on the basis of Eysenck's theories, spontaneous remission would not normally be expected. Eysenck and Beech (1971) 'agree that behaviour therapists have not done conspicuously better than psychotherapists or psychoanalysts

in demonstrating the clinical effectiveness of their methods, as compared to other methods or even to spontaneous remission', but they point out that behaviour therapists are often given very difficult clients to treat, that treatment is often relatively quick, so that its apparent effects are unlikely to be due to spontaneous remission, and that sequential improvement of symptoms during behaviour therapy can often be related to aspects of the course of treatment. There do appear to be indications of the superiority of behaviour therapy in the treatment of circumscribed complaints, most of the evidence being on the use of systematic desensitization and flooding with phobic disorders (e.g. Cooper et al., 1965; Gelder et al., 1967; Gelder and Marks, 1968; Marks, 1972), although Chesser (1976), in his review, feels that research findings also support the efficacy of electrical aversion with some sexual deviations, in vivo exposure and response prevention with compulsions, and token economies with chronic schizophrenics. There is also some evidence that behaviour therapy can be effective with a broader spectrum of clients than can psychotherapy (Sloane et al., 1975), but doubt exists as to whether the 'active ingredients' of such supposedly diverse treatments as these are, in fact, very different (Marmor, 1971; Ryan and Gizynski, 1971). Luborsky et al. (1975) point out that all the studies reviewed by them in which behaviour therapy was found to be superior were concerned with very brief therapies, so that the differences obtained may reflect more rapid initial gains with behaviour therapy. This itself could be due to the directive nature of the treatment, or to the fact that it tends to be structured as time-limited, there being some evidence of earlier improvement in time-limited therapies (Shlien et al. 1962). The deterioration effect has not been reported in behaviour therapy, but as Bergin and Suinn (ibid.) observe, neither has it been looked for; and there has been little support for those critics of behaviour therapy who have maintained that symptom substitution must result from a treatment which focuses on the symptom without concerning itself with the supposed underlying psychopathology.

The research literature on group psychotherapy contains a preponderance of poorly-controlled studies of hospitalised schizophrenics given a variety of group treatments which often bear little relation to psychotherapy in its strict sense. Parloff (1967) chooses to interpret the general inadequacy of the research as a means of withholding evidence as to the effectiveness or otherwise of group psychotherapy from its critics, while Psathas (1967) despairs of ever being able to carry out adequate studies of the therapeutic process in real treatment groups and instead advocates the investigation of therapy analogue situations or even of computer simulations of therapy. There have been some reasonably well designed studies, however, and reviewing those that compare individual and group psychotherapy, Luborsky et al. (1975) observe that these two treatments are generally found to be equally effective. Bednar and Lawlis (1971) are more optimistic, and conclude from their review that there is evidence for the effectiveness of group psychotherapy, particularly with neurotic clients, but also for deterioration effects during group therapy, and that follow-up studies suggest that there is likely to be considerable dissipation of improvement in the first six months after termination of treatment. They also note that preparation of clients for therapy facilitates improvement, and pre-therapy preparation for group psychotherapy is also advocated by Malan et al. (1976), who found no significant difference in the outcome of those clients who stayed for less than six months in treatment at the Tavistock Clinic and those who stayed for over two years, but also

found a strong relationship between positive outcome and previous individual psychotherapy. The results of these latter workers, casting doubts on the usefulness of the psychoanalytic approach in the group setting, may be considered particularly disappointing as individualised outcome criteria were used and the study is therefore free of some of the criticisms of Lewis and McCants (1973), who feel that 'disappointing results are inevitable from research in group psychotherapy which defines patient problems, the process of individual change, and the outcome of treatment in disparate units of measurement and ignores the necessity for idographic diagnostic and outcome measures'.

Outcome Variables: Many studies of the effectiveness of psychotherapy and behaviour therapy have employed multiple outcome criteria, but it has commonly been found that consistency is lacking in the results obtained on the basis of different criteria, and that predictors of change on one measure may not predict change on another. Similarly, factor analysis of the results tends to yield factors associated more with the methods of measurement used than with any higher-order conceptual variables (Gibson et al., 1955; Nichols and Beck, 1960; Forsyth and Fairweather, 1961; Cartwright et al., 1963; Fiske et al., 1964; Shore et al., 1965). Bergin (1971) summarises the factors most commonly obtained as: '(a) client self-evaluation, (b) therapist evaluation, (c) TAT or other fantasy evaluation, (d) indices of concrete overt behaviours, and (e) a miscellany of factors associated with specific instruments ...'. He concludes that 'divergent processes are occurring in therapeutic change, that people themselves embody divergent dimensions or phenomena, and that divergent methods of criterion measurement must be used to match the divergency in human beings and in the change processes that occur within them.' In particular, he recommends the inclusion in outcome studies of measures tapping both the domain of external behaviour and that of subjective experience, Truax and Carkhuff (ibid.) having pointed out that conflicting research findings may be due to an invalid assumption of the equivalence of these two types of measures.

Bergin goes on to attempt an evaluation of commonly used outcome measures. He concludes:-

> that standardised interviews are useful, although they may be subject to interviewer bias;
>
> that some scales from the M.M.P.I. have consistently been shown to be valid indices of change;
>
> that behavioural assessments have been generally found to have a high reliability and to be sensitive to therapeutic change;
>
> that self-concept measures, as well as client ratings of outcome, add little to other measures of subjective distress, such as the M.M.P.I.;
>
> that certain scores from tests such as the T.A.T. are valid in certain conditions, but that the Rorschach does not appear to be useful as a change measure;
>
> that therapist ratings appear to measure an independent change factor;
>
> that peer ratings may be of some value;
>
> that amongst the factor-analytic test batteries the neuroticism and anxiety scores from the Eysenck Personality Inventory and Cattell's tests are particularly useful and sensitive to change;

that mood scales are reliable and may be particularly useful in assessing placebo-related effects;

that measures of self-regulation tap a dimension of change which is particularly relevant to the newer therapies.

He speaks highly of client checklists and of the Personal Orientation Inventory (Shostrom, 1963), a measure of values which appears to tap a dimension independent of those measured by other scales. He does not include psychophysiological measures, which clearly have the advantage of objectivity and have been found to be useful by behaviour therapists (e.g. Lader and Wing, 1966). Meltzoff and Kornreich (ibid.) have assessed the frequency of use of different outcome measures in adequately designed studies, and have found that by far the most frequently used criterion is observed behaviour, while therapist and client ratings of outcome have not been used in any study which they consider adequate. The lack of consistency between ratings of outcome by clients, therapists and independent observers has been noted in many studies (Feifel and Eells, 1963; Kiesler et al., 1967; Garfield et al., 1971; Cabral and Paton, 1975), as has the tendency for such ratings to be influenced more by post-treatment level than by amount of change (Mintz, 1972).

Many researchers (e.g. Lieberman et al., 1973) have taken note of the multifactorial nature of therapeutic change and have attempted to tap as many outcome variables as possible in their studies. There is clearly a limit to the number of measures which can practicably be employed in one study, and it would seem that choice of measures should be dictated by their relevance to the area of therapeutic concern. However, as Malan (1973) points out, this has often not been the case: he and his colleagues have used individualised psychodynamically oriented criteria of improvement, which they have found to bear little relation to 'external' criteria (Malan et al., 1968, 1975; Malan, 1975). It is also not necessarily the case that measures found to be useful in assessing the effectiveness of one form of therapy will be pertinent to another, although this has often been assumed to be so, and thus Yalom (ibid.) questions the general use, in studies of group psychotherapy, of instruments designed to measure individual therapy outcome.

In his review, Bergin also advocates the tailoring of outcome criteria to the individual client rather than, as in many studies, assuming that change on a particular dimension is necessarily an indication of positive outcome for every client. As well as therapeutic change not being unidimensional for all clients, it is also, as mentioned above, not unidirectional. Jewell has found that, while in many cases anxiety reduction is the therapeutic aim, in most cases judges consider that no change in anxiety level is required, and in others an increase in anxiety is considered desirable; and, similarly, that reduction in defensiveness is in the majority of cases not regarded as a positive therapeutic outcome (Volsky et al., 1965). Chassan (1967) makes a similar point with regard to hostility, an increase in which in clients who have tended to repress hostile feelings might be considered an indication of increasing emotional adjustment. Other workers have suggested that, while an increase in self-esteem would be considered positive in clients whose self-esteem is initially low, the reverse is true for those clients with initial defensive high self-esteem (Silber and Tippett, 1965; Binder et al., 1974; Rios-Garcia and Cook, 1975). A related point is that those clients who become more aware of, or willing to admit to, their inadequacies might for this reason show apparent deterioration on some outcome measures (Rogers, 1963; Mintz, 1965).

It is apparent, therefore, that many of those studies which are considered to show therapy to be ineffective or harmful may fail to sample a sufficient range of dimensions of change, and in particular may not employ criteria relevant to the goals of the therapy concerned or to the unique needs of each client.

Research Design: The rejection of uniformity myths leads to a research design based on the 'grid model' (Kiesler, 1969, 1971), in which change on particular dimensions of homogeneous groups of clients exposed to particular therapist behaviours is considered. As Kiesler points out, such factorial designs, allowing analysis of interaction effects, represent a combination of 'naturalistic' studies, with their emphasis on correlational data but inability to elucidate causation, and 'generalist-manipulative' studies, with their ability to demonstrate the direction of causation but in situations which only approximate to real life. Kiesler also favours the development of single-case methodologies (Davidson and Costello, 1969), which, as Bergin and Suinn (ibid.) observe, exemplify a trend, particularly apparent in the behaviour therapy literature, towards research which, while remaining objective, is close to the clinical phenomena, one such method being the use of Shapiro's (1961) Personal Questionnaire and related techniques (Phillips, 1977) to monitor changes in a client's complaints. While generalisations from single cases should be made with caution, if at all, they may be more likely than averaged group data to provide some understanding of the complex processes of psychotherapy.

Process and Outcome: A distinction commonly made in attempting to impose some order on the research literature on psychotherapy is that between studies of treatment process and those of treatment outcome, but it can be considered one of convenience, which is basically artificial. A number of workers have emphasised the necessity of relating aspects of the therapeutic process to outcome (e.g. Lewis and McCants, ibid.), and Kiesler (1971) points out that the traditional use of pre-post measurement designs in outcome studies, as well as demanding very high reliability of the measuring instruments employed, can obscure the fact that change may be curvilinear, and that changes in the client's behaviour during therapy can legitimately be regarded as an aspect of treatment outcome. He therefore advocates the use of designs which employ serial assessments both during and after therapy, although a problem with repeated measurements is the considerable drop in test-retest reliability of any measuring instrument with each successive administration (Bednar and Lawlis, ibid.).

The claims of behaviour therapists that their methods are firmly rooted in experimental psychology have perhaps led to more concern with treatment process in behaviour therapy than in the other psychological therapies. This concern is exemplified by the plethora of studies (reviewed in Meyer and Chesser, 1970 and Bergin and Suinn, ibid.) attempting to identify the active ingredients of systematic desensitization, which, despite conflicting results, have generally demonstrated the superiority of a combination of relaxation and gradual presentation of phobic stimuli to either component alone; and to elucidate the theoretical basis of this treatment and of flooding, the success of which has posed difficulties for Wolpe's (1958) theory of reciprocal inhibition. There has been no lack of studies relating treatment process to outcome in psychotherapy, however, one of the major research areas being that of therapist conditions, reviewed above. In brief individual psychotherapy, Malan (1973a, 1975) has related interpretations

linking aspects of the transference to the client's relationship with his parents, as well as the client's motivation during therapy and ability to stick to the interpretative theme, to treatment success. Finally, one of the most consistent findings in the literature on the process of group psychotherapy has been a relationship between group cohesiveness and positive outcome (Bednar and Lawlis, ibid.).

Experimental and Control Groups: It would seem self-evident that research on the psychological therapies should concern itself with those populations with whom the therapies are generally employed clinically, but in view of the practical and ethical problems of such research many studies have used volunteer student subjects with circumscribed problems of little relevance to real-life situations. Thus, there is a considerable experimental literature on the efficacy and mode of action of behaviour therapy techniques in the treatment of snake phobia in a non-psychiatric population (Lang and Lazovik, 1963; Lang et al., 1965; Garfield et al., 1967; Lomont and Edwards, 1967; Bandura et al., 1968; Davison, 1968; Hogan and Kirchner, 1968; O'Neill and Howell, 1969; Barlow et al., 1969; Leitenberg et al., 1969). Again, research on group methods with a 'captive population' of schizophrenic in-patients, which forms the body of reviews of the group psychotherapy literature such as Gundlach (1967), bears little relation to the practice of group psychotherapy with out-patient neurotic clients. Even when appropriate clinical populations have been studied, samples have often been heterogeneous, and their composition inadequately described. Also, their division into treatment successes and failures has often presented problems: for example, researchers differ as to whether or not they class premature terminators as treatment failures and include them in their analyses of treatment efficacy, although Rachman (ibid.) proposes that the exclusion of such clients from consideration can lead to artificially high treatment success rates. Thus, in psychoanalysis clients who do not appear to have responded to treatment are often considered to have had an incomplete analysis.

As indicated by Meltzoff and Kornreich(ibid.), a variety of different types of control groups have been employed in studies of the psychological therapies. Clearly the ideal control group would consist of untreated subjects with similar problems to those in the experimental group, but ethical considerations normally prevent such a group from being used. An alternative control group, used in many studies, consists of clients on the waiting list for therapy. However, often such subjects are not assessed for an equivalent period to those in the experimental group, they may constitute a selected group of those clients who are not in such urgent need of therapy as those accepted for immediate treatment, and they may have been subjected to a selection interview, perhaps with its own therapeutic effects. Another type of control group used in some studies, but one which is clearly biased, consists of those clients who reject or drop out of therapy, and whose motivation to change must therefore be questioned. Attention-placebo controls are favoured by many authors (e.g. Paul, 1967) and can help to isolate the active from the non-specific components of therapy. Other workers use as a control group clients in other forms of treatment than that under study, although there is a danger that those selected for psychotherapy, for example, may be initially better-adjusted and have a better prognosis than clients in the control group (Greer and Cawley, ibid.). Clients may be used as their own controls, particularly in process research in which various experimental manipulations are introduced, and an example of this type of design is the cross-over study, in which clients are transferred from one form of therapy to another and their progress monitored in both (e.g. Gelder and Marks, ibid.). However, in such

a design there is the possibility that change during the second period of therapy may be due to carry-over effects from the first, and if the first therapy has produced some positive effects there may be less 'room' for the second method to produce a comparable change: randomisation of order of presentation of treatments may overcome these problems to some extent. Finally, some researchers avoid practical and ethical problems by employing a control group composed of normal subjects, but few valid conclusions can be drawn from such studies, nor from those which neglect altogether to include a control group. When the members of the control group are initially less abnormal than those of the treated group, they may be considered to have less freedom to move than the latter subjects, and this situation of 'bounded variation' may account for some of the findings of variance change with therapy (May, ibid.).

There has also been relatively little concern over the selection of the therapists who carry out the treatments under study, and Bergin and Strupp (1972) point out that many of these are 'neophytes who often fail to merit the appellation 'therapist' '. However, Meltzoff and Kornreich (ibid.) consider the general lack of selection of the therapists in outcome studies as rendering findings of positive therapeutic results particularly impressive. In some studies (e.g. Ellis, 1957; Lazarus, 1961) the researcher has also acted as the therapist, but in view of possibilities of bias such research clearly has to be excluded from any evaluation of the literature. In comparative studies of different therapies, such as that by Ellis, it is not acceptable for each treatment to be carried out by the same therapist if the latter, by virtue of theoretical orientation or experience, is not equally committed to or competent in each approach.

General Methodological Adequacy: Numerous other inadequacies of research design in this area could be catalogued. Retrospective studies are subject to familiar criticisms, as are those which test a very large number of hypotheses on a small sample of subjects. Post-therapy follow-up of treated and/or control groups is often lacking or inadequate, and assessment in the follow-up period not as intensive as during therapy. It is therefore particularly unfortunate that a study such as that of the Menninger Foundation on psychoanalysis and psychoanalytically-oriented psychotherapy which has achieved a commendably long follow-up is so methodologically deficient in other regards (Kernberg, 1973). However, Meltzoff and Kornreich (ibid.), categorising research studies of psychotherapy into the adequate and the questionable, report that the quality of research has improved since 1960. Rachman (ibid.) had suggested the existence of an inverse relationship between rigour of research design and the obtaining of results favourable to psychotherapy, but Meltzoff and Kornreich and Bergin (1971) provide evidence to the contrary, while Luborsky et al. (1975) have demonstrated that such an inverse relationship does appear to obtain in the research literature on behaviour therapy, where it is generally the poorer studies that have provided the most favourable results.

The Present Study: An attempt has been made above to provide an overview of the general area under study and to indicate the more central issues arising from previous research. The present investigation addresses itself largely to one such issue, namely the problem of selection and development of appropriate measuring instruments to explore this area, and in particular the usefulness of repertory grid methodology in this regard. The view that there is uniformity in the

variables concerned is rejected, and the investigation therefore takes as its focus of study two forms of treatment, group psychotherapy and individual behaviour therapy, which might be thought to lie at opposite poles of such constructs as person-oriented - symptom-oriented, unstructured - structured, non-directive - directive, and group - individual, and to offer considerable diversity and a wide range of variation in the variables of treatment selection, process, and outcome which are pertinent to them.

CHAPTER TWO

Repertory Grid Studies: Personal Construing, Personal Problems, and the Psychological Therapies

It is apparent that the investigation of the complex issues of treatment selection, process, and outcome in the psychological therapies requires a measuring instrument which, while objective, is flexible, idiographic, and sensitive to those dimensions of personal change which it is assumed will be affected by therapy. It is the main contention of the present study that the repertory grid technique is able to fulfil these criteria. The repertory grid is, however, only one of a number of techniques, reviewed by Bannister and Mair (1968), which have been developed to assess an individual's semantic space and conceptual structure, and before detailed consideration is given to grid technique the use of other such measures in research pertinent to the psychological therapies will be discussed, partly because some of the indices used in this research, such as those relating to the self concept, are analogous to grid measures employed in the present study, and partly in order to point to some of the methodological advantages of grid technique.

Other Semantic Techniques: Other than research employing the repertory grid technique, studies exploring conceptual content and structure in psychological disturbance, and change in such features during therapy, have made use almost exclusively of two methods of measurement: the Q-sort (Stephenson, 1953; Butler and Haigh, 1954; Dymond, 1954) and the Semantic Differential (Osgood, Suci and Tannenbaum, 1957; Osgood, 1962). In the former technique, the subject is required to rate statements on a complex scale on the basis of the extent to which they apply to the concepts in which the experimenter is interested, while in the latter his task is to rate various concepts on 7-point, bipolar rating scales, which are normally selected to tap the three main semantic dimensions of evaluation, potency, and activity which have emerged from Osgood's factor-analytic studies.

The Q-Sort: In their review of research on psychotherapy, Meltzoff and Kornreich(ibid.) estimate that the Q-sort has been used as the outcome criterion measure in 10% of all studies of psychotherapy and in 13% of good quality studies. In the great majority of these studies, an index of self-ideal discrepancy derived from the Q-sort has been the focus of concern, but there have been many criticisms of this and other self-concept measures (Crowne and Stephens, 1961; Lowe, 1961; Wittenborn, 1961). Crowne and Stephens point to the relative lack of evidence as to the reliability of such measures, as well as to the often assumed but rarely tested correspondence between supposedly equivalent self-concept measures derived from different tests. They feel that major problems are the 'failure to construct tests in accord with principles of representative sampling' and that various studies (e.g. Kenny, 1956) suggest that such tests 'may better be interpreted as a measure of social desirability than of self-acceptance'. Levy (1956), finding a correlation between the discrepancy between actual and ideal selves and that between actual and ideal home towns, concludes that the former discrepancy should not be narrowly interpreted as a measure of self-esteem. It is also questionable to what extent this discrepancy is an index of poor psychological adjustment, for 'a high correlation between one's self-description and one's description of the ideal person is probably a better indication of Philistine self-satisfaction than of the success of therapy' (Loevinger and Ossario, 1959). Chodorkoff (1954) found that, while subjects rated

as well-adjusted showed high correspondence between their actual and ideal self concepts, the least adequately adjusted did not show the least correspondence; and Wylie (1961) remarks that the relationship between self-regard and severity of maladjustment tends to be curvilinear, with high self-regard indicating either good adjustment, denial of problems, or 'unsophisticated conventionality'. Wylie suggests that the major changes which might occur in the self-concept as a result of successful therapy are 'increased agreement between self-estimates and objective estimates of the self ..... increased congruence between self and ideal-self, if this congruence is very low at the outset of therapy ..... slightly decreased self-ideal congruence if this congruence is unwarrantedly high at the outset of therapy' and 'increased consistency among various aspects of the self-concept'. She feels that problems in the use of self-concept measures in evaluating therapy are the possibility of contamination between these measures and measures of improvement, and the fact that numerically equal changes in different ranges of the scale may not be psychologically equivalent.

There have been some attempts to provide an indication of the validity of the self-ideal Q-sort. Turner and Vanderlippe (1958) found self-ideal congruence on the Q-sort in students to be related to greater participation in extracurricular activities, high scholastic averages, high sociometric ratings by their fellows, and high adjustment scores on independent measures. Winkler and Myers (1963) intercorrelated the Q-sort with the Index of Adjustment and Values, also regarded as a measure of self-acceptance, and with various independent measures but found that self-acceptance did not emerge as an independent trait as response bias and anxiety accounted for over half the variance, and that the Taylor Manifest Anxiety Scale was more highly correlated with the two supposed measures of self-acceptance than they were with each other. Nahinsky (1966) administered a Q-sort to neurotic, psychotic, and normal subjects and found that, while the latter showed the lowest self-ideal self discrepancy, most of the variance between groups was accounted for by a 'generalized set transcending specific traits'.

With regard to reliability of self-concept measures, Wylie (ibid) has indicated that spontaneous changes may occur in self-ideal self discrepancy, and Tuddenham (1959) has found self-esteem to be one of the least stable of a number of personality attributes. Taylor (1955) showed that subjects who completed self and ideal self reports exhibited an increase in the correlation between self and ideal self, an increase in the consistency of the self-concept, and an increase in positive attitudes towards the self, all these being changes which would also be expected to occur during therapy. Changes in self-description on the Q-sort comparable to those occuring in successfully treated clients were also observed by Dymond (1955) in clients who showed spontaneous remission while on the waiting list for therapy. These findings, of course, emphasise the need for control groups in studies of changes in the self-concept during therapy.

The lack of a control group prevents any significance being attached to Sheerer's (1949) demonstration of increased acceptance and respect for self and others with successful therapy. Although a normal control group, together with waiting list clients as their own controls, were used in a study of client-centred therapy by Rogers and Dymond (1954), the normal controls cannot be considered comparable to the clients receiving therapy, and the waiting list control group can also be criticised as clients were not assigned to this group if they were felt to be in urgent need of therapy, and the waiting period was not comparable to the time spent by clients in therapy. Dymond (1954) reports that on the Q-sort there was an improvement in the treated subjects from the pre- to post-treatment assessment and this was maintained at follow-up, while there was no change in either control group, the normal controls being

much better adjusted before treatment in terms of their Q-sort scores, as well as their T.A.T. records (Dymond, 1954a). It was not possible to demonstrate corresponding changes in acceptance of and respect for others, or in maturity (Gordon and Cartwright, 1954; Rogers, 1954). The fact that 24% of the treated clients showed a decline in the correlation between self and ideal self between pre-treatment and follow-up assessments is used by Bergin (1971) as evidence for the deterioration effect in therapy, but as Rachman (ibid) points out, there was a similar decline in the control group and deterioration in the treated subjects was much less apparent at the end of treatment than at follow-up. Rudikoff (1954) investigated change in eight of the own-control subjects in this study, finding that there was a significant increase in the similarity of concepts of the self with both the ideal self and the ordinary person, these increases being greater during therapy than during the control period and being maintained at follow-up.

The Q-sort has been employed in several other studies of client-centred therapy, to which it is considered to be particularly applicable as one of the expressed aims of this form of treatment is increased congruence of self and ideal self (Rogers, 1963). An interesting study, in which predictions were made of changes in a client's Q-sort expected to result from client-centred therapy, was carried out by Nunnally (1955), who found that most of the predictions were confirmed. There was considerable change in the client's ideal self concept, but little in her actual self concept, during therapy and an increase in the congruence of her self-assessments in various situations. In addition, she came to see other people as viewing her in the same way as she viewed herself, with a particular and predicted modification of her conception of how her father saw her. Ends and Page (1957) compared client-centred group therapy with psychoanalytically-oriented group therapy, learning theory-oriented group therapy, and a social discussion control group in the treatment of alcoholics, and found greater reduction in the discrepancy between actual and ideal self concepts in the former two groups, the members of which were also rated as most improved at an 18-month follow-up. In a further study (Ends and Page, 1959), they compared alcoholics treated by client-centred group psychotherapy with untreated control clients, and found significantly greater improvement in the former group in terms of self-ideal Q-sort measures, although there was little difference between the groups in M.M.P.I. scores. The Q-sorts of the control group did show some improvement, and an additional control group retested after a two-week waiting period exhibited greater improvement in their Q-sorts than did the treated group, this being interpreted by the authors as the result of a 'flight into health', which is retarded by therapy. As Rachman (ibid) points out, however, no evidence is presented for the relative impermanence of the apparent increase in adjustment of the control group, and a further criticism of the study is that the members of the control group exhibited lower self-ideal self discrepancy than the members of the treated group prior to therapy and so might have been expected to have changed less.

Cartwright and Vogel (1960) compared changes in neurotic clients during matched periods of client-centred therapy and no therapy, and found greater change, regardless of direction, in Q-sort adjustment scores, but not in T.A.T. scores, during therapy than in the period before therapy. However, there was no difference in improvement, as opposed to change, in the subjects in these two periods, and length of the waiting period was unrelated to direction of change. More positive results were obtained in a study by Arbuckle and Boy (1961) of the effectiveness of client-centred therapy with students exhibiting behaviour problems. They compared matched groups of students receiving counselling along client-centred lines, students receiving detention but no counselling, and students receiving neither of these approaches,

and found a significant increase in self-ideal self correlations as measured by the Q-sort in the first group only, this group also showing corresponding improvement in behaviour ratings and educational and vocational objectives, as well as less rejection by peers and fewer disciplinary referrals in the 6-week follow-up period. In another study of delinquent adolescent boys, Feder (1962) found greater gains on a Therapeutic Readiness Q-sort in subjects undergoing group therapy for two months than in control group subjects, but there was no corresponding improvement in institutional adjustment and the validity of the Q-sort employed must be questioned.

There has been some research using the Q-sort in comparing the effectiveness of time-limited client-centred therapy with such therapy carried out on an unlimited time basis. Henry and Shlien (1958) found a significant increase in actual-ideal self congruence, maintained at 6- to 12-month follow-up, in clients assigned to both these groups, although therapist ratings, and frequency of drop-outs and of necessity for further contact with the clinic, suggested greater improvement in the time-limited group, while T.A.T. measures suggested greater improvement in the unlimited group. In a further study, Shlien et al. (1962) compared changes in self-ideal correlation in a time-limited client-centred therapy group, a time-unlimited client-centred therapy group, a time-limited Adlerian therapy group, a group of clients on a waiting list for 3 months, and a group of normal controls. They found no change in self-ideal correlation in the untreated subjects but increase in this correlation in the treated clients, with the correlation increasing faster and reaching a higher level in the time-limited therapy clients. However, it is not clear whether the test-retest periods of the groups were equivalent and, as previously discussed, a normal control group is unacceptable. Tomlinson and Hart (1962) also carried out a study of the therapeutic process in client-centred therapy, using self-concept Q-sorts in the validation of the Process Scale and finding higher process scores in the more therapeutically successful clients.

Truax and his colleagues have made use of the Q-sort in the evaluation of client-centred therapy. In one study (Truax et al., 1966) they compared delinquent girls receiving group psychotherapy with girls in the same institution not undergoing therapy, and found that changes in self and ideal self concepts on the Q-sort favoured the treated group, as did changes in the need for institutional care and in other measures. In a later study (Truax et al., 1968) they used the Q-sort and various personality tests to explore change in client-centred group therapy with samples of hospitalised clients, out-patient neurotics, and institutionalised delinquents. They found an inverse relationship between congruence of actual and ideal selves on the Q-sort and measures of anxiety and inadequate adjustment, even when social desirability was partialled out; a positive relationship between increase in actual-ideal self congruence and successful therapeutic outcome; and that, in all except the hospitalised clients, change in actual-ideal self congruence was correlated more highly with change in the actual self concept than with change in the ideal self concept. This latter result confirmed earlier findings of greater change in the actual than in the ideal self concept during therapy (Aidman, 1951; Bowman, 1951; Butler and Haigh, ibid; Ewing, 1954), although Bowman, who used a rating scale rather than a Q-sort in his study, points out that subjective relief may be obtained by the client during therapy by shifting his ideal self or proper self ('what I ought to be') concepts with no change in his concept of his current self. Truax et al. suggest that in those studies which have failed to show an increase in the congruence of actual and ideal selves during therapy, the therapy has not been effective. As discussed previously, they feel that necessary conditions for effective therapy are those of empathy, warmth, and genuineness, and a study of group therapy using the Q-sort and other measures showed that high levels of these variables in the group and as offered by the therapist were predictive of positive therapeutic outcome (Truax et al., 1965).

Other studies have used the Q-sort in the evaluation of therapy with psychotic clients. Satz and Baroff (1962) found that, while there was some increase in self-ideal correlation in subjects receiving neither client-centred therapy nor occupational therapy, this was not the case in subjects receiving both these treatments or occupational therapy alone. Fairweather and his colleagues (Fairweather et al., 1960; Fairweather and Simon, 1963) employed the Q-sort together with other techniques in comparing the response of psychotic and neurotic clients to group psychotherapy with individual work assignments, group psychotherapy and group work assignments, individual psychotherapy with individual work assignments, and a control condition, finding positive changes in the short-stay clients, but negative Q-sort changes in the long-stay psychotics in the three treatment conditions. There was some evidence for differential effectiveness of the treatments, group psychotherapy appearing preferable for nonpsychotic and individual psychotherapy for psychotic clients, but treatment effects had largely dissipated by the 18-month follow-up, although previous group psychotherapy was related to post-discharge adjustment. Dreiblatt and Weatherley (1965) attempted to evaluate the effectiveness of brief-contact non-directive therapy with mixed psychiatric in-patients, in whom they found greater increases in self-esteem, as measured by Hilden's Random Sets of Personal Concepts, than in a control group, such increases, as well as decreases in anxiety, being greater in a group receiving six therapy contacts a week than in one receiving three contacts a week. In a further study, they investigated the content of the therapeutic contacts and found that subjects receiving non-symptom-oriented contacts showed significantly more improvement than an uncontacted control group on a self-esteem Q-sort, on a Q-sort comparing self-sort to a normal standard, and on several measures excluding number of symptoms; and more improvement in self-esteem, length of hospitalisation, and self-concept adjustment than a group contacted for a guessing task; while a group receiving symptom-oriented contacts did not differ from the control groups.

There have also been studies using the Q-sort of change in psychoanalytically-oriented therapy, and Hollon and Zolik (1962) demonstrated a decrease in self-ideal discrepancy, as well as in complaints on the Mooney Problem Check List, in clients treated in this way, while such changes were not apparent in normal controls. Other workers have focused upon such factors in the therapeutic relationship as transference and countertransference, assessing therapists as well as clients. Fiedler has carried out a considerable amount of research in this area, and in his early studies (Fiedler, 1950 , 1950a) he defined the ideal therapeutic relationship on the basis of Q-sorts of expert therapists describing client-therapist relationships and found evidence that ability to describe the concept is more a function of expertise than theoretical orientation, as is ability to create such a relationship with the client, but that the concept could be described as well by naive raters as by therapists. However, these studies were methodologically unsound, and Belar and Altrocchi (1961), in a more well-designed study, have found evidence that changes in the concept of the ideal psychiatric nurse were not a result of age or general life experience, but that agreement regarding the concept increased with therapeutic experience, while a corresponding increase did not occur in the concept of the ideal female high school teacher. Therapists also differ in the factors which they consider to be important in assessing gain in their clients, and Peterson et al. (1958) have employed a Q-sort to study such therapeutic biases, while Eels (1964) similarly assessed differences amongst professional groups in their preferences for particular types of psychotherapy clients,

finding such differences to be small. In his later research, Fiedler (1951) devised a Q-sort measure of negative countertransference, which he found to be greater in less competent therapists, and Fiedler and Senior (1952) administered Q-sorts to the members of therapist-client pairs, finding that therapists rated as more competent were better able to predict the self-sorts of their clients, and were also less self-satisfied, while their clients tended to see them less as ego ideals. Other findings, all of which are only given the status of hypotheses by the authors in view of the small sample size and lack of adequate controls, were that therapists who empathised less with their clients tended to be more similar to the clients' ideals, and such therapists were seen by their clients as less maladjusted, while clients who resembled their therapists' ideals tended to see their therapists as empathising with them. A reliable Q-sort measure of transference and resistance has also been developed by Rawn (1958), and Subotnik (1966 , 1966a) has used Q-sorts carried out by psychologists of inferred attitudes of children in play therapy, and of the therapist's description of attitudes towards him, in exploring transference in children, finding evidence that the therapist is seen as a parent, although not necessarily of the same sex. Parloff (1956) made use of the Fiedler Ideal Therapeutic Relationship Q-sort in a study in which he found that a therapist rated as achieving better social relationships also established better therapeutic relationships than did a less socially adept therapist, while a better relationship tended to be created with the client if the latter was seen by the therapist as resembling his concept of the ideal client. An increase in the congruence of clients' self-concepts, as assessed by Q-sorts, with those of their own therapists, as distinct from therapists as a class, was not found by Farson (1961), and indeed such increase in congruence was least likely to occur in those client-therapist pairs in which the therapist was judged as most competent by his colleagues. However, the therapists were not re-assessed, and the authors' assumption of constancy in their self-concepts may not be justified. Apfelbaum (1958) classified clients' pre-treatment expectations of their therapists, on the basis of Q-sort assessments, into those of the therapist as giving nurturance, the therapist as being a model, and the therapist as a critic, finding that these transference expectations showed considerable stability on post-therapy testing.

The Semantic Differential: The literature on the use of the semantic differential in the investigation of psychological disorders and psychological therapies is less extensive than that on the Q-sort. A number of studies have demonstrated a relationship between extreme response style on the semantic differential and psychopathology (e.g. Neuringer, 1961, 1963; Iwawaki and Zax, 1969; Parsonson, 1969), and Arthur (1966) found more extreme responding in psychotic than in neurotic clients, but there are conflicting findings in this area (e.g. Luria, 1959). One of the earliest studies to focus more on the content of semantic differential responses was carried out by Osgood and Luria (1954) on a woman with multiple personality, whose semantic space was found to be dependent upon the particular personality which was in control of her. Some studies, following Osgood et al. (1957), have examined differences in the self-concepts of clients and those of normal subjects, and Marks (1965) found that psychopaths and obsessional clients saw themselves as less good than normals saw themselves, and that the former group of clients saw themselves as less safe while the latter saw themselves as less strong. Deitz (1969) demonstrated that, while delinquents did not have lower self-concepts than non-delinquents, or rate themselves as lower as seen by their parents, they did identify less closely with their parents, and particularly their fathers, displayed higher self-ideal discrepancies, and felt less understood by their

parents. Guidano et al. (1971) found a more negative self-concept and greater self-ideal discrepancy in neurotic out-patients than in normal controls, and Bond and Lader (1976) obtained similar results in comparing clients suffering from anxiety states with normal subjects. The latter authors also found that clients and controls shared a similar ideal self concept, and that while the clients saw themselves without symptoms as similar to the self-concepts of normal subjects, the self without symptoms was still evaluated more negatively than the ideal self. The clients also evaluated treatment more positively than did the normal subjects, and there were indications that this was part of a general attitude of seeing other things and other people more positively. Gordon and Groth (1967) compared hospitalised clients who were felt to want to stay in hospital with those who wanted to leave and found that, while the semantic differential revealed little difference in the attitudes to hospital of these groups, the former clients evaluated their homes and neighbours more negatively.

There has been some research demonstrating the importance of change in self-concept, assessed by the semantic differential, as a feature of successful individual (Endler, 1961) and group (Luria, 1959) psychotherapy, while Tolor and Kissinger (1965) examined changes in semantic differential concepts of the client and his 'therapist' in simulated therapy situations. As discussed previously, Bednar and Mobley (1971) examined therapists' perceptions of their schizophrenic and neurotic clients with the semantic differential, but found little difference between A and B therapists.

The semantic differential has also been used in research on behaviour therapy. Marks and Gelder (1967) examined changes in transvestites and fetishists during aversion therapy, finding that, while all clients prior to therapy exhibited positive attitudes, as assessed by the semantic differential, towards the objects of their deviation, intercourse, the self, parents, and doctors, and these attitudes remained stable while on the waiting list in all but one client, attitudes concerning the sexual deviation became selectively devalued during therapy, in contrast to those towards the family, which remained stable, and those towards the self and sexual intercourse, which fluctuated. Attitude change corresponded with change in deviant imagery and clinical assessments, and autonomic responses changed in the same direction as attitudes but at different speeds, with attitude change preceding change in erectile response to the deviant object, whether during periods of successful therapy or partial relapse. Matthews et al. (1974) were concerned with selection of clients for flooding or desensitization, and they found no evidence that therapeutic response could be predicted by semantic differential self-ratings of dissatisfaction with the self and depression, or by scores on the Eysenck Personality Inventory and Cattell 16 P.F. Questionnaire. Hafner has carried out research on the behavioural treatment of agoraphobics, using as one of his measures a semantic differential providing indices of dissatisfaction with the self and with the spouse, and being particularly concerned with the influence of the husbands of agoraphobic women on their wives' therapeutic outcome. In his original study (Hafner, 1976) clients were assessed before treatment and at intervals up to one year post-treatment, and the group which showed the least fresh symptom emergence after treatment, and also improved significantly in their scores on the Middlesex Hospital Questionnaire, Fear Survey Schedule, and ratings of the two most treated phobias, showed a significant decrease in self-dissatisfaction, but not in spouse-dissatisfaction, scores on the semantic differential. By contrast, a group which

showed a moderate to large amount of fresh symptom emergence, seemingly as a result of the therapy, only showed significant improvement on the phobia ratings, and showed significantly less decrease in self-dissatisfaction than the first group, as well as an increase in spouse-dissatisfaction. In a further study (Häfner, 1977) the husbands of agoraphobics were also tested, and were found to be less dissatisfied with themselves and with their wives than their wives were with themselves, while husbands' self-satisfaction was related to satisfaction with their wives and to their wives' satisfaction with them. Self-dissatisfaction in either partner was associated with that partner obtaining high total Hostility scores on the Hostility and Direction of Hostility Questionnaire and high scores on the Middlesex Hospital Questionnaire, but wives' self-dissatisfaction was negatively correlated with their husbands' hostility. This latter finding suggested that some husbands might show resistance to their wives' symptomatic improvement, and in a final study (Hafner, 1977a) both agoraphobic women and their husbands were followed up after the wives' treatment. Clients were found to show a steady fall in self-dissatisfaction, while the husbands of the most hostile clients showed a significant increase in self-dissatisfaction and in M.H.Q.scores at three-month follow-up and only the husbands of the least hostile women showed decrease in dissatisfaction with the spouse. Partial relapse in the more hostile women appeared to correspond with recovery in their husbands' questionnaire responses.

A certain amount of work has been carried out employing the semantic differential in a therapeutic community setting. Talbot et al. (1961) found that both clients and staff differentiated three categories of social positions: 'usual adult' positions, which corresponded most closely to the self-ratings of staff members and of successful clients; positions unique for the hospital studied, which were seen as being similar to adolescents and children on a responsibility dimension, and which corresponded to neurotics' self-ratings; and positions related to being a mental patient, seen as similar to a baby on the responsibility dimension, and which corresponded to psychotics' self-ratings and those of unsuccessful clients. Kennard (1974) has used the semantic differential to investigate the self-perceptions of hospitalised clients, and the way in which they are perceived by others involved in events leading to admission, finding that while there was agreement between clients and those closest to them in their perceptions of their ideal selves and of mentally ill people, their perceptions of the client tended to differ, particularly on a dimension of social disturbance, clients seeing themselves as less ill, less disturbed, and more able to communicate. These perceptions were further explored in a study examining response to treatment in a therapeutic community setting (Kennard and Clemmey, 1976), and it was found that while, as a group, the clients saw themselves more positively and as closer to their ideal selves at discharge than at admission, with those closest to them showing similar changes in their evaluation of the clients, evaluation of the client by himself and others tended to move in the opposite direction to its position at admission. Self-perceptions of the clients and perceptions of them by their 'closest others' were generally more consistent at discharge than at admission, and decrease in consistency of the client's self-perception during treatment was associated with the adoption of a more negative self-image. Congruence between the client's self-perception and perception of him by his closest other increased significantly during treatment, this representing more a change in the other person's perception than in that of the client. In terms of diagnostic categories, those clients who changed during treatment from a positive to a more negative self-image tended to be schizophrenic, while those who had been admitted compulsorily, all of whom were schizophrenic or paranoid, tended to have an initially negative self-concept and to show more positive change than any other group. There was no significant change in the ideal selves of clients or their closest others, nor, contrary to expectations, in their perceptions of most mentally ill people, who were seen very negatively throughout treatment.

Interpersonal Perception Measures: A number of studies have employed other procedures which allow comparison of conceptions of the other and of the other's construing with conceptions of the self, and which are therefore appropriate for the exploration of such areas as interpersonal conflict and empathy. They should be mentioned here as they bear some relationship to repertory grid technique, and to the construct theory view of role relationships.

Some workers have developed entirely new measuring instruments, and thus Scott and his colleagues have used their Relationship Test to examine the relationship between the conceptions of themselves held by schizophrenics and their parents, and their conceptions of their family members' views of them, these conceptions being assessed by asking the subject to select adjectives from a standard list (Scott and Ashworth, 1965; Scott et al., 1970; Scott, 1973). They found that, while schizophrenics and their parents saw the schizophrenic as ill, and the parents saw themselves as well and expected to be seen as such, hospital-centred schizophrenics, in contrast to community-centred schizophrenics, saw their parents as disturbed, this violation of parental expectations apparently militating against their successful discharge from hospital. The schizophrenics showed greater ability to perceive the conception of them held by their parents than did the parents in attempting to perceive their schizophrenic children's view of them, the parents believing that they were perceived in the same way as they perceived themselves: the schizophrenics were therefore more in touch with reality than their parents as far as issues in their mutual relationships were concerned. Scott and Ashworth (1969) have also reported demonstrating projections from the parents to the schizophrenic of the 'shadow' of a mad ancestor. Laing et al. (1966), asking the members of a dyad to rate statements, have developed a similar procedure and extended it to the meta-meta-level (how Person A in the dyad thinks that Person B thinks that Person A completed the ratings): they found that there were fewer disjunctions in interpersonal perception in non-disturbed than in disturbed marriages. The general lack of research literature on this Interpersonal Perception Method, however, is perhaps a reflection of its complexity.

Others have used a standard test as 'a portable construct system, through which the subjects can view themselves in relation to each other' (Bannister and Mair, ibid.). Thus, Drewery and Rae (1969), feeling that the Interpersonal Perception Method and the repertory grid technique are unnecessarily complex, have merely asked husbands and wives to complete a personality questionnaire, the Edwards Personal Preference Schedule, from the perspectives of 'myself as I am', 'my spouse as I see him/her', and 'myself as I think my spouse sees me', and found that the major difference between the marriages of alcoholic men and those of controls was in the tendency in the former marriages for there to be a discrepancy between the husband's self-description and the wife's perception of him, seemingly related to the husband's conflicts regarding masculinity and independence, which he deals with by denial and projection. Somewhat similar approaches have been employed by Mitchell (1959) and Orford (1976), who found a discrepancy between husbands' and wives' descriptions of the wives' level of dominance in the marriages of alcoholic men; by Corsini (1956) and Luckey (1960), who related marital satisfaction to congruence between the husband's self-description and the wife's perception of him, with the degree of the husband's conformity to a stereotype of masculinity being particularly important; and by Winter (unpub.), who found a correlation of 0.97 between a therapist's ratings of the empathy of members of his marital group and the degree to which each was able to predict the other group members' responses to a personality questionnaire.

Conclusions: The most consistent finding to emerge from the studies reviewed above is that aspects of the self concept and the concept of the other have been meaningfully related to psychological disturbance and to process and outcome in the psychological therapies. However, this research has not been characterised by methodological adequacy, and Wylie (ibid.) commented on her review of research on the self concept that 'nothing can be concluded from these studies concerning the role of therapy in causing the reported changes'. The majority of the studies concern measures of self-esteem, but Kellner (1967) remarks that self-acceptance is not by itself an adequate criterion of improvement as changes in it have not always been found to accompany independently demonstrated therapeutic changes. Despite these criticisms, it is felt that the studies reviewed, at the very least, provide indications of measures which may be usefully employed in future research on the psychotherapies, and the present study in part examines the relationship between changes during therapy in measures of self-esteem and other aspects of the self concept derived from the repertory grid and changes in independent measures.

In their critique of several non-grid measures of conceptual structure and of concepts of certain elements, Bannister and Mair (ibid.) remark on the tendency for ad hoc methods of analysis, with little theoretical basis, and the facts that most methods do not allow examination of the relationship between dimensions of meaning in addition to the relative placement of different concepts on these dimensions, although, as will be argued below, it is in such relationships that the more fundamental aspects of a client's predicament may be most clearly revealed. Bannister and Mair also note that these methods tend to supply the dimensions to the subject rather than eliciting them from him. In relation to the semantic differential, it is pointed out that Osgood's three dimensions of meaning account for only about 50% of the response variance, a finding which is doubtless related to the fact that the semantic differential is not a measure of personal meaning, in that an assumption of the generality of three specific orthogonal dimensions of meaning is imposed upon the subject, with little attention given to the subject's own meaning system or to the possibility that the dimensions supplied may not be applicable to the concepts under study for that particular individual. Further consideration of this latter point is given in the section below on the validity of the repertory grid technique. With the Q-sort, an additional imposition on the subject is of a rating scale which ensures the same form of distribution of ratings in each study, and which Slater (1977) regards as 'unnecessarily rigid and artificial'. The repertory grid technique is not considered to be subject to these criticisms, as will be indicated in the following review.

The Repertory Grid: The repertory grid technique is an extension of Kelly's (1955) Role Construct Repertory Test, derived from his theory of personal constructs. This theory asserts that each individual employs a unique, hierarchically organised system of personal constructs in order to make sense of his experiences, to anticipate events, and to act accordingly, modifying his construct system if events do not confirm the predictions derived from it. A construct can, for simplicity, be regarded as a bipolar concept which allows discrimination between certain elements in the person's world but 'is convenient for the anticipation of a finite range of events only'. The range of events to which a construct is potentially applicable is termed its range of convenience, while those events to which it is maximally applicable constitute its focus of convenience, and Kelly refers to the readiness of a construct to embrace new elements as its permeability. Some constructs pre-empt their elements for exclusive membership in their

own realms and these Kelly termed preemptive constructs; some, termed constellatory constructs, fix the membership of their elements in realms other than their own; and some, propositional constructs, do not carry implications for the membership of their elements in other realms. Constructs can also be categorised in terms of their hierarchical structure, so that a superordinate construct is one which includes another, referred to as a subordinate construct, as an element in its context; or in terms of their importance to the individual's identity, core constructs being those which govern a person's maintenance processes, while peripheral constructs can be altered without greatly modifying the core structure. Another important distinction is that between tight constructs, which lead to unvarying predictions, and loose constructs, which lead to varying predictions while retaining their identity. By construing constructs in this way and regarding construct systems as being in a state of transition, Kelly was able to define conventional emotional categories, and behaviour associated with emotion, in construct theory terms. Thus: anxiety 'is the awareness that the events with which a man is confronted lie mostly outside the range of convenience of his onstruct system'; threat 'is the awareness of an imminent comprehensive change in one's core structures'; fear 'is the awareness of an imminent incidental change in one's core structures'; guilt 'is the awareness of dislodgement of the self from one's core role structure'; aggression 'is the active elaboration of one's perceptual field'; and hostility 'is the continued effort to extort validational evidence in favour of a type of social prediction which has already been recognized as a failure'. This construct theory taxonomy of emotional states has recently been extended by McCoy (1977)

As construing is seen as both an individual and an active process a method of measurement which provides an assessment of a person's construing will by definition allow investigation of personal change. Kelly saw his role construct repertory test (Rep Test) as being 'more objective because it is more projective', measuring the subject's own yardsticks rather than using the experimenter's yardsticks to measure the subject. In the minimum context form of this test, the subject is provided with a set of role titles assumed to represent significant figures in his life, and asked to supply the name of a person to fit each role. Three of these people, or elements, are then chosen and the subject is asked to say in what important way two of them are alike and in what way the third differs from these two, so that there is elicitation of a construct's likeness pole and contrast pole respectively. This procedure is repeated with different triads of elements until a sufficiently large sample of the subject's personal constructs has been elicited. In the grid form of the test all the elements are then sorted in terms of all the constructs, one of the most commonly used methods being to ask the subject to give each element a rating on each construct. While the Rep Test provides an indication of such features of the subject's construct system as its content and diversity, and the way in which various elements are construed, the grid form in addition allows investigation of the relationships between a subject's constructs, the relationships between elements, and analyses of the interrelationships between constructs and elements. Many variations of the original form of grid test have been employed (Bannister and Mair, ibid.) and many methods of analysis used, some of the most refined of these being the computer programmes developed by Slater for principal component analysis of

individual grids, and comparative analyses of grids in pairs or in groups (Chetwynd, 1973.) Fransella and Bannister (1977) point to the dangers in the increasing level of abstraction of measures derived from grids and the false air of precision which might result from the use of computer methods of analysis, and which might lead to lack of consideration of such issues as the relationship between levels of statistical significance and their psychological significance. They also express concern about the use of grids for grids' sake and the tendency of many researchers to divorce the repertory grid from the theory from which it is derived.

In practice, the statistical relationships between constructs and elements derived from the grid are generally assumed to indicate psychological relationships for the subject, and as these may be relationships of which the subject is unaware, they may reflect his unconscious processes. It is necessary, however, to examine the extent to which such assumptions are justified.

Reliability and Validity: Kelly rather scoffed at the traditional requirements of respectability in a psychological test, reportedly defining reliability as 'that characteristic of a test which makes it insensitive to change' and validity as 'the capacity of a test to tell us what we already know' (Bannister and Mair, ibid.) However, in using a test to monitor the therapeutic process and to provide an indication of outcome, it is essential to know that any changes observed are not likely to merely reflect the 'error variance' of the measuring instrument employed, and that what is being measured does bear a relation to the investigator's conception of psychological adjustment.

Reliability: As there is no standard form of the repertory grid, it is, of course, not possible to make any generalised statement about the reliability of the grid. Bannister and Mair (ibid.) remark that on those occasions when an investigator wishes to know the reliability of the grid which he is using in a particular situation, 'it will have to be specifically assessed as part of the experimental venture', and this procedure has been followed in several studies (e.g. May, 1968; Watson et al., 1976.) Also, as Slater (1965, 1974) points out, the common methods of assessing the reliability and significance of a psychometric technique were designed with nomothetic tests in mind and, as such, are inapplicable to the repertory grid except when grids constructed for general use are considered.

Stability of Grid Indices: However, Sperlinger (1976) points out that if grids do elicit significant features of an individual's construing, then grids completed by the same individual at different times should show some stability, and several studies have examined the stability of particular measures derived from particular forms of grid technique in particular situations, Bonarius (1965) reviewing a number of grid studies which have shown test-retest correlations in the region of 0.8. The degree of stability in the content and number of the constructs and elements elicited at different times has been the focus of concern of some research, and Hunt (1951) has demonstrated stability in the content of constructs elicited from normal subjects and psychologically disturbed clients on two occasions of testing, a week apart, despite the fact that different elements were used in the two elicitations; while Fjeld and Landfield (1961) obtained similar results with normal subjects over a two-week interval, regardless of whether or not new elements were used at

the second elicitation. Sperlinger (ibid.), using Landfield's (1971) system of construct categorisation, found a significant correlation between the rank orders of content categories of constructs elicited on two testing sessions, separated by an average interval of 7.7 months, with a group of non-psychiatric patients, the only significant change being an increase in the number of constructs concerning morality. By contrast, Mitsos (1958) did find a change in the method of element elicitation from using Kelly's list of role titles to simply asking for a sample of friends to significantly increase the number of new constructs elicited at a testing session three months after the first, when compared with the use of the role title list on both occasions of testing. Another variation on the construct elicitation procedure is to ask the subject for the opposite of the likeness pole of the construct, rather than asking in what way the third element differs from the two described by the likeness pole, and Eptin et al. (1971) found that a greater number of bipolar constructs was produced when the former method was used. In similar fashion, stability in element production has been investigated: Pederson (1958), using the same role title list in two elicitation sessions a week apart, and Fjeld and Landfield (ibid.), using a role title list at the first session but not at the second, two weeks later, found a degree of element stability comparable to the estimates of construct stability shown in the studies reviewed.

Some evidence has also been provided of the effect on reliability coefficients of varying the format of the grid (Mair and Boyd, 1967; Bannister and Mair, ibid.; Honess, 1977), and studies comparing grids using supplied elements and constructs with those using elicited elements and constructs will be reviewed below. Mair and Boyd concluded from their study that the split half and rank order forms of the grid do not necessarily provide equivalent results, and Fransella (1965, 1976) points to the difference in the comparability of ranking and rating grids in different cases. These and other studies (e.g. Kelsall and Strongman, 1978) lead Fransella and Bannister (1977) to conclude that 'grids of various forms cannot be considered identical either in terms of the perceived task or in terms of results.'

There has been a certain amount of research examining the stability of general structural features of construing. Bannister et al. (1971) have observed that there is generally an increase in inter-relationships between constructs, and hence in scores on Bannister's Intensity measure, from one grid to another, identical with it, completed by the same subject, and this is reflected in the low test-retest correlation for this measure (Bannister, 1962; Honess, 1977), while a relatively high correlation was obtained by Bannister (1959, 1962) for his measure of mal-distribution of element allotment and his measure of a subject's insight into the relationships between his constructs. There was also evidence in Bannister's (1962) study that different constructs differed in their reliability, in terms of relationships with other constructs, while Bannister and Mair (ibid.) have shown changes in the type of elements used in a grid to affect reliability.

Stability of aspects of the construing of the self has also been examined. Caine and Smail (1969) employed a repertory grid in which the constructs, in addition to a self construct, consisted of descriptions of hysteroid and obsessoid traits (deliberately selected as representing a personality dimension of known stability), and found a reasonable degree of stability over a three-month period in the relationship between the self construct and the other constructs, as well as in the application

of the constructs to the elements. The 'reliability' of the grid was not as high as that of the Hysteroid - Obsessoid Questionnaire, with which a total hysteroid/obsessoid score derived from the grid was significantly correlated, but the authors point out that the comparatively greater complexity of grid procedure, and such considerations as the fact that the constructs used were not elicited, would leave more room for error and instability than is the case with a questionnaire. Sperlinger (ibid.), in addition to examining stability in the content of the personal constructs of his subjects, also considered the stability of the relationship of the self element to the other elements in the grid. For the group as a whole, he found a correlation of 0.95 between the ranks of the distances between self and other elements on the two occasions of testing, and a smaller, but still significant, correlation when considering each subject separately. There was considerable stability in the distance between self and ideal self, but not in the percentage of variance accounted for by the first component from the principal component analysis of the grid. Those subjects whose grids changed the most in terms of distances between self and other elements were found to exhibit greater self-ideal distances at initial testing, implying lower self-esteem and therefore perhaps greater motivation to change; and a smaller percentage of variance accounted for by the first component, implying greater cognitive complexity and a less rigid construct system. In a parallel study of depressives (Sperlinger, 1971), a clinically improved group showed considerable change in their construing between the two testing sessions, while a clinically unchanged group exhibited greater stability in their construct systems.

Individual Differences in Stability of Construing: Sperlinger's demonstration of differences in initial features of their construct systems, as well as in aspects of clinical change, between subjects who differed in the stability of their construing implies that instability of construing may be predictable in certain individuals. As Mair (1964, 1964a) has suggested, it is more meaningful and more valuable to consider the degree of predictable stability and predictable change of grid measures than to consider their general reliability, so that there is considerable blurring between the concepts of reliability and validity when these are applied to the repertory grid. This is particularly apparent in Bannister's (1962) studies of the construct systems of thought disordered schizophrenics, which, when compared with those of non-thought disordered schizophrenics, other clients, and normal subjects, exhibited not only less interrelationship between constructs (lower Intensity) but also less consistency over time in the pattern of their construct relationships. Indeed, a measure of Consistency in construing is used in the grid test derived from this research as a diagnostic instrument for schizophrenic thought disorder (Bannister and Fransella, 1966, 1967), one of the conditions for the diagnosis of a client as thought disordered being that he scores below a certain cut-off point on this measure. Bannister (1963, 1965) put forward his serial invalidation hypothesis to account for these findings, suggesting that the thought disordered schizophrenic has responded with a loosening of his construct system to repeated disconfirmation of his predictions about people. Some support for this hypothesis was provided by experiments with normal subjects attempting to invalidate, and therefore loosen the links between, certain constructs and to validate, and tighten the links between, others when these were used in a facial photograph sorting task. Bannister's theoretical framework has been questioned by other workers (Williams, 1971; Frith and Lillie, 1972; Haynes and Phillips, 1973) but, whatever the interpretation placed on his results, they do demonstrate that

instability of construing can be predictable and can be used as a valid diagnostic measure, and that the stability of construct systems can be experimentally manipulated. This work will be considered in greater detail below.

Construct Subsystems: It is questionable to what extent it is possible to generalise from results on a test, such as the Bannister - Fransella Grid Test, which uses certain elements and constructs supplied by the investigator, to make assumptions about the subject's entire construct system. A grid test using constructs elicited from the subject would be expected to allow direct study of the subject's personal construct system, the structural characteristics of which might be different from those of the construct subsystem tapped by a test using supplied constructs. Several studies have examined this issue: some have found little difference in the complexity (a measure of the amount of organization in a construct system) scores derived with normal subjects from grids using elicited and from those using supplied constructs (Kieferle and Sechrest, 1961; Tripodi and Bieri, 1963; Coleman, 1975), while Barbow (1969) did find normal subjects to exhibit more differentiation when using their own elicited constructs than when using the supplied constructs of the Bannister - Fransella Test, and Kuusinen and Nystedt (1975a) found that the difference observed between the structuring of the two types of construct depends on the measure of cognitive complexity used. A low but significant positive correlation was found between scores of both cognitive differentiation and of cognitive complexity using elicited constructs and scores based on supplied constructs (Metcalfe, 1974), and Jaspars (1963) obtained similar results, but found a much lower correlation with the more neurotic subjects, from which he inferred that they exhibited a more highly individualised cognitive organization than normal subjects. Similarly, Caine and Smail (1967) demonstrated that neurotic clients applied their own constructs more differentially in a grid than supplied constructs, and suggested that the use of the latter, which have no real relevance to the client, encourages him to rely on stereotyped and global assumptions to cope with them. Winter (1971) found that chronic thought disordered schizophrenics were differentiated from normal subjects in their degree of construct differentiation with the Bannister-Fransella Test but not with a grid test using elicited constructs, suggesting that islands of structure, perhaps with idiosyncratic content, remain in the thought disordered schizophrenic's construct system, and similar findings were also obtained in comparing the construct systems of parents of acute schizophrenics with those of parents of acute non-schizophrenic clients (Winter, 1975.) Similarly, McFadyen and Foulds (1972) obtained higher Intensity and Consistency scores with schizophrenics when using a grid test with elicited constructs and elements than when using the Bannister-Fransella Grid Test.

Such studies, suggesting that there is differential application of supplied and elicited constructs, provide support for the notion that an individual's construct system is composed of a number of subsystems, each with its own structural characteristics. Parallel research has examined the effect on grid results of using supplied, rather than elicited, elements. Thus, Bannister (1962) found that the use of facial photographs rather than people known to the subject as elements had relatively little effect on measures of the distribution of elements between construct poles, of 'insight' into the characteristics of his construct system, and of the idiosyncrasy of construct relationships, but did reduce the Intensity and

Consistency scores obtained. Similarly, Williams (ibid), testing normal and schizophrenic subjects, found that what he considered an increase in the richness of relevant cues in the elements used served to increase the scores obtained from variants of the Bannister - Fransella Grid Test: higher Intensity and Consistency scores were obtained when the elements were names of people elicited from the subject than when they were photographs of unknown people, and higher scores when facial photographs, rather than fictitious names and addresses, were used.

Other workers have investigated such issues of differences in the use of certain constructs and in the construing of certain elements within the context of the 'psychological - objective' dimension of construing rather than the 'provided - elicited' dimension. There is evidence (Bannister and Salmon, 1966; McPherson and Buckley, 1970; McPherson et al., 1975) that the construing of thought disordered schizophrenics when using physical constructs is less disordered than when using psychological constructs, possibly due to the former having suffered less invalidation, and that their construing of objects is much more structured and stable than that of people. Bannister and Mair (ibid.) found that normal subjects also show greater stability in their construing of objects than in their construing of people.

If an individual's construct system can be viewed as consisting of various subsystems, it follows that it would not be meaningful to calculate a split-half reliability for a grid unless it can be assumed that both halves of the grid tap the same subsystem. Ryle (1975) did compare the consistency of construct relationships between pairs of grids with different elements randomly assigned to each and found relatively high median consistency, although there was considerable inter-subject variation.

Just as it is possible to predict the degree of stability of the construing of certain individuals, so it should be possible to predict the degree of stability of certain constructs or certain subsystems within an individual's construct system. In an early study, Levy (1956a) demonstrated that under conditions of high invalidation there was an inverse relationship between the range of interdependency of a construct (its constellatoriness) and its susceptibility to change after predictive failure. Bannister's (1963, 1965) studies of serial invalidation have suggested that a knowledge of the validational fortunes of a construct subsystem would enable the making of predictions regarding its stability; and Rehm (1971) has demonstrated that validation of construct linkages leads to increases in those linkages. It might be expected that the more meaningful a construct for a subject, the more stable it will be, and Bannister (1962a) has demonstrated the instability of the construct accounting for the least of the variance in the construct relationships in a subject's grid (and which could therefore be considered the least meaningful), as compared with that of the construct accounting for the most variance. However, this finding was not replicated by Mair and Boyd (1967), who suggest that it may have been purely artefactual. Hinkle (1965), examining the hierarchical nature of personal construct systems, has demonstrated the predictability of the resistance to change of constructs. Using variations of repertory grid technique, he found that the constructs which were most superordinate in an individual's construct system, having the most implications in terms of other constructs, were also those on which he was most resistant to make a change in his self-concept.

Periods of Instability in Construing: Certain periods in an individual's life might be expected to be associated with relatively greater fluctuation in the validational fortunes of that individual's construct system and therefore with instability in his construing. One such period is when the individual undergoes psychotherapy, and studies of change in construing during psychotherapy will be reviewed later. Another period when changes in construing of an elaborative nature would be expected is childhood, and some studies of children have demonstrated an increasing use of psychological, as opposed to physical, constructs with age (Brierley, 1967; Little, 1968) and use of constructs in a more discriminatory fashion by older children (Applebee, 1976.) Applebee (1975) has also demonstrated an increasing consensus of construing, largely in terms of interrelationships between constructs, with age. The relationship between changes in children's environments, their construct systems, and their overt behaviour has been investigated by Lifshitz (1976), who has found tightening of construing of significant others to be associated with adaptive social behaviour in times of relative environmental and social disorganization. This area of developmental research has been reviewed by Salmon (1970, 1976), who feels that a central feature of the development of construing is increase in the organization of the construct system.

Summary and Conclusions: There is therefore a body of evidence suggesting that change in grid measures is predictable, and so it should be possible to predict those changes in an individual's grid which would be expected to accompany successful therapy. However, changes in grid indices may occur merely as a result of the process of serial assessment, and thus Bannister's (1962) finding of an increase in the Intensity of construct relationships on retest was probably due to the increasing familiarity of his subjects with the constructs used. It is desirable, therefore, for the investigator of change in construing during therapy to make control predictions of stability in certain areas of his subject's construing and, as Slater (1969) has suggested, to include in the grid certain control elements and/or constructs not expected to be relevant to the therapeutic process.

In order to make his experimental and control predictions, the investigator must translate his hypotheses of psychological change in his subject into grid terms. The inter-observer reliability of the reverse procedure, the interpretation of grid results, has received little mention in the literature. However, while objectivity in deriving scores from a grid is quite possible, particularly since the development of Slater's programmes, and high inter-rater reliability coefficients have been obtained even in the investigation of those areas of construing, such as the content of the construct system, less amenable to quantification (Landfield, 1971; Sperlinger, 1976), there is considerable room for subjectivity in interpreting grid scores. Subjectivity in interpretation may be considered an inevitable feature of a basically idiographic test, but if measures derived from the test can be validated against independent criteria, it should be possible to devise guidelines for the interpretation of the results of the test. In the present study, an attempt is made to construct such guidelines for the repertory grid.

Validity: The validity of the repertory grid technique is no less situation- and grid form - specific than is its reliability, and, there being relatively few studies of the concurrent and predictive validity of

the grid, as opposed to studies of its usefulness and capacity to provide an understanding of a particular individual's predicament, a discussion of its validity can become equivalent to a general review of the grid literature. It is intended here to focus on research on the internal consistency and validity of the repertory grid, and research on its concurrent and predictive validity with normal subjects, before reviewing research using the technique in the area under study, namely psychological disorder, personal change, and the psychological therapies.

Internal and Construct Validity: Bannister (1962a) and Mair (1966, 1967, 1967a) have examined various aspects of the construct validity of the repertory grid technique, testing hypotheses relating directly to personal construct theory and assumptions about grid method without investigating the prediction of behaviour independent of grid completion. Thus, Bannister (1962a) provided support for the hypotheses that grid procedures could demonstrate that constructs within the subsystem concerned with construing of people are related to a degree above that expected by chance; that individuals within one culture will have similar patterns of construct relationships; and that individuals may show similar patterning of construct relationships without necessarily agreeing about the allotment of the elements construed. Slater (1974) has provided a method of assessing the significance of an individual grid by testing the null hypothesis that it is indistinguishable from a 'quasi grid' composed of an array of random numbers, and has developed the GRANNY computer programme to generate and analyse such grids. He has found that experimental grids are very rarely similar to quasi grids, the most striking difference being in the relatively large percentage of the variance accounted for by the first principal component in the experimental grids, for if the constructs are meaningful to the subject and the elements are within their range of convenience, then the constructs will be interrelated at above a chance level. Such comparisons have been made in several studies to determine whether the constructs employed appear to contain psychologically meaningful material (e.g. Rowe and Slater, 1976; Norris and Makhlouf-Norris, 1976.)

Mair (1966) was concerned with the capacity of grid technique to accurately assess meaningful relationships between constructs and predicted change or predicted stability in particular construct relationships. He found that grids demonstrated high relationships between pairs of synonymous constructs of which subjects knew the meaning, but not of similar pairs where subjects did not know the meaning of both constructs. Having taught each subject the meaning of the constructs with which he was unfamiliar, Mair retested them and found an increase in the relationships between these constructs and their synonyms, but no comparable increase in relationships between synonymous constructs whose meanings the subject knew before the initial testing. Of 61 predictions concerning grid measures, only four were unconfirmed. In later research, Mair examined the validity of certain common implicit assumptions in grid methodology. His results (Mair, 1967) did not support the assumption that elements allotted to one pole of a construct cannot also be allotted to its contrast pole, nor (Mair, 1967a) that the pattern of relationships of other constructs with a 'whole-figure' construct (e.g. 'like me in character') necessarily reflects the sorting of that figure on the constructs when the figure is used as an element. He states that 'grid measures will have to be used along with others in predictive studies where criteria external to these measures can be used to allow assessment

of the relative adequacy of each.'

Adams-Webber (1970) has pointed out that too little attention has been given to the interrelationship of grid indices assumed to measure different variables, and he examined the discriminant validity of a few such indices. He found that cognitive simplicity (a tendency towards unidimensional construing) and constellatoriness (the total amount of variance accounted for by the largest element factor) could not be clearly distinguished from a measure of identification (the average match between the self column and other columns in the grid), so that there was equivalence between structural indices based on element relationships and those based on construct relationships. All the measures appeared to be concerned with the subject's tendency to construe people unidimensionally in terms of a stereotype consistent with his own self-concept. The high intercorrelation between measures was thought to be consistent with the internal logic of construct theory and the development of the grid as an instrument to explore construct-element interaction. High correlations have also been found between Bannister's Intensity score and the size of the first component from Slater's principal component analysis, as well as the first axis from Bannister's hand method of cluster analysis (Fransella, 1965.) Other workers, however, have examined the convergent validity of different measures of cognitive complexity and have generally found this to be low (Varmoy, 1965; Kuusinen and Nystedt, 1975), and that cognitive complexity is unrelated to Bannister's Intensity score (Honess, 1976.) Part of this lack of correspondence between measures which are often thought equivalent may lie in a confusion between measures of cognitive differentiation, the extent to which an individual's constructs differentiate elements, and measures of cognitive complexity, which in addition concerns hierarchical relationships between constructs (Smith and Leach, 1972; Metcalfe, 1974.) Honess (1976) observes that there tends only to be correspondence between measures when these are similarly computed, and this situation has also been found to obtain by Bannister and Salmon (1967) with measures of superordinacy of construing, their results also reflecting differences in the operational definition of this concept (Bannister and Mair, ibid.)

Recent research has suggested that certain general perceptual and conceptual processes affect construing independently of the actual constructs which the subject is employing. Thus, Benjafield and Adams-Webber (1976), finding that subjects consistently use the similarity poles of constructs to describe events 62 to 63% of the time, rather than 50%, as Kelly assumed, put forward their 'golden section hypothesis' that such an organization allows maximal figure-ground differentiation in construing. In addition, Hargreaves (1977) has found subjects' ordering of elements to show considerable consistency across different constructs, and emphasises the importance of an individual's social network in determining the structure of his construct system.

Such findings appear contrary to the assumption, central to Kelly's theory and the subject of a large body of research, that construing is personal and that it is therefore essential to elicit constructs from the subject if the aim of a repertory grid study is to provide an understanding of his personal construct system. Some evidence for this assumption is provided by the studies reviewed above which investigate differences in subjects' structuring of supplied and elicited constructs. Other studies have shown, as Bonarius (1965) concludes, that 'the individual prefers to express himself and to describe others by using his own personal constructs', as opposed to

constructs supplied by the tester (Fager, 1954; Landfield, 1965; Isaacson, 1966; Delia et al., 1971.) The importance to the individual of his own personal constructs is also indicated by research showing that constructs elicited from subjects are rated more extremely by them than those supplied to them (Cromwell and Caldwell, 1962; Isaacson and Landfield, 1965; Bonarius, 1968), although Warr and Coffman (1970), finding no difference in extremity, concluded that it is possible by careful selection to obtain a set of supplied constructs of similar meaningfulness for the subject to his own personal constructs. Bender (1974) explains the anomalous finding of the latter workers as being due to their employing a sequential elicitation method in which only one element in the triad is changed at a time, for this method produces constructs which load less highly on the first component of a principal component analysis and can therefore be considered less personally significant. Stringer (1972) found that, while both personal and supplied construct systems accounted for a significant amount of variance in the sorting behaviour of his subjects, more was accounted for by personal construct systems. Even when constructs are elicited, however, a constraint that is often placed on the subject is that he is discouraged from repeating the same constructs, although Shubsachs (1975) has shown that frequently repeated constructs are rated as more important by subjects, so that frequency of repetition may in itself be a valuable measure of construct superordinacy. Frequency of usage has been employed, together with earliness of occurrence of the construct in describing another, as a criterion of the salience of a construct in studies by Tajfel and Wilkes (1964), who found salience to be related to extremity of ratings on the construct, and by Lemon and Warren (1974), who showed that salient traits are more central, allowing more inferences to other traits, and more often used in characterizing the self than are non-salient traits.

In addition, there is evidence that information about an individual's constructs may aid others in predicting his behaviour and forming impressions of his personality (Payne, 1956; Adams-Webber, 1967), even when compared with information about constructs used by other people in describing the individual. However, despite the importance of an individual's personal construct system, other workers have demonstrated the meaningfulness and validity of results from grids using supplied constructs (e.g. Nystedt et al., 1976), and differences in the adjudged meaningfulness of supplied constructs to a subject have been found to be reflected in differences in the extremity of the subject's ratings when using these constructs (Mitsos, 1961; O'Donovan, 1964), as have differences in the extent to which semantic differential concepts are judged controversial (Mogar, 1960.) There is similar evidence that greater extremity of ratings on construct scales is associated with greater relevance of the figures rated, more relevant figures being defined in terms of familiarity rather than unfamiliarity (Koltuv, 1962), intimate rather than superficial acquaintanceship (Bonarius, 1970), present rather than past acquaintanceship (Bamber, 1972), and attractiveness rather than unattractiveness, a dimension which Bonarius (1977) feels to be of particular importance. In studies by Landfield (1977) on subjects undergoing a group experience, besides people rated more extremely by a subject being those with whom he felt most comfortable, was better acquainted with, and rated more favourably, extremely rated people also tended to rate themselves more favourably, and were more easily empathised with, in the sense that others found it easier to predict their construing. In addition, those who rated others more extremely tended to be more empathic, and greater extremity of self-ratings at the end of the group was also related to ease of prediction by others, while greater extremity of self-ratings, and more positive self-ratings, at the beginning of the group were associated with less change in construing over the course of the group.

Bonarius (1977) has put forward two laws to account for the various findings of differences in extremity of ratings or constructs: a 'Construct law', which states that 'Ratings with personal construct scales are more extreme than ratings with extraneous contrast scales'; and an 'Object Law', which states that 'Ratings of personal others are more extreme than ratings of extraneous others'. He has obtained experimental support for his Interaction Model, based on the distinction between 'proper' and 'extraneous' relationships between the components of the rating situation. Such a model is in contrast to one, such as Hamilton's (1968), which sees extreme responding as a generalised feature of certain, more maladjusted, personality types, although it should be noted that Landfield's (1977) studies do provide some support for the notion of normality being associated with the ability to discriminate between events of differing degrees of meaningfulness and to respond to these with corresponding levels of extremity (O'Donovan, 1965.) In general, it can be concluded that there is evidence for the construct validity of rating scale polarisation as a measure of meaningfulness, both from the studies reviewed above and those that examine the issue more directly, such as Hasenyager's (1975) demonstration that the use of 'Not Applicable' ratings of particular elements in a grid is related to those elements also being given midpoint or zero scores on rating scales.

Predictive and Concurrent Validity: The literature on person perception also provides evidence for the predictive validity of repertory grid measures, focusing particularly on Bieri's (1955) concept of cognitive complexity, which he defines as 'the tendency to construe social behaviour in a multidimensional way, such that a more cognitively complex individual has available a more versatile system for perceiving the behaviour of others than does a less cognitively complex person.' Fransella and Bannister (1977) remark that cognitive complexity 'is now virtually an independent area of research', reviews of which are available in Crockett (1965), Bonarius (1968), Leitner et al. (1975), and Chetwynd (1977.) Thus, cognitive complexity, measured by a repertory grid, has been found to be related to an individual's ability to integrate conflicting information about other people, rather than forming univalent impressions of them (Nidorf and Crockett, 1965) or being influenced by recency effects (Mayo and Crockett, 1964.) Similarly, it has been related to the combined use of both positive and negative terms in describing others (Campbell, 1960; Scott, 1963); and to a subject's ability to identify the personal constructs of another person with whom he has had a discussion (Adams-Webber, 1969.) A different method of assessing the degree of differentiation in an individual's construing was used by Adams-Webber et al. (1972), who found that assimilative projection, a tendency to construe others as similar to oneself, which Bieri (ibid.) associated with cognitive simplicity, was related to inaccuracy in discriminating between new acquaintances in terms of the personal constructs of the latter. Benjafield and Adams-Webber (1975) found assimilative projection to be more affected by the self-role perspective from which subjects completed a grid in people who used a preponderance of positive adjectives than in those who showed less maldistribution in their use of constructs.

That cognitive complexity in a particular construct subsystem facilitates the handling of elements within the range of convenience of that subsystem has also been suggested by Canter's (1970) demonstration of a relationships between the examination performance of architectural students and the complexity of their construct subsystems for construing

ideas about buildings. Cognitive complexity has also been related to attitude change by Lundy and Berkowitz (1957), who found that the most cognitively simple subjects showed least change after a change-producing experience, while the most cognitively complex increased the intensity of their initial attitudes. However, there have been conflicting research findings in the area of cognitive complexity, and this could be interpreted as providing support for the view of Bannister and Mair (ibid.) that cognitive complexity should not be regarded as a personality trait. On the other hand, it may also be due to the emphasis in most studies on construct differentiation, without simultaneous consideration of the hierarchical organization of constructs. Landfield (1977) addressed himself to this problem, devising the Functionally Independent Construction score as a measure of differentiation and an Ordination score as a measure of hierarchical organization, based on the assumption that an individual who uses a number of levels of meaningfulness (operationally defined on the basis of the number of different extremity ratings employed and difference between the highest and lowest ratings) in his construing must be using superordinate constructs to integrate his construct system. Some evidence for the validity of the former measure has been provided by Sadowski's (1971) demonstration of a relationship between manifest confusion and high differentiation scores on this measure. In research using these measures on the Interpersonal Transaction Group (Landfield and Rivers, 1975), a situation allowing study of the development of interpersonal understanding among unacquainted people, it was found that 'lower feelings of self-regard and regard for others, decreased self-meaningfulness, and less ability to predict the views of others tend to be associated with persons ..... who are high in differentiation but low in hierarchical integration of their constructs', such people, who are unable to integrate their high complexity, appearing to be particularly maladjusted.

Repertory grid measures have also been shown to be related to other aspects of social behaviour. Coleman (1975) found that interest in personal activities, as opposed to interest in things, was related to closeness of relationships between constructs in the subsystem concerned with social construing. Clear results were not obtained with a cognitive complexity measure, but cognitive 'simplicity' was significantly correlated with interest in non-personal activities. There were no significant correlations between grid measures and Extraversion as measured by the Maudsley Personality Inventory. In a study by Delia and O'Keefe (1976), low Machiavellanism was related to a more complex system of psychological, as opposed to non-psychological, constructs. Bender (1968, 1976) answered his question 'Does construing people as similar involve similar behaviour towards them?' affirmatively, although behaviour towards the people concerned was not observed directly but assessed by asking each subject and his/her spouse to construe the subject's behaviour. Knowles and Purves (1965) found that grid indications of need for approval (reflected in the relationship between constructs 'like me in character' and 'needs approval') and respect for the experimenter (reflected in the relationship between constructs 'like I'd like to be in character' and 'like the experimenter') were able to differentiate subjects high and low in conditionability in a verbal conditioning experiment in which the approval of the experimenter was used as the reinforcer. Salmon (1969) was rather less successful in predicting the confirmity behaviour of a group of children on the basis of their grids, the only construct of any value in predicting the direction of conformity being the ideal self construct.

An individual's choice behaviour was assumed by Kelly to be rooted

in the characteristics of his construct system, and therefore it should be possible to predict a subject's choice on the basis of a grid completed by him. Duck (1973), using a personal construct theory approach to the study of friendship choice, found that pairs of same-sex friends had more similar construct systems than pairs of subjects who were not friends, and that the same results obtained with opposite-sex pairs for female, but not for male, subjects. Fransella and Bannister (1967) examined the usefulness of the grid in predicting voting behaviour and found that it was possible to make accurate predictions by considering the relationships between evaluative (e.g. 'prejudiced') and political (e.g. 'likely to vote Conservative') constructs. In addition, the grid was able to demonstrate the 'brand images' of the political parties, revealing consistencies amongst the subjects in the way in which they construed Labour and Conservative voters; and subjects' degree of interest in politics was positively associated with the degree of relationship they exhibited between personal and political constructs. Rowles (1972) examined students' choice of universities and found a correspondence between their expressed preferences and the relationship between the universities and their ideal university as measured by a repertory grid. Similarly, Hudson (1974) found grid measures of the similarity of construing of particular shops to that of their preferred shop to be related to the frequency with which students visited the shops in question; but Harrison (1973) found no relationship between shopkeepers' construing of their retailing environment and their behaviour. Stringer (1976), also examining the ~~uselessness~~ usefulness of the repertory grid in investigating environmental perception, found subjects' expressed attitudes towards a shopping centre and plans for its redevelopment, as well as frequency of visiting the shopping centre, to be related to aspects of the structure and content of their construct systems as revealed by a grid using different planning proposals and the present situation as elements. As expected, subjects who had been shown coloured maps illustrating the planning proposals exhibited greater discrimination in their construing of the plans than subjects who had been shown black-and-white maps. Openness to change has also been related to the use of more constructs concerning change in a study of [illegible] theological conservatism in Lutheran pastors (Hass, 1974.)

Griffiths and Joy (1971) investigated the comparative accuracy of a repertory grid, a fear thermometer, and pair comparison forced choice scales in predicting phobic behaviour in a group of thirteen normal and three anorexic female subjects. The grid measures used were correlations between each of a series of constructs of similarity to phobic objects and each of a series of constructs concerned with fear and disgust when applied to drawings of figures bearing some relation to the phobic objects, and they were found to be less accurate than scores from the other measuring instruments in predicting the response of subjects to a behavioural avoidance test. The correlations involving the 'disgust' constructs were the least accurate, but there were marked individual differences in the predictability of subjects. The authors feel that their results 'underline the need for including a variety of measures in validity studies of the repertory grid, and the caution necessary in the clinical application of this same instrument.' Results rather more indicative of the validity of the grid were obtained by Watson et al. (1976), investigating ways of responding to stressful situations in long-term prisoners: all the alcoholics amongst the subjects were identified by the grid as seeing getting drunk as a likely response to getting the sack, wile all the 'problem gamblers' saw gambling as likely to follow social stress. Characteristic patterns, in terms of deviation from a consensus grid, were not, however, observed with professional thieves and men with records of

violence, although there was some relationship of relevant grid measures with number of violent convictions and with scores on aggression questionnaires. In another study which included samples of prisoners as subjects, Chetwynd (1977) examined the validity of grid indices of cognitive complexity, presumed to be inversely related to the percentage of the variance accounted for by the first principal component of the grid; acquiescence, tentatively related to the measure of bias (the subject's tendency to use only one pole of the rating scale) given by Slater's (1972) INGRID programme; and extreme response style, as revealed in the INGRID variability measure. Although she used a variety of personality questionnaires, including measures of Eysenck's personality factors, manifest anxiety, and M.M.P.I. scales, significant correlations between grid and personality variables were relatively few: neuroticism was related to high variability scores; high Lie scores were related to cognitive simplicity and to high variability, a finding which should perhaps be borne in mind in interpretation of the grids of subjects exhibiting the latter characteristics; and manifest anxiety was negatively related to bias, Chetwynd explaining this as reflecting the anxious individual's defensive need for balance. Cognitive complexity was meaningfully related to type of criminal activity in that cognitively simple individuals, presumably as a result of their having fewer options open to them, were more likely to commit violent offences and less likely to commit fraudulent offences; but the relationships between low bias scores and theft and drug offences were less easy to interpret.

A valid measure of personal construing would also be expected to reveal differences between subjects of different sexes or differing in terms of demographic variables. Meaningful sex differences have been found in some repertory grid studies. Thus, Giles and Rychlak (1965) demonstrated that students construed themselves as more similar to their parent of the same sex than to the opposite-sex parent. Ryle and Lunghi (1972), examining grid indices of parental and sex role identification in a normal student population, used grids with supplied constructs relating to instrumental and expressive qualities and found that males were construed as significantly more instrumental and less expressive than females, and mothers as more expressive than fathers. With male subjects, there was a significant correlation between the instrumentality of one parent and the expressiveness of the other, and for the group as a whole cross-sex identification was least likely to occur when there was a large and appropriate instrumental-expressive difference between the parents as construed, while similarity between parents on a sex-inappropriate quality for the subject was associated with the subject seeing himself as characterised by that quality. There was no significant tendency for males to resemble their father more than their mother, but females did construe themselves and their ideal selves as resembling their mother more than their father. Construed resemblance to parents was related to construing of the parents as similar to each other, and the ideal self, but not the actual self, appeared to be seen as closer to the parents than to other parental generation figures. Carlson (1971) has also found that males tend to construe themselves more in terms of 'agency' than do females. Chetwynd (1977), using grids with drawings of female physiques as elements, found that men, in contrast to women, saw a marked difference between the roles of wife and mother, with the latter role being construed in more evaluatively positive terms. Landfield (1971) concerned himself with differences in the content of the constructs used by men and women, finding that women employed more multiple descriptions, more extreme qualifiers and more 'high dogmatism' terms in their construing of others, and suggesting that these results indicate

that women are more adept at, and certain about, social construing, and perceive others more holistically.

Warren (1966), comparing a working class and a middle class sample, found that the former exhibited greater interrelationship between constructs, and interpreted his results as providing support for the hypothesis of a difference in linguistic coding between these two groups (Bernstein, 1964.) Weinreich (1977) has related personal construct theory to psychodynamic concepts in his studies of identity development in different ethnic groups, operationally defining identity conflict as a function of a person's degree of identification with another and the similarity between the qualities attributed to this other and those not associated with his ideal self. Identity diffusion was defined as the extensiveness and magnitude of the person's identity conflicts with significant others. In a study of Asian, West Indian, and native white school-leavers, he found a higher incidence of identific ation conflicts with people of their own ethnicity in the minority groups, and particularly in girls, than in whites; and greater identity diffusion in immigrant girls than in indigenous girls, while immigrant boys exhibited more defensive high self-esteem, tending to construe themselves and others in a globally favourable light.

Construing in Psychological Disorder: The studies reviewed above provide an indication of the validity of the repertory grid technique when used with 'normal' subjects. Its usefulness in the field of psychological disorder and psychological therapy, the area which constitutes the focus of convenience of personal construct theory, will now be considered. While this review will focus on adult subjects of normal intelligence, it should be mentioned that grid indices have also been shown capable of providing an understanding of the predicament of subnormals (Spindler Barton et al., 1976) and of problem children (Leach, 1971; Rowe, 1976; Ravenette, 1977.)

Structural Disorders of Construing: Some of the earliest investigations of the predicament of psychologically disturbed individuals were Bannister's studies of construing in the thought disordered schizophrenic, which have been mentioned above. It is useful to consider this area of research in some detail in view of the light which it throws on the general structural characteristics of construct systems and the processes of change in construing. Bannister (1960, 1962) examined Kelly's proposition that the construct systems of schizophrenics represent the end result of a process of loosening of the linkages between constructs. Finding that thought disordered schizophrenics were characterised by low interrelationship between constructs (Intensity) and low consistency over time in their pattern of relationships between constructs, he concluded that thought disordered schizophrenics do indeed construe loosely, and the test which he used was developed into a diagnostic instrument for schizophrenic thought disorder (Bannister and Fransella, 1966, 1967), the validity of which has been investigated in several studies. Foulds et al. (1967a) found the Consistency score from the test to be significantly related, and the Intensity score to be related but not to a significant degree, to psychiatric ratings of thought process disorder in acute, but not in chronic, schizophrenics; and similarly Spelman et al. (1971) found that the test could differentiate acute, but not chronic, thought disordered from non-thought disordered schizophrenics. The latter workers (Mellsop et al., 1971) reported that the Intensity, but not the Consistency, scores of manic clients differed significantly from those of thought disordered schizophrenics, while Breakley and Goddall (1972) also found that the test did not differentiate schizophrenics from manics, suggesting that

this might be due to the concentration difficulties shown by both groups of clients. However, they did not specifically use thought disordered schizophrenics, and the scores of the schizophrenics were significantly different from those of the normal controls, while only the Consistency score differentiated the latter group from the manics. More impressive evidence for the validity of the test was provided by Frith and Lillie (1972); and by McPherson et al. (1973), who showed that Intensity and Consistency, as well as measures of consistency of element allotment and of social deviation in patterning of construct relationships, differentiated thought disordered schizophrenics from non-thought disordered schizophrenics, manics, and depressives, the latter three groups not differing amongst themselves. Each of the measures correlated with clinical ratings of severity of thought disorder in a subgroup of schizophrenics. Bannister et al. (1971), in their cross-validation of the test, had also shown socially deviant patterning of construct relationships in thought disordered schizophrenics. However, Phillips (1975) has raised doubts about the scoring of the Bannister-Fransella test, although rightly pointing out that 'errors' in the scoring method are essentially irrelevant when the test is used for diagnostic purposes as these errors were also present when the test was standardised. Also, Poole (1976) has questioned the usefulness of the test as a diagnostic instrument: while finding that clients assessed as thought disordered by the test tended to be similarly assessed clinically, and that the test discriminated thought disordered schizophrenics from other clients except those diagnosed as schizo-affective disorders, he reported a rate of misclassification with the test which, while lower than that obtained using the base rates, is still unacceptably high. Although criticisms can be made of the retrospective nature of Poole's study and his consequent reliance on case note diagnoses, the misclassification rate which he demonstrated was in fact little different from that obtained in the studies mentioned above by Bannister et al., Frith and Lillie, and McPherson et al., so that a clinically acceptable level of misclassification has only been found in the standardisation studies for the test carried out with clients whose diagnoses were clear and who would not therefore require diagnostic testing. Bannister - Fransella test results have been related to scores on Rapaport's Object Sorting test, a measure of abstract conceptualisation (Wright, 1973), but have not been found to relate to predicability of speech in schizophrenics, as measured by the Cloze Procedure (Rutter et al., 1977.)

Nevertheless, there is sufficient evidence that thought disordered schizophrenics as a group can be differentiated from other subjects by their performance on the Bannister - Fransella Grid Test, and present debate centres on the acceptability of Bannister's explanation of these results in terms of loose construing. The results cannot be interpreted on the basis of differences in such variables as age, sex, intelligence, social class, and personality factors as the independence of these from the Intensity and Consistency measures has been demonstrated (Bannister and Fransella, 1967; Kear - Colwell, 1973; Poole, ibid); and, while there is some evidence of a relationship between Intensity and measures of speed, speed scores have not been found to differentiate thought disordered from non-thought disordered schizophrenics (Foulds et al., 1967; Cooper, 1969; Presley, 1969.) Several alternative concepts have been offered, however, as providing supposedly more parsimonious explanations of Bannister's findings. Williams (1971), varying the elements in the Bannister - Fransella Grid Test and finding thought disordered schizophrenics to perform poorly even when construing fictitious names and addresses, suggested that insensitivity to cues could account for

their difficulties. Haynes and Phillips (1972), finding that partialling out differences in Consistency between thought disordered schizophrenics and other groups removed the differences in Intensity between the groups, proposed that the performance of thought disordered schizophrenics on the Grid Test is merely a reflection of a generalised inconsistency in performance on all cognitive tasks; while Frith and Lillie (1972), finding that a measure of inconsistency in element allotment differentiated thought disordered from other clients as well as did Intensity and Consistency, suggested that their results can be explained in terms of the inability of thought disordered schizophrenics to discriminate amongst complex visual stimuli. Perceptual and attentional deficits such as these could be conceptualised as resulting from a loose construct system, but much of the discussion in the literature is characterised more by acrimony than clarification of these issues (Bannister, 1972, 1973; Haynes and Phillips, 1973, 1973a.) The weight of research evidence, however, supports Bannister's argument. Thus, the fact that inconsistency in the pattern of construct relationships in thought disordered schizophrenics relative to other groups was found in the Bannister (1960) study cannot be explained in terms of element inconsistency as the two grids completed by each subject employed different elements. Also, it has been shown (McPherson and Buckley, 1970; Heather, 1976) that inconsistency and low Intensity of construing do not extend throughout the thought disordered schizophrenic's construct system but are more characteristic of his use of psychological than of physical constructs, even when these are applied to the same elements. McPherson et al. (1975) demonstrated that these results still obtain when the two sets of constructs are matched for 'difficulty', for reliability (measured by element consistency), and for Intensity and Consistency in the non-thought disordered population. Such findings could not be accounted for on the basis of a hypothesis of a generalised cognitive deficit, and Heather (ibid) feels that the use of people rather than photographs as elements in his study eliminates any difference between availability of cues relating to physical characteristics and of cues relating to psychological characteristics, and therefore prevents an explanation of his results in terms of cue insensitivity. The McPherson et al. (1973) study also provides evidence against the importance of element consistency in that the partialling out of Intensity and of Consistency reduced to insigiificance the relationship between Element Consistency and clinical ratings of severity of thought disorder, while the reverse was not the case; and that all clients scoring below Bannister and Fransella's cut-off points on Intensity and Consistency also obtained abnormally low Element Consistency scores, while only 65% of clients with abnormally low Element Consistency scores were diagnosed as thought disordered in terms of Intensity and Consistency. The view that the grids of thought disordered schizophrenics only reflect random error variance is also not supported by the finding of Adams-Webber (1977) that such clients, in common with other psychologically disturbed and normal subjects, showed significantly lower Intensity in their structuring of the evaluatively negative constructs in the Bannister-Fransella test than in their structuring of the evaluatively positive constructs.

One of the major advantages of a construct theory approach in this area is its heuristic value, in that it necessarily provides implications about the schizophrenic process rather than being purely descriptive. Using a construct theory framework, the tightness or looseness of a construct subsystem, and changes in its structure, would be seen in terms of its validational history. If an individual's construing of particular elements is invalidated, the individual may slot rattle, as Kelly calls it, and switch to seeing them at the opposite poles of the constructs from

those which were originally seen to characterise them. Constant re-evaluation of elements in this way would be equivalent to a state of low element consistency, but might eventually lead to the constructs themselves being regarded as inadequate and to their modification, perhaps by loosening their linkages with each other and with other constructs in the individual's system. Low element consistency might therefore be typical of an earlier stage of the schizophrenic process than loosening of the linkages between constructs.

Bannister (1963, 1965) hypothesised that schizophrenic thought disorder was the result of serial invalidation of construing and that loosening of construct relationships was a defence against further invalidation, the predications generated from a loose construct system being too vague to be invalidated. In a series of experiments, he tested out this hypothesis by attempting to produce loosened construing in normal subjects by invalidating their use of certain constructs in a facial photograph sorting task, and to tighten the links between certain other constructs by validating them. In his first study, there were no significant structural changes in his subjects' construct systems, but there were changes in the content of their construing, reflected in modification of the pattern of relationships between invalidated constructs. It was felt that one of the r easons for the lack of structural changes was that no attempt was made to ensure that all the invalidated constructs were in one construct subsystem for the subject and all the validated constructs in another subsystem with little relation to the first. In further studies designed to overcome this difficulty by invalidating all the constructs used by one group of subjects and validating all those used by another group, there was significant tightening of relationships between validated constructs but no loosening of relationships between invalidated constructs, although marked differences in the reactions of individual subjects were observed. Those whose construct systems were initially highly structured showed much more loosening in response to invalidation than did those with originally loosely structured construct systems. Bannister felt that invalidating all the constructs used by a subject would present him with the very threatening prospect of total loss of structure, which he would resist by constantly changing the pattern of his construing. Therefore, he carried out a final experiment in which all the constructs in one subsystem were invalidated and all those in another were validated, at last obtaining the expected result of significant tightening of the validated constructs and loosening of the invalidated constructs. Bannister's most recent work on this project (Bannister et al., 1975) has been his attempt to identify residual islands of structure in the construct systems of thought disordered schizophrenics and to arrange each client's environment in such a way that his predictions in these particular areas of relatively structured construing would be validated and the linkages between constructs tightened. There were some changes in the predicted direction in the experimental group but no clear modification in degree of thought disorder, possibly because insufficient control over the clients' environment was obtained; and because in devising means of validating the clients' predictions, their constructs had been operationally defined as constructs with the same labels would be defined by people in general. This latter could well be an unjustified assumption for, as with the subjects in the serial invalidation experiments, distortion of the pattern of construct relationships could have occurred in the schizophrenics so that a particular construct might mean something very different to each of them than to the general population.

It appears both from clinical observations and from grid studies that before reaching a state of formal thought disorder, the schizophrenic first passes through a phase of disorder in the content of his construing; and that even when there appears to be total structural breakdown, islands of relatively structured construing, bizarre in content, may remain and can be tapped by repertory grids using elicited constructs (Winter, 1971; McFadyen and Foulds, 1972.) The schizophrenic's disorder of content of construing may take the form of unusual associations between constructs, as Bannister found in his original studies and was also shown by McPherson et al. (1973); or it may reveal itself in a shift in the focus of convenience of the construct system. Thus, as mentioned above, Bannister and Salmon (1966) found that while thought disordered schizophrenics structure psychological constructs loosely, they do not differ so much from normal subjects in their construing of physical objects. The possibility that these results could have been due to the greater complexity of the human than the object stimuli (Schnolling and Lapidus, 1972) was controlled for in later studies by McPherson and Buckley (ibid.), Heather (ibid.), and McPherson et al. (1975), the latter workers also matching the psychological and objective constructs in various ways, as described previously. They feel that the demonstration of greater disturbance in psychological than non-psychological areas of construing in thought disordered schizophrenics supports psychogenic theories of the etiology of schizophrenia, which 'would predict that the disorder will be maximal in those concepts whose development is most dependent upon personal relationships, such as those to do with personality and emotions, and will be minimal in impersonal concepts, such as those to do with physical properties or appearance.' That breakdown in the 'psychological' construing of thought disordered schizophrenics is not total is shown by Draffan's (1973) demonstration that their sorting of elements on the Bannister-Fransella test is not random. McPherson and others have also related the schizophrenic's construing to other aspects of symptomatology besides thought disorder, finding that schizophrenics with loose, unstable subsystems of psychological constructs tend to use such constructs infrequently and to exhibit thought process disorder, inappropriate or blunted affect, and delusions and hallucinations involving disturbance of the person's awareness of himself as an agent; while schizophrenics with stable, coherent subsystems of psychological constructs are more likely to exhibit delusions of persecution and to fall into Foulds' (1965) category of integrated psychosis (McPherson 1969; McPherson et al., 1970, 1970a, 1971, 1971a; Bodlakova et al., 1974.) Williams and Quirke (1972), while confirming these results, suggest that a relationship between lack of psychological construing and social withdrawal may underly the relationships between psychological construing and other symptoms.

If the schizophrenic withdraws to an idiosyncratic construct subsystem, he would be expected to receive little validation of the predictions derived from it so that its structure would tend to become progressively looser. One can thus imagine a wave of loosening gradually extending over the schizophrenic's construct system, with a disorder of thought content initiating a general structural breakdown and consequent changes in other symptoms. However, some explanation must then be provided of why some schizophrenics merely change the content of their construing and maintain a paranoid integration while others proceed on to structural breakdown. Bannister and Fransella (1971) suggest that a person's reaction to serial invalidation depends on the initial state of development of his construct system: 'thought disorder may be the fate of the person whose construct system had never developed beyond a relatively embryonic level and paranoia may be the result of pressures on a construct system which was largely workable until particular interpersonal difficulties were met.' In the serial invalidation experiments, Bannister found that

the more catastrophic reactions to invalidation occurred in those subjects whose construct systems were initially of high Intensity; and Adams-Webber (1970a) has put forward the view that many thought disordered schizophrenics may originally have had highly unidimensional, tight construct systems organised under relatively impermeable superordinate constructs, but whose 'actual structure' implied 'potential chaos.' Such a construct system would have a narrow range of convenience, only being able to usefully deal with a limited range of events, and so would be particularly susceptible to invalidation, which would lead to eventual collapse of the rigid structure. This, as will be discussed later, is felt by some workers to be the predicament of the obsessional, which might explain why many clinicians feel that psychotherapy with obsessional clients carries a risk of precipitating a psychosis. The picture is clarified by Cochran's (1977) demonstration that, while perceived inconsistency of attributions in an experimental situation resulted in considerably more change in construct organization than did consistency, differences between subjects in their reactions to inconsistency appeared to reflect the initial 'strengths' and 'weaknesses' of their construct systems in such a way that the disruptiveness of structural changes was minimised. Thus, subjects who initially exhibited a high level of interrelationship between constructs tended to weaken their construct relationships, while maintaining the pattern of these relationships, presumably because there was only one basic pattern available to them. By contrast, subjects whose level of construct interrelationship was initially low reacted to invalidation by strengthening alternative patterns of construing. It may be, then, as Radley (1974) implies, that one of the major factors in increasing an individual's resistance to general loosening as a result of invalidation is the possession of an articulated construct system in which there are superordinate linkages between the various subsystems. Just as Bannister found it impossible to loosen his subjects' construing when the constructs he was invalidating were not in a discrete cluster separate from those he was validating, so it would be difficult to loosen the construing of an individual whose construct system consists of interlinked clusters.

The construct system developed by an individual can be assumed to have its basis in the construct systems of his parents, who to a large extent control the early validational fortunes of the individual's construing. While Bannister has been concerned with the part played by invalidation of construing in the genesis of schizophrenic thought disorder, it is possible that equally important, at least in the development of disorders of thought content, is the validation of socially deviant ways of construing. There have been a few repertory grid studies of construing in the parents of schizophrenics. Romney (1969) found the relatives of schizophrenics to perform no more abnormally on the Bannister-Fransella Grid Test than those of neurotics and of normal subjects when the effects of intelligence were partialled out, but his study can be criticised for its inclusion of siblings, and of parents as old as 85 years, in the groups of relatives as differences between the groups might thus have been obscured. Cooper (1969) could not differentiate between hospitalised schizophrenics and their relatives by means of their scores on the Bannister-Fransella Test; and Muntz and Power (1970) found significantly more parents of thought disordered schizophrenics than parents of non-thought disordered clients to be identified as thought disordered by this test. Liebowitz (1970) has also employed repertory grid techniques with parents of schizophrenics, finding their personal construct systems to be as differentiated as those of normal subjects, but that they were unable to make such complex use of the socially shared dimensions of the semantic differential. In addition, he found self-other discrimination to be lower for the parents of schizophrenics than

for normal subjects, and that these parents tended to disagree on their son's similarity to his father and mother. Winter (1975) found schizophrenics to structure the supplied constructs of the Bannister-Fransella Test more abnormally (obtaining lower Consistency scores) than other clients; and the parents of the schizophrenics to structure supplied constructs more abnormally (obtaining lower Intensity scores) than the parents of the control clients. The experimental and control groups did not differ in the Intensity of their personal construct systems, assessed by using a grid with elicited constructs and elements. The schizophrenics exhibited higher self-regard (reflected in the proximity of self and ideal self elements) and more cross-sex identification (reflected in the relative proximity of the self element to the two parent elements) than the controls, and with the latter measure a corresponding difference was found between parents of schizophrenics and parents of controls. This difference was found, however, to be a function of the lower social class of the parents of schizophrenics. The Bannister-Fransella Intensity scores of clients and their parents were positively correlated, as were the sexual identification scores of schizophrenics and their parents. Winter feels that his results are in general agreement with the picture provided by Lidz (1968) of the schizophrenic's family being characterised by looseness and inconsistency in the socially shared ways of construing, with socially deviant, sexual identification, but no abnormality in the structuring of personal constructs.

Structural Disorder and Construing of the Self: Another group of clients whose conceptual structure has been the focus of research with the repertory grid comprises those diagnosed as suffering from obsessive-compulsive neurosis. During the standardisation of the Grid Test for Schizophrenic Thought Disorder, Bannister and Fransella observed that such individuals exhibited very loose construing, and they have suggested that the obsessional is someone who, while initially possessing a tight construct system, has reacted to invalidation by constricting the system, drawing in its boundaries until the only tightly structured part of it is that relating to the obsessional behaviour (Bannister and Fransella, 1971; Fransella, 1974.) As they remark, 'it was as if the obsessional person was living in the only world that was meaningful to him - outside the area of his obsessions all was vagueness and confusion.' His constant search for validation and certainty is in effect a struggle to save his construct system from disintegration.

Makhlouf-Norris and her colleagues have adopted a somewhat different approach to the examination of the obsessional's construct system, which they report is characterised by what they term a 'non-articulated' conceptual structure (Makhlouf-Norris et al., 1970, 1971; Makhlouf-Norris and Norris, 1973.) While the construct systems of normal subjects were shown to be 'articulated', consisting of interlinked clusters of constructs, those of the obsessionals tended to be either 'monolithic', consisting of only one primary cluster (a group of highly interrelated constructs), or 'segmented', consisting of more than one cluster but with no linkages between clusters. These workers have also been concerned with the self-identity systems of the obsessional client, and found that characteristically, in contrast to normal subjects, the actual self element was isolated from other elements and particularly from the ideal self element, features which they termed actual self-isolation and self alienation respectively. In effect, therefore, the obsessional's construct system was unidimensional, with the opposite poles of the dimension being defined by the actual self and the ideal self. It was felt that such a system might have been

developed to reduce uncertainty regarding the self, the client's behaviour serving to validate his negative self-construction, while 'he is able to entertain some certainty of the acceptability of his ideal-self.' The lack of a control group of non-obsessional clients in these studies prevents the conclusion that such features are characteristic of the obsessional and, indeed, the Norrises suggest that in all neurotic clients 'the need for self-certainty is such that they construe the self in a way which predicts undesirable outcomes which are certain to be validated rather than predict desirable outcomes which would be open to invalidation.' What distinguishes the obsessional is that for him such undesirable outcomes are unlimited in the extent of their disastrousness. They have demonstrated self-alienation in other clients besides the obsessional but not in normal subjects (Norris and Makhlouf-Norris, 1976.)

Obsessional behaviour may therefore be understood as an attempt to protect the construct system from disintegration by retaining some certainty about the self. Suicidal behaviour can also be seen as 'an act to validate one's life' in the face of breakdown of the construct system (Kelly, 1961.) Landfield (1971, 1976) tested the hypothesis that 'suicidal behaviour will occur in the context of a decreasing ability to make sense of, interpret or react to one's personal world, most importantly, a personal world of people.' He devised repertory grid measures of disorganization of the construct system (the Functionally Independent Construction score), of constriction in the application of constructs to people (obtained by counting the number of times the subject is unable to apply a construct to elements), and of constriction in the content of construing (i.e. a tendency to construe others in concrete terms), and by establishing cutting points on each measure and then combining the measures, found that it was possible to differentiate subjects who had made serious suicide attempts from others, including a control group of subjects who had made suicidal gestures. Some of these findings have been confirmed by Elliot (1972) in a psychiatric population. Lester (1969), while finding no difference in the complexity of the grids of a group of subjects who had either attempted or threatened suicide and a group who had never considered it, found that the former subjects were in the predicament of showing greater dependence on people whom they resented. The remainder of the repertory grid literature on suicide consists of single case studies. Ryle (1967), in attempting to understand why a student had attempted suicide, administered repertory grids to her and her boy friend shortly after the suicidal act and found that she tended to construe males as ineffective, while he, similarly, tended to construe women as strong, sharing her construction of himself as weak relative to her. However, the apparent precipitating factor for the suicide attempt was that he behaved in a way which she could not construe as ineffective and which therefore threatened her self-perception: Ryle proposed that her 'self-destructive act was carried out because to die seemed less painful than to face so radical a revision of her construct system; or that to threaten death represented a means of reassuring her power.' Retesting, after the client had received some psychotherapeutic help and had resumed her relationship with her boy friend, revealed little change in the client's construct system and rather more change in the boy friend's, this relative lack of change being reflected in a further suicide attempt, in similar circumstances, three years later (Ryle, 1975.) Besides occurring in the context of disorganization and constriction of an individual's construct system, suicidal behaviour might also be expected if the individual construes his ideal self in such a way that it appears unattainable to him, and Norris and Makhlouf-Norris (ibid.) report that one of the few cases they have observed of isolation of the ideal self from other elements was in a man who had made a suicide attempt

and later took his own life. This is one of the few reported cases of suicide in an individual who had previously completed a grid; another has been described by the present author as having a construct system so rigid that his predicament appeared to be that 'the course of events seems so obvious that there is no point in waiting around for the outcome' (Kelly, 1961.) As Bannister and Fransella (1971) point out, results obtained with those who have attempted suicide may not represent their state before the attempt and so may not be predictive of suicidal behaviour, as the suicide act and associated events might be expected to cause the person to reorganise his construct system.

Lack of structure in a section of the construct system may precipitate attempts to destroy that part of the self which lives in a meaningless world. Thus, Salmon (1963) reports a case of a woman who requested surgery to change her sex and whose construing of men was found to be highly structured in contrast to a very unstructured construct subsystem for construing women. It was felt that this reflected a poor prognosis for psychotherapy, as a radical reconstruction would have been necessary for her to be able to adjust to a feminine role. The importance of certain structural features of the construct system in social adjustment has also been suggested by the research reviewed above relating cognitive complexity to facility in certain aspects of interpersonal relating. On this basis, a construct system of a relatively simple structure might be expected in individuals exhibiting disturbance in social relationships, and some support has been provided for this in studies of the interpersonal construct systems of emotionally disturbed boys (Reker, 1974; Hayden and Bradley, 1977.)

Construing of the Complaint: Rather than being in the process of disintegration, it appears that the construct systems of neurotic clients generally tend to be tightly structured (Bannister et al., 1971), particularly in the area relating to their complaint. Such structuring of the construct system around the complaint has been related to poor prognosis in that Kelly's (1955) choice corollary states that 'a person chooses for himself that alternative in a dichotomized construct through which he anticipates the greater possibility for the elaboration of his system', and to construe himself as suffering from a particular symptom may offer greater possibilities for the elaboration of the neurotic's construct system, making life more meaningful for him, than to place himself at the opposite pole of the symptom construct. Fransella (1972) applies such reasoning to understand the predicament of the obese woman, whose life is meaningful to her as long as she is construed as fat by herself and others, but for whom loss of weight might lead to such situations as sexual advances, with which her construct system is ill-equipped to deal. 'No permanent weight loss will be achieved until the meaning of being a woman of normal weight is at least as meaningful to her as being a fat woman.' Support for such views has been provided by repertory grid investigations of obese people and their response to treatment. Mair and Crisp (1968) found that changes in construing accompanied weight change, changes in other symptoms and in personality (viz. a drop in Neuroticism, but no change in Extraversion, as measured by the Maudsley Personality Inventory) during the six-month hospital stay of an obese woman. At the start of treatment, the construct 'perfectionist' was very important for the client and was related to eating a great deal; and the construct 'enjoys food' was related to being helpful, while at the end of treatment it was used to define her ideal rather than her actual state and was related to other goals, such as being attractive, hopeful, and getting more out of life. There was some evidence that new constructs

appeared at the time when there were dramatic changes in other areas, and changes tended to occur on constructs with fewer implications, as would be expected from Hinkle's work, mentioned above. There was a decrease during treatment in the number of implications of the construct 'enjoys food - doesn't notice food' and an opposite tendency with the construct of sexual attractiveness, Mair and Crisp suggesting that this indicated a strategy designed to achieve an important change in the construct system with little cost in terms of its meaning. In addition, there was a decrease in the number of reciprocal implications between constructs, suggesting the development of a more clear-cut construct hierarchy, which would facilitate decision-making. Fransella and Crisp investigated the relationship between conceptual change and weight change in two obese women (Fransella, 1970; Fransella and Crisp, 1970), one of whom had a unidimensional construct system reflected in a first component accounting for a very large proportion of the variance and a correspondingly small second component when her grid was subjected to a principal component analysis, while the other woman had a larger second component and correspondingly smaller first component, and therefore more than one channel along which to move. This difference appeared to be reflected in differences in the life styles of the two women, the second being considerably more active and socially involved; and it was suggested that the possession of a 'viable' second construct dimension is a good prognostic sign in that it would increase the possibility of conceptual change accompanying weight loss. The only possibility of conceptual change in a basically unidimensional construct system is to 'slot rattle', Kelly's (1955) term for moving along the dimension whithout there being any fundamental change in the construct system. In fact, both women studied exhibited slot rattling with weight loss, coming to construe the self when overweight as 'good' as opposed to the 'bad' self-concept at the start of treatment (and a similar pattern has been observed in a third client). However, neither client maintained their weight loss, and gain of weight was accompanied by construing of the self as 'bad' once again, some indication being provided that such conceptual change preceded behavioural change. Fransella and Crisp state that, as neither client remained at their desired weight, it was not possible to test the validity of a substantial second construct dimension as a favourable prognostic index. In a similar study of two anorexic clients, Crisp and Fransella (1972) observed 'massive' first components associated with weight in the grids of both, who slot-rattled during the course of treatment, one only showing fundamental change after a leucotomy, when there was a general loss of structure in her construing, perhaps associated with attempts to adjust to her adolescence.

Another finding of Fransella and Crisp was that the construing of the ideal self in their clients remained very stable and was almost identical to that of the self when at normal weight. This may be an example of a more general 'if only' syndrome (Fransella, 1972) in which the client equates removal of his symptoms with attainment of all his ideals, such illusory beliefs only being tenable as long as the client retains his symptoms and therefore causing considerable resistance to change. Similar results were obtained by Fransella and Crisp with anorexics, whose ideal selves tended to be 'fatter' than they were at time of completion of the grid, but these findings were not confirmed by Neal (1976.) The latter worker administered grids serially to anorexics during the course of treatment and found a decrease in the distance between the self and the ideal self element and between the former element and a 'best friend' element, such re-evaluation of the self being particularly pronounced at the time of restoration of pituitary functioning. In a more recent study, Fransella and Crisp (1978) have administered grids to anorexic women and

neurotic and normal women without weight disorders, finding that all subjects placed a negative evaluation on being fat. They also demonstrated that the more negative the correlation between the constructs 'me now' and 'ideal weight' the greater was the difference between actual and desired weight. In addition, while ideal self as element and construct were seen as very similar, there were large distances in many anorexics between 'me at normal weight' as element and construct, and the authors suggest that discrepancy between self as construct and element might be used as a measure of ambivalence or conflict. Construing of body image might be regarded as central to the construct systems of individuals with weight disorders, and the usefulness of repertory grids employing parts of the body as elements in providing an understanding of the body image, and general object relations, of anorexics has been demonstrated by Feldman (1975), as it has by Annear (1977) with transsexuals.

Fransella (1970a, 1972) has also explained stuttering as being the most meaningful way of life for the stutterer: 'a person stutters because it is in this way that he can anticipate the greatest number of events.' She elicited two sets of constructs from each of a group of stutterers: for the elicitation of stuttererσ° constructs, the triads of elements used consisted of two photographs of unknown people together with 'me as others see me when I am stuttering', and for 'non-stutterer' constructs, the triads were of two photographs plus 'me as others see me when I am not stuttering.' She then used techniques developed by Hinkle (ibid.) to explore the structuring of construct subsystems: laddering, in which progressively more superordinate constructs were elicited by asking the client why he preferred a particular pole of each construct; and implication grids, one for the 'stutterer' and one for the 'non-stutterer' constructs, in which the client was asked to indicate which other construct poles were implied by each pole of each construct. There were significantly fewer implications of non-stutterer than stutterer constructs and a higher ratio of superordinate to subordinate implications in stutterer than non-stutterer grids. Retesting over the course of treatment (personal construct theory psychotherapy) showed that the number of implications concerning being a non-stutterer increased during treatment until at the end of treatment there were significantly more implications of non-stutterer than of stutterer constructs. This increase in the meaningfulness of being a fluent speaker was shown to be related to reduction in speech disfluencies, the latter also being related to the number of non-stutterer implications at initial testing. Dividing the group into non-improvers and improvers, the latter had less tight 'stutterer' construct subsystems, more constructs and implications, and more permeable 'non-stutterer' subsystems at the start of treatment. It also appeared that the non-improvers tightened their construing more during therapy, and did so prematurely, possibly as a reaction to the threat of a possible change in their core construing. Fransella also carried out a content analysis of the constructs used by her clients, finding that they used more construct poles in Landfield's (1967) Socially Inactive Interaction, High Status, and High Intellective categories than did his sample of students, and she feels that this may reflect the stutterer's concern with his communication problems and with how others perceive him generally. Further understanding of the stutterer's construct system was provided by the use of a grid in which the elements were situations and the constructs were related to the likelihood of stuttering: all subjects associated this latter with subjective anxiety and the predicaments of individual clients were reflected in their grids. Somewhat similar research to Fransella's work on stutterers has been carried out with depressed clients by Silverman (1977), who found that they obtained significantly higher Intensity scores

when using affective constructs, but not when using the constructs of the Bannister-Fransella Grid Test, than did normal subjects, and that decrease in Intensity of affective construing was greatest in those clients who showed the best remission. These results were thought to reflect the depressed person's preoccupation with mood and inability to make flexible judgements regarding mood.

If a person is seen as suffering from a particular complaint because that is the way he knows how to be, then it might be thought that a treatment, such as behaviour therapy, which focuses on the complaint might be counter-productive in that it would serve to elaborate even further the person's construing of himself as having the complaint. Alternatively, if the 'symptom may be regarded as a part of a person's experience of himself which he has singled out and circumscribed as in some way incongruous with the rest of his experience of himself' (Wright, 1970) then a positive therapeutic outcome might be thought more likely in such cases if the therapist tailors his endeavours to the client's construct system by colluding with the client's demands for direct attack on and removal of this alien part of himself. As Bannister (1965a) remarks, 'the ideal subject for behaviour therapy is the learning theorist, i.e. the patient who views his symptoms as mere habits unrelated to his personal philosophy.'

Several grid studies have demonstrated such dissociation of the symptom from the self-concept. Bannister (1965a) cites the case of an agoraphobic who did not relate the construct 'people who can go anywhere with confidence' to her other constructs, including the self construct: during the course of psychotherapy and behaviour therapy, there was loosening of the construct system to a point of virtually no inter-relationship between constructs, corresponding to complaints of confusion, and eventual return to her original way of construing. Fransella and Adams (1965) administered a series of grids to an arsonist and found that he saw himself as close to his ideal self, as possessing many desirable qualities, and as being unlikely to commit arson. At the start of treatment, a grid exploring the various components of the fire-raising behaviour revealed that his feelings at the time of putting the match to the fire were similar to those when watching sport or when sexually aroused, but he did not relate taking pleasure in being sexually aroused to his self concept, from which it became further removed during psychotherapy, and associated with undesirable qualities. The authors feel that this reconstruing of sex may have been a result of the focus upon it during psychiatric interviews and the undesirable construction of it a result of the client's puritanical upbringing. Another change during therapy was the reconstruing of hostility from being unlike his ideal self and self concepts to the opposite pole of this, his major dimension of construing, and this seemed to reflect his acceptance of his hostility. The desirable qualities which he associated with his self and ideal self concepts and with the feelings which he experienced while lighting a fire (but not with the likelihood of committing arson) were also associated with enjoyment of having power and believing that people get the punishment they deserve, and the authors speculate that for the client putting a match to a fire 'could be regarded as symbolic purification of all those who have sinned.' Further, the high negative correlation between the self and 'likely to commit arson' constructs suggested a poor prognosis as the client did not see himself as committing arson. The present author has found a very similar picture of high self-esteem coupled with dissociation of his self concept from the fire-raising behaviour in another arsonist: of all the elements in the grid, he saw himself as the least likely to commit arson, and also as not

characterised by any of the construct poles which he ascribed to arsonists in general.

Fransella and Adams observe that very often the grids of neurotic clients show little relationship between the self and symptom constructs and that the correlation between these constructs tends to increase with improvement in the client's condition. In her research on stutterers, Fransella (1968, 1972) has also found that, while such people tend to construe other stutterers in the same way as non-stutterers do, they do not see themselves as being like other stutterers. Similarly, Hoy (1973, 1977) found that a group of alcoholics shared a particular stereotype of the alcoholic, very similar to that held by the staff in the alcoholism unit and in the hospital generally, but tended not to construe themselves in these terms, nor to see themselves as alcoholics. Furthermore, the ten per cent of alcoholics who did construe themselves as such did not appear to have a more favourable prognosis.

While in most neurotic clients, and particularly in depressives, there is a large discrepancy between their construing of the actual and the ideal self (Rowe, 1975; Ryle, 1975), dissociation of the self from the symptom construct often seems to be associated with the maintenance of an unrealistically high level of self-esteem and consequent resistance to change. Such a pattern might be expected to be found in those individuals whom society labels as disturbed while they consider themselves to be perfectly well. The schizophrenic is often regarded as falling into this category, and as lacking insight into his condition, and Winter (1975) has found lower actual self - ideal self discrepancies in the grids of schizophrenics than in those of other clients. Norris and Makhlouf-Norris (ibid) have observed what they term self convergence, in which the actual and ideal selves are construed as very similar, in social deviates such as drug addicts, in clients diagnosed as suffering from personality disorder, and in some normal subjects. Norris (1977) has found that while the self-esteem of trainees at a detention centre appeared, on the basis of changes in the self - ideal self discrepancy, to increase over their two-month sentence, this tended to be due to construing of the ideal self in less socially desirable terms, and particularly as more associated with 'rule-breaking', while they also tended to see themselves as more like their parents, but aspiring not to be so, and more like their siblings: she interprets her findings as providing support for the view that custodial sentences are detrimental, as well as for the usefulness of grid technique. Further understanding of the client's degree of acceptance of himself and of his symptoms, and therefore an indication of his prognosis, may be obtained by the use of grids including various aspects of the self amongst the elements. Thus, Ryle (1975) reports a case of a drug user who saw her actual self as being similar to her mother and very much the opposite of her ideal self, her boy friend, the self her boy friend would like her to be, and her self on drugs. Ryle feels that this pattern reflects a splitting mechanism, with drugs serving the purpose of reducing the dissonance between the actual and ideal selves, and their abandonment being unlikely as long as the splitting mechanism remains undisturbed. With another drug-user, although splitting was again suggested by the grid, the self on drugs was construed as similar to the 'self I am afraid of becoming' and dissimilar to the ideal self, so that there appeared to be motivation to change. That the client may see aspects of his 'ill' state as desirable has been observed by other workers. Thus, Rowe (1971a) has reported a case of a depressed woman who structured her construing of people very simply into those who were good and those

who were bad, but with the former being seen as 'poorly' and the latter as 'well', so that in order to maintain a positive self-image she had to remain 'poorly.' A poor prognosis was therefore predicted for this woman, and in fact she did not improve after treatment. Rowe (1975, 1976) has presented similar cases of depressed women, and feels that a characteristic of many depressed people is that they need to suffer in order to construe themselves as martyrs. A somewhat similar pattern of seeing stutterers as good and fluent speakers as bad has been observed by Fransella (1972) in the grid of a stutterer who, not surprisingly, did not wish to have treatment.

Defensive denial of conflicts, together with preoccupation with constructs relating to the problem area of motherliness, has also been observed by Breen (1975) in the grids of ill-adjusted primiparous women after the birth of their children (adjustment being defined by doctors' reports and questionnaires.) Such mothers used more constructs associated with a maternal construct post-partum than during pregnancy, and more idealistic constructs, while the reverse was true for well-adjusted women, who used more practical constructs post-partum and seemed to modify their construction of a good mother to a more realistic one. In terms of the 'maternal' constructs, the ill-adjusted women were relatively more satisfied with themselves as mothers (as measured by proximity to an ideal mother element) post-partum than during pregnancy, while the well-adjusted women were less satisfied with themselves. This was a reversal of the difference between the groups on the grid as a whole, results of which showed an increase in the similarity of self and actual mother, as well as ideal mother, elements post-partum, while the self was construed as more dissimilar to the husband, and there was a tendency for these changes to be reversed in the ill-adjusted group. Breen feels that the partial grid composed of 'maternal' constructs taps aspects of construing of which the mother is less conscious than does the total grid.

Although the client may or may not construe his symptom as alien to himself, choice of the symptom would be expected to have a basis in his personal construct system. Smail (1970) found that neurotic clients who tended to produce psychological, as opposed to objective, constructs in an elicitation procedure also tended to report psychic, as opposed to somatic, symptoms. In addition, diversity of the elicited constructs was related to 'thinking introversion', itself related to presentation of psychological, rather than physical, symptoms in a number of studies (e.g. Caine and Smail, 1969.) McPherson (1972) obtained similar results regarding the relationship between the dimensions of psychological-physical construing and of psychic-somatic symptomatology in schizophrenics, and, as previously mentioned, he has associated affective blunting in certain schizophrenics with their inability to construe psychologically (e.g. McPherson et al., 1970, 1970.) McPherson and Gray (1976) again demonstrated the expected relationship between content of construing and symptomatology in a mixed group of clients, and that clients who employed more psychological constructs also reported more psychic symptoms than those who employed more objective constructs, but that these groups did not differ in the number of somatic symptoms reported. They interpret these results as indicating that individuals who tend to construe psychologically also tend to label their bodily sensations of anxiety as psychological. Extending this line of argument, features of the client's construct system may be thought to determine not only the pattern of symptoms with which he presents but also the meaningfulness to him, and his consequent response to, different types of treatment.

Disorders in the Content of the Construct System: More specific aspects of the content of the construct system, as reflected in relationships between particular constructs, distances between particular elements, or interrelationships between particular constructs and particular elements may provide an understanding of the client's predicament and of the apparent paradoxes in his view of the world, and examples of such an approach have been provided in some of the single case studies mentioned above (e.g. Rowe, 1971a.) However, it is perhaps in this area more than any other that the investigator is faced with the problem that his interpretation of particular aspects of the client's grid may be as indicative of features of his own construct system, such as his conception of what constitutes 'healthy' construct relationships, than that of the client. Similar difficulties arise when the investigator attempts to frame his hypotheses in grid terms, when he may often succumb to the 'temptation to be very simple-minded' (Bannister and Mair, ibid.) and, for example, on the assumption that there is an unusual similarity in meaning for the client between construct X and construct Y, he may insert both constructs into a grid administered to the client and interpret the correlation obtained between them very much in isolation from the remainder of the client's personal construct system. Such an assumption is apparent in May's (1968) grid study of a paranoid schizophrenic exhibiting sadistic ideation, and it is somewhat difficult to follow the logic of the prediction that if the client were potentially dangerous, he might associate 'being in favour of mercy killing' with 'feeling love for the family' as 'homicide might be committed with regret rather than rage, particularly if the murderer considered that there was justification for his action.' In fact, these constructs were found to be correlated in the client's grid, but the subsequent prediction that this might be a characteristic feature of the construing of homicidal clients was not confirmed.

Relatively few of the attempts to develop indices of psychopathology in terms of relationships amongst constructs and elements have drawn extensively on personal construct theory but one which does make use of the theory, and in particular Landfield's (1955) construction of threat, is Kasper's (1962) study of psychological adjustment in adolescents. Threat, as defined by being construed by another person in terms more characteristic of his past than of his current progression; construing of himself as inferior to others' construing of him; and a discrepancy between his own and others' construing of change in him, was found to characterise poorly-adjusted subjects, and in particular a clinical population, as opposed to well-adjusted subjects, to be related to teachers' ratings of adjustment, and to show high test-retest consistency. Clinical subjects tended to ascribe their status to the onset of adolescence, and to see themselves as overrated by others, in contrast to the poorly-adjusted group, who saw themselves as underrated. Well-adjusted subjects tended to be able to tolerate high degrees of threat more successfully without change in self-esteem, showed less discrepancy between their ideal and expected attainments, and produced more constructs. In addition, clinical subjects were most likely and well-adjusted subjects least likely, to designate a parent as the person most threatening to them.

An attempt has been made by Ryle (1975) to provide a rationale in terms of object relations theory for the interpretation of features of the grids of his clients, of which he presents many examples and which he feels can provide access to unconscious mental processes. Thus, he has examined ambivalence in his subjects by including in the grid the same element experienced under different conditions (e.g. the subject's relationship with their spouse when it is going well and when it is going badly), and

denial may be indicated by the lack of any difference between the subject's construing of these conditions. Denial may also be apparent during the elicitation procedure if, for example, a subject only gives constructs concerning positive feelings or is unable to give the contrast poles of such constructs. In completing the grid, denial can be reflected in a tendency not to use constructs concerning negative feelings, or concerning an area of feelings with which the subject has particular difficulty, in a discriminating way. Splitting, together with projection or introjection, may be the mechanisms used by the subject to deal with ambivalence, and Ryle feels that splitting is often in operation when the self or a significant other has a very high loading on one of the pricipal components from analysis of the grid. Polar to the element concerned may be constructs and elements representing split-off aspects of the element. Unresolved oedipal problems may be indicated in a grid by the association of appropriate sex role characteristics with undesirable qualities or by identification (and consequent proximity) of the self element with the parent of the opposite sex. In the dyad grid, in which the elements are relationships rather than individuals, oedipal problems may be reflected in similarity in the reciprocal roles of self and spouse and those of self and a parent, which may suggest sexual difficulties in the relationship between the subject and their partner, or in the reciprocal roles of self and spouse reversing those of the subject's parents (although, as Ryle points out, this latter may represent 'the successful correction of a culturally deviant reversal in the parental pair.') As suggested above, unconscious fantasy processes will often be manifest in a grid as part of an oedipal problem, as when a man sees masculinity as being associated with cruelty and the opposite of gentleness and passivity, and in general they are indicated by aspects of construing which depart from the socially-shared consensus. Working as he does with a student population, many of the examples of non-consensual construing which Ryle (1969, 1975) presents are related to academic difficulties: for example, relationships between constructs concerning academic achievement and constructs suggesting undesirable attributes or, in a female student, non-feminine qualities.

Ryle tested out his ability to identify grids revealing psychopathology on the basis of the features mentioned above by ranking grids presented blind to him in terms of the probability that the subject was receiving psychiatric treatment (Ryle and Breen, 1971.) All the grids were of students, half of them receiving psychiatric help and the other half being controls with no psychiatric history (and these two groups differing significantly in their scores on the Middlesex Hospital Questionnaire) and 'a very satisfactory sort was obtained', the four highest ranked control subjects all consulting with emotional difficulties, but not being considered to require treatment, in the fifteen months after testing. In a further study (Ryle and Breen, 1972) the grids of neurotic clients and control subjects in a student population were compared, and 9 of 23 predicted differences between these groups were confirmed: the clients exhibited greater distance between self and ideal self, and between self and father, elements, lower values for self-mother minus self-father distances, and higher mean distance of self from parent elements. Male clients showed more extreme loadings of the self element on the first two principal components, and in the clients as a whole a greater proportion of the variance was accounted for by the first two components combined, suggesting the operation of splitting mechanisms and polarisation, and there were more elements at a distance from the self greater than the mean distance between elements. In contrast to predictions, clients were found to choose fewer elements of the same sex than controls, and exhibited a lower correlation between constructs 'likely to succeed academically' and 'a cold person.' In addition grid

variables were correlated with scores on the Middlesex Hospital Questionnaire, and while most of the significant correlations were with variables which were associated with client status, M.H.Q. scores were also positively correlated with the distance between self and mother elements, the correlation between constructs 'warm' and 'passive', the correlation between constructs 'warm' and 'likely to need psychiatric help', and total variation about construct means (i.e. the extent to which the constructs discriminate between the elements.) It was felt that differences in the association of the two criteria of neurosis with the grid variables might have been a result of factors influencing consultation, but, taking the criteria together, the great majority of the grid measures were found to show the predicted relationship with client status. Summarising their picture of neurotic construing, Ryle and Breen state that the neurotic is 'someone who sees himself as unlike others in general and unlike his parents in particular, who is dissatisfied with himself, who tends to extreme judgements and operates with a less complex construct system than do normals, and who tends to construe others in ways which depart from consensual values in respect of certain attributes. In addition, an account of an individual patient would include a description of the particular possibilities open or closed to him on account of his mode of construing himself and others.'

Construing in Marital Disharmony: As mentioned above, Ryle and his colleagues have also devised, and used a similar framework for the interpretation of, the dyad grid, in which the elements are relationships rather than individuals (Ryle and Lunghi, 1970.) Those elements representing reciprocal relationships (e.g. 'X in relation to Y' and 'Y in relation to X') are joined by lines in the plot of the principal component analysis of the grid, and it is suggested that parallel lines indicate similarity in the reciprocal role relationships of the pairs of elements concerned, while the length of the dyad lines indicates the degree of role differentiation in the relationships concerned, with very short lines characterising cosy, collusive relationships and very long lines reflecting overt conflict. Cases are described in which oedipal problems appear to be reflected in dyad grids, the client's relationship with his/her partner being construed as similar to that with their parent of the opposite sex; as are cases in which sex role problems appear to be indicated by a reversal of the sex roles of the client and his/her spouse when compared with the other relationships considered in the grid. In a further modification, the double dyad grid (Ryle and Breen, 1972a, 1972b), each member of a couple is asked, in addition to completing a grid for him/herself, to predict the grid which their partner has completed, comparison of the actual and predicted grids of each partner providing an indication of degree of empathy and specific areas of inability to 'construe the construction processes of the other' (Kelly, 1955) and of consequent failure in communication. Similarly, comparison of the grids of the two partners can provide an indication of their general degree of 'commonality' in construing and specific areas of similarity (perhaps, in a collusive relationship, reflecting shared neurotic constructions) and difference. Ryle and Breen feel that the double dyad grid can therefore serve to elucidate the nature of both the inter- and intra-personal difficulties of a couple, and they present a detailed clinical illustration of the use of such a grid. Analogously to their study of individual neurotic clients, they have also examined the validity of their predictions of 'neurotic' features of construing in double dyad grids by comparing the grids of maladjusted (identified by client status and higher scores on the Middlesex Hospital Questionnaire) and normal control couples. It was found that the clients saw their partner's relationship with them, when it was going well, as more like the relationship of their parents with them than did controls;

and clients were more likely to see their relationship when going badly as resembling their relationship with the parent of the opposite sex. When things were going badly, clients saw their partners as becoming less parental towards them while they became more child-like. The groups did not differ in the extent to which the relationship with the partner was seen to resemble the relationship between parents. High total scores on the M.H.Q. were associated with a high correlation between constructs 'hostile to' and 'domineering to', while a high score on the somatic sub-scale was associated with a high correlation between constructs 'hostile to' and 'sexually attracted to', and there was higher variance in the client than the control group in construct correlations assumed to reflect psychopathology, although the groups were not differentiated by mean values of such construct relationships. Similarity of the partners' grids was not related to M.H.Q. scores, but similarity of the grid predicted for the partner and the pertner's actual grid was significantly correlated with M.H.Q. scores in male subjects, although the correlation in females was positive but insighificant, 'suggesting that neurotic females are more, and neurotic males less able to predict the other.' Richardson and Weigel (1969) have also advocated a personal construct theory approach to the study of marital adjustment, but they were unable to demonstrate a significant relationship between questionnaire-assessed marital adjustment and the congruence of spouses' personal constructs, or, indeed, a significant difference between actual and randomly-paired couples in the congruence of their constructs, possibly due to the insensitivity of the measuring instruments used (Weigel et al., 1973.)

Construing and Psychological Therapy: The research reviewed above suggests that features of the personal construct system of the psychologically disturbed individual may provide an understanding of his predicament, including his choice of symptoms and the options open to him in terms of change. Change in his psychological state would be expected to be reflected in changes in his construing, which would therefore be affected by therapeutic intervention, and Kelly (1955) has described the nature of the changes which could occur. As previously mentioned, the most superficial type of change is 'slot rattling', in which the person merely moves the self or other elements along one of his existing construct dimensions. Rather more fundamental is 'controlled elaboration', in which the individual's construct system becomes more internally consistent and his superordinate constructs tighter; but the major changes which can occur are those in the relationships between existing constructs, as well as the development of new constructs. A further type of change discussed by Kelly is 'reduction of constructs to impermeability', in which the range of convenience of particular constructs is limited, and the constructs therefore tightened. 'In summary, we may say that psychotherapeutic movement may mean (1) that the client has reconstrued himself and certain other features of his world within his original system, (2) that he has organized his old system more precisely, or (3) that he has replaced some of the constructs in his old system with new ones. This last type of movement is likely to be the most significant, although the behavioural changes may not be as spectacular as in the first type. The second type of movement may be most impressive to those who always look to therapy to produce verbal consistency and "insight"' The process of change in construing is also considered by Kelly in his descriptions of the Circumspection-Pre-emption-Control and Creativity Cycles. In the former, there is first circumspection of the field, followed by pre-emption, in which the relevant issue is selected, and control, leading to choice. The Creativity Cycle 'is one which starts with loosened construction and terminates with tightened and validated construction.' It can be assumed

that both cycles operate during the therapeutic experience.

Several studies have explored changes in construing accompanying independently observed changes in the client's psychological state, and particularly, as in some of the work discussed above, changes relating to the therapeutic process. Rowe (1971b) administered repertory grids to a client when the client was hypomanic and again, four weeks later, when calm, finding considerable and systematic changes between the grids on these two occasions. The greatest changes were in constructs concerning fear, guilt, and anger, which in the manic state were applied to her relationships with her parents, her psychiatrist, and a friend, while in the calm state there appeared to be denial of these aspects of her relationships. It would seem that such changes are relatively superficial and fall into the category of 'slot rattling.' Although involving modification of construct relationships, the changes reported by Bannister (1965a) in the grids of a frigid woman during psychotherapy appear no less superficial, for the client merely changed her evaluation of constructs concerning sex, from initially being seen as 'bad' and 'powerful' to the opposite poles of these constructs. Concomitantly, her behaviour indicated a change from finding intercourse repugnant to finding it acceptable but uninteresting. Slater (1970, 1976) has monitored changes in the mental state of a client diagnosed as neurotic depressive during alternate sessions of psychotherapy and occupational therapy by employing a grid in which the constructs were the symptom scales from a Personal Questionnaire (Shapiro, 1961) and the elements the client's mental state before and after each therapeutic session. The first component from principal component analysis of the grid appeared to concern general aggravation of symptoms while the second distinguished symptoms referring to external situations from those with an internal reference. Greatest relief was observed to occur in the latter symptoms and psychotherapy was found to be the most effective treatment in providing symptomatic relief.

Mair and Crisp (1968) first considered the possibility that the repertory grid technique could be used to predict those changes in construing likely to occur during therapy and to indicate the optimal focus of therapeutic attack. Such an approach was employed by Ryle and Lunghi (1969) in their study of change during the brief psychotherapy of a young woman. Three repertory grids were administered to the client before, during, and at the end of treatment, and predictions made on the basis of clinical observations and the first grid completed as to changes in the grid results expected to accompany successful therapy. Thus, the predicted changes in distances between elements reflected resolution of splitting mechanisms, and the predicted changes in relationships between constructs reflected the acceptance of femininity as 'adult'; 11 out of the 13 predictions were confirmed at the third occasion of testing (although, with some, change in the opposite direction had been observed at the second occasion) and all other observed changes in construct relationships were consistent with the clinical hypothesis. Treatment was judged to be successful clinically and in terms of changes shown with the Middlesex Hospital Questionnaire and Eysenck Personality Inventory. With a further ten clients, Ryle (1975) similarly found clinical evaluations of improvement to be in general accord with the degree of change observed in selected element distances and construct correlations in the grid. In addition to the changes predicted in the grids of each individual, he examined the changes in eight grid features characteristic of neurotic subjects, and found that, while these variables did not necessarily change in the same direction, more positive changes occurred in the grids of the most clinically improved clients than in the remainder. It would be expected that greater

change would occur during therapy in the more peripheral aspects of the client's construing than in his core construing, and Varble and Landfield (1969) have provided some evidence for this in that changes in the discrepancy between self and ideal self were greater on those constructs ranked by the client as least important.

Fixed role therapy is a technique devised by Kelly (1955) and firmly based in personal construct theory, but repertory grid investigations of change during such therapy have been limited to single case studies. Thus, Skene (1973) describes the treatment of a homosexual of borderline subnormal intellectual level, with whom fixed role therapy was used in an attempt to provide an alternative construing of his relationship to women and to reduce his social anxieties, and whose grids showed changes consistent with this aim, in that heterosexuality came to be construed more positively during the course of treatment, although it was still not clearly differentiated from homosexuality. These changes were monitored at a follow-up grid assessment five months after termination of treatment, and were coupled with clinical improvement, cessation of homosexual behaviour, and positive changes on an independent measure, the Dynamic Personality Inventory. Trippett's (1973) serial grid study of fixed role therapy was more concerned with the usefulness of repertory grid technique in monitoring the therapeutic process, and he concluded that serial grids are reliable, having assessed reliability by the administration of the same grid on two occasions 24 hours apart, but that they are not necessarily valid and need to be complemented by independent symptom measures.

The Therapeutic Relationship: Other grid studies of individual psychotherapy have concentrated on aspects of the therapeutic process such as transference (Sechrest, 1962; Crisp, 1964, 1964a.) Sechrest administered a repertory test including the therapist as an element to psychotherapy clients and found that therapists were construed as being similar to people whom they did actually resemble in age, sex, and status, but not to family members at any more than a chance level, this pattern not changing during therapy, except for an increase in the similarity of self and therapist elements, and therefore not providing evidence for the transference hypothesis. In the first stage of his research, Crisp confirmed his hypothesis that members of social class I would construe their G.P. as less, and a psychiatrist as more, like their 'ideal dependable father' than members of social class III. Then, using this grid measure of transference as similarity to the ideal dependable father, he found that neurotic clients showed more positive transference to the psychiatrist, but not their G.P., than did normal subjects. With individual clients in therapy he made predictions, based on clinical judgement (such as whether therapy was being successful in relieving the client's symptoms) and psychodynamic hypotheses, of change in transference feelings between grid assessments, and of 14 such predictions all but one were confirmed. Tyler and Simmons (1964) used a repertory test to explore clients' construing of their therapists, and found that clients in a psychiatric hospital construed psychologists, nurses and activity therapists as 'persons' and doctors and social workers in terms of their task.

Similarly, the therapist's countertransference feelings can be explored if he completes a grid including some of his clients and perhaps significant figures in his life as elements, and behavioural descriptions of the clients, diagnostic formulations, descriptions of the client's transference reactions and of the therapist's feelings as constructs; or a grid employing as elements the individual sessions with a particular client and themes of sessions and transference and countertransference feelings as constructs. Such an approach has been adopted by Ryle and his colleagues (Ryle and Lunghi, 1969a; Ryle and Lipshitz, 1974) in attempting to understand the responses of professionals in the psychiatric field to their clients and in demonstrating

relationships between such responses and therapeutic outcome (Ryle, 1975.) One of the aims of professional training is to modify those features of the student's construing which are likely to interfere with his relationships with clients, and Ryle and Breen (1974a) explored by serial grid testing the extent to which such aims were fulfilled with the students on a social work course. Many of the students were seen to perceive their roles towards their clients as similar to their roles towards their parents, suggesting that playing a supportive role to parents may be a factor in the choice of social work as a career, and many also appeared to use their relationship with their tutor or supervisor as a model for their client's relationship with them. Changes in the grids of individual students were suggestive of resolution of problems, but of changes predicted for the group as a whole the only one to be confirmed at a significant level was a reduction in the distance between the relationship of the self to the client and that of the ideal self to the client, and constructs relating to professional role were the most stable, as compared to the more affectively charged constructs. In all but one of the students, there was a decrease in the amount of variance accounted for by the first two components in the grid, suggesting an increase in cognitive complexity and therefore in the ability to infer the personal constructs of others, although there had been a tendency for an increase in this measure at the second occasion of testing, possibly as a reaction to a prior T-group experience. This finding is similar to the demonstration by Runkel and Damrin (1961) of a curvilinear relationship between length of teachers' training and the complexity of their construing of students' problems. Another change of a structural nature in the construing of the social work students was a decrease in total construct variation and therefore in the tendency to make extreme judgements. However, when the students' grids were ranked in terms of likelihood of problems, there was no association between these rankingsand tutors' judgements of their students as assessed by grids administered to the tutors, who were found to share a particular mode of construing the students (Ryle and Breen, 1974.) Differences in the construing of social work students and their supervisors were examined by Lifshitz (1974), who found the former to use significantly more concrete constructs. In an earlier study, Philip and McCulloch (1968) had investigated the constructs used by social workers to describe clients who had attempted suicide, and found that these constructs fell into two main categories: those concerning the impact of the client on the social worker, and those concerning the professional formulation of the case. Psychiatric diagnosis was the object of study by Agnew and Bannister (1973), who, with consultant psychiatrists as their subjects, found that they showed no more stability or inter-judge agreement when using diagnostic constructs in grids with their clients as elements than when using lay descriptive constructs, and that there was overlap between the two sets of constructs. Sperber (1977) has provided some support for these findings in the area of child psychiatric diagnosis in his demonstration that clinicians were able to construe child clients as meaningfully in terms of constructs used to describe child friends as in terms of constructs used to describe the clients, although 'client' constructs could not be used as meaningfully to describe the friends as could 'friend' constructs.

Repertory grids can also be used to examine the degree of empathy shown by a therapist with a particular client, and to identify specific areas of misunderstanding, by comparing a grid completed by the client with that predicted for him by the therapist (Watson, 1970a; Rowe, 1971.) Watson carried out this procedure on four occasions, two months apart, with a client who was a sexual offender and found that he generally misunderstood the client's perception of threat and anxiety, which carried sexual

connotations for him. The client's grids were more alike on successive occasions than were the grids of client and therapist on any occasion, and Watson regards this relative consistency of successive grids as evidence for the reliability of grid technique. In her first study, Rowe demonstrated systematic errors in the psychiatrist's perception of the client, and in a later study (Rowe and Slater, 1976) the same procedure was employed before and after a client's treatment. The changes in the client's grid suggested acceptance of his negative feelings towards his mother and an accompanying decrease in the necessity to project these feelings onto his ex-girlfriend, and it appeared that it was possible to achieve a successful outcome to therapy without a major realignment of his construct system as the latter "did not reveal any major inconsistencies, either internally or in its relationship to reality." The psychiatrist was better able to predict the client's grid on the second occasion of testing, particularly with regard to his understanding of the client's perception of fear. A dyad grid was employed in this study, and this was also the case in a study of therapist empathy by Ryle and Lunghi (1971), in which greatest accuracy was exhibited in prediction of the client's construing of the relationships, those with her parents and her therapist, most focused upon in therapy, while there was failure to perceive the degree of threat experienced by the client in the therapy situation.

The particular areas of a therapist's misperception are, of course, a function of his own construct system, and the possible basis of each therapist's failure to understand aspects of his client's construing is discussed in the above studies. It would seem that the outcome of therapy is determined less by the client's construct system in isolation than by the interaction of the construct systems of client and therapist. Thus, Cartwright and Lerner (1963) have related outcome in client-centred therapy to high empathy at the end but not the beginning of treatment, empathy being measured by similarity between the client's self-description and the therapist's description of the client. However, these findings may be a function of the fact that the therapists whose empathy was being investigated were also those who rated the therapeutic outcome of the clients. Therapists were significantly more empathic to members of the opposite sex, while seeing same-sex clients as being more similar to themselves, and inexperienced therapists tended to make more errors of misperceiving similarity to their clients than did experienced therapists. While Nawas and Landfield (1963) failed to find a relationship between psychotherapeutic outcome and adoption by the client of the therapist's constructs, in an extension of this study (Landfield and Nawas, 1964) they did relate improvement to the extent to which the therapist understands the client's construct system and to movement of the client's self concept towards the ideal of the therapist as described in terms of the client's constructs. Ourth and Landfield (1965) found premature termination of therapy to be related to client and therapist rating each other less extremely on their own constructs. Landfield (1971) has also demonstrated that premature termination of therapy was related to client and therapist tending not to construe each other or each other's construct dimensions as very meaningful at the beginning of therapy, and to have construct systems which were dissimilar in content. Greater improvement in therapy was associated with client and therapist organising their constructs differently at the start of treatment, such a difference presumably stimulating change, and was accompanied by convergence of the client with the therapist in the organisation of his construct system. Contrary to expectations, greater congruence in the content of the construct systems of client and therapist was related to more negative description of

the client by the therapist, particularly at the beginning of therapy, possibly as a result of the client being able to communicate more of himself to the therapist in such pairs or by the therapist feeling threatened by being reminded of a rejected past role of his own (cf. Landfield, 1955.) In addition, those clients who showed greater "concreteness" in their pre-therapy construing, as reflected in their greater use of construct poles in Landfield's "Factual Description", "Low Imagination", and "External Appearance" content categories, tended to show least change during therapy, as did those who showed more "high dogmatism", as reflected in their greater use of construct poles in the "High Egoism" and "Closed to Alternatives" categories. There was also a tendency for the least improved clients to use more "high structure" construct poles (those falling into the "High Organisation" and "High Involvement" categories) at the initial assessment and the least improved females to use more "high intensity" construct poles (those falling into the "High Forcefulness", "Emotional Arousal", and "Extreme Qualifiers" categories.) The most changed males increased their use of "High Self-sufficiency" constructs, while lack of improvement was related to degree of change in the clients' use of "high social orientation" construct poles (those falling into the "Active Social Interaction" and "High Tenderness" categories.) The case examples presented by Landfield suggest relationships between features of pre- and post-treatment repertory grids and clinical observations: in particular between organisation of the construct system and personality organisation, between predominant content of the construct system and actual behaviour, and between multiple use of particular construct dimensions and central areas of conflict.

Construing in Marital Therapy: The repertory grid technique has also been employed in the study of selection, process and outcome in marital therapy. Ryle (1975) has used the dyad grid in the exploration of change during conjoint therapy, and he provides a case example in which changes in the grids of a couple are consistent with clinical observations. These changes particularly concerned the construing of affection by the couple, together with a tendency for each of them to see their own relationship as more similar to the relationship between their respective parents. Ryle observes that the fact that there was also an increase in the number of symptoms reported by the woman on the Middlesex Hospital Questionnaire is "a finding to bear in mind when assessing the outcome of psychotherapy by single or simple measures." He has also developed the reconstruction grid, in which husband and wife each rate the two elements of the reciprocal relationship (i.e. "self to other" and "other to self") on various constructs at stages over the course of therapy, and a grid is constructed including each of these "occasion-elements" and allowing the tracing of change in their construing of their relationship during therapy (Ryle and Lipshitz, 1975.) They report a case in which the grid is used to monitor the progress of a couple during conjoint therapy towards a mutual relationship which was construed as more similar in its reciprocal roles and more positive, and in which dominating and attacking behaviour was seen as less dangerous and helpful and comfort-seeking behaviour as less valued, than before treatment. In an extension of this method, Ryle and Lipshitz (1976) have included the relationship of the couple with each of the therapists as elements in a grid completed before each session, the therapists completing a similar grid at the same time; and have also, at longer intervals, asked the couple to complete a "background grid", including relationships with and between parents as elements. They found with one couple a basically static pattern in the sessional grids of negative construing of the relationship between husband and wife coupled with idealization of the therapists' relationship,

while there were marked changes in the background grids, and the husband's background grid suggested that he could only see his wife as caring if he saw himself as depressed. The changes in the background grids mostly occurred during the first half of their period in therapy, and it is therefore concluded that persistence with conjoint therapy after this time was unnecessary and may have merely postponed the couple's eventual decision to separate.

Bannister and Bott (1973) have employed a further variant of grid procedure, asking a couple to complete independent grids and a joint grid, completed together, at various stages during counselling. The correlation between each individual grid and the "duo" grid provided an indication of who was the dominant partner, and such grid-defined dominance was related to the couple's sexual activity, which increased when the wife was dominant. Wijesinghe et al. (1975) have also examined the relationship of sexual functioning to construing in their study, using the double dyad grid, of selection for therapy based on the Masters and Johnson (1970) approach. They suggest that such an approach is contra-indicated when grids completed by the couple indicate such features as a "split libido" in one or both partners, as reflected in a low correlation between the constructs "sexually attracted to" and "affectionate towards"; the extension of battlesfor control into the sexual sphere, as indicated by the relationship between constructs concerning dominance and submission and constructs concerning sexual attraction; or a collusive relationship, as suggested by the couple seeing little difference between their reciprocal roles or between their relationship when it is going well and when going badly. In ongoing research, these and other grid indices are being employed in making blind predictions as to the degree of disturbance and likely therapeutic outcome of couples referred to an out-patient psychotherapy clinic.

Wijesinghe has also carried out a repertory grid study of interpersonal perception within a marital therapy group (Wijesinghe and Wood, 1976.) Each client in the group was asked to complete a grid using the group members as elements and some elicited constructs as well as constructs suggested by the therapist, and to predict the grid which their partner would complete, while the therapist predicted a grid for each group member. In all cases constructs concerning dominance and activity in the group loaded on the first principal component from the analysis of each client's grid, while the second component tended to concern emotional expression, and so these were the most important dimensions for intra-group perceptions. The husbands tended to be more accurate in "construing the construction processes" of their spouses than vice versa but the wives were more accurate relative to the therapist, possibly as a result of the husbands behaving in such a way as to make prediction of their construing difficult. The therapist was more accurate than the other group members in predicting their spouses' use of constructs concerning emotional expression, so that a major difficulty in the relationships of the couples may have been in the area of perception of emotional expression. In an attempt to replicate these findings on a second group, but using a grid with all its constructs elicited, similar constructs were found to be important as in the previous study, although they were not distributed between the principal components in such a systematic fashion, while group members were again better able than the therapist to predict the construing of their spouses, except in the area of emotional expression (Wijesinghe and Wood, 1976a.) Accuracy of predicting the construing of the other in this study was found by Wood (1976) to be related to similarity of construing between the predictor and the other, suggesting that "assumption of similarity" may be an important

factor in such prediction, but was related to dissimilarity in scores obtained on the Hysteroid-Obsessoid Questionnaire, such dissimilarity perhaps leading to heightened awareness of the other's behaviour. In addition, clients who were more "internally-directed" in their scores on the Direction of Interest Questionnaire were better able to predict the construing of their partners, a finding consistent with those of Smail (ibid.)

Construing in Group Psychotherapy: Repertory grid technique has been found by other workers to be useful in the study of group psychotherapy. McPherson and Walton (1970) asked clinicians to complete a grid whose elements were the members of a psychotherapy group which they were observing, and in their combined grid the first component concerned dominance and submissiveness, the second emotional sensitivity and insensitivity, and the third hindrance or aiding of the attainment of group goals. It will be observed that the first two components were similar to those which emerged in the later study by Wijesinghe and Wood (1976), so that these dimensions may be generally important in the construing of group processes. Dick (personal communication) is at present carrying out a study in which she and an observer formulate what they feel to be the dominant constructs in a therapy group and these constructs are then employed in serial grid assessments of the group members.

Watson (1970, 1972) has advocated the use of repertory grids in providing information about the psychological mechanisms of individual group members, relationships between group members, and intrapersonal change during group psychotherapy, and in studies of several psychotherapy groups he has employed grids with the group members as elements and supplied constructs, supplemented in some cases by constructs elicited from the group. The use of a standard grid facilitates comparisons between group members and the detection of such shared constructions as may operate in scapegoating or in the idealization of the therapists, examples of which are provided by Watson (1970). Sharing of the meaning of emotional terms can be considered an important factor in intra-group communication, and Watson reports that in one group there was general agreement as to the meaning of "depressed" and "frightened", these constructs being applied in a similar fashion in the grids of different group members, while the therapists shared one meaning of anger and the clients another. A standard grid also allows the demonstration of which group members are the most important, as reflected in constructs being applied to them more extremely, and which constructs are the most important, as reflected in their being found to be more applicable to the group members and therefore having high construct means. Watson (1972) has found a common pattern in different groups of constructs concerning anxiety, anger, and affection having the highest construct means (so that these feelings are strongly perceived in the groups) and constructs concerning similarity to parents the lowest. The therapists were found to have higher construct means than the clients, the greatest difference being for the constructs "like my mother", and "like my father", and the construct means for the therapists varied less both between different constructs and between occasions than did those of the clients. Simultaneous variation was observed in the construct means of all group members between occasions of testing and this variation was in different directions in different groups, suggesting that it was a function of particular group processes. Watson feels that successful therapy may be associated with an increase in very low construct means and a decrease in very high means, with a consequent increase in the meaningfulness of the constructs concerned, and he did find an expected increase

in the construct means for the constructs "like my mother" and "like my father", the clients' way of using which approached that of the therapists. Variation about the construct means due to the elements at any one test occasion provides an indication of the extent to which the elements are discriminated on the constructs concerned at that time, and Watson has found the average variation to be greater for the clients than the therapists on every construct except "like I would like to be" in each group he studied. The level of variation about construct means varied between groups, possibly reflecting factors affecting the whole group. Watson suggests that therapeutic improvement could be indicated by an increase in variation about construct means if this were initially very low and a decrease if it were initially very high, with the consequent recognition of more similarities and differences between group members, and such changes did occur with some clients in the use of constructs concerning similarity to self and parents, which initially had little discriminatory usefulness.

Watson has also been concerned with the construct correlations observed in the grids of group members, in particular that between the constructs "like me" and "like I would like to be", as an index of self-esteem, and those between "like me" and "like my mother" and "like my father", as indices of identification. He has found that the correlations between "like me" and other constructs were more consistent over time for the therapists than for the clients, in whom the inconsistency may have been a result of self-exploration, and that all the aforementioned constructs tended to be positively correlated for therapists, suggesting high self-esteem and positive feelings towards parents. The self-esteem of clients increased slightly, and that of therapists decreased slightly, between two occasions of testing separated by three to six months. It is also possible to correlate different constructs used by different group members, and in his earlier study Watson presented a case in which "like me" for a client was correlated with "like me" and "like my mother" as used by one of the therapists so that the therapist saw the client, who not surprisingly had high self-esteem, as a good mother, and seemed to be unconsciously colluding with her so that both could avoid negative feelings concerning their own mother. Used in this way the grid can therefore allow exploration of issues of countertransference.

The principal components from analysis of the therapists' grids were very similar and, as would be expected from the previous discussion, in each case constructs "like me", "like I would like to be", "like my mother", "like my father", and also often "sexually atractive" and "affectionate" were contrasted with "like a child", while for the clients "like my mother" and/or "like my father" and/or "like me" tended to be contrasted with "like I would like to be." The construct vectors of the first component changed more in the test-retest period than did its element loadings, and construct vectors and element loadings were more changeable for clients than therapists. The construct vector for the ideal self construct was the most stable for both clients and therapists, as were those for "like a child" for the therapists and "jealous", "depressed", and "anxious" for the clients; while the construct vectors for "sexually attractive" and "like my mother" were the least stable. Watson (1972) has speculated on the psychological meaning of the principal components, suggesting that components other than the first "might reflect intrapersonal events whose psychological implications were incompatible with the rater's major construing dimension" and "the emergence of ego-dystonic material into awareness which is said to occur during effective psychotherapy ..." He feels that the testing of the first against the subsidiary principal

components may be psychologically healthy, as is a moderate amount of change over time in construct vectors on the first component, so that there is a flexibility without a great degree of instability.

In their study of change in a psychotherapy group of a year's duration, Fransella and Joyston-Bechal (1971) also used a grid in which the elements were the group members while the constructs were supplied, together with the Bannister-Fransella Grid Test of Thought Disorder and independent measures of change. They found that, while there was no significant change in the group members' Intensity and Consistency scores on the Bannister-Fransella Test, there were significant and similar fluctuations for the group as a whole, the therapist and a "non-participating" observer in the Intensity of their group-related grids, with all but one of the group members showing a significant loosening of the construct relationships in this grid between the second and fourth of the five occasions of testing. The consistency of the group members' construing increased initially and remained fairly high during the period of loosening, but element consistency between this time and the final occasion of testing was low, so that the loosening preceded their coming to construe each other differently. This change in element consistency was not accompanied by one in construct consistency, suggesting that there was no radical change in construing. Examination of the relationship between the grid of the therapist and those of the other group members showed a fair degree of similarity of construing until the period between the fourth and final assessments, when this decreased considerably. Also, the therapist tended to see those clients with the tightest construct systems at a particular time as being least likely to improve at that time, while improvement was associated for the therapist with the client's inability to see himself as he is seen by the group. The therapist's positive evaluation of loose construing may have explained the loosening which occurred in the group, with the opposite tendency in the latter stages of the group possibly representing a reaction to anxiety engendered by the fact that the therapist had also loosened his own construing.

The way in which the group members related particular constructs was investigated, and it was found that talkative people were construed as being leaders and as contributing usefully to discussions, but there was no confirmation of the hypothesis that the ideal self would change from being identified with the therapists to being identified with the group. A consistent picture of change in the clients was not provided by social adjustment ratings, scores on a depression scale, and clinical assessments, and the authors suggest that individualised criteria of outcome may have been more appropriate than the general indices which they used. The two clients who changed the most in terms of social adjustment ratings were most accurate in seeing themselves as others saw them and were also those who were least affected by the group processes which Fransella and Joyston-Bechal appear to have demonstrated, inasmuch as they did not follow the pattern of fluctuation in the Intensity of their construing. Fransella (1970b) feels that the use of repertory grids in this study enabled the linking of aspects of the group process to outcome measures.

A modification of the repertory grid called the Personal Description Questionnaire was also used as one of the outcome measures in the study of different types of encounter groups carried out by Lieberman et al. (1973) and provided an indication of the participants' conceptions of themselves and of others. There was no significant difference in self-esteem between the beginning and end of the groups, differences between groups being more

significant than between participants and matched control subjects, and neither was the discrepancy between self and ideal self found to be predictive of outcome. A low level of self-esteem was shared by both the subjects who were regarded as "high learners" and those who were "casualties" of the groups, but the latter subjects were characterised by negative conceptions of others, and seeing significant others as highly differentiated. As in the study by Fransella and Joyston-Bechal, the grid used by Lieberman et al. employed supplied constructs, but it might be thought that more personally relevant outcome measures could be derived on the basis of a grid with elicited constructs, and indeed Crouch (1973), in a study of group psychotherapy, has remarked on the extent to which the results could have been a function of differences between clients in understanding the constructs supplied to them.

In his study of group psychotherapy with clients diagnosed as suffering from personality disorders, Fielding (1975) employed repertory grids with elicited constructs and made an attempt to use individualised outcome criteria in grid terms, as well as independent measures of change in the form of a Symptom Check List and Discomfort Scale Questionnaire. At the pre-treatment assessment, each group member was asked to indicate his desired direction of change on each of the constructs elicited from him, while the therapist decided the desired direction of change on each of his own constructs for each of the clients. A repertory grid with the group members and "significant others" as elements was completed by each group member at this time and again after four sessions and after every subsequent eight sessions until the termination of the group after 18 months. An individualised self-rating score was derived for each client at each assessment as a measure of his closeness to his predetermined ideal, but this measure can be criticised in that the ideal was defined only in terms of the direction but not the extent of desired change on each construct, and also the fact that the ideal self was not entirely stable during therapy. The mean score on this measure for the group as a whole showed virtually no change and neither did the ratings of other clients in the group relative to the ideal, while total change in construing, irrespective of its direction, did not show a decreasing or increasing rate of change over time. Proximity of other elements to the raters' ideals was also considered, and initially the group construed their significant others more positively than themselves and the therapists more positively than themselves, their significant others, and the other clients. Over the course of therapy, the clients came to see themselves as more similar to their significant others, and it was assumed that this reflected therapeutic improvement in view of the fact that Ryle and Breen (1972) have shown isolation of the self from other elements to be characteristic of the construing of neurotics. All group members also rated their fellows as improving in terms of proximity to the rater's ideal self, and the therapist, while changing little in his construing of himself, saw the group as becoming more similar to himself over the course of therapy.

A factor analysis was carried out on all the measures used and the first factor appeared to be concerned with distance of the self from other elements, the second with the rating of other clients, the third with transference, the fourth with "self-perceived rating", and the fifth with rating of other persons. Fielding reports that "broadly speaking" changes in the grid indices matched the clinically assessed outcome of the group, although he does not specify the nature of this correspondence, and he feels the grid measures he has used to be valuable in the study of therapeutic process and outcome, while pointing out that further research is necessary to test their validity.

In their study of group psychotherapy with alcoholics, Heather et al. (1975) have also investigated the relationship between changes in construing and therapeutic outcome. While consistent changes occurred during therapy in the group members' construing of actual and social selves, which moved from socially disapproved to approved drinking roles, with a consequent enhancement of self-respect, such changes in self-construction did not appear to be related to therapeutic success. Indeed, those clients showing greatest recovery of self-respect were more likely to relapse, as were those who moved away from a feeling of self-respect. The only aspects of construing predictive of successful outcome were "objective" constructions relating types of drinking role, but the changes in these were much smaller and less consistent than those in construing of the self. More positive outcome was observed in those clients who distinguished less between different types of alcoholics but more between alcoholics as a class and other types of drinkers. Hoy (1977) has also carried out a study of changes in construing in alcoholics during group psychotherapy, finding that the construing of alcoholism in the clients as a whole tightened during therapy, but that in those clients who showed clinical improvement loosening occurred in those areas of their construing related to drinking, and the relationship between their construing of their "normal" and of their "recent" selves increased. A cut-off point was suggested for the average post-treatment construct correlation above which poor outcome could be predicted. Relationships between structural features of the alcoholic's construct system and his response to a treatment setting emphasising interpersonal relationships have also been demonstrated by Orford (1974), who found that cognitive simplicity, assessed by a composite measure of the degree of unipolarity of free descriptions of others and the amount of variance accounted for by the first two components of a grid, was associated with early drop-out from an alcoholism half-way house, a finding which it is suggested could be due to the extremity of impression formation, and difficulty of integrating conflicting information with the impression, in the cognitively simple individual.

Caplan et al. (1975) have examined the validity of grid measures of change in an out-patient psychotherapy group by exploring their relationship to verbal behaviour during sessions, to group processes, and to Personal Questionnaire assessments (Shapiro et al., 1975.) They carried out serial grid assessments after every fourth group session for a year, the elements being the group members and "the group", and the constructs similar to those in Watson's (1970, 1972) studies. All group sessions were taped and the tapes analysed in terms of the number of communications made to and from each group member and the number of topics in various categories introduced by each client. In addition, Personal Questionnaires were completed before and after several of the sessions. Self-esteem as measured by the grid tended to increase with time for every group member, the self-esteem of the clients being lower and more variable than that of the therapists. Identification with the mother, as reflected in the correlation between constructs "like me" and "like my mother", was often highly negative for the clients, in contrast to the therapists, and was much more changeable for the clients, while identification with the father tended to covary for clients and therapists. Clients' paternal identification was positively related to the number of topics raised in the sessions and specifically the introduction of topics concerning family members and other clients in the group, while maternal identification was not associated with any of the tape variables. The introduction of new topics, particularly concerning family members and themselves, was related to the clients rating group members as more like themselves and like their fathers, this perhaps being connected to re-enactment of family relationships in the group. The

self-esteem of the clients tended to increase when they talked about relatives other than their nuclear family members, and that of clients and therapists to decrease when they discussed the perhaps more sensitive topic of sex. The maternal identification of the therapists increased when the clients talked about them, while their paternal identification increased when jobs were discussed, suggesting that they related occupational performance to their relationships with their fathers. For individual clients, correspondences were observed between tape variables and the grid variables of self-esteem, identification with parents, identification with therapists, and similarity of client's and therapists' construing. Clinical observations were also related to grid features, one client, for example, rating elements very extremely, perhaps reflecting the use of attributive projection, when she rated herself as experiencing intense negative feelings; and another showing a sudden splitting of the therapists on his grid immediately before leaving the group. Correspondences were also observed between grid and Personal Questionnaire data, with, for example, the decreasing self-esteem of one client being reflected in a worsening trend on the Personal Questionnaire.

While feeling that "the presence of intelligible consistent patterns between grids" and the relationship between grid data and other variables in their research provides an indication of the validity of the grid, Caplan et al. provide the cautionary reminder that their analyses are of an essentially post hoc nature and that "the method of post hoc interpretation which has sometimes been used to infer 'dynamic' changes from grids ... is notoriously untrustworthy." The necessity of predictive grid studies of therapy is therefore highlighted, and Caplan et al. see the main advantage of the use of the grid within the theoretical framework of personal construct theory as being that predictive hypothesis-testing is thus facilitated.

In a study of an analytically oriented therapy group, Dresser (1969) administered a role construct repertory test to each group member and then asked the therapist to indicate desired directions of change in construct relationships for each client. Only one client in fact changed in the predicted direction, but Morris (1974) questions the conclusion that therapy was unsuccessful in that other outcomes than those considered desirable by the therapist may have been equally positive for the clients. Morris (1977) has emphasised the need for individualised predictions of outcome, and explored the success of therapists' predictions of change in their clients' grids, in her study of change in a psychotherapy group of a year's duration. All the group members completed a grid with the same elements and constructs, both elicited and supplied, at the beginning and end of treatment, and the therapists also completed at the beginning of treatment an "Ideal Outcome" grid for each member on the basis of that person's initial grid and interview transcript, and at the end of treatment an "Actual Outcome" grid predicting how the person's construing had actually changed. The therapists displayed considerable accuracy in their prediction of actual change, but while there was some correspondence between the "Ideal Outcome" grids and the clients' retest grids, it was felt that the former grids often reflected unrealistic expectations of change. Ratings of change and improvement in each client were carried out by Morris and by the therapists, and each client completed the Middlesex Hospital Questionnaire and the Edwards Personal Preference Schedule. Analysis of the matrix of outcome measures yielded three main clusters: the first reflected a relationship between ratings of improvement and change and a decrease in the level of correlation of self constructs with other constructs, as well as strong affiliation needs, high "order" and "low"exhibitionism" needs as measured by the E.P.P.S.; the second cluster concerned rated need for further treatment, which was related

to high phobic anxiety scores on the M.H.Q., high "aggression" and "autonomy" needs on the E.P.P.S., high discrepancy between self and ideal self constructs, and a segmented, rather than an articulated, construct system; while the third cluster consisted mostly of M.H.Q. measures, which were highly intercorrelated. Morris points to the need for serial assessments at shorter intervals, with elicitation of constructs afresh at each retest session, if therapeutic change is to be measured with the maximum sensitivity.

In exploring change in a psychotherapy group of two years' duration, Winter and Trippett (1977) carried out serial assessments at six-month intervals on the group members using a repertory grid with supplied constructs and the members of the group as elements. Individualised predictions of successful outcome in grid terms were made on the basis of inspection of the first grid completed by each client, and these were compared with general predictions applied to each client, which were largely based on Ryle and Breen's (1972) description of characteristics of "neurotic construing." Significantly more individualised than general predictions were confirmed, and if it can be assumed that such changes did indeed occur during therapy, support is provided for the position, very much in the spirit of personal construct theory, that outcome criteria should be tailored to the individual client. However, it is possible that more appropriate general outcome criteria could be devised than those derived from Ryle and Breen's work with students. An interesting feature of this study is that it is one of the few to have taken up Slater's (1969) suggestion of using a control prediction of a grid measure not expected to change during therapy. The measure chosen was the correlation between the constructs "as I would like to be" and "intelligent", on the assumption that most people would like to be intelligent and that this would vary little with time and circumstances, but in some clients there was an increase in this correlation comparable to the predicted changes in other grid measures. This was possibly a result of idealization of the therapists, who were generally construed as intelligent, and it would seem that in future research control predictions should also be individualised.

In addition, using Slater's SERIES programme (Chetwynd, 1973), a consensus grid was obtained at each assessment session, providing a picture of the construct system of the typical client in the group at that time. The major change in this grid during therapy was in the constructs "like me" and "like my mother", which, from being opposed to the ideal self construct on the first principal component, a basically evaluative dimension, came to be relatively independent of this component and to define the second component, along with "like my father." This apparent freedom of the self construct from the constraints of the ideal self would seem to reflect the development of a more flexible construct system, and a more fundamental reconstruction than mere slot rattling of the self construct along the ideal self dimension, although it can be questioned to what extent it is valid to draw inferences from such a statistical abstraction as the consensus grid. Another change in this grid was that the construct "anxious" moved closer to the ideal self construct, suggesting that anxiety had become more acceptable to, and more easily tolerated by, the clients. As in Watson's (1970, 1972) studies, construct means were examined to ascertain the relative applicability to the group of the constructs used, and the constructs concerning similarity to parents, "threatening", and "clinging" were found to have low construct means and also to be the constructs about whose meaning the group members showed most disagreement. It was predicted that, as a result of such features of the therapeutic process as the consideration of transference phenomena, the construct means for the "parent" constructs would increase and, while this was the case, a similar increase also occurred with each of

the other constructs used and so may have merely been an artefact resulting from familiarity with the constructs during the serial assessments. There was convergence of the grids of clients and the senior therapist during treatment and, in view of the fact that the therapist's grid changed relatively little, it was assumed that the clients to a certain extent "learnt the language" of the therapist. After initial disagreement, the group members came during therapy to share a common meaning of the construct "depressed", while the reverse was true for "angry", their understanding of which diverged, and it is suggested that the latter construct may have initially been a rather impermeable one for the clients and that in the course of therapy its permeability, and therefore openness to differences in application, increased. As well as their finding all constructs to be more applicable to their fellows, they also used them in a less extreme fashion to discriminate amongst the latter as treatment progressed.

It was expected that, in line with the findings of Fransella and Joyston-Bechal (ibid), changes in the distribution of variance amongst the principal components would be unidirectional and simultaneous in all group members, but this was not the case. Individual differences were apparent in the process of change exhibited by the group members, for in some it appeared to be in the nature of a direct progression towards "healthy" construing while in others the process of reconstruction appeared to be cyclical, fitting Kelly's descriptions of therapy. Such a cyclical process was also apparent in the total variation about the construct means in the consensus grids.

One of the major deficiencies in this study was the lack of an independent measure of change other than therapist ratings, and while the two clients who the senior therapist considered had shown the least improvement were those for whom a predicted decrease in self-esteem occurred during therapy, no general conclusions can be drawn as to the validity of the grid as a measure of the changes which actually occurred during therapy. The authors also suggest that a clear rationale for making the individualised predictions would have been desirable. The present research is in part a replication of this study and an attempt to correct these deficiencies.

Conclusions and Hypotheses: It is considered that the above review demonstrates that measures derived from repertory grid technique are of proven validity in the study of aspects of the psychological functioning of normal individuals, and in elucidating the predicament of clients presenting with psychological disorders. Features of construing, as revealed by the grid, have been shown to be predictive of response to psychological therapies, as well as being useful in monitoring the therapeutic process and in evaluating therapeutic outcome. Workers in this field have drawn on a number of theoretical frameworks in addition to personal construct theory, and perhaps largely for this reason the interpretation of repertory grids remains largely on an ad hoc basis. Clearly, however, if the grid is to be regarded as a reliable and valid measure in this area, a somewhat more systematic basis for its interpretation is necessary and, as indicated above, the present study attempts to make a step in this direction by examining the validity and usefulness of various grid indices, largely selected on the basis of previous research findings.

In summary, as discussed in the preceding chapter, the central strand of the present study is a concern with the specificity of variables of process and outcome in the psychological therapies, the individuality of the client presenting with psychological problems, and the consequent necessity

of matching client and therapy variables if treatment is to be successful. It is argued that research in this area calls for a measuring instrument sensitive to the specificity of the variables and the individuality of the client under study, and that the repertory grid, derived as it is from a theory which emphasises the uniqueness of the individual , fulfils this requirement.

The study addresses itself to several broad hypotheses, which are specified in greater detail in the following chapter as each measuring instrument used is considered in turn:

a) that there are meaningful differences between clients whose clinical presentation leads them to be assigned to group psychotherapy and those allocated to behaviour therapy;

b) that there are meaningful differences between the characteristics predictive of response to group psychotherapy and those which predict response to behaviour therapy;

c) that individualised predictions of therapeutic outcome are more likely to be confirmed in those clients whose outcome is positive than are general predictions;

d) that the repertory grid is a valid instrument in this area, so that grid measures are meaningfully related to independent measures.

CHAPTER THREE

Procedure

64 out-patients referred for psychological therapy were assessed prior to treatment with the repertory grid and other measures. Of this sample, 10 males and 10 females allocated to group psychotherapy and 10 males and 10 females allocated to behaviour therapy were subjected to further assessment with a shortened test battery three months after commencement of treatment and at six month intervals thereafter for as long as they were willing to participate in the research. The first 51 referrals were used as a pilot sample, in which relationships between the measures, and differences between group psychotherapy and behaviour therapy clients, were examined in an attempt to identify the most pertinent measures to employ in subsequent analyses.

The research design is outlined in the flow chart presented in Figure 1.

The Subjects

These were 30 males and 34 females selected from consecutive out-patient referrals for psychological therapies to the Psychotherapy Clinic in a large psychiatric hospital, and to the Psychology Department within a district general hospital psychiatric unit serving an adjacent catchment area. The only selection criteria were that they were willing to participate in the research, and had not been specifically referred for individual psychotherapy or for marital or family therapy. Their age range was from 18 to 58 years, with a mean age of 32 years.

All had been previously interviewed by a consultant psychiatrist, who had screened out any client showing evidence of organic or psychotic processes, and none were intellectually subnormal. Symptomatic descriptions of each client, based on the assessment of the referring psychiatrist, are presented in Tables I and 2.

Of these clients, the first 10 males and 10 females accepted for group psychotherapy and the first 10 males and 10 females accepted for behaviour therapy constituted the follow-up group, and underwent serial assessments as indicated above. All these clients were treated in the psychiatric hospital Psychotherapy Clinic.

The Therapies

Both treatment settings concerned in the present study favoured an eclectic approach to therapy, with an emphasis on fitting the therapy to the needs of the individual client and a willingness to change from one therapeutic approach to another if this were considered necessary during the course of treatment with a client. Thus, it was not uncommon for a client initially treated with behaviour therapy to move into psychotherapy as his/her symptoms remitted and he/she became more concerned to work on intra - and inter-personal conflicts. The initial suggestion as to treatment allocation was generally made by the referring psychiatrist on the basis of his clinical assessment of the client, but if the therapist disagreed with the psychiatrist's formulation a final decision was arrived at after discussion between the two professionals or, in the Psychotherapy Clinic, at a weekly staff meeting.

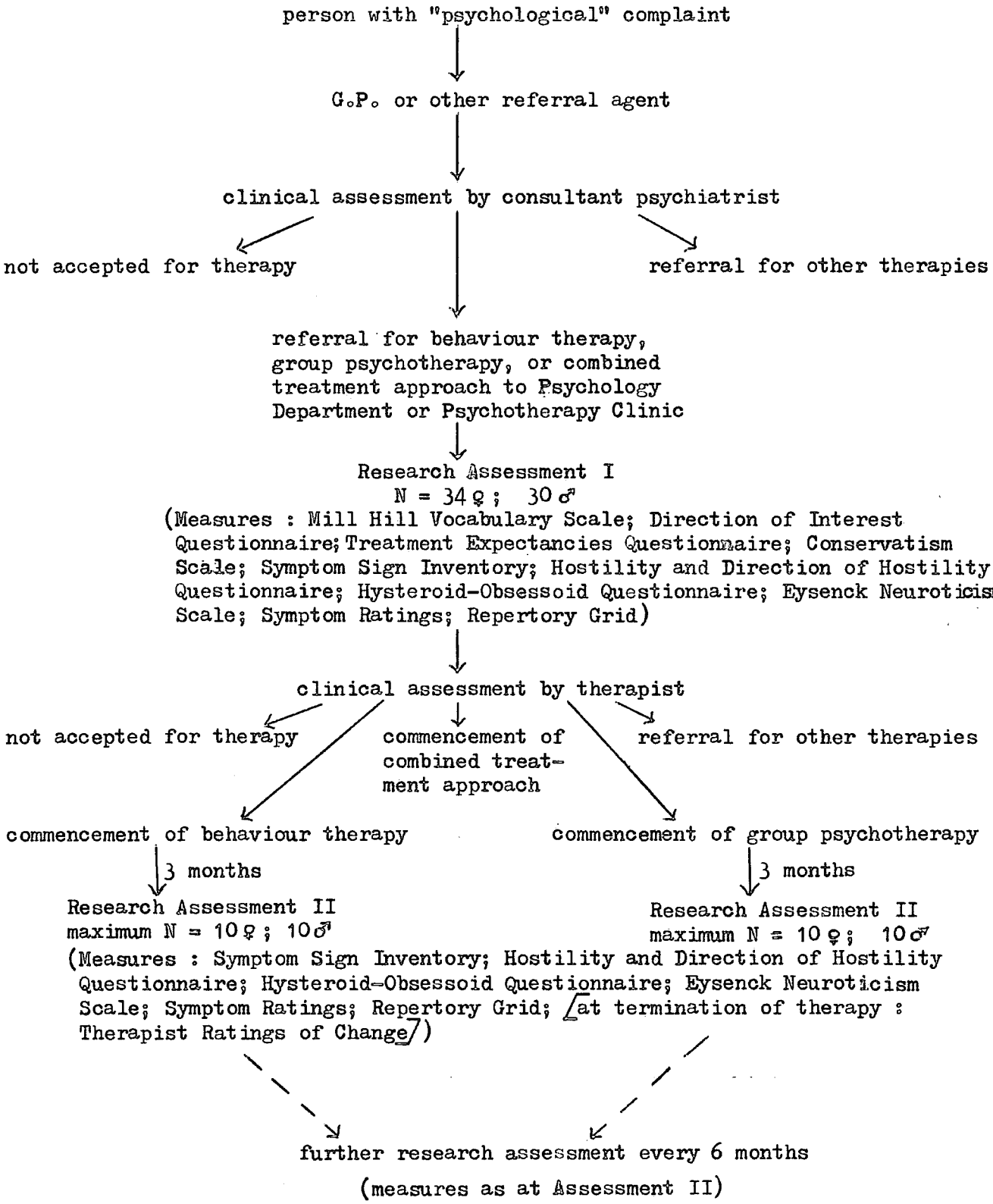


Figure 1. Flow Chart of Research Design

Table 1. Symptomatic Descriptionsof the Group Psychotherapy Clients

Client	Obsessive - compulsive symptoms	Phobic anxiety	Agoraphobia	Social anxieties	Diffuse anxiety	Hysterical symptoms	Depression	Hypomania	Psychosomatic symptoms	Sexual dysfunction	Sexual deviation	Alcoholism	Drug abuse	Shoplifting	Tics	Personality disorder	Anorexia	Marital or family disharmony
1					X X													X X
2					X X		X X					X						X X
3		X					X X X									X		
4				X			X X X											
5													X				X	
6							X										X	
7																X		
8																	X	
9				X X				X		X								
10		X		X X														
11							X X											
12	X				X X		X X X											
13					X		X X X										X X	
14				X X			X X X											
15				X	X													
16																X	X X	
17							X X X										X X	
18					X X													
19					X X		X X X											
20						X											X	
21					X X													
22					X												X X	
23																	X X	
24							X X									X		
25			X		X	X	X X											
26																X X X		
27										X							X X X	
28					X X											X X X	X X	
29					X													
30			X													X X		
31		X X					X X									X X		
32		X					X X											

Table 2. Symptomatic Descriptions of the Behaviour Therapy Clients

Client	Obsessive - compulsive symptoms	Phobic anxiety	Agoraphobia	Social anxieties	Diffuse anxiety	Hysterical symptoms	Depression	Hypomania	Psychosomatic symptoms	Sexual dysfunction	Sexual deviation	Alcoholism	Drug abuse	Shoplifting	Tics	Personality disorder	Anorexia	Marital or family disharmony
33			X						X									
34		X																
35	X X																	
36	X X						X X											
37	X						X X											
38			X		X													
39		X																
40	X						X											
41		X																X X
42															X			
43	X X	X										X						
44	X																	
45			X															
46	X X																	
47	X X																	
48	X X																	
49	X			X					X									
50		X																
51											X							
52			X															
53	X				X													
54		X X		X														
55		X																
56														X			X	
57	X																	
58					X		X		X									

All clients in the study initially underwent one of three types of therapy:-

a) group psychotherapy: Groups met weekly for 90-minute sessions and consisted of a maximum of ten clients, approximately balanced for sex, and one or two therapists. They were open groups, new members being introduced as vacancies arose, and the therapeutic approach favoured was group-analytic (Foulkes, 1964.) All clients underwent a pre-group interview (either with the therapist/s, a nursing sister in the Psychotherapy Clinic, or both) in which some preparation for therapy was given.

b) behaviour therapy: A wide range of behaviour therapy techniques was employed in each treatment setting, but those carried out with the clients in the present study were systematic desensitization (Wolpe, 1961), flooding (Marks, 1972), response prevention and thought stopping methods (Meyer et al, 1974) for obsessive-compulsive clients, massed electrical aversion (Wijesinghe, 1973), massed practice (Yates, 1958), relaxation training (Jacobson, 1938) and biofeedback training (Birk, 1973.) Behaviour therapy clients were generally seen on a weekly basis for sessions of one hour, the number of treatment sessions normally being agreed upon as part of the contract drawn up prior to therapy, and reviewed at the end of this period if necessary.

c) group desensitization and psychotherapy: This combined approach tended to be the treatment of choice for agoraphobic clients. Groups consisted of a maximum of ten clients, with two therapists, and met weekly for 90-minute sessions. Approximately 60 minutes of each session were devoted to analytic group psychotherapy, and the remaining 30 minutes were taken up with group desensitization.

Whatever the primary treatment approach, some of the clients were concurrently receiving psychopharmacological therapy, and practical and ethical considerations prevented control of this aspect of their treatment.

Tables 3 and 4 indicate the initial treatment approach offered to each of the group psychotherapy and behaviour therapy clients, any alterations in this approach and, for the follow-up clients, the approximate duration of therapy and reason for termination, and the number of research sessions attended by the client. In those cases in which the course of a client's treatment included a major change in therapeutic approach, the research session subsequent to termination of the initial therapeutic approach was designated as the post-treatment assessment.

The Therapists

These were mostly qualified and experienced clinical psychologists, but in the Psychotherapy Clinic some of the treatments were carried out by psychiatrists of Registrar status or above. In this latter setting, weekly group supervision sessions, led by a consultant psychotherapist, were held for all therapists, and in each treatment setting informal individual supervision was available if required.

The Measuring Instruments

At initial assessment subjects completed the Synonyms section of the Mill Hill Vocabulary Scale, the Direction of Interest Questionnaire, the Treatment Expectancies Questionnaire, the Conservatism Scale, a shortened

Table 3. Therapeutic Progress of the Group Psychotherapy Clients.

Client	Initial Treatment Approach	Duration of Therapy (months)	Reasons Offered for Termination	Number of Research Sessions Attended
1	Group Psychotherapy	9	Argument with another group member	3
2	Group Psychotherapy	3	Felt neither he nor group would benefit from his continuation	3
3	Group Psychotherapy	9	Improved	3
4	Group Psychotherapy	21	Transfer to marital therapy	5
5	Group Psychotherapy	15	Emigration	4
6	Group Psychotherapy	15	Improved	5
7	Group Psychotherapy	3	None	2
8	Group Psychotherapy	15	Transfer to marital therapy	3
9	Group Psychotherapy	9	Improved	6
10	Group Psychotherapy	54+	Still in therapy	3
11	Group Psychotherapy	54+	Still in therapy	9
12	Group Psychotherapy	3	None	3
13	Group Psychotherapy	<1	None	1
14	Group Psychotherapy	3	Client felt he should "stand on own two feet"	2
15	Group Psychotherapy	3	None	2
16	Group Psychotherapy	3	Moved out of area	2
17	Group Psychotherapy	3	Commenced individual psychotherapy	2
18	Group Psychotherapy	3	None	2
19	Group Psychotherapy	9	Transfer to individual psychotherapy	5
20	Group Psychotherapy	15	Moved out of area	4

Clients 21 to 32 also received group psychotherapy.

Table 4. Therapeutic Progress of the Behaviour Therapy Clients.

Client	Initial Treatment Approach	Duration of Therapy (months)	Reasons Offered for Termination	Number of Research Sessions Attended
33	Accepted for Desensitization	0	Physical illness: unable to commence therapy	1
34	Flooding	9	Domestic difficulties	3
35	Response Prevention	33	Improved	7
36	Response Prevention	15	Transfer to group psychotherapy	6
37	Response Prevention	27	Transfer to group psychotherapy	7
38	Systematic Desensitization	9	Transfer to agoraphobics' group	4
39	Systematic Desensitization	3	Improved	6
40	Response Prevention	15	Transfer to marital therapy	4
41	Systematic Desensitization	3	Improved	3
42	Relaxation; Massed Practice	15	Improved	4
43	Flooding	21	Moved out of area	5
44	Accepted for Desensitization	0	Unable to negotiate treatment contract	2
45	Systematic Desensitization	3	Improved	6
46	Thought Stopping	3	Domestic difficulties	2
47	Thought Stopping	9	Transfer to group psychotherapy	4
48	Response Prevention	9	Transfer to group psychotherapy	4
49	Response Prevention	3	Transfer to marital therapy	2
50	Systematic Desensitization	9	Transfer to group psychotherapy	5
51	Massed Electrical Aversion	<1	None	1
52	Systematic Desensitization	9	Improved	4
53	Relaxation Training			
54	Systematic Desensitization			
55	Systematic Desensitization			
56	Massed Electrical Aversion			
57	Response Prevention			
58	Biofeedback Training			

Clients 59 to 64 received the combined treatment approach.

version of the Symptom - Sign Inventory, the Hostility and Direction of Hostility Questionnaire, the Hysteroid - Obsessoid Questionnaire, the Neuroticism scale of the Eysenck Personality Inventory, symptom ratings, and a repertory grid. In addition, a social class rating of each client was made on the basis of their occupation (or, in the case of otherwise enemployed housewives, their husband's occupation) and with reference to the Registrar-General's (1966) Classification of Occupations. At follow-up assessments, all except the first four tests were administered. After termination of therapy, the therapist carried out ratings of change in the client.

These techniques are described below.

Mill Hill Vocabulary Scale: This scale (Raven, 1952) was designed to provide a measure of a person's intellectual attainment whatever their present capacity. It consists of two parallel series of 44 words placed in order of frequency of correct definition by the standardisation sample, and in the Senior form the ten easiest words in each set are omitted. It may be presented in oral definition form, with the examiner asking the meaning of each word and recording the responses; or in self-administration form, with the subject being asked to write a definition of each word in one set and to select a synonym from a group of six possible words for each word in the second set. Standardisation of the Senior self-administration form was carried out in 1946-7 on 2,300 men, when percentile scores for age groups up to 60 years were calculated.

The Synonyms section of this latter form was employed in the present study, largely for purposes of screening and control, total tests scores being estimated from scores on this section by reference to the table presented in the test manual. These scores were transformed to percentile points, and thence to I.Q.'s with a mean of 100 and standard deviation of 15, on the basis of tables devised by Peck (1970).

Direction of Interest Questionnaire (D.I.Q.): This measure was designed by Caine and Smail to tap the Jungian dimension of thinking extraversion - introversion, contrasting interest in the external world with interest in the internal world. It is reported (Smail, 1970) to be highly correlated with the Sensing - Intuiting scale of the Myers - Briggs Type Indicator (Myers, 1962), and has been successfully validated against occupations calling for an inward or outward direction of interest (Caine, personal communication). Smail has related internal direction of interest on the D.I.Q. to 'choice' of psychic as opposed to somatic symptoms, and to diversity of personal contructs, in neurotic subjects. He has also provided evidence that internal direction of interest is related to empathy, as measured by the ability to predict another's repertory grid (Smail, 1972), a finding which has recently been replicated with married couples (Wood, 1976.)

Treatment Expectancies Questionnaire (T.E.Q.): This measure is a development by Caine and his colleagues of their Composite Group/Behaviour Therapy Attitude Scale (Caine and Leigh, 1972), constructed of items concerning the client's attitudes to his complaints and to the treatment which he feels he should receive, and categorised by therapists of both persuasions into those reflecting attitudes favourable to group psychotherapy and those reflecting attitudes favourable to behaviour therapy. This classification of the items of the original scale was found to significantly differentiate clients clinically assigned to group psychotherapy from those assigned to behaviour therapy.

On the first component from the factor analysis of the T.E.Q., a cut-off point is suggested to discriminate clients whose attitudes reflect a 'psycholigical' orientation and are favourable to group psychotherapy from those whose attitudes reflect a 'medical-physical' set to treatment and are favourable to behaviour therapy. Only the scores on this component were considered in the present study.

Conservatism Scale: Wilson and Patterson (1968) developed this scale as a measure of a general factor of resistance to progressive or radical (as opposed to reactionary) change, which they assumed to underly all social attitudes. Items for the scale were selected to tap those characteristics expected in the extreme conservative, viz. religious fundamentalism; right-wing political orientation; insistence on strict rules and punishments; intolerance of minority groups; preference for conventional art, clothing, and institutions; anti-hedonistic outlook; and superstitious resistance to science. The items are presented in a very abbreviated form, on the assumption that this reduces the influence of cognitive processes, grammatical confusion, and social desirability response set. The scale was found to have a split-half reliability of 0.94, and reliability coefficients of this order have generally been found in the more recent studies reviewed by Wilson (1975.) Test-retest reliabilities of 0.89 over a twelve-week period (Nias et al., 1971) and of 0.94 over a four-week period (Schneider and Minkmar, 1972) have also been reported. The original standardisation of the scale was on a New Zealand population, but Wilson (1970) has since carried out a cross-validation on a British sample. Standardisation data from a number of countries are presented by Wilson (1975) in the manual for the Wilson - Patterson Attitude Inventory, a modified and updated version of the Conservatism Scale. The original form of the scale was employed in the present study.

Scores on the Conservatism Scale were found by Wilson and Patterson to correlate positively with age and females were found to obtain higher scores than males, and these findings have been confirmed in later studies (Wilson, 1975.) In the original validation studies, significant differences on the scale in the expected direction were found between socialist and conservative student political groups, as well as between members of the Gideons, a religious society, and a group of scientists and doctors. A number of other studies, reviewed by Wilson (1973, 1975) have also found differences in scores on the scale between groups differing in political or religious affiliation, as well as along various other dimensions; and correlations in the expected direction have been found between scores on the scale and on other measures of attitudes and personality.

Personal Adjustment Strategies, Expectancies, and Response to Therapy: The D.I.Q., T.E.Q., and Conservatism Scale have been employed in a body of research carried out by Caine and his colleagues in an attempt to support their conviction that the attitudes and decisions of both clients and staff regarding psychiatric treatment are based more upon the personal adjustment strategies of those concerned than on factual evidence (Caine and Smail, 1969a.) They have found direction of interest and conservatism to be related to nurses' and medical students' attitudes to treatment (Caine, 1970; Caine and Leigh, 1972; Caine, personal communication) and to neurotic clients' treatment expectancies, as measured by the T.E.Q. (Caine et al., 1973.) In the latter study, treatment expectancies favourable to group psychotherapy, internal direction of interest, and liberal social attitudes were significantly

interrelated, and the former two characteristics were also significantly related to divergent thinking. The relationships between scores on the D.I.Q., T.E.Q., and Conservatism Scale were maintained, even when age was partialled out, in an extension of the sample from these studies, as was the difference between group psychotherapy and behaviour therapy clients, the former clients tending to show more internal direction of interest, more liberal social attitudes, and a more 'psychological' set to treatment than the latter (Caine and Wijesinghe, 1976.) In addition, the measures significantly differentiated, in the expected direction, group psychotherapy clients who considered themselves, at two-year follow-up, to have benefitted from the treatment from those who did not, and who required further psychiatric help; and the D.I.Q. and T.E.Q. significantly differentiated clients rated by their therapists as responding to group psychotherapy from those rated as not responding or who had dropped out of treatment. These three scales were more successful in effecting such discriminations than were more traditional diagnostic and personality tests.

Hypotheses: An attempt is made in the present study to replicate these findings using more stringent criteria of therapeutic improvement. It is hypothesised that clients who are clinically assigned to group psychotherapy will show: a) a more 'psychological' set to treatment as measured by the T.E.Q.;)

b) a more internal direction of interest as measured by the D.I.Q.;

c) more liberal social attitudes as measured by the Conservatism Scale than will clients assigned to behaviour therapy.

d),e),f) Similar differences are expected to obtain between clients who improve with group psychotherapy and those who do not.

In addition, it is expected that improvement in behaviour therapy will be related to:

g) a 'medical-physical' set to treatment as measured by the T.E.Q.;

h) external direction of interest as measured by the D.I.Q.;

i. conservative social attitudes as measured by the Conservatism Scale.

Further hypotheses are that relationships will be observed at pre-treatment assessment between:

j) a 'psychological' set to treatment, internal direction of interest, and liberal social attitudes;

k) internal direction of interest and high scores on measures of psychological distress.

Personality and Personal Illness Questionnaires: Foulds (1965) regarded psychological disturbances as constituting a continuum of failure to maintain and establish personal relationships, from normality through personality disorder, personal illness, and integrated psychosis to non-integrated psychosis. His view was that an individual could remain at one stage in this continuum by the development of adequate defence mechanisms, and he also felt that there was no necessary connection between a client's symptoms and personality traits, differing from Eysenck in this regard. With his co-workers he attempted to devise a battery of questionnaires in which symptoms and signs, attitudes, and personality traits were relatively uncontaminated at the level of face validity.

Symptom - Sign Inventory (S.S.I.): The measure of symptoms and signs in the battery was developed by Foulds and Hope (1968) and consists of ten

items representing frequent and typical symptoms and signs in each of four neurotic and four psychotic diagnostic categories: anxiety state, neurotic depression, hysteria, obsessional state, and non-paranoid schizophrenia, paranoid schizophrenia, mania, and psychotic depression respectively. The Inventory is administered orally and an item scored positively if the client admits to the symptom or sign concerned. The Inventory was standardised on a sample of psychiatric in-patients, in the acute phase of their disturbance, and each independently assigned by a psychiatrist to one of the aforementioned diagnostic categories, as well as a group of 69 normal women. Each pair of diagnostic groups was considered in turn to find the items which significantly discriminated them, and cutting scores were calculated between each pair on the basis of these items. When the Inventory is used to assign a client to one of two diagnostic groups, his/her total score on the pertinent items is calculated and the diagnosis made on the basis of whether this total score is greater or less than the cutting score (unless it is one of the doubtful scores quoted, which do not allow a firm decision to be made.) When the decision being made is not of such a simple, binary nature but rather involves a choice between several diagnostic categories, the client is assigned that diagnosis which "wins" most of the comparisons between each possible pair of relevant discriminators. As well as allowing discrimination between each pair of the diagnostic categories mentioned, the Inventory also allows a broader discrimination between the psychotic and neurotic categories, for which comparison a separate scale and cutting score is provided. The manual provides information as to the efficiency of each individual discriminator in separating the two groups concerned, and certain discriminations, such as that between neurotic depression and psychotic depression or anxiety state are seen to be less efficient than others, with some diagnoses, such as non-paranoid schizophrenia in males, appearing to present particular difficulty while others, such as mania, are much easier to apply. Some relationship was found between the relative efficiency of the various discriminators and their order of difficulty as ranked by consultant psychiatrists.

A short version of the S.S.I., the Personal Disturbance Scale, was also constructed on the basis of those items which distinguished at least seven male and seven female diagnostic classes from the sample of normal females. Another derivation from the S.S.I. is the Psychic-Somatic Symptoms Scale, which consists of the 13 somatic items from the neurotic scales and 13 psychic items matched as far as possible for frequency of positive responses (Foulds, 1965.) In the present study, a shortened version was employed which, on the assumption that all psychotic clients had been screened out from the sample, consisted only of those items which discriminated between the neurotic categories. A diagnosis was obtained from each client's responses to the S.S.I., as were a total score of number of symptoms admitted to, a score for each neurotic diagnostic category, and scores of total number of neurotic symptoms, total number of psychotic symptoms, number of psychic symptoms (from the 12 psychic items included from the Psychic-Somatic Scale), and number of somatic symptoms (from the 12 somatic items included from the Psychic-Somatic Scale.) In view of the high correlations obtained between scores on the various neurotic diagnostic categories in the pilot sample, these scores were excluded from further analyses.

Hostility and Direction of Hostility Questionnaire (H.D.H.Q.): Caine et al. (1967) devised the H.D.H.Q. as the attitude measure in the Personality and Personal Illness battery, and as an extension of Caine's (1960) search for measures differentiating paranoid from melancholic women. It consists of items selected from the Minnesota Multiphasic Personality Inventory to tap five possible manifestations of hostility. Three of these, viz. urge to act out hostility, criticism of others, and projected delusional, or paranoid,

hostility, concern extrapunitive hostility; and two, viz self-criticism and guilt, concern intropunitive hostility. Scores on all these five scales loaded on the first component, a general factor of hostility, from principal component analysis of the responses of neurotic and normal subjects, while the second component contrasted the extrapunitive and intropunitive scales (Foulds et al., 1960; Hope, 1963.) Hope found a moderate correlation between scores on the first component and scores on Eysenck's Neuroticism scale, and a moderate negative correlation between scores on the second component and scores on the Hysteroid-Obsessoid Questionnaire, while scores on both components were independent of I.Q. Total hostility is conceptualised by Foulds and his colleagues as associated with variables at the symptom level, while its direction is more akin to personality variables.

Scores on the first component revealed, as expected, greater hostility in psychotics than in neurotics, and in neurotics than in normal subjects; and on the second component the expected discrimination was obtained between paranoid clients, at the extrapunitive end, and melancholic clients, at the intropunitive end (Caine, 1960), with members of each group selected on the basis of their having no history of admixture of symptoms obtaining more extreme scores. Normal subjects were found to be extrapunitive relative to neurotics. Weighted subscale patterns are available to discriminate between diagnostic groups, but it is not recommended that the test be used primarily as a diagnostic instrument. In practice, a total hostility score, approximating to the first component of hostility, is obtained by summing the scores on each subscale, while a direction of hostility score, approximating to the second component, is obtained by subtracting the sum of scores on the extrapunitive scales from the sum of the score on the guilt scale and twice the score on the self-criticism scale. Test-retest reliability coefficients of 0.75 for total Hostility and of 0.5 for Direction of Hostility have been obtained over a one-year period with normal subjects.

Several other studies have examined the H.D.H.Q. scores of various groups. Foulds (1965) found male prisoners to obtain generally higher Hostility scores than the normal mean, and also that clients presenting mainly with somatic symptoms tended to obtain lower Hostility scores, and to be less intropunitive, than those presenting mainly with psychic symptoms. Vinoda (1966) found attempted suicides to score higher on Hostility, and to be more intropunitive, than other clients. Hafner (1977, 1977a) has demonstrated complementarity in the hostility profiles of agoraphobic women and their husbands, an association between high levels of self-dissatisfaction in the agoraphobics and low levels of hostility in their husbands, and that a decrease in the hostility of the more hostile women during therapy was paralleled by an increase in their husbands' hostility, while in the less hostile women there was also a fall in hostility and a tendency for their own and their husbands' direction of hostility to approach normal levels.

Hysteroid-Obsessoid Questionnaire (H.O.Q.): The personality questionnaire in the Personality and Personal Illness battery was developed by Caine (Caine and Hawkins, 1963; Caine and Hope, 1967) to measure the hysteroid-obsessoid dimension of personality. It is composed of items tapping 11 aspects of this dimension, and was validated against the mean rating by hospital staff members of neurotic clients on 6 of these traits. A high correlation between such ratings and the clients' H.O.Q. scores was obtained, and the questionnaire has also been found to have a high level of reliability, test-retest reliability coefficients of the order of 0.75 having been obtained with clients, even when treatment interfered between the two testing occasions, and of 0.85 with normal subjects. Normal subjects have been found to obtain higher (more hysteroid) scores than neurotics, and a relationship has been suggested between H.O.Q. scores and diagnosis, with dysthymic clients tending to have obsessoid personalities. However, Caine (1965) cautions against

confusing personality and symptomatology and points out that differences between hysteroid and obsessoid subjects within diagnostic groups are greater than differences between the latter groups.

Caine has obtained high correlations between scores on the H.O.Q. and on Eysenck's Extraversion scale (e.g. Caine and Hope, 1964), and he feels that these scales "are measuring virtually the same dimension of personality", for which he regards his label as more appropriate than that of extraversion-introversion, a dynamic concept developed by Jung and concerned with direction of psychical energy. H.O.Q. scores have also been found by Caine to be significantly and negatively related to scores on Eysenck's Neuroticism scale in neurotic, but not in normal, subjects, as well as being related to direction of hostility, subjects of obsessoid personality tending to be more intropunitive.

Personality and Personal Illness and Response to Therapy: The distinction between symptomatology, attitudes, and personality emphasised by Founds and his colleagues extends into the area of therapeutic change, which they feel is more likely to be observed in variables in the former two categories than in personality, "as there is no reason to suppose that the personality traits involved are psychopathological in themselves" (Caine, 1965a). Foulds (1959; 1965) has found some evidence that responses to diagnostic measures change more than those to personality measures, so that, while differences between subjects at the diagnostic level disappear at post-treatment retest, differences on the hysteroid-obsessoid dimension of personality tend to remain. However, this stability at the personality level was not so apparent with psychotic depressives, who tended to become more hysteroid with clinical improvement. In the later study, which conerned depressive clients, those who improved clinically also showed a decrease in the number of symptoms to which they admitted on the S.S.I., as well as in total Hostility and intropunitiveness, while no significant changes were observed at retest in an unimproved group. Mayo (1966) has also found decrease in Hostility and in intropunitiveness to be associated with improvement in depression, and, as indicated above, Hafner (1977a) has obtained somewhat similar findings with agoraphobics. Caine (1965a) carried out a study of change in a therapeutic community setting and found that treatment successes showed a significant decrease at follow-up one year after discharge (when changes were more marked than at discharge) in Personal Illness scores on the S.S.I., as well as in Depression scores on the M.M.P.I., scores on the Mooney Problem Check List, total Hostility, and intropunitiveness, but less change in scores on the H.O.Q. The only significant changes in the group of treatment failures were in Depression and Direction of Hostility, and a decrease in Personal Illness scores in this group was also suggested; while no significant changes occurred in a control group of normal subjects over a one-year period. On admission to hospital, although there were no significant differences between the treatment successes and failures, the former subjects were closer to the normal mean, and those who were less intropunitive, less depressed, and less nihilistic on the Mooney Problem Check List tended to have a better prognosis. In a five-year follow-up of all clients who could be contacted, changes in Depression scores, Mooney Check List scores, total Hostility, and intropunitiveness were sustained, but H.O.Q. scores, although increased, were not significantly different from scores on admission (Caine and Smail, 1969.) Caine and Smail feel that certain aspects of the hysteroid-obsessoid dimension, such as emotional expressiveness and sociability, may be modifiable by psychotherapy. In a comparative sample of in-patient neurotics subjected to a predominantly physical treatment regime, only changes at the symptom level (in Depression and Mooney Check List scores) were found at 18-month follow-up, and although there was a decrease in intropunitiveness on discharge, this was not maintained at follow-up. It is concluded that more fundamental changes can be

effected by therapeutic community methods than by more traditional treatment regimes.

The Personality and Personal Illness questionnaires were also used in the Caine and Wijesinghe (ibid.) study in an attempt to evaluate their power to predict response to group psychotherapy, but no differences were found in pre-treatment scores on these tests between clients classed as responders and those classed as non-responders by their therapists. However, clients who evaluated their treatment as successful obtained higher scores on the S.S.I. Personal Disturbance scale at the initial assessment, and it is suggested that this may represent a greater willingness to admit to symptoms in such clients.

Hypotheses: In line with some of the above findings, and the hypothesis that behaviour therapy will produce less fundamental changes than group psychotherapy, it is predicted that in the present study: a) there will be a significant decrease during treatment in symptoms admitted to on the S.S.I. in all clients;

b) there will be a significant decrease during treatment in total Hostility, as measured by the H.D.H.Q., in all clients;

c) there will be a significant decrease during treatment in intropunitiveness, which will be more pronounced in the group psychotherapy sample;

d) these changes will occur to a greater extent in those clients who show most improvement during therapy, as indicated by their degree of change on the other measures considered;

e) there will be no significant change in H.O.Q. scores in either sample;

f) at pre-treatment assessment, group psychotherapy clients will admit to more psychic symptoms and behaviour therapy clients to more somatic symptoms;

g) preponderance of psychic over somatic symptoms will be related to internal direction of interest, liberal social attitudes, and treatment expectancies favourable to group psychotherapy;

h) at pre-treatment assessment, high levels of Hostility will be related to a large number of symptoms admitted to on the S.S.I.;

i) at pre-treatment assessment, obsessoid personality will be related to the intropunitive components of hostility and to Neuroticism.

Eysenck Personality Inventory (E.P.I.): Eysenck differs from Foulds and his colleagues in regarding both symptoms and personality traits as reflecting an individual's physiologically-based response dispositions. His approach to personality assessment and test construction also differs from that of the Foulds group in being actuarial rather than clinical. Thus, in a number of factor-analytic studies of the results of questionnaires and behavioural tests, he has identified three main, orthogonal dimensions of personality, which he has labelled extraversion, neuroticism, and psychoticism. The Maudsley Personality Inventory was developed by him to measure the dimensions of extraversion-introversion and neuroticism-stability, using items from the Guilford Inventory and Maudsley Medical Questionnaire, and extracting the two dimensions by item and factor analysis (Eysenck, 1959.) This scale was later developed into the Eysenck Personality Inventory (Eysenck and Eysenck, 1964), which showed several modifications and improvements: the rewording of items to make them more comprehensible by less intelligent subjects; the elimination

of any correlation between Extraversion and Neuroticism by item selection; the inclusion of a lie scale to identify those subjects using a social desirability response set; removal of the "?" answer category, so that only "Yes" and "No" answers to questions were possible; and increased retest reliability.

The Eysencks' standardisation data showed neurotics to obtain much higher Neuroticism scores than normals, with psychotics obtaining intermediate scores, depressives being closer to the neurotic mean and schizophrenics closer to the normal mean. The separation between diagnostic groups with respect to Extraversion was in line with Eysenck's theory that introverts are characterised by a predominance of excitatory cortical processes, which cause introverts to be more susceptible to conditioning and to the development of the conditioned autonomic responses of the dysthymic disorders on neurotic breakdown; whereas breakdown in extraverts tends to lead to hysterical and psychopathic disorders, representing failure to develop the conditioned responses necessary for socialisation (Eysenck and Claridge, 1962.) While it is predicted from Eysenck's theory that introverts are more responsive than extraverts to treatment approaches involving conditioning, the relationship between Neuroticism and response to treatment is less clear. However, only the E.P.I. Neuroticism dimension is considered in the present study, in view of the high correlation between Extraversion and the Hysteroid-Obsessoid dimension of personality, a measure of which is included in the test battery.

Eysenck (1960) considers Neuroticism to have its basis in the inherited degree of lability of the autonomic nervous system. If it is regarded as a drive, it would be expected to facilitate conditioning (Hull, 1943), and Eysenck and Rachman explain the conflicting results in this area as being due to the necessity for conditions of arousal of the sympathetic nervous system if a positive relationship between Neuroticism and conditioning is to be demonstrated. A high level of drive would, however, be expected to impede responses in complex tasks (Yates, 1960), and Eysenck (1960a, 1970) feels that this may be the explanation for the finding that treatment of writer's cramp by shocking deviant movements tends to be successful with low-Neuroticism clients, but to exacerbate the condition of those whose level of Neuroticism is high. Lazarus (1963) also found treatment failures to obtain significantly higher Neuroticism scores than treatment successes in behaviour therapy with severe neurotic disorders. Eysenck's personality dimensions have not been found useful in the allocation of clients to flooding or systematic desensitization (Matthews et al., 1974; Hallam, 1976.)

A considerable amount of research has focused on the extent to which the high Neuroticism scores generally obtained by neurotics reflect stable personality characteristics as opposed to more transient aspects of mental state. Kelvin et al. (1965), finding themselves unable to demonstrate a relationship between the initial Neuroticism scores of university students and their level of psychological distress up to $2\frac{1}{2}$ years later, concluded that Neuroticism scores reflected current mental status, increasing at times of distress. Ryle and Lunghi (1968) also attempted to predict later psychological or academic difficulty in students from tests which they completed on entrance to university and, while Neuroticism alone was not predictive of later client status, this latter could be predicted from a combination of Neuroticism and a stress measure from the Nufferno speed tests. In a later study of a university population, they found significant increases in the Neuroticism scores of clients, although not significantly greater than the increases in non-clients, and that, while change in Neuroticism scores was not related to the number of treatment sessions which

the client had received, the longer the time interval between first consultation and the second E.P.I. administration the smaller the increase in Neuroticism (Lunghi and Ryle, 1969.) Increases in the Neuroticism scores of university students over a two-year period from time of enrolment have also been observed by Hetzel et al. (1963), with the largest increases occurring in those who were psychologically maladjusted, had poor academic records, or were student teachers. Other studies have demonstrated the relatively low reliability of Neuroticism scores in a general psychiatric population (Knowles, 1960), with significant decreases in Neuroticism after one to two months of drug or placebo treatment (Knowles and Kreitman, 1965; Robinson et al., 1965), as well as after leucotomy (Levinson and Meyer, 1965), and greater changes in the most clinically improved clients. Ingham (1966) found that the initial M.P.I. scores of neurotics did not predict change in clinical status, and that while the Neuroticism scores of clients who were rated as unimproved remained virtually unchanged at three-year follow-up, those of improved clients decreased to a level approaching the mean score of the general population. Similar decreases in the Neuroticism scores of depressives with clinical recovery have been observed by Wretmark et al. (1961), who found no significant change in the scores of a normal control group over a comparable period, and by Coppen and Metcalfe (1965), who question Eysenck's view that Neuroticism scores reflect "tendency to neurotic breakdown under stress", in view of the near-normal scores of their recovered depressives. Reduction of high Neuroticism scores to normal levels over a twelve-month period has also been demonstrated in men who gave up excessive drinking (Orford, 1976), and Hafner (1977a) has found a significant decrease at twelve-month follow-up in the Neuroticism scores of the less hostile of his agoraphobic clients, who had received treatment along behavioural lines. Bartholomew and Morley (1959), finding high test-retest correlations in the M.P.I. scores of neurotics, normals, and criminal subjects, conclude that treatment does not greatly affect responses to the questionnaire, but it should be remembered that correlations can mask large differences in mean scores. One study which has shown increases in Neuroticism following a psychological treatment is Cooper's (1974) examination of the effects of a week's sensitivity training, although the subjects were perceived as somewhat better adjusted by themselves, their families, and their friends.

The evidence is generally consistent, then, that either Neuroticism is not a stable personality trait or it is not satisfactorily measured by Eysenck's questionnaires, and the association between Neuroticism and variables at the symptom level is also demonstrated by the relationships found in some studies between Neuroticism scores and scores on the Hamilton Anxiety Rating Scale (Knowles and Kreitman, ibid; Robinson et al., ibid.) The picture is further clarified by the demonstration by Kendell and Di Scipio (1968) that amending the instructions of the E.P.I. by the inclusion of directions to the subject to disregard their illness and to answer the questions according to how they feel or behave when they are their normal self caused a significant decrease in Neuroticism scores in depressives, such that there was no further decrease on clinical recovery, when their scores were still higher than those of the normal subjects in the standardisation sample for the test.

Hypotheses: It is predicted that: a) there will be a significant decrease during treatment in Neuroticism in all clients;

b) there will be a greater decrease in Neuroticism in those clients who show most improvement during therapy, as indicated by their degree of change on the other measures considered;

c) Neuroticism will be associated with variables at the symptom level.

Symptom Ratings: Each client was asked to name their three major symptoms at the pre-treatment assessment, and at this and subsequent assessments the client rated each of these symptoms on a scale devised by Gelder and Marks (1966):

0 = I do not suffer from this;
1 = This is mild and occurs occasionally;
2 = This is moderately severe and often present;
3 = This is severe and frequently present;
4 = This is very severe and hardly every absent.

Hypotheses: It is predicted that: a) There will be a greater decrease in symptom ratings in those clients who show most improvement during therapy, as indicated by their degree of change on the other symptom measures considered.

Therapist Ratings: After termination of therapy, the therapist rated the client's degree of change in each of the areas of presenting symptoms, general social functioning, and intrapersonal functioning on the following scale:

1 = much worse;
2 = worse;
3 = unchanged;
4 = better;
5 = much better.

Hypotheses: It is predicted that: a) the clients who receive the highest therapist ratings will be those who show the most improvement during therapy, as indicated by their degree of change on other measures.

Repertory Grid: Repertory grid technique has been considered in depth above, as has previous research on the psychotherapies employing grid methodology.

The repertory grid used in the present study consisted of 15 elements and, at the initial assessment, 15 constructs. The procedure for administering the pre-treatment grid was as follows:-

Eleven different elements were elicited to fit certain role titles, viz. 4) mother; 6) father; 1) a man I like; 3) a woman I like; 5) a man I dislike; 7) a woman I dislike; 9) a person in a position of authority; 11) a person I admire; 8) spouse or boy-/girl-friend; 13) a close relative; 12) my G.P.

In addition, 3 self elements were supplied: 2) self now; 10) how I would like to be; and 14) how others see me, as was the element 15) my therapist.
(Elements are numbered in order of their presentation in the grid.)

All elements were required to be people known to the subject, except in nearly all cases "my therapist" and in some cases "mother" and/or "father". In these latter cases, the subject was asked to use their fantasy of the element concerned in completing the grid.

Nine different constructs were elicited using Kelly's Self-Identification Form. The subject was presented with 3 elements including the element "self now" and asked how two of the people were alike but different from the third in terms of personality. If the subject responded by only giving the likeness pole of a construct, the contrast pole was elicited by asking him how he would describe someone who was at the opposite extreme to the elicited construct pole. After a construct had been elicited, one of the elements,

excluding the self, was replaced by another and the procedure repeated until 9 constructs had been elicited.

In addition, 3 constructs were supplied: 3) like a psychiatric patient - unlike a psychiatric patient; 6) like me in character - unlike me in character; 9) ill - well; and the subject was asked to describe his three major problems, which were used as constructs 11), 13), and 15) (and will be referred to as the symptom constructs.)

Each element was then rated by the subject on a 7-point scale with regard to each construct.

In subsequent grids, the original 15 elements were employed but elicitation of 9 constructs was again carried out, using the same triads of elements as in the first elicitation. These constructs were then pooled with the elicited constructs from the initial assessment (and, at assessments after the second, with "important" constructs from all previous assessments after the first), avoiding replication of constructs, and the subject was asked to select from the total set the 9 constructs which were most important to him, in the sense that they were the constructs which he would use most often in describing and making judgements about other people. The 15 original constructs together with any new constructs amongst those selected as important were then employed in completing the grid (again using a 7-point rating scale), which therefore had a minimum of 15 and a maximum of 24 constructs. It was therefore possible to examine changes in the application of the original constructs as well as the emergence of new important constructs.

Each grid was analysed by Slater's (1972) INGRID 72 computer programme, which carries out a principal components analysis and provides information regarding construct means and the variation about them, bias and variability in using the rating scale, distances between elements (with the expected distance between any pair of elements in a particular grid having a value of 1), correlations and angular distances between constructs, cosines and angular distances between constructs and elements, and characteristics of the components in terms of the proportion of the variance for which they account and the vectors and loadings on them of the elements and constructs. All elicited constructs, including the "symptom constructs", were also categorised on the basis of Landfield's (1967; 1971) classification system, but with some modifications of Landfield's procedure in that: each construct was categorised as a whole rather than just the emergent pole being considered; each construct was forced into a category; multiple coding of a construct was not permitted, only the most pertinent category being used in each case; and the broad categories were not subdivided into "high" and "low" areas. In addition, the construct poles which were correlated at a statistically significant level with the symptom poles were classified on the basis of Landfield's subdivided categories, as were those which correlated significantly with the poles "like me in character" and "ill". Certain of the subcategories which Landfield had considered too unreliable to employ in his later research were used in this classification to allow the latter to be exhaustive. To maximise reliability in the present study, an index was kept of all the elicited construct poles, showing the categories to which they had been assigned, and this was referred to in categorising each construct pole elicited subsequently. The coding categories on which the construct content analysis in the present study was based were therefore:-

1. Social Interaction: a. Active; b. Inactive; c. "Unclassified";
2. Forcefulness: a. High; b. Low;
3. Organization: a. High; b. Low;
4. Self-Sufficiency: a. High; b. Low;
5. Status: a. High; b. Low;
6. Factual Description;
7. Intellective: a. High; b. Low;
8. Self-Reference;
9. Imagination: a. High; b. Low;
10. Alternatives: a. Multiple Description; c. Open to Alternatives; d. Closed to Alternatives;
11. Sexual;
12. Morality: a. High; b. Low;
13. External Appearance;
14. Emotional Arousal;
16. Egoism: a. High; b. Low;
17. Tenderness: a. High; b. Low;
18. Time Orientation: a. Past; b. Future;
19. Involvement: a. High; b. Low;
21. Extreme Qualifiers;
22. Humour: a. High; b. Low.

Three of Landfield's combined categories were also used in the classification of construct poles, viz. high structure (High Organization + High Involvement); high social orientation (Active Social Interaction + High Tenderness); and high concreteness (Factual Description + Low Imagination + External Appearance.)

On the basis of inspection of the initial grid completed by each client, individualised predictions were made in grid terms of changes which it was expected would be conducive to less disturbed intra- and inter-personal functioning and would therefore reflect therapeutic improvement for the client. In addition, several grid measures thought to be relevant to psychological maladjustment and to the problems of treatment selection and outcome were considered for each client. These were: 1) the distance between self and ideal self elements; 2) the distance between self and father elements; 3) the distance between self and mother elements; 4) a sexual identification measure consisting of the distance between self and opposite-sex parent elements minus the distance between self and same-sex parent elements; 5) the distance between ideal self and father elements; 6) the distance between ideal self and mother elements; 7) the average distance between the ideal self element and the two parent elements; 8) the distance between mother and father elements; 9) the distance between therapist and G.P. elements; 10) a measure of actual self-isolation consisting of the number of elements, excluding "how others see me", at a distance of one or more from the actual self element; 11) a measure of ideal self-isolation consisting of the number of elements, excluding "how others see me", at a distance of one or more from the ideal self element; 12) the angular distance between constructs "like me in character - unlike me in character" and "ill - well"; 13) the angular distance between constructs "like me in character - unlike me in character" and "like a psychiatric patient - unlike a psychiatric patient"; 14) the average angular distance between the construct "like me in character - unlike me in character" and the three "symptom constructs"; 15) the percentage of the variance accounted for by the first component; 16) the percentage of the variance accounted for by the second component; 17) the loading of the self element on the first component; and 18) the loading of the self element on the second component. All these measures, excluding numbers 5), 6), and 13), were included in the pre-treatment correlation matrices and principal components analysis. Also included, although not

considered in the hypotheses, were the numbers of Social Interaction and of Self-Sufficiency constructs employed, these having appeared of relevance in differentiating the group psychotherapy and behaviour therapy clients in the pilot sample.

Certain of these measures were used in making general predictions of changes which might have been expected to occur in the grids of all clients over the course of successful therapy. These predictions were to a large extent made on the basis of Ryle and Breen's (1972) descriptions of features characteristic of the grids of neurotic students, together with other similar research findings, reviewed above, it being assumed that there would be a breakdown in such neurotic structures during successful therapy. It was therefore predicted that for the sample as a whole during therapy there would be: i) a decrease in the distance between the self and ideal self elements, reflecting an increase in self-esteem;

ii) a decrease in the distance between the self and father elements;

iii) a decrease in the distance between the self and mother elements;

iv) an increase in the sexual identification score, reflecting a greater tendency to identify with the same-sex parent relative to the opposite-sex parent;

v) a decrease in the distance between the ideal self and father elements;

vi) a decrease in the distance between the ideal self and mother elements;

vii) a decrease in the distance between the mother and father elements, reflecting a reduction in the operation of splitting mechanisms in the construing of the parents;

viii) a decrease in the number of elements at a distance of one or more from the self element, reflecting a reduction in self-isolation;

ix) a decrease in the number of elements at a distance of one or more from the ideal self element, reflecting a reduction in ideal self-isolation;

x) an increase in the angular distance between constructs "like me in character - unlike me in character" and "ill - well", reflecting a tendency to see oneself as less ill;

xi) an increase in the angular distance between constructs "like me in character - unlike me in character" and "like a psychiatric patient - unlike a psychiatric patient", reflecting a tendency to see oneself as less like a psychiatric patient;

xii) an increase in the average angular distance between the construct "like me in character - unlike me in character" and the "symptom constructs", reflecting a decrease in the tendency to see oneself as characterised by the symptoms admitted to at initial assessment;

xiii) a decrease in the loading of the self element on the first component, high loadings having been characteristic of Ryle and Breen's neurotics;

xiv) a decrease in the loading of the self element on the second component, high loadings having been characteristic of Ryle and Breen's neurotics.

A further set of predictions of change in construing, referred to as the extremity control predictions, was also made. It was predicted that for each client there would be a decrease in the extremity of all construct correlations or element distances whose extremity was initially high. The criteria of extremity were arbitrarily chosen as: construct correlations at or above the 5% level of significance, i.e. $\pm$ 0.51 for N = 15 elements; and element distances of an extremity representing an occurrence of 5 per cent or less in a sample of grids analysed by the M.R.C. service (Slater, 1972), i.e. > 1.50 or < 0.45.

Hypotheses: It is predicted that: a) features of the pre-treatment grids which it is suggested above are indicative of psychological maladjustment will be related to "maladjusted" scores on the independent measures, viz. a high number of symptoms admitted to on the S.S.I., high levels of hostility and intropunitive direction of hostility, high Neuroticism scores, and obsessoid personality;

b) positive changes in these aspects of construing, with high levels of confirmation of the individualised and general predictions, will be related to changes on the independent measures reflecting increased psychological adjustment and consequent therapeutic improvement;

c) significantly more individualised than general predictions of change in "neurotic" construing will be confirmed at post-treatment assessment;

d) significantly more individualised than extremity control predictions of change in construing will be confirmed at post-treatment assessment;

e) there will be meaningful differences at pre-treatment assessment between clients clinically assigned to group psychotherapy and those assigned to behaviour therapy in the content of their construct systems, and particularly in the constructs which they use to describe themselves, their symptoms, and illness;

f) there will be meaningful differences at pre-treatment assessment between group psychotherapy and behaviour therapy clients in other aspects of their construing and particularly in the extent to which construing of the self in the behaviour therapy clients, in contrast to the group psychotherapy clients, is centred on their symptoms;

g) characteristic aspects of construing at pre-treatment assessment will be related to improvement in each type of therapy.

Summary

The majority of the hypotheses outlined above may be subsumed under the four main broad hypotheses presented in the preceding chapter, viz. that:-

a) there are meaningful differences between clients whose clinical presentation leads them to be assigned to group psychotherapy and those allocated to behaviour therapy:

The group psychotherapy clients will be differentiated from the behaviour therapy clients at pre-treatment assessment by:

i) a more "psychological" set to treatment as measured by the T.E.Q.;
ii) a more internal direction of interest as measured by the D.I.Q.;
iii) more liberal social attitudes as measured by the Conservatism Scale;
iv) a preponderance of psychic over somatic symptoms as assessed by the S.S.I.;
v) aspects of the content of their construct systems, particularly the constructs which they apply to themselves, their symptoms, and illness;
vi) other features of their construing, particularly the extent to which the symptoms occupy a subordinate position in the construct system and are construed as peripheral to the self, and the therapist is construed as dissimilar to the G.P.

b) there are meaningful differences between the characteristics predictive of response to group psychotherapy and those which predict response to behaviour therapy:

Clients who improve with group psychotherapy will have been distinguished at pre-treatment assessment by:

i) a "psychological" set to treatment;
ii) internal direction of interest;
iii) liberal social attitudes;
iv) characteristic aspects of construing.

Clients who improve with behaviour therapy will have been distinguished at pre-treatment assessment by:

v) a "medical-physical" set to treatment;
vi) external direction of interest;
vii) conservative social attitudes;
viii) characteristic aspects of construing.

c) individualised predictions of therapeutic outcome will be more likely to be confirmed in those clients whose outcome is positive than will general predictions:

i) Significantly more individualised than general predictions of change in "neurotic" construing will be confirmed at post-treatment assessment.
ii) Significantly more individualised than extremity control predictions of change in construing will be confirmed at post-treatment assessment.

d) the repertory grid is a valid instrument in the present area of study, grid measures being meaningfully related to independent measures:

i) Features of the pre-treatment grids which are considered to be indicative of psychological maladjustment will be related to "maladjusted" scores on the independent measures, viz. a high number of symptoms admitted to on the S.S.I., high levels of hostility and intropunitive direction of hostility, high Neuroticism scores, and obsessoid personality.
ii) Positive change in these aspects of construing, with high levels of confirmation of the individualised and general grid predictions, will be observed during therapy and related to change on the independent measures reflecting increased psychological adjustment and consequent therapeutic improvement.

In addition, the study allows investigation of the validity of the questionnaire and rating measures, and examination of the hypotheses that:-

e) scores on the questionnaire and rating measures will be meaningfully interrelated:

At pre-treatment assessment, relationships will be observed between:

i) a "psychological" set to treatment, internal direction of interest, liberal social attitudes, and a preponderance of psychic over somatic symptoms;
ii) internal direction of interest and high scores on measures of psychological distress;
iii) number of symptoms, Hostility, and Neuroticism;
iv) obsessoid personality and intropunitive components of hostility, together with Neuroticism.

f) meaningful changes in responses to the questionnaire and rating measures will be observed during therapy;

g) change will be more easily achieved on some measures than on others;

h) behaviour therapy will produce less fundamental changes than will group psychotherapy:

i) There will be a significant decrease during treatment in symptoms admitted to on the S.S.I. in all clients.
ii) There willlbe a significant decrease during treatment in total Hostility in all clients.
iii) There will be a significant decrease during treatment in intropunitiveness, which will be more pronounced in the group psychotherapy sample.
iv) There will be no significant change during treatment in H.O.Q. scores.
v) There will be a significant decrease during treatment in Neuroticism in all clients.
vi) The changes indicated above will be interrelated, and associated with decrease in symptom ratings and high therapist ratings of improvement, so that the clients who show most improvement during therapy will be identified by their greater degree of positive change at post-treatment assessment.

CHAPTER FOUR

Results

Pre-Treatment Data

i) Relationships between the Measures: The correlation matrix for the pre-treatment scores on all the variables is presented in Table 5. These are Pearson product-moment correlation coefficients, except in the case of correlations involving social class ratings or the number of constructs in the Self-Sufficiency and Social Interaction content categories, when Spearman correlation coefficients were calculated. All correlations were computed from the scores of the entire sample, except those concerning scores on the S.S.I. a priori subscales, which are based on the pilot sample of 51 subjects. Correlations were also calculated for the pre-treatment scores of the group psychotherapy and behaviour therapy samples separately, and these are presented in Tables 6 and 7 respectively.* In addition, partial correlation coefficients were computed for the entire sample to eliminate the effects of Verbal I.Q., age, and social class, and the resulting matrices are presented in Tables 8, 9 and 10 respectively.

It can be seen that the major pattern to emerge in the correlation matrices is of a cluster of significant correlations between questionnaire measures and a similar cluster between grid measures, with relatively few significant interrelationships between these two groups of measures.

A principal component analysis with VARIMAX rotation (Kim, 1970) was carried out on the pre-treatment data, with the exclusion of all S.S.I. scores except the total numbers of neurotic and of psychotic symptoms. Table 11 indicates those variables with loadings more extreme than ± 0.3 on each of the first seven components, which together accounted for 84.3% of the variance. The first component can be regarded as one of "felt distress", concerning symptomatology, neuroticism, and intropunitive hostility. The second component largely concerns construing of the self in relation to other people. The third is a component of treatment expectancies and associated personal adjustment strategies, together with verbal ability. The fourth is less easy to define, but relates to construing of the ideal self and father. The fifth concerns hostility, the sixth relative loading of the self element on the components of the repertory grid, and the seventh construing of the self as ill.

An additional analysis was carried out of the relationships between scores on the D.I.Q., T.E.Q., and Conservatism Scale and the number of elicited construct poles at pre-treatment assessment in Landfield's (1971) Inactive Social Interaction, Low-Self-Sufficiency, and High Structure categories which were significantly correlated with the symptom poles of the symptom constructs, and the construct poles "like me in character" and "ill." The only significant relationships were between high T.E.Q. scores and construing of the symptoms in terms of Low Self-Sufficiency ($x^2=19.32$; $p<0.001$; 1-tail) and High Structure ($x^2=3.25$; $p<0.05$; 1-tail), but not in terms of Inactive Social Interaction ($x^2=32.7$; $p<0.001$; 1-tail), construing of the self in terms of Low Self-Sufficiency ($x^2=4.02$; $p<0.05$; 1-tail), but not in terms of Inactive Social Interaction ($x^2=10.86$; $p<0.001$; 1-tail), and construing of illness in terms of Low Self-Sufficiency ($x^2=4.68$; $p<0.05$; 1-tail), but not Inactive Social Interaction ($x^2=4.94$; $p<0.05$; 1-tail); between high D.I.Q. scores and construing of illness in terms of Inactive Social Interaction ($x^2=3.18$; $p<0.05$; 1-tail), and lack of construing of the symptoms in terms of Low Self-Sufficiency ($x^2=3.44$; $p<0.05$; 1-tail); and

* All tables are presented at the end of the chapter.

between high Conservatism scores and construing of the symptoms (x^2=19·30; p<0·001; 1-tail) and illness (x^2=3·41; p<0·05; 1-tail) in terms of Low Self-Sufficiency.

ii) Differences between Clients Assigned to Different Therapies: Table 12 presents the results of t-tests between the pre-treatment test scores of the clients clinically assigned to group psychotherapy and those assigned to behaviour therapy. Certain statistically significant differences are apparent: the group therapy clients showed higher verbal ability, were more inner-directed in interests, and had treatment expectancies favouring a psychotherapeutic approach. They admitted to more symptoms in the psychotic category and obtained higher Neuroticism scores, as well as reporting more acting-out hostility, more guilt, and somewhat more self-criticism. On the repertory grid, they saw themselves as being more similar to other people, and their therapist as being less similar to their G.P., than did the behaviour therapy clients. They also identified themselves less strongly with their symptoms.

In view of the lack of control for differences in Verbal I.Q. between the group psychotherapy and behaviour therapy clients, the correlation between verbal I.Q. and each of the dependent variables was inspected to ascertain whether it was of such a magnitude and direction to exert a significant effect on the difference between the groups with regard to the dependent variable, and whether allowance for its effect might cause an apparently insignificant difference to reach significance or might have the opposite effect. Such relationships only obtained between verbal I.Q. and D.I.Q. scores, T.E.Q. scores, sexual identification scores on the grid, and the number of grid elements at a distance of at least one from the self element, and accordingly analyses of covariance were carried out in these cases:-

Analysis of Covariance of Verbal I.Q. and D.I.Q. Scores

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Square	F	p
Covariate: Verbal I.Q.	278.94	1	278.94	6.86	0.01
Main Effect: Therapy	139.78	1	139.78	3.44	0.07
Residual	1912.16	47	40.68		
Total	2330.88	49	47.57		

Allowance for the difference in verbal I.Q. therefore causes the difference in D.I.Q. scores to be reduced to a level which is just below statistical significance.

Analysis of Covariance of Verbal I.Q. and T.E.Q. Scores

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Square	F	p
Covariate: Verbal I.Q.	743.39	1	743.39	24.56	<0.001
Main Effect: Therapy	511.95	1	511.95	16.93	<0.001
Residual	1422.66	47	30.27		
Total	2678.00	49	54.65		

The difference in T.E.Q. scores between the groups remains significant even after allowance is made for the difference in verbal I.Q.

Analysis of Covariance of Verbal I.Q. and Sexual Identification Scores

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Square	F	p
Covariate: Verbal I.Q.	0.41	1	0.41	3.23	0.08
Main Effect: Therapy	0.08	1	0.08	0.59	0.45
Residual	5.81	46	0.13		
Total	6.29	48	0.13		

Allowance for the difference in Verbal I.Q. between the groups does not cause the difference in sexual identification scores to reach statistical significance.

Analysis of Covariance of Verbal I.Q. and Number of Grid Elements at Distance>1 from Self

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Square	F	p
Covariate: Verbal I.Q.	22.78	1	22.78	3.12	0.08
Main Effect: Therapy	24.37	1	24.37	3.34	0.07
Residual	342.86	47	7.30		
Total	390.02	49	7.96		

Allowance for the difference in Verbal I.Q. causes the difference in the grid self-isolation score to fall just short of significance.

The percentages of elicited constructs allocated to each of Landfield's (1967) content categories in the group psychotherapy and behaviour therapy subjects are presented in Table 13, which also indicates corresponding percentages from the studies by Landfield (1971), Fransella (1972), and Sperlinger (1976.) Although these percentages are not strictly comparable in that somewhat different coding categories and procedures were used in each study, it can be seen that the present sample is characterised by relatively high percentages of Self-Sufficiency and Self-Reference constructs and low percentages of Status and Time Orientation constructs.

Comparison of the content of the constructs elicited from the group psychotherapy and behaviour therapy clients at pre-treatment assessment showed that the former produced significantly fewer constructs in the Self-Sufficiency category (x^2=14.88; $p<0.001$; 1-tail) and more constructs in the Alternatives (x^2=5.11; $p<0.05$; 2-tail) and Factual Description (x^2=4.09; $p<0.05$; 2-tail) categories. In addition, differences in the construing of the self, the symptoms, and illness between these two groups of subjects were examined by considering the content of the construct poles which were correlated at a significance level of 0.05 (i.e. r= or>0.51 for N=15 elements) with the construct pole "like me in character", the symptom poles of the symptom constructs, and the construct pole "ill" respectively. In the behaviour therapy clients, "like me in character" was related to significantly more construct poles in the Low Self-Sufficiency (x^2=6.08; $p<0.01$; 1-tail) and High Involvement (x^2=7.52; $p<0.005$; 1-tail) categories than in

the group therapy clients. Significant differences with regard to the construct poles related to the "symptom poles" were that in the behaviour therapy clients more of these poles fell into the Low Self-Sufficiency (x^2=3.27; p<0.05; 1-tail), High Tenderness (x^2=7.06; p<0.01; 2-tail), and High Involvement (x^2=8.71; p<0.005; 1-tail) categories, and fewer into the Inactive Social Interaction (x^2=5.64; p<0.01; 1-tail), Low Organization (x^2=10.29; p<0.05; 1-tail), Self-Reference (x^2=9.25; p<0.01; 2-tail), Low Tenderness (x^2=11.58; p<0.001; 2-tail), and Low Humour (x^2=4.91; p<0.05; 2-tail) categories than in the group therapy clients. In the behaviour therapy clients, the construct pole "ill" was also related to significantly fewer construct poles in the Inactive Social Interaction (x^2=3.78; p<0.05; 1-tail) and Low Organization (x^2=4.80; p<0.05; 1-tail) categories than in the group therapy clients.

A discriminant analysis was also carried out in an attempt to identify those variables most useful in differentiating between clients assigned to group psychotherapy, behaviour therapy, or the combined approach of group desensitization and psychotherapy. The method used was stepwise, with variables being selected on the basis of their ability to maximise the overall multivariate F ratio for the test of differences between group centroids (Klecka, 1975.) Table 14 presents the standardised discriminant function coefficients of the variables which define the two discriminant functions derived. It can be seen that only 14 of the 32 variables in the analysis were selected before the amount of centroid separation which would be added by further variables became insignificant. The high level of separation achieved by these variables is indicated by a final Wilks' lambda of 0.0596, canonical correlations of 0.92 for the first and 0.78 for the second discriminant function, and the fact that 92.2% of the subjects were correctly classified into therapy categories on the basis of the discriminant functions. The positions of the centroids of the three groups of subjects in the discriminant function space are indicated in Table 15, from which it can be seen that the first discriminant function concerns the separation of group psychotherapy from behaviour therapy clients, while the second is largely concerned with the separation of the "combined approach" clients from members of the other two groups. Much the most important variable in differentiating subjects along the first discriminant function is the score on the T.E.Q., and high discriminant function coefficients on this first function are also obtained by the actual self-isolation score on the repertory grid, low scores indicating group psychotherapy, and by Neuroticism, high scores indicating group psychotherapy. Also of importance in indicating group psychotherapy are high scores on Acting Out Hostility, a large number of psychotic symptoms, and on the grid a large distance between therapist and G.P. and between self and father elements. Distance between self and father elements on the grid is the most important variable in the second discriminant function, large distances indicating the "combined treatment" approach, as do high self loadings on the first component from the grid. Also important are Projected Delusional Hostility, a high level of which contraindicates the combined treatment approach, and scores on the H.O.Q. and the Neuroticism scale, high scores on both indicating the combined approach, as does a large distance between constructs "like me" and "ill." A high level of self-isolation on the grid, a high distance between mother and father elements, a high score on the Conservatism Scale, and low Verbal I.Q. are also important in this regard.

Change Data

i) Grid Predictions: For each subject in the follow-up group, individualised predictions were made, on the basis of inspection of their pre-treatment

grid, of the changes in their grids which it was expected would reflect a positive therapeutic outcome. The individualised predictions of changes in grid indices for each client are presented in Appendix One, together with an indication of whether or not each of these was confirmed at the post-treatment assessment for those clients with whom such an assessment was possible.

Retrospective analysis of the individualised predictions revealed that they fell into the categories indicated in Table 16, which also indicates the number of predictions falling into each category and the frequency of confirmation of each type of prediction.

The percentage of individualised predictions confirmed for each client at the assessment following the termination of their therapy was computed, as were the percentage of general predictions confirmed and the percentage of extremity control predictions confirmed. Using the Wilcoxon test to compare these sets of percentages, it was found that significantly more individualised than general predictions were confirmed ($z=6.14$; $p=<0.001$; 1-tail), while there was no significant difference between the number of individualised and the number of extremity control predictions confirmed ($z=0.57$; not significant; 1-tail.)

ii) Predictions of Change on Other Measures: As previously indicated, it was also predicted that for the sample as a whole therapeutic improvement would be associated with a decrease in symptom ratings; a decrease in the number of symptoms admitted to on the S.S.I.; a decrease in total Hostility and in scores on each of the H.D.H.Q. subscales, but a more extrapunitive direction of hostility; a decrease in Neuroticism; but no change in H.O.Q. scores.

In addition to these general predictions, individualised predictions were made for each subject, on the basis of inspection of the results of their first assessment with the H.D.H.Q., of changes in their scores on this measure which would be expected to accompany a positive therapeutic outcome. These latter predictions were made on the assumption that for each of a subject's 7 H.D.H.Q. scores (total Hostility, Direction of Hostility, and 5 subscale scores) at initial assessment which differed by more than one standard deviation from the mean of the normal subjects in the standardisation sample for the instrument there would be a movement towards the normal mean of the subject's score on that particular measure. The percentage of individualised H.D.H.Q. predictions confirmed for each client at their post-treatment assessment was computed, as was the percentage of general H.D.H.Q. predictions confirmed. Comparing these two sets of percentages with the Wilcoxon test, they were found not to differ significantly ($z=1.27$; n.s.; 1-tail.)

iii) Relationships between change scores: A change score was calculated for each measure with each subject on the basis of the difference in scores between the initial and post-treatment assessment, assigning a positive value to a score representing movement in the direction predicted for that measure as associated with improvement for the sample as a whole and eliminating negative values from the final score by adding a constant to the change scores for a particular measure when appropriate. These change scores, together with the percentage of each type of grid prediction confirmed, the percentage of individualised H.D.H.Q. predictions confirmed, duration of therapy, and therapist's rating of change, were intercorrelated and the correlation matrix is presented in Table 17 (all product-moment correlations except those involving percentages of predictions confirmed). It can be seen that the scores are mostly positively intercorrelated, the most consistent exceptions

being the correlations with the grid measures of change in the average ideal self-parent distance and change in the distance between mother and father elements: movement in the positive direction on the other measures tended to be associated, contrary to predictions, with construing of the parents as less similar to the ideal self and less similar to each other. The percentage of individualised grid predictions confirmed was significantly correlated with the percentage of general predictions confirmed, and both these measures tended to correlate positively and highly with scores on the other measures, including non-grid measures. This was not, however, the case with the percentage of extremity control predictions confirmed, which only correlated significantly and in the expected direction with the change in symptom ratings, while being negatively correlated with several other measures, and to a significant extent with change in isolation of the self element on the grid, and change in Direction of Hostility and Self-Criticism. The percentage of individualised H.D.H.Q. predictions confirmed was highly positively correlated with most of the other change scores from the H.D.H.Q., and tended to be less highly correlated with scores on the other change measures than did these latter scores.

A principal component analysis with VARIMAX rotation was also carried out on the change data, with the exclusion of the percentages of general and extremity control grid predictions confirmed and change in H.D.H.Q. scores except total Hostility and its Direction, and Table 18 indicates the loadings of the variables on the first 4 components, which together accounted for 85.3% of the variance. The first component can be seen to concern change in construing of the self and parents, and only repertory grid measures load highly on it. The second concerns change at the symptom level, being defined by the high loadings on it of change in the number of symptoms admitted to on the S.S.I., change in total Hostility, and change in Neuroticism. The third is a more "mixed" component, and largely concerns the percentage of individualised grid predictions confirmed, the duration of therapy, and the therapist's rating of change, while the variables loading most highly on the fourth component are change in Direction of Hostility and in isolation of the self element in the grid.

iv) Differences between Pre- and Post-Treatment Scores: For the 21 subjects in the follow-up sample who had remained in treatment for at least 9 months, t-tests were carried out between the pre- and post-treatment test scores. It can be seen from Table 19 that there was a significant decrease in the number of neurotic symptoms to which they admitted, as well as in Self-Criticism, Guilt, Complaining of Others, and Neuroticism. On the grid, the only significant decreases were in the distance between self and ideal self elements, and in isolation of the self element.

v) Differences in Change between Group Psychotherapy and Behaviour Therapy Clients: Table 20 presents the results of t-tests between the change scores of the group psychotherapy and behaviour therapy clients, and it can be seen that on no measure was there a significant difference in amount of change.

vi) Differences between Group Psychotherapy "Drop-Outs" and "Stayers": The group psychotherapy sample was divided into those subjects who dropped out of therapy within the first three months and those who continued in treatment longer than this. Tables 21 and 22 present the results of t-tests carried out between both the pre-treatment and change scores of these two groups. It can be seen that the drop-outs, numbering 14, were significantly younger and showed lower loadings of the self element on the first component of the grid at the initial assessment than did the 16 stayers. On the change scores,

they exhibited a rather greater decrease in the distance between the mother and father elements on the grid, a significantly greater decrease in Acting Out Hostility, and lower therapist ratings of change.

Relationships between Pre-Treatment and Change Data

i) Correlations between Pre-Treatment and Change Scores: Correlations between pre-treatment scores and scores on each of the change measures were calculated and are presented in Table 23 (all product-moment correlations except those involving social class ratings, numbers of Self-Sufficiency and Social Interaction constructs, and percentages of predictions confirmed.) It can be seen that the major pattern to emerge is of a strong positive relationship between change on a certain measure and the pre-treatment score on that measure. The characteristics which most consistently showed strong associations with a high degree of change on other variables were upper social class; the lack of psychotic symptoms; a low level of extrapunitive, and particularly of Projected Delusional, hostility; a high level of Self-Criticism; a high self-ideal discrepancy; and a high correlation between the self construct and the symptom constructs in the grid. Equivalent correlation matrices for the group psychotherapy and behaviour therapy clients separately are presented in Tables 24 and 25 respectively.

ii) Differences between "Improvers" and "Non-improvers": A further analysis of the relationship between pre-treatment scores and degree of improvement during therapy was carried out by dividing the members of the follow-up sample into "improvers" and "non-improvers" on the basis of their degree of change on those measures which loaded most highly on the first three components from the principal component analysis of the change data, viz. self-ideal self distance, average ideal self - parent distance, percentage of individualised grid predictions confirmed, number of symptoms, Neuroticism, total Hostility, and therapist rating of change. Degree of change on each measure was rated on a 7-point scale using the criteria presented in Table 26, and those subjects obtaining a total, composite change rating of 6 or above were designated as "improvers", the remainder being "non-improvers."

Table 27 presents the results of t-tests carried out between the pre-treatment test scores of group psychotherapy "improvers" and "non-improvers", and it can be seen that the former had significantly higher Verbal I.Q.'s, obtained lower scores on the T.E.Q. and Conservatism Scale, and displayed rather less Projected Delusional Hostility. On the grid, they showed greater self - ideal self discrepancy, a somewhat greater average distance between ideal self and parent elements, and greater isolation of the self element, as well as a higher loading of this element on the first component from the INGRID analysis. Analyses of covariance were carried out to control for the effect of the difference in Verbal I.Q. between the groups on the difference in those dependent variables whose correlation with Verbal I.Q. was such that allowance for the latter might cause a change in the significance of the difference between the groups with respect to the dependent variable concerned:-

Analysis of Covariance of Verbal I.Q. and T.E.Q. Scores

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Square	F	p
Covariate: Verbal I.Q.	294.50	1	294.50	15.25	0.002
Main Effect: Improvement	55.87	1	55.87	2.89	0.12
Residual	212.50	11	19.32		
Total	562.86	13	43.30		

Allowance for the difference in Verbal I.Q. causes the difference in T.E.Q. scores between the groups to be reduced to a non-significant level.

Analysis of Covariance of Verbal I.Q. and Conservatism Scores

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Square	F	p
Covariate: Verbal I.Q.	1813.37	1	1813.37	28.42	<0.001
Main Effect: Improvement	567.96	1	567.96	8.90	0.01
Residual	701.89	11	63.81		
Total	3083.21	13	237.17		

The difference in Conservatism scores between the groups remains significant even after allowance is made for the difference in Verbal I.Q.

Analysis of Covariance of Verbal I.Q. and Average Ideal Self - Parent Distance Scores

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Square	F	p
Covariate: Verbal I.Q.	0.59	1	0.59	8.76	0.01
Main Effect: Improvement	0.002	1	0.002	0.03	0.87
Residual	0.74	11	0.07		
Total	1.32	13	0.10		

Allowance for the difference in Verbal I.Q. causes the difference in average ideal self - parent distance scores between the groups to be reduced to a non-significant level.

There was also a significant sex difference between the two groups, with more males amongst the group therapy improvers and more females amongst the non-improvers ($x^2=8$; $p<0.01$; 2-tail.)

The equivalent findings of differences between improvers and non-improvers in the behaviour therapy sample are presented in Table 28, the only significant difference being in the higher pre-treatment Conservatism scores of the former group.

An additional analysis was carried out of the content of the constructs employed by the improvers and non-improvers, and the significant differences are described below. The group psychotherapy improvers tended to use fewer constructs in Landfield's Tenderness category (x^2=8.05; p<0.01; 2-tail) than the non-improvers. They related their symptoms to considerably fewer other constructs generally (x^2=12.30; p<0.0005; 1-tail), and in particular saw their symptoms less in terms of Low Self-Sufficiency (x^2=3.88; p<0.05; 1-tail), Inactive Social Interaction (x^2=3.88; p<0.05; 2-tail), Low Tenderness (x^2=4.69; p<0.05; 2-tail), and being Closed to Alternatives (x^2=6.21; p<0.01; 1-tail), but more in terms of Low Humour (x^2=5.20; p<0.05; 2-tail.) By contrast, the behaviour therapy improvers related their symptoms to considerably more other constructs than did the non-improvers (x^2=18.92; p<0.0005; 1-tail), and in particular to more Low Self-Sufficiency construct poles (x^2= 9.15; p<0.005; 1-tail.)

In addition, separate Wilcoxon tests were carried out in the total group of improvers and in the total group of non-improvers to compare the percentage of individualised grid predictions confirmed at post-treatment assessment with the percentage of extremity control grid predictions confirmed in each group. For this analysis, the percentage of individualised predictions confirmed was excluded from the derivation of the improvement ratings, and the cut-off point for classification of a subject as improved was accordingly lowered from 6 to 5. It was found that, while significantly more individualised than extremity control predictions were confirmed amongst the improvers (T=41; N=18; p<0.05; 1-tail), there was no significant difference between these two sets of percentages in the non-improvers (T=40; N=13; not significant.) Equivalent comparisons between the percentage of individualised and the percentage of general grid predictions confirmed would not have been meaningful in view of the contribution made to the derivation of the total improvement rating by ratings of change in some of the grid indices used in the general predictions.

In a study using averaged group data, however, idiographic its focus, information as to differences between individuals in their patterns of change is inevitably lost. To repair this loss to some extent, the changes observed in a few selected clients are described in Appendix Two.

THE TABLES

Table 5. Correlations between Pre-Treatment Scores.

		Age	Class	Verbal I.Q.	D.I.Q.	T.E.Q.	C	S.S.I:N	S.S.I:A	S.S.I:D	S.S.I:O
Age			0.00	0.24 ***	-0.22 (*)	0.12 (*)	0.23 (**) *	0.02	0.12	0.21	-0.18 (**)
Class				-0.43	-0.26 (**)	0.31 (***)	0.40 (***)	0.22	0.19	-0.06	0.35
Verbal I.Q.					0.37	-0.51 ***	-0.48	-0.07	-0.15	0.09	-0.17
D.I.Q. Score						-0.34	-0.21 ***	0.05	-0.04	0.22	0.03
T.E.Q. Score							0.44	0.13	0.25	-0.17	0.13
C. Score								0.02	0.04 ***	0.01 ***	0.10 ***
Neurotic Symptoms (S.S.I:N)	S.S.I.								0.73	0.51 **	0.81 ***
Anxiety State Symptoms (S.S.I:A)	S.S.I.									0.40	0.47 ***
Neurotic Depressive Symptoms (S.S.I:D)	S.S.I.										0.46

* : p = 0.05 ; ** : p = 0.01 ; *** : p = 0.001 ; ( ) : 2-tailed.

Table 5. (Cont.) Correlations between Pre-Treatment Scores.

		SSI:H	SSI:P	SSI:P-S	AH	CO	PH	SC	G	H.O.Q.	N
Age		0.01	-0.13	-0.06	-0.25 (*)	-0.07	-0.10	-0.19	-0.16	-0.06	-0.09
Class		0.17	-0.02	0.07	0.02	0.15	0.21	0.07	0.09	-0.03	-0.04
Verbal I.Q.		-0.05	0.05	0.18	0.14 ***	-0.16 **	-0.21	-0.01	0.04 **	-0.03	0.16 *
D.I.Q. Score		0.00	0.20	0.00	0.48	0.25	0.16	0.08	0.26	0.14	0.23
T.E.Q. Score		0.18	0.03	-0.11	-0.09	0.21	0.10	-0.07	-0.13	0.16	-0.11
C Score		0.08 ***	-0.13 ***	0.13	-0.10	0.25 * (*)	0.28 *** (*)	-0.03 ***	-0.02 ***	-0.03 *	-0.11 ***
Neurotic Symptoms (SSI:N)	S.S.I.	0.74 ***	0.51 *	0.13	0.19	0.22	0.46 *	0.60 ***	0.63 **	-0.27	0.66 ***
Anxiety State Symptoms (SSI:A)	S.S.I.	0.52 ***	0.26 ***	-0.18	0.10	0.08 *	0.24 ***	0.48 ***	0.37 ***	-0.13	0.58 ***
Neurotic Depressive Symptoms (SSI:D)	S.S.I.	0.45 ***	0.49 **	-0.14	0.26	0.34	0.44 ***	0.43 ***	0.61 ***	-0.21 *	0.57 ***
Obsessional Symptoms (SSI:O)	S.S.I.	0.45	0.41 **	0.05 ***	0.14 *	0.16	0.47 *	0.56 **	0.55 **	-0.29	0.50 **
Hysterical Symptoms (SSI:H)	S.S.I.		0.35	-0.55	0.25 **	0.04 **	0.26 **	0.42 **	0.39 ***	-0.21	0.42 ***
Psychotic Symptoms (SSI:P)	S.S.I.			0.18	0.30	0.31	0.38 (*)	0.36	0.42 (**)	-0.02	0.43
Psychic-Somatic Score (SSI:P-S)	S.S.I.				0.11	0.12 ***	0.31 ***	0.10	0.35 **	0.02 *	0.01 *
AH	H.D.H.Q.					0.54	0.46 ***	0.09	0.32 **	0.27 *	0.23 *
CO	H.D.H.Q.						0.63	0.06 *	0.35 **	0.28	0.22 **
PH	H.D.H.Q.							0.24	0.39 ***	0.03 **	0.35 ***
SC	H.D.H.Q.								0.57	-0.37	0.58 ***
G	H.D.H.Q.									-0.10	0.59
H.O.Q. Score											-0.12
E.P.I. N Score											

Table 5. (Cont.) Correlations between Pre-Treatment Scores.

Repertory Grid	Age	Class	Verbal I.Q.	D.I.Q.	T.E.Q.	C	S.S.I.:N	S.S.I.:A	S.S.I.:D	S.S.I.:O
Self-Ideal Self Distance (S-I)	0.01	0.09	-0.30 (*)	-0.02	-0.04	-0.04	0.17	0.13	0.10	0.24
Sexual Identification Score (Sex.Id.)	0.02	-0.24	0.29 (*)	-0.01	0.01	-0.36 (**)	-0.02	0.07	0.09	0.08
Self-Mother Distance (S-M)	-0.26 (*)	-0.05	0.03	0.10	-0.07	-0.11	-0.16	0.04	-0.19	-0.03
Self-Father Distance (S-F)	-0.08	0.19	-0.18	-0.27 (*)	0.04	0.09	0.06	-0.01	0.07	-0.10
Mother-Father Distance (M-F)	0.20	-0.30 (*)	0.15	0.07	-0.09	-0.07	-0.04	-0.33 *	-0.20	-0.03
Average Ideal-Parent Distance (I-P)	0.32 (*)	-0.13	0.34 (**)	0.08	-0.20	-0.27 (*)	-0.04	0.13	0.14	0.13
No. of Elements at Dist. >1 from Self (NS)	-0.19	0.15	-0.26 (*)	-0.08	0.02	0.08	0.15	0.25 *	-0.10	0.08
No. of Elements at Dist. >1 from Ideal Self (NI)	-0.09	-0.20	0.24	0.24 *	-0.18	-0.23	-0.15	-0.05	-0.09	0.00
Therapist - G.P. Distance (T-G.P.)	-0.09	-0.16	0.14	0.12	-0.05	0.04	-0.04	-0.17	0.10	-0.08
Size of Cpt. I	0.11	-0.09	0.09	0.26 (*)	-0.07	0.14	0.18	0.08	0.15	0.31 *
Size of Cpt. II	-0.02	0.07	-0.16	-0.26 (*)	0.23	0.06	0.01	0.02	0.05	-0.18
Loading of Self on Cpt. I (SCI)	-0.02	0.12	-0.09	0.09	0.09	0.01	0.23 *	0.24 *	0.03	0.42 ***
Loading of Self on Cpt. II (SCII)	-0.10	-0.01	-0.21	-0.27 (*)	0.05	0.20	-0.05	-0.10	-0.10	-0.21
'Like Me' - 'Ill' Distance (Ill)	-0.06	-0.16	-0.06	0.06	-0.10	-0.04	-0.36 **	-0.25	-0.34 *	-0.45 ***
Average 'Like Me' - 'Symptom' Distance (Symp.)	-0.01	-0.02	-0.16	-0.12	-0.05	0.13	-0.23	-0.24	0.01	-0.28 *
No. of Self-Sufficiency Constructs (SS)	0.13	0.02	-0.05	-0.14	0.20	0.02	0.01	0.22	-0.27	-0.06
No. of Social Interaction Constructs (Soc.)	-0.15	0.03	0.06	0.08	-0.20	0.01	-0.22	-0.29 (*)	-0.11	-0.18

* : p = 0.05; ** : p = 0.01; *** : p = 0.001; ( ) : 2-tailed.

Table 5. (Cont.) Correlations between Pre-Treatment Scores.

		S.S.I.:H	S.S.I.:P	S.S.I.:P-S	AH	CO	PH	SC	G	H.O.Q.	N
Self-Ideal Self Distance (S-I)	Repertory Grid	0.01	-0.12	0.25 *	-0.12	-0.09	-0.12	0.18	0.05	-0.25 *	0.11
Sexual Identification Score (Sex.Id.)		0.08	0.15	0.10	-0.02	-0.14	-0.01	-0.18	-0.07	0.03	0.00
Self-Mother Distance (S-M)		-0.11	-0.08	-0.07	-0.06	-0.06	-0.12	0.10	-0.11	-0.10 *	-0.05
Self-Father Distance (S-F)		-0.13	-0.08	0.05	0.01	-0.09	-0.04	0.13	-0.09	-0.23	-0.06
Mother-Father Distance (M-F)		0.07	-0.14	-0.04	-0.08	-0.03	-0.09	-0.07	0.00	0.17	0.12
Average Ideal-Parent Distance (I-P)		0.10	-0.10	0.10	-0.05	-0.07	-0.05	-0.26 (*)	-0.08	0.08	-0.07
No. of Elements at Dist. >1 from Self (NS)		0.14	0.00	-0.04	-0.16	-0.21	-0.17	0.19	-0.05	-0.20	0.13
No. of Elements at Dist. >1 from Ideal Self (NI)		-0.20	0.05	0.28 (*)	0.12	-0.04	-0.06	-0.17	0.07	0.31 (*)	0.03
Therapist - G.P. Distance (T-G.P.)		-0.06	0.17 *	-0.04	0.03	0.21	0.21	0.04	0.23	0.01 *	0.03 *
Size of Cpt.I		0.10	0.24	0.23	-0.14	-0.02	0.14	0.07	0.09	-0.26	0.21
Size of Cpt.II		0.18	-0.08	-0.17	-0.03	0.02	-0.11	0.07	-0.07	0.08	-0.06
Loading of Self on Cpt.I (SCI)		0.03	0.04	0.22	-0.10	-0.01	-0.06	0.33 **	0.12	-0.43 ***	0.19
Loading of Self on Cpt.II (SCII)		0.12	-0.09	-0.08	-0.13	-0.11	-0.04	-0.17	-0.16	0.06	-0.03
'Like Me' - 'Ill' Distance (Ill)		-0.15	0.02	-0.19	0.03	-0.02	-0.04	-0.06	-0.13	0.12	-0.05
Average 'Like Me' - 'Symptom' Distance (Symp.)		-0.22	0.02	0.07	0.07	0.08	0.07	-0.17	0.03	0.17	-0.21
No. of Self-Sufficiency Constructs (SS)		0.01	-0.23	0.07	-0.20	-0.10	-0.21	0.14	-0.15	-0.04	0.11
No. of Social Interaction Constructs (Soc.)		-0.16	0.06	-0.11	-0.21	-0.14	-0.16	0.08	-0.09	-0.39 (**)	-0.17

* : p = 0.05; ** : p = 0.01; *** : p = 0.001; ( ) : 2-tailed.

Table 5.(Cont.) Correlations between Pre-Treatment Scores.

	S-I	Sex.Id.	S-M	S-F	M-F	I-P	NS	NI	T-G.P.
Self-Ideal Self Distance		-0.21	0.18	0.16	0.05	-0.09	0.59***	-0.01	-0.41(***)
Sexual Identification Score			-0.09	-0.21	-0.03	0.14	-0.11	0.23	0.20
Self-Mother Distance				0.33**	0.09	-0.21	0.37**	0.00	0.02
Self-Father Distance					-0.14	-0.34(**)	0.48***	-0.36(**)	-0.22
Mother-Father Distance						0.28*	-0.08	0.07	-0.04
Average Ideal-Parent Distance							-0.34(**)	0.45***	0.13
No. of Elements at Dist. >1 from Self								-0.21	-0.18
No. of Elements at Dist. >1 from Ideal Self									0.01

* : p = 0.05; ** : p = 0.01; *** : p = 0.001; ( ) : 2-tailed.

Table 5.(Cont.) Correlations between Pre-Treatment Scores.

	Cpt.I	Cpt.II	SCI	SCII	Ill	Symp.	SS	Soc.
Self-Ideal Self Distance	0.08	0.05	0.60***	0.12	-0.26 *	-0.16	0.15	-0.04
Sexual Identification Score	-0.09	0.12	-0.29**	0.22	-0.05	0.04	-0.16	-0.07
Self-Mother Distance	0.01	0.19	0.30**	0.20	-0.12	-0.10	-0.01	0.11
Self-Father Distance	-0.13	0.20	0.27*	0.27*	-0.15	0.05	0.01	0.16
Mother-Father Distance	-0.08	-0.05	-0.03	-0.12	-0.07	0.02	0.19	-0.09
Average Ideal-Parent Distance	0.09	-0.19	-0.09	-0.31(*)	0.06	0.16	-0.09	-0.01
No. of Elements at Dist. > 1 from Self	-0.01	0.01	0.47***	0.38***	-0.29*	0.01	0.22	-0.06
No. of Elements at Dist. > 1 from Ideal Self	0.03	-0.06	-0.13	-0.05	0.33(**)	0.01	-0.28*	-0.08
Therapist - G.P. Distance	0.07	-0.13	-0.22	0.04	-0.04	0.29*	-0.29*	0.10
Size of Cpt. I		-0.42***	0.28*	-0.12	-0.09	-0.14	0.09	0.12
Size of Cpt. II			-0.14	0.40***	-0.03	0.00	0.06	0.07
Loading of Self on Cpt. I				-0.39***	-0.37**	-0.18	0.36(**)	0.01
Loading of Self on Cpt. II					0.06	0.06	-0.21	-0.05
'Like Me' - 'Ill' Distance						0.02	-0.17	0.21
Average 'Like Me' - Symptom' Distance							-0.28(*)	-0.04
No. of Self-Sufficiency Constructs								-0.17
No. of Social Interaction Constructs								

* : p = 0.05; ** : p = 0.01; *** : p = 0.001; ( ) : 2-tailed.

	Class	V.I.Q.	D.I.Q.	T.E.Q.	C	SSI: N	SSI: P	AH	CO	PH	SC	G	H.O.Q.	N
Age	-0.04	0.18	-0.31	-0.09	0.09	-0.14	-0.36 (*)	-0.31	-0.21	-0.24	-0.42 (*)	-0.21	-0.15	-0.35
Class		-0.31	-0.09	0.36	0.40 (*)	0.42 (*)	0.30	0.35	0.52 (***)	0.35	0.00	0.27	0.19	0.20
V.I.Q.			0.21	-0.68 (***)	-0.59 (***)	-0.23	-0.14	-0.03	-0.43 (*)	-0.36	0.11	-0.09	-0.13	-0.07
D.I.Q.				-0.39 *	-0.07	0.02	0.17	0.51 **	0.12	0.12	0.14	0.32 *	0.28	0.07
T.E.Q.					0.59 ***	0.12	0.17	-0.01	0.31	0.25	0.06	-0.03	0.11	0.08
C						0.18	-0.04	-0.01	0.33	0.40 (*)	-0.08	0.18	-0.04	0.03
SSI: N							0.47 **	0.28	0.13	0.55 ***	0.35 **	0.32 *	-0.15	0.66 ***
SSI: P								0.29	0.21	0.41 *	0.27	0.17	0.06	0.31 *
AH									0.59 ***	0.44 **	0.09	0.25	0.53 **	0.14
CO										0.64 ***	-0.04	0.29	0.45 **	-0.08
PH											0.19	0.30 *	0.08	0.43 *
SC												0.34	-0.26	0.37 *
G													0.21	0.33
H.O.Q.														-0.10
N														

Table 6. Correlations between Pre-Treatment Scores in the Group Psychotherapy Sample

* : p = 0.05; ** : p = 0.01; *** : p = 0.001; ( ) : 2-tailed.

	Age	Class	V.I.Q.	D.I.Q.	T.E.Q.	C	SSI: N	SSI: P	AH	CO	PH	SC	G	H.O.Q.	N
S-I	-0.08	-0.09	-0.08	0.23	-0.50 (**)	-0.38 (*)	-0.02	0.03	0.04	-0.23	-0.15	0.06	-0.02	-0.29	-0.02 *
Sex. Id.	-0.07	0.09	0.16	-0.06	-0.06	-0.27	0.19	0.10	-0.04	-0.06	0.01	0.08	-0.03	-0.18	0.36
S-M	-0.57 (***)	-0.15	0.22	0.17	-0.04	-0.22	-0.13	0.11	0.14	0.01	0.04	0.41 **	0.05	-0.01 *	0.11 *
S-F	-0.32	-0.11	0.14	-0.24	0.02	-0.09	0.30	0.19	-0.02	-0.13	0.10	0.52	0.15	-0.39	0.32
M-F	0.06	-0.28	0.02	0.22	-0.25	0.03	-0.23	-0.56 (***)	-0.09	-0.13	-0.12	-0.02	0.02	0.01	-0.13
I-P	0.41 (*)	-0.04	0.42 (*)	0.00	-0.48 (**)	-0.31	-0.16 *	-0.31	-0.30	-0.22	-0.19	-0.43 (*) **	-0.16	-0.15 *	-0.20 **
NS	-0.40 (*)	0.03	-0.13	0.15	-0.21	-0.07	0.33	0.29	0.07	-0.20	-0.02	0.44	0.15	-0.36	0.47
NI	-0.15	0.08	0.27	0.19	-0.30	-0.27	-0.22	0.06	-0.12	-0.12	-0.20	-0.22	0.27	0.27	0.01
T-G.P.	-0.06	0.06	-0.07	-0.01	0.23	0.14	0.05	0.04	-0.08	0.29	0.24	0.15	0.22	-0.08	0.03
Cpt. I	0.18	-0.10	-0.01	0.04	0.02	0.23	0.16	0.35 *	-0.16	-0.26	0.14	0.09	0.05	-0.26	0.25
Cpt. II	-0.44 (*)	0.13	-0.11	-0.05	0.24	-0.13	-0.10	-0.03	0.22	0.16	-0.13	0.02 *	0.02	0.29 **	-0.04
SC I	-0.12	0.00	0.16	0.14	-0.22	-0.11	0.12	0.20	0.11	-0.09	0.13	0.40	0.12	-0.54	0.09 **
SC II	-0.29	0.07	-0.31	-0.12	0.11	0.14	0.27	0.12	-0.04 **	-0.15	0.04	-0.09	0.02	-0.05	0.43
Ill	0.06	-0.17	-0.34 (*)	-0.25	0.07	0.06	-0.31	0.03	-0.50	-0.17	-0.19	0.01	0.02	-0.17	-0.07
Symp.	-0.11	-0.16	-0.45	-0.18	0.06	0.12	-0.16	0.05	-0.07	0.24	0.09	-0.04	0.23	0.01	-0.05
SS	0.14	-0.10	-0.07	-0.05	0.18	0.00	-0.02	-0.05	-0.14	-0.15	-0.16	0.27	-0.09	-0.10	-0.03
Soc.	-0.15	-0.07	0.18	0.12	0.01	-0.05	-0.34	-0.04	-0.27	-0.13	-0.31	0.11	-0.09	-0.39 (*)	-0.28

Table 6. (Continued) Correlations between Pre-Treatment Scores in the Group Psychotherapy Sample

*: p = 0.05; ** : p = 0.01; *** : p = 0.001; ( ) : 2-tailed.

	S-I	Sex. Id.	S-M	S-F	M-F	I-P	NS	NI	T-G.P.	Cpt. I	Cpt. II	SC I	SC II	Ill	Symp.	SS	Soc.
S-I		0.02	0.08	0.00	0.10	-0.03	0.62***	0.07	-0.35	-0.02	-0.17	0.54***	0.13	0.07	-0.08	-0.06	0.18
Sex. Id.			-0.13	0.17	-0.27	-0.01	0.14	-0.06	0.16	-0.20	0.21	-0.06	0.33*	-0.11	0.10	0.06	-0.16
S-M				0.50**	0.09	-0.22	0.33*	0.13	0.26	-0.25	0.15	0.32*	0.14	-0.04	-0.02	-0.20	0.18
S-F					-0.29	-0.24	0.43**	-0.25	0.07	0.08	0.16	0.42**	0.21	-0.04	0.17	0.03	0.11
M-F						0.32*	-0.15	0.19	-0.13	-0.24	-0.10	-0.12	-0.10	0.12	0.12	0.05	0.05
I-P							-0.26	0.29	0.17	0.07	-0.08	-0.04	-0.21	-0.14	0.00	0.11	0.16
NS								0.01	-0.07	0.08	-0.01	0.60***	0.38*	-0.05	-0.01	0.09	0.06
NI									-0.01	-0.06	0.02	-0.08	0.07	0.24	-0.11	-0.21	-0.01
T-G.P.										-0.05	0.02	0.05	0.00	-0.17	0.09	0.01	0.02
Cpt. I											-0.55***	0.26	-0.13*	0.04	-0.08	0.23	0.14
Cpt. II												-0.22	0.31	0.02	0.32	-0.11	0.10
SC I													-0.26	-0.11	-0.09	0.27	0.28
SC II														0.06	0.19	-0.51(**)	-0.15
Ill															0.33*	-0.12	0.11
Symp.																-0.06	-0.06
SS																	0.03
Soc.																	

Table 6. (Continued) Correlations between Pre-Treatment Scores in the Group Psychotherapy Sample

* : p = 0.05; ** : p = 0.01; *** : p = 0.001; ( ) : 2-tailed.

	Class	V.I.Q.	D.I.Q.	T.E.Q.	C	SSI:N	SSI:P	AH	CO	PH	SC	G	H.O.Q.	N
Age	0.07	0.50 (*)	-0.03	0.44 (*)	0.28	0.05	0.05	0.01	0.10	0.05	-0.07	-0.07	-0.04	0.00
Class		-0.57 **	-0.46 (*)	0.07	0.51 (**)	0.00	-0.17	-0.08	-0.10	0.21	0.06	-0.03	-0.26	-0.42 (*)
V.I.Q.			0.33	-0.24	-0.22	-0.12	0.06	0.16 *	-0.02	-0.28	-0.20	-0.16	0.30	0.24
D.I.Q.				-0.18	-0.25	0.03	0.16	0.48	0.29	0.05	-0.05	-0.03	0.05	0.27
T.E.Q.					0.20	0.32	0.30	-0.13	0.24	0.07	0.01	0.13	-0.04	-0.17
C						-0.13	-0.16 ***	-0.21	0.16	0.13 **	0.09 ***	-0.08 ***	-0.19	-0.27 ***
SSI:N							0.65	0.21	0.34 **	0.50	0.85	0.86 **	-0.31	0.68 **
SSI:P								0.30	0.44 **	0.32 ***	0.39	0.60	-0.06	0.49
AH									0.48	0.60 ***	0.08	0.26	0.24	0.25 *
CO										0.60	0.28 *	0.39 **	0.02	0.45 *
PH											0.44	0.52 ***	-0.15 **	0.35 ***
SC												0.82	-0.48	0.70 ***
G													-0.23	0.74
H.O.Q.														-0.15
N														

Table 7. Correlations between Pre-Treatment Scores in the Behaviour Therapy Sample

* : p = 0.05; ** : p = 0.01; *** : p = 0.001; ( ) : 2-tailed.

	Age	Class	V.I.Q.	D.I.Q.	T.E.Q.	C	SSI: N	SSI:P	AH	CO	PH	SC	G	H.O.Q.	N
S-I	-0.19	0.19	-0.48 (*)	-0.07	0.27	0.22	0.35 *	-0.14	-0.06	0.21	0.14	0.41 *	0.37 *	-0.36 *	0.27
Sex. Id.	0.15	-0.48 (*)	0.50 (*)	0.06	0.14	-0.58 (**)	0.09	0.29	0.05	-0.29	-0.18	-0.19	0.05	0.12	0.06
S-M	-0.29	0.01	-0.17	0.15	-0.13	-0.14	-0.38	-0.18	-0.16	-0.15	-0.44 *	-0.37	-0.34	-0.21	-0.27
S-F	0.01	0.47 (*)	-0.37	-0.28	0.05	0.26	-0.16	-0.18	0.08	-0.10	-0.08	-0.15	-0.26	-0.10	-0.28
M-F	0.14	-0.59 (**)	0.44 (*)	0.04	0.10	-0.36	-0.01	0.34	0.14	0.15	0.03	-0.28	0.05	0.46 *	0.23
I-P	0.23	-0.18	0.33	0.25	0.13	-0.26	0.10	0.02	0.33	0.17	0.18	-0.12	0.01	0.40 *	-0.02
NS	-0.16	0.21	-0.24	-0.20	-0.04	0.15	-0.02	-0.15	-0.28	-0.19	-0.34	-0.07	-0.04	-0.15	-0.07
NI	-0.09	-0.23	0.25	0.43 *	-0.17	-0.31	0.00	-0.06	0.31	-0.08	0.00	-0.03	-0.03	0.24	0.09
T-G.P.	0.01	-0.18	0.09	-0.14	0.18	0.20	-0.10	0.02	-0.49 (*)	-0.08	-0.21	-0.16	0.00	0.18	-0.10
Cpt. I	-0.15	-0.18	0.00	0.56 (**)	0.13	0.07	0.06	0.08	0.03	0.38 *	0.04	0.00	-0.01	-0.22	0.17
Cpt. II	0.24	0.06	-0.13	-0.48 (*)	0.19	0.14	0.09	-0.07	-0.20	-0.20	-0.01	0.23	-0.01	-0.35 *	-0.05
SC I	-0.05	0.04	-0.25	0.26	0.32	0.04	0.19	0.08	-0.20	0.21	-0.10	0.19	0.17	-0.35 *	0.21
SC II	-0.18	0.21	-0.12	-0.39	-0.12	0.18	-0.14	-0.20	-0.15	-0.17	-0.23	-0.05	-0.12	-0.05	-0.12
Ill	-0.06	0.05	0.11	0.25	-0.33	-0.11	-0.42 *	-0.18	0.20	0.01	0.04	-0.13	-0.23	0.23	-0.08
Symp.	0.14	0.37	0.00	-0.33	0.15	0.26	-0.25	-0.21	-0.20	-0.23	-0.13	-0.42 *	-0.26	0.33	-0.51 **
SS	0.04	-0.25	0.29	-0.09	-0.21	-0.26	-0.13	-0.19	-0.03	0.08	-0.13	0.03	-0.05	0.02	0.25
Soc.	-0.12	0.16	-0.17	-0.08	-0.32	0.31	-0.13	0.09	-0.28	-0.14	0.06	0.04	-0.21	-0.39 (**)	-0.11

Table 7. (Continued) Correlations between Pre-Treatment Scores in the Behaviour Therapy Sample.

* : p = 0.05; ** : p = 0.01; *** : p = 0.001; ( ) : 2-tailed.

	S-I	Sex. Id.	S-M	S-F	M-F	I-P	NS	NI	T-G.P.	Cpt. I	Cpt. II	SC I	SC II	Ill	Symp.	SS	Soc.
S-I		-0.30	0.10	0.17 (*)	-0.31 **	-0.15	0.35 *	0.03	-0.13	0.37	0.13	0.63 ***	0.10	-0.51 **	-0.09	-0.02	-0.26
Sex. Id.			0.08	-0.42	0.47	0.28	-0.32 *	0.29	0.08	-0.01	0.11	-0.11	-0.12	-0.09	-0.12	0.00	-0.15
S-M				0.22	-0.11	-0.23 (**)	0.36 ***	-0.06 (*)	-0.08	0.28	0.07	0.18	0.31 **	-0.09	-0.10	-0.10	0.15
S-F					-0.29	-0.55	0.61	-0.46	-0.34	-0.30	0.36	-0.08	0.58	-0.20	0.07	0.13	-0.05
M-F						0.24	-0.19 (*)	0.05 ***	0.33	0.08	-0.15	-0.22	-0.17 (**)	-0.16	-0.08	0.27	-0.25
I-P							-0.49	0.69 (**)	-0.02	0.13	-0.38	-0.07	-0.55 **	0.22 **	0.31	-0.30	-0.36
NS								-0.53	0.15	-0.06	0.03	0.19	0.50 (*)	-0.59	0.33	0.02	-0.11
NI									-0.27	0.29	-0.27	0.13	-0.46	0.30	-0.07	-0.22	-0.18
T-G.P.										0.19	-0.16 *	-0.12 **	0.13	-0.12	0.27	-0.14	0.03
Cpt. I											-0.37	0.52	-0.16 **	-0.09	-0.24	-0.03	0.03
Cpt. II												-0.24	0.48 **	-0.03 **	-0.31	0.07	0.23
SC I													-0.42	-0.57	-0.03	0.01	-0.18
SC II														0.04	-0.09	0.30	0.30 *
Ill															-0.33	-0.16	0.41
Symp.																-0.30	-0.12
SS																	-0.29
Soc.																	

Table 7. (Continued) Correlations between Pre-Treatment Scores in the Behaviour Therapy Sample

* : p = 0.05; ** : p = 0.01; *** : p = 0.001; ( ) : 2-tailed.

Table 8. Partial Correlations between Pre-Treatment Scores (Controlling for Verbal I.Q.)

	Class	D.I.Q.	T.E.Q.	C	S.S.I.:N	S.S.I.:P	AH	CO	PH	SC	G	H.O.Q.	N
Age	0.01	-0.34 (*)	0.29 (*)	0.39 **	0.03	-0.15	-0.30 (*)	-0.03	-0.05	-0.20	-0.18	-0.05	-0.14
Class		-0.04	0.13	0.21	0.20	0.19	0.25	0.20	0.38 (**)	0.02	0.04	-0.01	-0.03
D.I.Q.			-0.19	-0.04	0.08	0.20	0.46 ***	0.34 *	0.26	0.09	0.27 *	0.16	0.19
T.E.Q.				0.27 *	0.11	0.06	-0.02	0.15	-0.01	-0.09	-0.13	0.17	-0.02
C					-0.01	-0.13	-0.04	0.20	0.20	-0.04	0.00	-0.05	-0.04
S.S.I.:N						0.51 ***	0.20	0.21	0.46 ***	0.60 ***	0.63 ***	-0.28 *	0.69 ***
S.S.I.:P							0.30 *	0.32 *	0.40 **	0.36 **	0.42 ***	-0.02	0.43 ***
AH								0.58 ***	0.51 ***	0.09	0.32 *	0.28 *	0.22
CO									0.62 ***	0.06	0.36 *	0.28 *	0.26 *
PH										0.24 *	0.41 **	0.02	0.40 **
SC											0.57 ***	-0.37 **	0.59 ***
G												-0.10	0.60 ***
H.O.Q.													-0.11
N													

Table 8.(Cont.) Partial Correlations between Pre-Treatment Scores (Controlling for Verbal I.Q.)

	S-I	Sex.Id.	S-M	S-F	M-F	I-P	NS	NI	T-GP	Cpt.I	Cpt.II	SCI	SCII	Ill	Symp.	SS	Soc.
Age	0.09	-0.05	-0.27	-0.04	0.17	0.26	-0.13	-0.16	-0.13	0.09	0.02	0.00	-0.06	-0.04	0.03	0.14	-0.17
Class	-0.09	-0.10	-0.07	0.06	-0.36	0.00	-0.03	-0.03	-0.11	0.02	0.07	0.07	-0.11	-0.16	-0.03	-0.08	0.00
D.I.Q.	0.10	-0.13	0.10	-0.23	0.02	-0.05	0.02	0.16	0.08	0.25	-0.22	0.14	-0.21	0.08	-0.06	-0.13	0.07
T.E.Q.	-0.24	0.20	-0.07	-0.06	-0.01	-0.08	-0.14	-0.07	0.02	-0.02	0.17	0.05	-0.06	-0.15	-0.15	0.21	-0.20
C	-0.21	-0.27(*)	-0.11	0.01	0.00	-0.14	-0.05	-0.14	0.11	0.20	-0.01	-0.04	0.12	-0.07	0.06	-0.01	0.04
S.S.I.:N	0.15	0.00	-0.15	0.04	-0.03	-0.01	0.13	-0.14	0.03	0.18	0.00	0.23*	-0.07	-0.36**	-0.24*	0.01	-0.21
S.S.I.:P	-0.11	0.14	-0.08	-0.07	-0.15	-0.12	0.02	0.04	0.17	0.24*	-0.07	0.05	-0.08	0.03	0.03	-0.23	0.06
AH	-0.08	-0.07	-0.07	0.03	-0.10	-0.11	-0.13	0.09	0.01	-0.15	-0.01	-0.09	-0.11	0.03	0.10	-0.19	-0.22
CO	-0.15	-0.10	-0.05	-0.13	-0.01	-0.02	-0.26	0.00	0.24	-0.01	0.01	-0.03	-0.15	-0.03	0.05	-0.11	-0.13
PH	-0.20	0.06	-0.12	-0.08	-0.06	0.02	-0.24	-0.01	0.25	0.16	-0.15	-0.08	-0.08	-0.05	-0.04	-0.23	-0.15
SC	0.18	-0.18	0.10	0.13	-0.06	-0.27(*)	0.19	-0.17	0.04	0.07	0.07	0.33**	-0.18	-0.06	-0.17	0.14	0.08
G	0.06	-0.09	-0.12	-0.08	-0.01	-0.10	-0.04	0.06	0.23	0.09	-0.06	0.12	-0.15	-0.13	0.03	-0.14	-0.09
H.O.Q.	-0.27*	0.04	-0.10	-0.23*	0.18	0.09	-0.21	0.32(*)	0.01	-0.26*	0.07	-0.44***	0.06	0.12	0.17	-0.04	-0.39
N	0.17	-0.05	-0.05	-0.03	0.10	-0.13	0.18	-0.01	0.01	0.20	-0.03	0.21	0.00	-0.04	-0.19	0.12	-0.18

* p = 0.05 ** p = 0.01 *** p = 0.001 (*) 2 tailed

Table 8.(Cont.) Partial Correlations between Pre-Treatment Scores (Controlling for Verbal I.Q.).

	Sex.Id.	S-M	S-F	M-F	I-P	NS	NI	T-G.P.	Cpt.I	Cpt.II	SCI	SCII	Ill	Symp.	SS	Soc.
S-I	-0.13	0.20	0.11	0.10	0.01	0.56***	0.07	-0.39(**)	0.11	0.00	0.61***	0.06	-0.29*	-0.22	0.15	-0.03
Sex.Id.		-0.10	-0.17	-0.08	0.04	-0.04	0.17	0.17	-0.12	0.17	-0.28(*)	0.30*	-0.03	0.09	-0.15	-0.10
S-M			0.34**	0.09	-0.23	0.39**	-0.01	0.01	0.00	0.20	0.31*	0.21	-0.12	-0.10	-0.01	0.11
S-F				-0.11	-0.30(*)	0.46***	-0.34(*)	-0.20	-0.12	0.18	0.26*	0.24*	-0.17	0.02	0.16	0.03
M-F					0.25*	-0.05	0.04	-0.06	-0.10	-0.03	-0.02	-0.10	-0.06	0.04	0.20	-0.10
I-P						-0.27	0.40**	0.09	0.07	-0.14	-0.06	-0.26	0.08	0.22	-0.08	-0.03
NS							-0.15	-0.15	0.02	0.04	0.46***	0.35**	-0.32*	-0.03	0.22	-0.04
NI								-0.03	0.01	-0.02	-0.12	0.00	0.36(**)	0.05	-0.28(*)	-0.09
T-G.P.									0.06	-0.11	-0.21	0.07	-0.03	0.32*	-0.28*	0.09
Cpt.I										-0.41**	0.29*	-0.10	-0.09	-0.12	0.09	0.11
Cpt.II											-0.15	0.38**	-0.04	-0.02	0.05	0.08
SCI												-0.42**	-0.38**	-0.20	0.35(*)	0.02
SCII													0.05	0.02	-0.23	-0.04
Ill														0.01	-0.18	0.21
Symp.															-0.29*	-0.03
SS																-0.17
Soc.																

* p < 0.05 ** p < 0.01 *** p < 0.001 ( ) 2-tailed

	V.I.Q.	D.I.Q.	T.E.Q.	C	SSI:N	SSI:P	AH	CO	PH	SC	G	H.O.Q.	N
	***		(**)	(**)					(***)				
Class	-0.41	-0.21	0.33	0.39	0.21	0.14	0.14	0.24	0.42	0.01	0.00	0.00	-0.10
		(***)	(***)	(***)									
V.I.Q.		0.44	-0.56	-0.54	-0.08	0.08	0.22	-0.15	-0.20	0.04	0.09	-0.02	0.19
			**				***				*		*
D.I.Q.			-0.32	-0.16	0.05	0.18	0.45	0.25	0.14	0.04	0.24	0.13	0.22
				***									
T.E.Q.				0.43	0.13	0.04	-0.07	0.22	0.12	-0.05	-0.11	0.17	-0.09
								(*)	(*)				
C					0.02	-0.11	-0.04	0.28	0.31	0.01	0.02	-0.01	-0.09
						***		*	***	***	***	*	***
SSI:N						0.52	0.20	0.22	0.47	0.61	0.64	-0.27	0.67
							*	**	**	**	***		***
SSI:P							0.28	0.31	0.37	0.34	0.41	-0.03	0.42
								***	***		*	*	*
AH								0.54	0.45	0.04	0.29	0.26	0.22
									***		**	*	*
CO									0.63	0.05	0.34	0.28	0.22
										*	***		**
PH										0.22	0.38	0.02	0.35
											***	**	***
SC											0.56	-0.39	0.57
													***
G												-0.12	0.59
H.O.Q.													-0.12
N													

Table 9. Partial Correlations between Pre-Treatment Scores (controlling for Age)

* : p = 0.05; ** : p = 0.01; *** : p = 0.001; ( ) : 2-tailed

	Class	V.I.Q.	D.I.Q.	T.E.Q.	C	SSI:N	SSI:P	AH	CO	PH	SC	G	H.O.Q.	N
S-I	0.05	-0.31	-0.02	-0.04	-0.05	0.17	-0.12	-0.12	-0.09	-0.12	0.18	0.05	-0.25 *	0.11
Sex. Id.	-0.21	0.29	-0.01	0.01	-0.38 (**)	-0.02	0.16	-0.02	-0.14	-0.01	-0.18	-0.07	0.03	0.00
S-M	-0.11	0.09	0.05	-0.04	-0.05	-0.16	-0.12	-0.14	-0.08	-0.15	0.05	-0.16	-0.12	-0.07
S-F	0.12	-0.16	-0.30 (*)	0.05	0.11	0.06	-0.09	-0.01	-0.10	-0.05	0.12	-0.10	-0.23 *	-0.06
M-F	-0.38 (**)	0.11	0.12	-0.11	-0.12	-0.05	-0.12	-0.03	-0.02	-0.07	-0.03	0.03	0.19	0.15
I-P	-0.11	0.28	0.16	-0.25	-0.38 (**)	-0.04	-0.06	0.03	-0.05	-0.02	-0.21	-0.03	0.10	-0.04
NS	0.07	-0.23	-0.13	0.04	0.13	0.15	-0.02	-0.22	-0.23	-0.19	0.16	-0.08	-0.21 *	0.12
NI	-0.14	0.27	0.22	-0.17	-0.21	-0.15	0.04	0.10	-0.05	-0.07	-0.19	0.05	0.30 (*)	0.02
T-G.P.	-0.17	0.17	0.11	-0.04	0.06	-0.04	0.16	0.01	0.20	0.20	0.02	0.22	0.00	0.02
Cpt. I	-0.01	0.06	0.29 (*)	-0.08	0.11	0.18	0.26 *	-0.12	-0.01	0.15	0.09	0.11	-0.25 *	0.22 *
Cpt. II	0.00	-0.16	-0.27 (*)	0.23	0.06	0.01	-0.08	-0.04	0.01	-0.11	0.07	-0.07	0.08	-0.06
SC I	0.10	-0.09	0.09	0.09	0.01	0.23 *	0.04	-0.11	-0.02	-0.06	0.33 **	0.12	-0.43 ***	0.19
SC II	-0.02	-0.19	-0.30 (*)	0.06	0.23	-0.05	-0.10	-0.16	-0.12	-0.05	-0.20	-0.18	0.06	-0.04
Ill	-0.13	-0.04	0.04	-0.09	-0.02	-0.36 **	0.02	0.01	-0.02	-0.05	-0.08	-0.14	0.12	-0.05
Symp.	0.03	-0.16	-0.12	-0.05	0.13	-0.23 *	0.02	0.07	0.07	0.07	-0.17	0.03	0.17	-0.21
SS	-0.04	-0.08	-0.12	0.19	-0.01	0.01	-0.22	-0.17 *	-0.09	-0.20	0.17	-0.13	-0.03	0.12
Soc.	-0.04	0.10	0.05	-0.19	0.05	-0.22	0.04	-0.25	-0.15	-0.18	0.05	-0.11	-0.40 (**)	-0.19

Table 9. (Continued) Partial Correlations between Pre-Treatment Scores (controlling for Age).

* : p = 0.05; ** : p = 0.01; *** : p = 0.001; ( ) : 2-tailed.

	S-I	Sex. Id.	S-M	S-F	M-F	I-P	NS	NI	T-G.P.	Cpt. I	Cpt. II	SC I	SC II	Ill	Symp.	SS	Soc.
S-I		-0.21	0.19	0.16	0.05	-0.10	0.61***	0.00	-0.41(**)	0.08	0.05	0.60***	0.12	-0.26*	-0.16	0.15	-0.04
Sex. Id.			-0.09	-0.21**	-0.03	0.14	-0.11**	0.23*	0.20	-0.10	0.12	-0.29(*)	0.23*	-0.04	0.04	0.16	-0.07
S-M				0.32	0.15	-0.14	0.33***	-0.02	0.00	0.03	0.19	0.31**	0.18*	-0.14	-0.11	0.02	0.08
S-F					-0.12	-0.33(**)	0.48***	-0.37(**)	-0.23	-0.12	0.20	0.27*	0.26*	-0.16	0.05	0.18	0.00
M-F						0.24*	-0.05	0.09	-0.02	-0.11	-0.05	-0.03	-0.11	-0.06	0.02	0.17	-0.07
I-P							-0.30(*)	0.51***	0.17	0.06	-0.19	-0.08	-0.30(*)	0.08	0.17	-0.14	0.04
NS								-0.23	-0.20	0.01	0.08	0.47***	0.37***	-0.31**	0.01	0.25(*)	-0.09
NI									0.00	0.04	-0.06	-0.14	-0.06	0.33*	0.01	-0.28(*)	-0.09
T-G.P.										0.08	-0.13***	-0.22*	0.03	-0.04	0.29*	-0.28*	0.09
Cpt. I											-0.42	0.29	-0.11***	-0.08	-0.14	0.07	0.14
Cpt. II												-0.14	0.40***	-0.03**	0.00	0.06(**)	0.07
SC I													-0.39	-0.37	-0.18	0.36	0.01
SC II														0.05	0.05	-0.20	0.07
Ill															0.02	-0.17*	0.21
Symp.																-0.28	-0.04
SS																	-0.15
Soc.																	

Table 9. (Continued) Partial Correlations between Pre-Treatment Scores (Controlling for Age)

* : p = 0.05; ** : p = 0.01; *** : p = 0.001; ( ) : 2-tailed.

	V.I.Q.	D.I.Q.	T.E.Q.	C	SSI:N	SSI:P	AH	CO	PH	SC	G	H.O.Q.	N
Age	0.22	-0.24 (*)	0.15 (***)	0.28 * (**)	0.04	-0.12	-0.24	-0.05	-0.07	-0.19	-0.16	-0.06	-0.10
V.I.Q.		0.33	-0.44 **	-0.36	0.02	0.12 *	0.24 ***	-0.07 *	-0.04 *	0.00	0.06 *	-0.03	0.13 *
D.I.Q.			-0.30	-0.15 **	0.09	0.24	0.52	0.32	0.27	0.09	0.27	0.14	0.22
T.E.Q.				0.37	0.07	-0.02	-0.15	0.14	-0.04	-0.08	-0.14	0.16	-0.08
C					-0.06	-0.20 ***	-0.17	0.18	0.14 ***	-0.04 ***	-0.03 ***	-0.03 *	-0.08 ***
SSI:N						0.50	0.16 *	0.17 *	0.42 **	0.61 **	0.64 ***	-0.28	0.70 ***
SSI:P							0.29	0.29 ***	0.35 ***	0.36	0.43 **	-0.02 *	0.45 *
AH								0.52	0.44 ***	0.08	0.32	0.27 *	0.25 *
CO									0.60	0.06 *	0.35 ***	0.29	0.26 ***
PH										0.25	0.42 ***	0.03 **	0.44 ***
SC											0.57	-0.37	0.58 ***
G												-0.10	0.60
H.O.Q.													-0.11
N													

Table 10. Partial Correlations between Pre-Treatment Scores (Controlling for Social Class)

* : p = 0.05; ** : p = 0.01; *** : p = 0.001; ( ) : 2-tailed.

	Age	V.I.Q.	D.I.Q.	T.E.Q.	C	SSI:N	SSI:P	AH	CO	PH	SC	G	H.O.Q.	N
S-I	0.01	-0.31 (*)	-0.01	-0.06	-0.07	0.16	-0.13	-0.13	-0.11	-0.16	0.18	0.05	-0.25 *	0.11
Sex. Id.	0.00	0.23	-0.05	0.08	-0.31 (*)	0.03	0.19	0.01	-0.09	0.09	-0.18	-0.07	0.04	-0.02
S-M	-0.27 (*)	-0.01	0.09	-0.05	-0.09	-0.14	-0.07	-0.05	-0.04	-0.10	0.10	-0.11	-0.10	-0.05
S-F	-0.07	-0.13	-0.26 (*)	0.00	0.05	0.03	-0.10	-0.02	-0.13	-0.11	0.13	-0.09	-0.23	-0.05
M-F	0.17	-0.02	0.00	0.04	0.08	0.04	-0.09	-0.02	0.07	0.10	-0.06	0.01	0.19	0.10
I-P	0.31 (*)	0.31 (*)	0.05	-0.17	-0.24	-0.01	-0.08	-0.03	-0.04	0.01	-0.25 (*)	-0.08	0.08	-0.08
NS	-0.18	-0.25	-0.07	-0.01	0.05	0.13	-0.01	-0.18	-0.24	-0.22	0.19	-0.05	-0.20	0.14
NI	-0.10	0.21	0.22	-0.15	-0.20	-0.13	0.07	0.14	-0.01	0.00	-0.17	0.07	0.31 (*)	0.01
T-G.P.	-0.10	0.08	0.10 *	0.00	0.10	-0.01	0.20 *	0.06	0.26 (*)	0.31 (*)	0.05	0.24	0.01 *	0.01
Cpt. I	0.11	0.09	0.26 *	-0.06	0.15	0.18	0.25	-0.14	-0.02	0.16	0.07	0.09	-0.26	0.21
Cpt. II	-0.02	-0.17	-0.27	0.24	0.06	0.01 *	-0.08	-0.03	0.02	-0.12	0.07 **	-0.07	0.08 ***	-0.06
SC I	-0.01	-0.05	0.12 *	0.06	-0.03	0.22	0.03	-0.12	-0.04	-0.11	0.33	0.12	-0.43	0.20
SC II	-0.10	-0.23	-0.27	0.06	0.22	-0.05 **	-0.08	-0.13	-0.11	-0.03	-0.17	-0.16	0.06	-0.03
Ill	-0.07	-0.12	0.03	-0.06	0.01	-0.34 *	0.04	0.05	0.02	0.01	-0.06	-0.13	0.12	-0.06
Symp.	-0.01	-0.15	-0.11	-0.07 *	0.12	-0.24	0.02	0.07	0.07	0.06	-0.17	0.03	0.17	-0.21
SS	0.12	-0.08	-0.15	0.23	0.04	0.02	-0.22	-0.19	-0.09	-0.21	0.14	-0.14	-0.04	0.11
Soc.	-0.15	0.05	0.08	-0.20	0.02	-0.22	0.07	-0.20	-0.13	-0.17	0.08	-0.09	-0.39 (**)	0.17

Table 10. (Continued) Partial Correlations between Pre-Treatment Scores (controlling for Social Class)

* : p = 0.05; ** : p = 0.01; *** : p = 0.001 ( ) : 2-tailed.

	S-I	Sex.Id.	S-M	S-F	M-F	I-P	NS	NI	T-G.P.	Cpt. I	Cpt. II	SC I	SC II	Ill	Symp.	SS	Soc.
S-I		-0.20	0.18	0.15	0.07	-0.09	0.59 ***	0.00	-0.41 (**)	0.08	0.05	0.60 ***	0.12	-0.25 *	-0.17	0.16	-0.04
Sex. Id.			-0.11	-0.19 **	-0.12	0.11	-0.10 ***	0.21	0.17	-0.10	0.12	-0.28 (*)	0.22 *	-0.07	0.05	-0.17	-0.08
S-M				0.35 **	0.07	-0.22 (**)	0.37 ***	-0.01 (**)	0.01	0.00	0.19	0.31 **	0.20 *	-0.13	-0.10	-0.02	0.11
S-F					-0.09	-0.33 *	0.48 ***	-0.35 ***	-0.20	-0.13	0.21	0.26 *	0.27	-0.14	0.04	0.17	0.02
M-F						0.25 *	-0.06 (**)	0.02 ***	-0.11	-0.10	-0.06	0.01	-0.14 (**)	-0.13	0.03	0.19	-0.11
I-P							-0.33	0.44 ***	0.11	0.09	-0.19	-0.07 ***	-0.32 ***	0.04 *	0.16	-0.10	-0.02
NS								-0.20	-0.17	-0.01	0.08	0.46 ***	0.38 ***	-0.29 (*)	0.01	0.22 *	-0.06
NI									-0.01	0.03	-0.06	-0.12	-0.05	0.32 *	0.01	-0.30 **	-0.08
T-G.P.										0.07	-0.13 ***	-0.20 *	0.03	-0.06	0.30	-0.30	0.09
Cpt. I											-0.42	0.28 *	-0.12 ***	-0.09	-0.14	0.09	0.12
Cpt. II												-0.14	0.40 ***	-0.03 **	0.00	0.06 (**)	0.07
SC I													-0.39	-0.37	-0.18	0.36 *	0.02
SC II														0.06	0.06	-0.21	-0.05
Ill															0.02	-0.18 *	0.21
Symp.																-0.28 *	-0.04
SS																	-0.17
Soc.																	

Table 10. (Continued) Partial Correlations between Pre-Treatment Scores (controlling for Social Class)

*: p = 0.05; ** : p = 0.01; *** : p = 0.001; ( ) : 2-tailed

Table 11. Pre-Treatment Principal Component Analysis: Loading of Variables on the Components

	Component						
	I	II	III	IV	V	VI	VII
Age							
Class			0.35				
Verbal I.Q.			-0.71				
D.I.Q.			-0.39		0.41		
T.E.Q.			0.76				
C			0.58	-0.41			
S.S.I.: Neurotic Symptoms	0.85						
S.S.I.: Psychotic Symptoms	0.54						
AH					0.69		
CO					0.76		
PH	0.41				0.62		
SC	0.75						
G	0.75						
H.O.Q.					0.32		
E.P.I. : N	0.78						
Self - Ideal Self Distance		0.84					
Sexual Identification Score		-0.32		0.47			
Self - Mother Distance		0.31					
Self - Father Distance		0.34		0.47			
Mother - Father Distance							
Average Ideal - Parent Distance				0.52		0.31	
No. of Elements at Dist. 1 from Self		0.65					
No. of Elements at Dist. 1 from Ideal Self				0.65			
Therapist - G.P. Distance		-0.41					
Size of Cpt. I							
Size of Cpt. II							
Loading of Self on Cpt. I		0.66				-0.37	0.39
Loading of Self on Cpt. II						0.95	
'Like Me" - 'Ill' Distance							-0.62
Average 'Like Me' - 'Symptom' Distance							-0.65
No. of Self-Sufficiency Constructs							0.38
No. of Social Interaction Constructs							
Percentage of Variance	20.6	19.0	14.5	9.7	7.9	7.5	5.2

Table 12. Differences between Pre-Treatment Scores of Group Psychotherapy and Behaviour Therapy Clients.

		Age	Class	V.I.Q.	D.I.Q.	T.E.Q.	C	SSL:N	SSL:P	SSL:P-S	AH	CO	PH	SC	G	H.O.Q.	EPI:N
Group	Mean	30.91	2.90	106.15	15.27	30.90	39.17	15.97	6.84	6.65	5.97	5.87	1.58	8.10	3.61	20.38	17.45
Therapy	S.D.	8.09	1.33	11.33	6.95	6.56	12.79	5.49	3.10	2.96	1.96	2.62	1.48	2.36	1.20	6.28	3.10
Behaviour	Mean	31.36	3.12	98.96	11.36	38.08	42.88	13.96	4.57	6.18	4.33	5.17	1.17	7.00	2.50	22.68	15.04
Therapy	S.D.	9.70	1.13	11.45	6.60	6.55	10.90	7.93	3.36	2.48	1.97	2.55	1.09	2.47	1.62	6.00	5.03
	t	0.19	0.65	2.21	2.12	4.04	1.14	1.10	2.57	0.60	3.06	1.00	1.15	1.68	2.93	1.40	2.20
	d.f.	55	54	47	53	53	52	52	52	51	53	53	53	53	53	55	54
	p	0.85	0.26	0.016	0.019	0.001	0.13	0.28	0.013	0.28	0.003	0.32	0.26	0.099	0.005	0.176	0.032
		2-tail	1-tail	1-tail	1-tail	1-tail	1-tail	2-tail	2-tail	1-tail	2-tail	2-tail	2-tail	2-tail	2-tail	2-tail	2-tail

		S-I	Sex.Id.	S-M	S-F	M-F	I-P	NS	NI	T-G.P.	Cpt.I	Cpt.II	SCI	SCII	Ill	Symp.
Group	Mean	1.26	1.00	1.06	1.06	0.87	1.07	8.97	5.38	0.69	47.20	21.13	0.83	0.54	78.83	68.44
Therapy	S.D.	0.32	0.29	0.32	0.24	0.35	0.29	3.36	1.88	0.28	10.62	5.75	0.47	0.38	18.95	16.76
Behaviour	Mean	1.39	1.08	1.10	1.12	0.84	1.03	10.68	5.28	0.46	44.26	22.76	0.91	0.73	76.20	59.13
Therapy	S.D.	0.25	0.37	0.27	0.26	0.34	0.26	2.48	2.01	0.21	7.73	4.61	0.51	0.48	31.94	18.70
	t	1.59	0.92	0.44	0.86	0.27	0.54	2.13	0.18	3.45	1.16	1.16	0.68	1.63	0.36	1.89
	d.f.	55	54	54	54	53	54	55	55	55	55	55	55	55	49	50
	p	0.12	0.36	0.66	0.39	0.79	0.59	0.037	0.86	0.001	0.25	0.25	0.50	0.11	0.36	0.032
		2-tail	2-tail	2-tail	2-tail	2-tail	2-tail	2-tail	2-tail	1-tail	2-tail	2-tail	2-tail	2-tail	1-tail	1-tail

Table 13. Percentages of Elicited Constructs in Landfield's Content Categories in Present and Previous Samples

	Landfield sample (n=30)		Fransella sample (n=19)		Sperlinger sample (n=25)		Winter sample					
							Group therapy (n_1=32)		Behaviour therapy (n_2=26)		$n_1 + n_2$ (N=58)	
Category	%	Rank	%	Rank	%	Rank	%	Rank	%	Rank	%	Rank
Social Interaction	12	2	39.2	1	12.7	3	9.6	4	6.7	5	8.3	4
Forcefulness	20	1	14.6	2	14	2	15.4	1	19.3	1	16.7	1
Organization	6	6	2.7	11.5	5.3	7.5	7.8	5	4.7	7	6.9	5
Self-Sufficiency	5	9.5	3.4	10	3	11	10.4	3	18.3	2	13.9	3
Status	5	9.5	8.4	3	7	5.5	3.1	11	1.7	12	2.5	12
Factual Description	1	16.5	0.7	17.5	7	5.5	4.2	10	1.3	13	2.9	10
Intellective	5	9.5	7.8	4	2.7	12	1.8	14	4.0	8	2.8	11
Self-Reference	0	19.5	0.0	21.5	0.3	19.5	5.5	8	3.3	10	4.5	8
Imagination	1	16.5	0.5	19	2	14	1.3	16	2.3	11	1.8	14
Alternatives	5	9.5	0.9	15	2	14	2.8	12	0.3	17	1.8	14
Sexual	0	19.5	0.8	16	0	21	1.3	16	0.3	17	0.9	16.5
Morality	6	6	3.8	9	4	10	6.3	7	6.7	5	6.4	7
External Appearance	1	16.5	0.7	17.5	0.3	19.5	0.8	18.5	0.7	14.5	0.7	18.5
Emotional Arousal	7	4	7.3	5	14.3	1	6.5	6	6.7	5	6.6	6
Diffuse Generalization	-	-	2.6	13	2	14	-	-	-	-	-	-
Egoism	3	12.5	4.6	6.5	1.7	16	2.3	13	0.3	17	1.8	14
Tenderness	9	3	4.6	6.5	9.3	4	12.5	2	17.3	3	14.6	2
Time Orientation	1	16.5	2.7	11.5	5.3	7.5	0.8	18.5	0.7	14.5	0.7	18.5
Involvement	6	6	4.5	8	0.7	18	4.7	9	3.7	9	4.2	9
Comparatives	-	-	0.4	20	-	-	-	-	-	-	-	-
Extreme Qualifiers	3	12.5	0.0	21.5	-	-	0.0	20	0.0	19.5	0.0	20
Humour	2	14	1.4	14	1.3	17	1.3	16	0.0	19.5	0.9	16.5
Non-Classifiable	-	-	-	-	5	9	-	-	-	-	-	-

Table 14. Pre-Treatment Discriminant Analysis: Standardised Discriminant Function Coefficients.

	Discriminant Functions	
	1	2
V.I.Q.	0.147	-0.250
T.E.Q.	0.756	-0.099
C	-0.195	0.276
S.S.I:P	-0.268	-0.001
AH	-0.298	0.167
PH	0.174	-0.442
H.O.Q.	0.063	0.381
E.P.I.:N	-0.351	0.309
S-F	-0.267	0.724
M-F	0.166	0.263
NS	0.418	-0.287
T-G.P.	-0.279	0.060
SCI	0.013	0.659
Ill	-0.170	0.352

Table 15. Pre-Treatment Discriminant Analysis: Positions of Centroids of Groups of Clients in Discriminant Function Space.

Clients	Discriminant Functions	
	1	2
Group Psychotherapy	-0.951	-0.240
Behaviour Therapy	0.974	-0.302
Combined Approach	0.098	2.219

Table 16. The Individualised Grid Predictions : Percentages Confirmed.

Type of Prediction	Number	Percentage Confirmed
a) Element distances:		
i) decrease in distance between self and ideal self	38	74.2
ii) decrease in distance between self and father	18	64.3
iii) decrease in distance between self and mother	21	64.7
iv) decrease in distance between ideal self and father	22	58.8
v) decrease in distance between ideal self and mother	16	50.0
vi) decrease in distance between mother and father	20	43.8
vii) decrease in distance between self and spouse	1	N
viii) decrease in distance between ideal self and therapist	1	100.0
b) Increase in Sexual Identification score	19	61.5
c) Relationships between elements and constructs:		
i) increase in angular distance between self element and symptom pole of symptom construct	87	71.6
ii) increase in angular distance between self element and 'low desirability' construct pole	85	88.6
iii) decrease in angular distance between self element and 'low desirability' construct pole	2	N
iv) increase in angular distance between father element and 'low desirability' construct pole	2	100.0
v) increase in angular distance between mother element and 'low desirability' construct pole	4	25.0
vi) increase in angular distance between therapist element and 'low desirability' construct pole	1	100.0
d) Sum of squares accounted for by self element:		
i) decrease	16	90.9
ii) increase	1	100.0
e) Increase in variation about mean of self construct	4	75.0
f) Construct correlations:		
i) increase in angular distance between construct pole 'like me' and symptom pole of symptom construct	41	80.6
ii) decrease in angular distance between construct pole 'like me' and symptom pole of symptom construct	2	50.0
iii) increase in angular distance between construct pole 'like me' and 'low desirability' construct pole	44	89.5
iv) decrease in angular distance between construct pole 'like me' and 'low desirability' construct pole	3	N
v) increase in angular distance between symptom pole and 'high desirability' construct pole	22	85.7
vi) increase in angular distance between 'low desirability' construct poles	11	81.8
vii) increase in angular distance between symptom pole and 'low desirability' construct pole	24	73.7
viii) change towards social consensus in a relationship between construct poles	21	87.5
g) Decrease in variation about mean of construct associated with pathology	1	100.0
h) Increase in construct mean of symptom construct	3	N
i) Average 'Z' score from conversion of construct correlations to 'z' scores:		
i) decrease	9	50.0
ii) increase	2	0.0

N : No follow-up data available

Table 17. Correlations between Change Scores.

	Ind.Pred.	Gen.Pred.	Con. Pred.	S-IC.	Sex.Id.C.	S-MC.	S-FC.	M-FC.	I-PC.	NSC.	NIC.	S.S.I.C.
Percentage of Individualised Grid Predictions Confirmed (Ind.Pred.)		0.50**	0.05	0.70***	0.08	0.38*	0.36*	-0.17	-0.34(*)	0.43**	-0.06	0.33*
Percentage of General Grid Predictions Confirmed (Gen.Pred.)			-0.19	0.63***	0.20	0.46**	0.27	0.19	-0.22	0.47**	0.10	0.36*
Percentage of Extremity Control Grid Predictions Confirmed (Con.Pred.)				-0.25	0.08	0.17	0.01	-0.03	-0.08	-0.32	-0.19	0.00
Change in Self-Ideal Self Distance (S-IC.)					0.10	0.58***	0.26	-0.16	-0.35(*)	0.65***	0.25	0.42**
Change in Sexual Identification Score (Sex.Id.C.)						0.12	-0.02	-0.08	-0.46(**)	0.16	0.01	-0.16
Change in Self-Mother Distance (S-MC.)							0.16	-0.31(*)	-0.58(***)	0.35*	-0.01	0.16
Change in Self-Father Distance (S-FC.)								-0.17	-0.24	0.27	-0.39(*)	0.05
Change in Mother-Father Distance ((M-FC.)									0.34*	-0.20	0.11	0.03
Change in Average Ideal-Parent Distance (I-PC.)										-0.48(**)	0.29	-0.09
Change in Number of Elements at Dist. >1 from Self (NSC.)											-0.06	0.33*
Change in Number of Elements at Dist. >1 from Ideal Self (NIC.)												-0.11

* : p = 0.05; ** : p = 0.01; *** : p = 0.001; ( ) = 2-tailed

Table 17. (Cont.) Correlations between Change Scores.

	SRC.	E.P.I.:NC.	HC.	DHC.	AHC.	COC.	PHC.	SCC.	GC.	H. Pred.	TR	Dur.
Percentage of Individualised Grid Predictions Confirmed (Ind.Pred.)	0.47**	0.39*	0.30	-0.18	0.21	0.33*	-0.07	0.13	0.18	0.15	0.37*	0.20
Percentage of General Grid Predictions Confirmed (Gen.Pred.)	0.47**	0.30	0.23	0.07	0.15	0.07	0.12	0.30	0.14	0.05	0.26	0.04
Percentage of Extremity Control Grid Predicitions Confirmed (Con.Pred.)	0.27	0.04	0.05	-0.34	0.13	0.21	-0.18	-0.34	0.08	0.19	-0.01	0.05
Change in Self-Ideal Self Distance (S-IC.)	0.48**	0.47**	0.37*	0.14	0.40*	0.05	-0.05	0.34*	0.20	0.19	0.34*	0.07
Change in Sexual Identification Score (Sex.Id.C.)	0.02	-0.09	0.33*	0.02	0.18	0.25	-0.10	0.20	0.06	0.27	-0.25	-0.13
Change in Self-Mother Distance (S-MC.)	0.41	0.14	0.00	-0.26	0.29	-0.01	-0.23	-0.11	0.07	-0.04	0.34*	0.00
Change in Self-Father Distance (S-FC.)	0.28	0.17	0.36*	0.21	-0.04	0.21	0.16	0.31	0.19	0.00	0.35*	0.24
Change in Mother-Father Distance (M-FC.)	-0.25	-0.09	-0.01	0.20	-0.19	-0.06	-0.14	0.12	0.26	-0.08	-0.05	-0.06
Change in Average Ideal-Parent Distance (I-PC.)	-0.32	-0.28	-0.41(*)	0.05	-0.44(*)	-0.20	0.14	-0.20	-0.15	-0.27	0.00	0.31*
Change in Number of Elements at Dist. > 1 from Self (NSC.)	0.19	0.47**	0.58***	0.32*	0.49**	0.17	-0.18	0.57***	0.19	0.10	0.09	-0.07
Change in Number of Elements at Dist. > 1 from Ideal Self (NIC.)	-0.26	-0.13	-0.13	-0.12	-0.04	-0.15	0.40*	-0.09	-0.26	0.03	-0.23	-0.01

* : p = 0.05; ** : p = 0.01; *** : p = 0.001; ( ) = 2-tailed.

Table 17 (Cont.) Correlations between Change Scores.

	SRC.	E.P.I.:NC.	HC.	DHC.	AHC.	COC.	PHC.	SCC.	GC.	H.Pred.	TR	Dur.
Change in Number of Symptoms (S.S.I.C.)	0.52***	0.60***	0.31*	0.16	0.20	-0.11	0.02	0.27	0.50*	0.22	0.33**	-0.04
Change in Symptom Ratings (SRC.)		0.47**	0.22	0.22	0.08	0.11	-0.11	0.25	0.22	0.28	0.36*	0.02
Change in Neuroticism (E.P.I.:NC.)			0.62***	0.31*	0.29*	0.08	-0.02	0.59***	0.48**	0.43**	0.22	-0.21
Change in Hostility (HC.)				0.40	0.33	0.46**	-0.10	0.73***	0.55***	0.62***	0.03	-0.13
Change in Direction of Hostility (DHC.)					-0.03	-0.19	-0.16	0.80***	0.45**	0.47**	-0.07	-0.02
Change in Acting out Hostility (AHC.)						-0.08	-0.22	0.04	0.18	0.18	0.04	-0.33
Change in Complaining of Others (COC.)							-0.21	0.10	-0.12	0.28	-0.11	-0.03
Change in Projected Delusional Hostility (PHC.)								-0.13	-0.19**	-0.09**	-0.33	-0.04
Change in Self-Criticism (SCC.)									0.46	0.50**	-0.03*	-0.05
Change in Guilt (GC)										0.44	0.35	-0.01
Percentage of Individualised H.D.H.Q. Predictions Confirmed (H. Pred.)											-0.22	-0.18**
Therapist Ratings (TR)												0.41
Duration of Therapy (Dur.)												

* : p = 0.05; ** : p = 0.01; *** : p = 0.001; ( ) = 2-tailed

Table 18. Principal Component Analysis of Change Data : Loadings of Variables on the Components

	Component			
	I	II	III	IV
Percentage of Individualised Grid Predictions Confirmed	0.31	0.28	0.60	0.05
Self-Ideal Self Distance Change	0.58	0.34	0.41	0.37
Sexual Identification Change	0.21	-0.05	-0.06	0.04
Self-Mother Distance Change	0.80	0.09	0.17	-0.10
Self-Father Distance Change	0.26	-0.03	0.49	0.28
Average Ideal-Parent Distance Change	-0.80	-0.12	0.13	-0.11
Mother-Father Distance Change	-0.40	0.03	-0.09	0.06
Change in No. of Elements at Dist. >1 from Self	0.48	0.27	0.09	0.51
Change in No. of Elements at Dist. >1 from Ideal Self	-0.09	-0.08	-0.11	-0.06
Change in No. of S.S.I. Symptoms	0.04	0.89	0.17	0.08
Change in Symptom Ratings	0.29	0.40	0.44	0.15
Change in Neuroticism	0.22	0.66	0.01	0.36
Change in Hostility	-0.15	0.52	-0.23	-0.10
Change in Direction of Hostility	-0.24	0.11	-0.02	0.82
Duration of Therapy	-0.14	-0.18	0.59	-0.06
Therapist Rating	0.18	0.19	0.55	-0.06
Percentage of Variance	40.0	16.9	16.0	12.3

Table 19. Differences between Pre-Treatment and Post-Treatment Test Scores.

		SSI:N	SSI:P	AH	CO	PH	SC	G	HOQ	EPI:N	S-I	Sex.Id.
Pre-	Mean	14.81	5.43	5.30	5.60	1.45	7.40	3.00	21.70	16.50	1.47	1.11
Treatment	S.D.	7.02	3.54	2.11	2.74	1.28	2.16	1.26	5.23	4.47	0.26	0.40
Post-	Mean	11.14	4.81	4.95	4.45	1.15	6.35	2.45	22.40	14.55	1.31	1.05
Treatment	S.D.	7.74	3.74	2.54	3.24	1.04	2.46	1.85	4.72	6.14	0.26	0.34
	t	4.20	0.98	0.94	1.88	1.37	2.54	2.34	0.55	3.02	2.08	0.72
	d.f.	20	20	19	19	19	19	19	19	19	18	18
	p	<0.001	0.17	0.18	0.038	0.093	0.010	0.015	0.59	0.004	0.026	0.48
		1-tail	1-tail	1-tail	1-tail	1-tail	1-tail	1-tail	2-tail	1-tail	1-tail	2-tail

		S-M	S-F	M-F	I-P	NS	NI	T-GP	SCI	SCII	Ill	Symp.
Pre-	Mean	1.11	1.00	0.92	1.16	10.94	5.68	0.60	1.02	0.61	72.62	64.15
Treatment	S.D.	0.34	0.25	0.26	0.25	2.77	2.16	0.25	0.51	0.45	17.59	18.39
Post-	Mean	1.06	0.97	0.99	1.13	8.16	6.26	0.57	0.89	0.60	71.79	64.54
Treatment	S.D.	0.30	0.26	0.34	0.23	2.75	1.79	0.23	0.58	0.24	20.08	14.78
	t	0.73	0.62	1.45	0.52	2.46	1.06	0.46	0.97	0.12	0.16	0.09
	d.f.	18	18	18	18	18	18	18	18	18	18	17
	p	0.24	0.27	0.17	0.30	0.012	0.31	0.65	0.12	0.45	0.88	0.46
		1-tail	1-tail	2-tail	1-tail	1-tail	2-tail	2-tail	1-tail	1-tail	2-tail	1-tail

Table 20. Differences between Change Scores of Group Psychotherapy and Behaviour Therapy Clients.

		Ind.Pred.	S-IC.	Sex.Id.C.	S-MC.	S-FC.	I-PC.	M-FC.	NSC.	NIC.	SSIC.	SRC.	EPI.:NC.	HC.	DHC.	TR
Group	Mean:	76.27	1.06	0.94	0.96	0.96	1.02	0.96	11.19	9.38	16.12	12.19	12.44	16.63	12.19	10.76
Therapy	S.D.	15.47	0.27	0.31	0.24	0.22	0.18	0.22	3.76	2.06	7.04	2.54	4.59	16.67	5.62	2.08
Behaviour	Mean	75.54	1.23	0.96	1.09	1.09	0.99	0.91	11.94	10.25	15.76	13.19	12.60	14.67	11.60	11.47
Therapy	S.D.	23.67	0.31	0.34	0.26	0.28	0.17	0.33	2.14	2.11	6.61	3.58	3.66	3.11	4.29	1.63
	t	0.10	1.66	0.13	1.53	1.41	0.56	0.51	0.69	1.19	0.15	0.91	0.11	0.45	0.33	1.10
	d.f.	30	30	30	30	30	30	30	30	30	32	30	29	29	29	32
	p	0.92	0.11	0.90	0.14	0.17	0.58	0.62	0.49	0.25	0.88	0.37	0.91	0.66	0.38	0.28
		2-tail	2-tail	2-tail	2-tail	2-tail	2-tail	2-tail	2-tail	2-tail	2-tail	2-tail	2-tail	2-tail	1-tail	2-tail

Table 21. Differences between Pre-Treatment Scores of Group Psychotherapy Drop-Outs and Stayers.

		Age	Class	V.IQ.	D.IQ.	T.E.Q.	C	SSI:N	SSI:P	AH	CO	PH	SC	G	HOQ	ERI:N
Stayers	Mean	33.75	2.69	106.43	15.56	30.00	38.00	14.33	6.60	5.93	5.93	1.53	7.73	3.60	19.25	17.00
	S.D.	9.31	1.40	11.20	7.13	6.31	11.17	5.26	3.00	2.22	2.58	1.51	2.40	1.12	5.34	3.35
Drop-	Mean	27.71	3.14	104.30	16.08	31.75	39.27	16.64	7.07	6.21	5.79	1.43	8.21	3.57	22.86	17.64
Outs	S.D.	5.84	1.29	11.41	6.69	7.40	15.68	5.24	3.15	1.76	2.83	1.45	2.42	1.34	6.50	2.71
	t	2.09	0.92	0.46	0.20	0.67	0.25	1.18	0.41	0.38	0.15	0.19	0.54	0.06	1.67	0.57
	d.f.	28	28	22	26	26	25	27	27	27	27	27	27	27	28	28
	p	0.046	0.19	0.33	0.85	0.25	0.40	0.25	0.34	0.71	0.88	0.85	0.60	0.95	0.11	0.57
		2-tail	1-tail	1-tail	2-tail	1-tail	1-tail	2-tail	1-tail	2-tail	2-tail	2-tail	2-tail	2-tail	2-tail	2-tail

		S-I	Sex.Id.	S-M	S-F	M-F	I-P	NS	NI	T-GP	Cpt.I	Cpt.II	SCI	SCII	Ill	Symp.
Stayers	Mean	1.37	1.01	1.06	1.04	0.84	1.06	9.19	5.19	0.69	49.28	19.13	0.99	0.52	81.63	71.48
	S.D.	0.31	0.29	0.33	0.25	0.36	0.31	3.67	1.72	0.19	9.39	5.38	0.49	0.40	17.63	17.45
Drop-	Mean	1.23	0.96	1.05	1.04	0.94	1.05	8.86	5.57	0.62	45.12	23.28	0.64	0.57	75.08	64.70
Outs	S.D.	0.24	0.30	0.34	0.20	0.34	0.28	3.23	1.74	0.32	10.12	5.94	0.39	0.41	20.75	15.72
	t	1.42	0.48	0.13	0.00	0.76	0.10	0.26	0.61	0.68	1.17	2.01	2.11	0.33	0.90	1.09
	d.f.	28	28	28	28	28	28	28	28	28	28	28	28	28	26	27
	p	0.085	0.63	0.90	1.00	0.45	0.93	0.40	0.55	0.25	0.25	0.054	0.022	0.74	0.19	0.15
		1-tail	2-tail	2-tail	2-tail	2-tail	2-tail	1-tail	2-tail	1-tail	2-tail	2-tail	1-tail	2-tail	1-tail	1-tail

Table 22. Differences between Change Scores of Group Psychotherapy Drop-Outs and Stayers

		Ind. Pred.	S-IC.	Sex.Id.C.	S-MC.	S-FC.	I-PC.	M-FC.	NSC.	NIC.	SSIC.
Stayers	Mean	75.60	1.05	0.86	0.98	1.00	1.06	0.87	10.38	9.13	14.33
	S.D.	16.88	0.31	0.38	0.33	0.26	0.23	0.19	4.27	2.70	5.20
Drop-	Mean	76.95	1.08	1.02	0.93	0.92	0.98	1.06	12.00	9.63	18.13
Outs	S.D.	15.05	0.24	0.21	0.11	0.20	0.12	0.20	3.25	1.30	8.58
	t	0.17	0.20	1.05	0.40	0.63	0.94	1.98	0.86	0.47	1.12
	d.f.	14	14	14	14	14	14	14	14	14	15
	p	0.87	0.84	0.31	0.70	0.54	0.36	0.068	0.41	0.64	0.28
		2-tail	2-tail	2-tail	2-tail	2-tail	2-tail	2-tail	2-tail	2-tail	2-tail

		SRC.	EP.I.:NC.	HC.	DHC.	AHC.	COC.	PHC.	SCC.	GC.	TR
Stayers	Mean	12.78	11.78	11.44	11.89	9.78	10.44	10.22	10.89	10.33	11.67
	S.D.	2.73	3.07	5.25	5.09	1.79	3.54	1.20	2.09	1.32	2.35
Drop-	Mean	11.43	13.29	14.71	12.57	11.71	11.71	10.14	11.29	11.00	9.75
Outs	S.D.	2.23	6.21	5.12	6.66	1.60	3.45	0.69	3.55	1.83	1.16
	t	1.06	0.64	1.25	0.23	2.25	0.72	0.16	0.28	0.85	2.09
	d.f.	14	14	14	14	14	14	14	14	14	15
	p	0.31	0.53	0.23	0.82	0.041	0.48	0.88	0.78	0.41	0.054
		2-tail	2-tail	2-tail	2-tail	2-tail	2-tail	2-tail	2-tail	2-tail	2-tail

Table 23. Correlations between Pre-Treatment and Change Scores in the Total Sample.

	Ind.Pred.	Gen.Pred.	Con.Pred.	S-IC.	Sex.Id.C.	S-MC.	S-FC.	M-FC.	I-PC.	NSC.	NIC.	S.S.I.C.	SRC.	E.P.I.:NC.	HC.	DHC.	AHC.	COC.	PHC.	SCC.	GC.	H. Pred.	TR	Dur.
Age	-.04	-.06	-.08	-.09	-.03	-.04	.02	-.05	.00	-.20	.13	-.23	-.09	-.12	-.13	-.25	.08	-.16	.13	-.21	-.10	-.11	-.13	-.23
Class	.13	.02	-.07	.34	-.05	.27	-.05	-.16	.15	-.03	.13	-.05	-.16	-.06	-.23	-.42**	.11	-.12	.05	-.43**	-.05	-.38*	.06	-.03
V.I.Q.	-.15	.08	-.03	-.35	.11	-.21	.04	.22	-.05	-.06	-.29	-.21	-.12	-.05	.02	.19	-.01	-.12	.02	.20	.09	.11	-.21(*)	-.22
D.I.Q.	-.08	.11	.08	-.14	.25	-.14	-.44(*)	.01	-.16	-.05	.08	-.02	.03	-.06	-.01	-.05	.19	-.01	.19	-.05	-.19	.20	-.38(*)	-.17
T.E.Q.	.23	.06	.15	.32	-.12	.27	.18	-.06	.03	.00	.28	-.01	.14	-.07	.01	-.37(*)	-.19	.27	.26	-.21	-.25	-.07	-.08	.10
C	-.02	-.17	.36(*)	.06	.06	.03	-.03	-.21	.09	-.16	.23	.05	.03	.03	.07	-.36	.18	.20	.19	-.23	-.21	-.04	-.23	-.06
S.S.I.:N	.14	.10	-.13	.30	.18	.05	-.34	-.13	-.03	.03	.33	.19	.19	-.08	-.16	-.21	-.01	-.06	.21	-.18	-.21	-.03	-.23	-.26
S.S.I.:P	.11	-.04	-.07	.01	-.06	-.05	-.33	.01	.04	-.08	.15	-.09	-.09	-.07	-.28	-.36*	-.20	.17	.14	-.19	-.48**	-.08	-.33	-.28
S.S.I.:P-S	-.37(*)	-.04	.05	-.21	.06	-.18	-.30	.18	.37(*)	-.40(*)	.16	.00	.04	-.18	-.07	.04	-.42(*)	.04	.11	-.02	.02	-.12	.09	.10
AH	.00	.00	.01	-.12	.21	-.19	-.19	.11	-.12	.07	.00	-.20	-.19	-.29	-.14	-.26	.22	.10	.24	-.25	-.46(**)	-.25	-.39(*)	-.08
CO	.01	-.10	.31	-.10	.29	-.03	-.05	-.39(*)	-.15	-.16	-.10	-.12	.03	-.25	-.08	-.48**	.03	.41*	.25	-.36(*)	-.46(**)	-.14	-.27	-.09
PH	-.07	-.18	-.08	-.07	.02	-.18	-.16	-.18	.10	-.26	.16	-.16	-.12	-.34*	-.37*	-.42**	-.14	.14	.47**	-.44**	-.46**	-.45**	-.36*	.05
SC	.10	.24	-.01	.32	.38*	.18	.19	-.14	-.32	.21	-.05	.08	.40*	.19	.27	.35*	-.18	.09	.00	.47**	.14	.20	-.06	-.23
G	-.06	.08	-.05	.03	.25	-.16	-.21	-.03	.12	-.15	.07	.24	.06	-.16	.01	-.13	-.20	.07	.25	-.08	.03	.05	-.12	-.16
H.O.Q.	-.21	-.02	-.22	-.09	.26	-.27	-.11	-.01	.16	.17	.31	-.16	-.45(**)	-.25	.02	-.08	.12	-.02	.44(*)	-.03	-.26	-.26	-.33	.09
N	-.11	.17	-.22	-.12	.33	-.03	-.24	-.10	-.07	-.15	-.01	-.01	.18	-.14	.28	-.10	-.17	.10	.12	-.09	-.32	-.13	-.27	-.22
S-I	.36*	.33*	.09	.58***	.35*	.63***	.08	-.25	-.46(**)	.28	-.08	.21	.50***	.05	.12	-.03	.18	.11	-.49**	.06	.23	.02	.51***	.14
Sex.Id.	-.11	.07	-.17	-.04	-.54***	.10	.04	.29	.23	.05	.19	-.09	-.10	-.16	-.11	.09	-.24	.06	.10	.04	-.03	-.29	.06	.17
S-M	.09	.01	.48(**)	-.05	-.01	.52***	.07	-.02	-.29	-.16	-.33	.06	.33	.02	-.09	-.10	-.14	-.01	-.22	-.08	.10	.09	.27	.16
S-F	.10	-.18	.27	-.08	.02	.12	.48**	.00	-.15	-.09	-.28	-.11	-.05	.06	.10	-.12	.09	-.03	-.04	-.05	.07	.03	.29	.07
M-F	-.30	.09	-.08	-.35	.05	-.19	-.12	.31*	.13	-.28	.14	.01	-.16	-.04	-.02	.03	-.04	-.24	.39(*)	-.06	.10	.07	-.19	-.15
I-P	.02	.20	-.18	-.05	-.21	-.28	-.10	.04	.29	-.06	.08	.13	-.10	-.10	-.12	.01	.15	-.26	.00	-.13	.19	-.13	.15	.25
NS	.14	.05	.09	.25	.31	.50(**)	.01	-.15	-.40(*)	.32*	-.11	.10	.15	.16	.11	-.15	.15	-.07	-.30	.17	.06	-.04	.29	.02
NI	-.22	.34	-.21	.10	.16	-.01	-.25	.27	.17	-.06	.43**	.00	-.14	-.20	.01	.10	-.06	-.07	.09	.05	.25	-.05	.06	.28
T-GP	-.05	-.08	.02	-.15	-.20	-.01	-.23	-.24*	-.17	.07	-.10	.04	-.10	-.04	-.11	-.17	.06	.04	-.13	-.11	-.08*	-.24	.24	.04
Cpt.I	.16	.04	-.12	.05	-.14	-.07	-.29	-.34	.10	-.15	.17	.13	.22	.18	-.19	-.17	-.29	.16	-.01	-.10	-.35	.15	-.10	.16
Cpt.II	.15	.03	.24	.25	.05	.53***	.43**	-.03	-.44(**)	.24	-.09	.09	.16	-.01	.17	-.05	.25	.11	-.07	-.06	.02	-.02	.21	-.15
SCI	.11	.11	.22	.30	.27	.52(***)	-.12	-.17	-.36(*)	.02	-.15	-.03	.39(*)	-.02	-.01	.00	-.08	.10	-.41(*)	.04	.08	.26	.08	.07
SCII	-.15	-.06	-.03	.06	-.05	.35(*)	.30	-.14	-.08	.06	-.07	.14	.07	-.10	-.16	-.31	.06	-.07	.02	-.25	-.19	-.43(*)	.40(*)	.07
Ill	.03	-.11	-.12	-.15	-.01	-.25	.12	.10	.21	-.20	.08	-.28	-.28*	-.24	-.11	-.05	-.30	.04	.01	-.05	-.14	-.26	.17	.26
Symp.	-.28	-.47**	.08	-.39**	-.16	-.44**	.11	.04	.27	-.14	-.19	-.14	-.35*	-.27	-.07	-.01	-.15	.04	-.05	-.07	-.10	.33	.05	.33
SS	.01	.15	-.17	.13	.29	.12	.19	-.11	-.18	.14	-.07	-.03	.24	.30	.22	.37(*)	-.15	-.10	-.05	.46(**)	.13	.22	-.03	-.06
Soc.	.14	-.15	.41(*)	-.10	-.26	.10	.04	-.01	.04	-.10	-.17	.06	.10	.25	.06	-.13	.03	.17	-.29	-.15	.26	.33	.28	.01

* : p = 0.05; ** : p = 0.01; *** : p = 0.001; ( ) : 2-tailed

Table 24. Correlations between Pre-Treatment and Change Scores in the Group Psychotherapy Sample.
* : p = 0.05; ** : p = 0.01; *** : p = 0.001; ( ) : 2-tailed

	Ind.Pred.	Gen.Pred.	Con.Pred.	S-IC.	Sex.Id.C.	S-MC.	S-FC.	M-FC.	I-PC.	NSC.	NIC.	S.S.I.C.	SRC.	E.P.I.:NC.	HC.	DHC.	AHC.	COC.	PHC.	SCC.	GC.	H.Pred.	TR	Dur.
Age	.09	.15	-.61 (*)	.04	-.44	-.28	-.11	-.16	.34	-.22	.34	.13	-.21	-.11	-.37	.00	.06	-.50 (*)	.09	-.22	-.01	-.12	.16	-.05
Class	.36	.25	-.05	.35	-.04	.39	-.27	-.15	.14	.09	.24	-.10	-.50*	-.11	-.34	-.83***	.19	.11	.16	-.64***	-.27	-.47*	-.13	-.20
V.I.Q.	.24	.44*	-.29	.12	-.26	.10	.65*	.52*	-.15	.13	-.67 (*)	.32	.43	.25	.08	.52*	.09	-.50	.01	.34	.53*	-.03	.38	-.09
D.I.Q.	-.11	.49*	.01	.27	.32	.15	-.46	.22	-.05	.17	.24	.26	.14	.00	-.05	-.04	.45*	-.32	.24	-.06	-.05*	-.05	-.13*	-.24
T.E.Q.	-.17	-.49*	.54 (*)	-.31	-.02	-.04	-.07	.09	.24	-.25	.16	-.36	-.29	-.23	-.21	-.37	-.47*	.34	.23	-.28	-.54*	.21	-.46*	.25
C	-.35	-.42	.37	-.36	.03	-.30	-.37 (**)	.05	.45	-.36	.50	-.01	-.43	-.17	-.10	-.39 (*)	-.06	.19	.31	-.31	-.37	.12	-.59*	-.01
S.S.I.:N	.08	.06	-.19	.12	.08	.08	-.65 (**)	-.14*	-.08	.08	.22	.17	-.24	-.08	-.35	-.56*	.18	-.22	.24	-.40	-.29*	-.44	-.20	-.27
S.S.I.:P	.33	-.04	-.29	.27	.09	.27	-.25	-.43*	.17	.14	.15	-.25	-.27	-.15	-.28	-.47*	-.23	.25	.06	-.12	-.53*	-.42*	-.22	.09
S.S.I.:P-S	-.27	.03	-.17	-.23	.32	-.15	-.23	.01	.17	-.31	.14	-.12	.12	-.19	.10	.05	-.50 (*)	.30	.22	.03	.08	-.10	-.22	-.04
AH	-.10	.04	.03	.17	.29	.26	-.35	.06	-.35	.34	-.01	-.11	-.17	-.23	-.09	-.28	.33	.12*	.18	-.23	-.44	-.36	-.36	-.30
CO	-.10	-.15	.14	-.03	.25	.08	-.18	-.32	.05	-.10	.16	-.21	-.37	-.31	-.06	-.55*	-.06	.48	.31	-.36	-.36	-.22	-.22	.09
PH	-.27	-.10	-.33	-.11	.02	-.08	-.37	-.13	.24	-.26	.28	-.17	-.37	-.38	-.46*	-.57*	-.28	.23	.54*	-.47*	-.55*	-.57*	-.43	-.03
SC	.14	.30	-.09	.10	.37	.25	.27	.25	-.44	.21	-.16	-.12	.14	.29	.29	.25	-.33	.09	.01	.56*	.14	.01	.03	.01
G	-.13	-.01	-.10	-.15	.37	-.04	-.25	-.15	-.05	-.22	.16	.24	-.35	-.14	.02	-.47	-.09	-.02	.54 (*)	-.29	.18	-.27	.05	-.03
H.O.Q.	-.52 (*)	-.06	-.42	-.06	.28	-.17	-.45	-.06	-.03	.05	.42	-.02	-.40	-.20	-.01	.01	.20	-.06	.49	-.05	-.25	-.18	-.50 (*)	-.43
N	-.04	.32	-.33	-.02	-.30	.04	-.35	.01	.20	-.11	.14	.21	.16	-.05	-.63 (**)	-.30	-.11	-.58 (*)	.46	-.28	-.34	-.72 (**)	.00	.06
S-I	.61**	.54*	.01	.58**	.35	.78***	.03	.20	-.61 (*)	.45*	-.37	.02	.43*	.10	.15	-.10	.29	.08	-.61 (*)	.08	.34	-.09	.62**	.01
Sex.Id.	-.37	-.05	-.24	.06	-.37	.25	.33	-.23	.11	.01	-.12	-.32	.28	-.22	-.31	.36	-.15	-.23	.08	.09	-.21	-.29	.17	.31
S-M	-.01	.06	.44 (*)	-.22	.01	.35	.32	.15	-.09	-.16	-.44 (*)	-.24	.23	-.14	.02	.04	-.07	-.08	-.16	.06	.16	-.03	.34	.33
S-F	.09	-.52 (*)	.53 (*)	-.39	-.02	-.04	.35	.12	-.13	-.18	-.58*	-.19	-.07	-.07	.22	-.01	-.13	.11	-.27	.05	.21	.23	.25	.30
M-F	-.67 (**)	.08	-.10	-.39	-.01	-.27	.01	.58**	.22	-.37	.23	.26	-.02	-.13	-.08	.34	.06	-.51 (*)	.35	-.03	.37	.01	-.09	-.34
I-P	.20	.31	-.37	.18	-.62 (*)	-.06	.23	-.23	.23	-.03	-.06	.41	.13	.17	-.15	.04	.25	-.46	.01	-.16	.36	-.15	.51 (*)	-.01
NS	.33	.21	.27	.37	.31	.62**	-.14	-.07	-.48	.38	-.19	.18	.35	.25	.13	-.11	.26	-.16	-.37	.23	.15	-.12	.31	.07
NI	-.25	.48	-.40	.11	.43	.19	-.17	.09	-.09	-.14	.29	.05	-.06	-.16	-.05	.05	-.11	-.20	.33	-.02	.39	-.20	.13	-.25
T-G.P.	-.02	.06	.06	.22	.00	.49*	-.08	-.63 (**)	.07	-.02	.13	-.09	.28	-.14	-.21	-.28	.04	-.08	-.09	-.23	.00	-.34	.56**	.37
Cpt.I	.31	-.12	-.39	-.03	-.43	-.46	-.18	-.35	.48	-.13	.29	.03	.03	.23	-.27	-.13	-.39	.06	.09	-.03	-.38	-.06	-.15	.28
Cpt.II	-.14	-.05	.42	.00	.09	.41*	.38	.08	-.44	.27	-.38	-.33	-.15	-.23	.21	-.02	.33	.21	-.15 (*)	-.09	-.09	-.07	.06	-.09
SCI	.59 (*)	.30	.28	.32	.21	.56*	.10	.07	-.37	.23	-.48	-.14	.42	.02	.04	-.11	.01	.17	-.60 (*)	.10	.06	-.02	.37	.30
SCII	-.54	-.26	.16	-.26	-.13	.29	-.13	-.26	.05	-.19	.11	-.19 (*)	-.18	-.43	-.43	-.41	.04	-.29	.25	-.51 (*)	-.28	-.53 (*)	.08	.05
Ill	-.14	-.15	-.18	-.16	.06	-.13	.25	-.12	.09	-.30	.22	-.52 (*)	-.39	-.27	-.04	-.04	-.43	.10	.05	-.01	-.14	-.07	-.16	.26
Symp.	-.35	-.65 (**)	.07	-.37	-.23	-.21	.43*	-.29	-.01	-.19	-.31	-.12	-.18	-.21	.05	.01	-.28	.15	-.01	-.01	-.09	-.06	.17	.41
SS	.17	.19	-.09	.14	.10	-.02	.08	.26	-.25	.08	-.03	.20	.29	.27	.22	.56 (*)	-.19	-.12	-.27	.68 (**)	.28	.42	-.04	.08
Soc.	.42	.03	.57 (*)	.10	-.05	.27	.31	-.19	.14	-.14	-.17	-.04	.26	.20	.07	-.19	-.12	.29	-.26	-.14	.26	.31	.32	.33

Table 25. Correlations between Pre-Treatment and Change Scores in the Behaviour Therapy Sample.
* : p = 0.05; ** : p = 0.01; *** : p = 0.001; ( ) : 2-tailed.

	Ind.Pred.	Gen.Pred.	Con.Pred.	S-IC.	Sex.Id.C.	S-MC.	S-FC.	M-FC.	I-PC.	NSC.	NIC.	S.S.I.C.	SRC.	E.P.I.:NC.	HC.	DHC.	AHC.	COC.	PHC.	SCC.	GC.	H.Pred.	TR	Dur.
Age	-.22	-.33	.39	-.30	.13	-.03	.05	.04	-.14	-.28	-.04	-.48	-.11	-.17	-.02	-.49	.18	.14	.14	-.31	-.29	-.25	-.45	-.38
Class	-.10	-.18	.05	.19	-.21	.12	.13	.02	.33	-.19	-.05	.14	-.01	-.01	-.25	.14	.20	-.60*	-.10	-.28	.26	-.48*	.37	.12
V.I.Q.	-.27	-.01	-.06	-.51(*)	.37	-.25	-.10	.12	-.07	-.05	-.04	-.58(*)	-.34	-.33	.18	-.22	-.13	.46	.07	.09	-.38	.24	-.60(*)	-.21
D.I.Q.	-.16	-.10	.08	-.30	.18	-.22	-.35	-.12	-.31	-.18	.15	-.23	.01	-.16	.23	-.26	-.08	.62(*)	.33	-.07	-.46	.26	-.55*	-.03
T.E.Q.	.35	.17	.28	.46*	-.31	.24	.14	-.04	.05	-.01	.22	.33	.35	.08	.02	-.38	.07	.08	.30	-.28	-.19	-.08	.01	-.19
C	.11	-.07	.39	.25	.02	.15	.21	-.38	-.22	.10	-.19	.13	.27	.33	.29	-.25	.69**	.13	-.02	-.10	-.01	-.24	.17	-.18
S.S.I.:N	.03	.23	.10	.37	.06	-.14	-.09	-.03	.19	.05	.45	.27	.36	-.10	.15	.13	-.24	.22	.29	.12	-.19	.21	-.19	-.25*
S.S.I.:P	-.08	-.01	.21	.02	-.22	-.12	-.29*	.21	.18	-.30	.35	.04	.08	.06	-.07	-.41	-.35	.28	.48	-.28	-.31	.17	-.36	-.47
S.S.I.:P-S	-.31	-.12	.35	-.08	-.15	-.13	-.54*	.19	.44	-.42	.04	.11	.02	-.12	-.30	-.01	-.21	-.11	-.25	-.24	.06	-.11	-.06	.31
AH	.09	-.10	.10	-.13	.34	-.39	.08	.06	-.05	-.33	.17	-.41	-.14	-.42	-.05	-.38	-.03	.23	.51	-.32	-.57(*)	-.13	-.42	.25
CO	.05	-.01	.45	-.12	.38	-.08	.10	-.47	-.39	-.28	-.29	-.03	.33	-.17	.02	-.46*	.12	.45	.27	-.37	-.72(***)	-.13	-.29	-.18
PH	.08	-.29	.27	.01	.07	-.25	.08	-.26	-.11	-.28	.06	-.16	.14	-.27	-.09	-.17	.12	-.05	.42	-.36*	-.24	-.40	-.20	.20
SC	.02	.28	.03	.47	.21	-.04	.20	.34	-.04	.37	.05	.34	.51*	.11	.43	.50*	.01	.17	.06	.50	.16	.31	-.05	-.37
G	-.05	.23	-.08	.20	.04	-.33	-.10	.09	.40	.03	.04	.27	.28	-.21	.19	.21	-.42	.35	.07	.27	-.19	.20	-.21	-.19
H.O.Q.	-.04	-.01	-.10	-.17	.42(*)	-.42	.13	.00	.35	.33	.15	-.33	-.48	-.34	-.01	-.19	.02	.01	.35	-.06	-.33	-.30	-.30	.41
N	-.24	.13	-.11	-.26	.61(*)	-.17	-.12	-.09	-.14	-.13	-.06	-.12	.14*	-.27	.11	.01	-.30	.48	.00	.13	-.47	.23	-.41*	-.29
S-I	.22	.30	.14	.48*	.26	.35	.03	-.22	-.20	.00	.03	.54*	.53*	-.02	.00	.11	.13	.16	-.46	.00	.00	.12	.45*	.06
Sex.Id.	.17	-.03	-.04	-.07	-.55*	.19	-.34	.49	.19	-.12	.37	-.04	-.15	-.18	-.19	-.05	-.53	-.04	.04	-.06	.17	.14	-.23	.06
S-M	.07	.10	.38	-.04	-.23	.65***	-.14	-.05	-.42	-.13	-.27	.44	.34	.24	-.29	-.32	-.25	.17	-.29	-.32	-.05	-.05	.28	.05
S-F	.30	.13	.02	.19	.28	.36	.57*	-.14	-.33	-.10	-.10	-.10	.03	.23	-.17	-.24	.41	-.35	.12	-.25	-.14	.14	.25	-.14
M-F	-.11	.14	-.15	-.35	.02	-.13	-.19	.16	.09	-.01	.11	-.29	-.34	.08	.03	-.42	-.19	.29	.46	-.13	-.47	.21	-.36	.00
I-P	-.11	.04	.05	-.10	.24	-.40	-.34	.17	.32	-.07	.33	-.24	-.25	-.54(*)	.03	-.07	-.09	.24	.01	-.05	-.15	-.05	-.37	.56(*)
NS	-.01	-.04	-.13	-.17	.34	.20	.07	-.20	-.22	.09	-.24	.04	-.14	-.06	-.20	.21	-.02	.12	-.37	-.11	-.40	.09	.11	-.21
NI	-.17	.22	.22	.20	.15	-.03	-.35	.31	.28	-.03	.59**	-.07	-.12	-.24	.05	.17	-.05	.07	-.16	.13	.16	.21	-.03	.51(*)
T-G.P.	.02	-.07	-.13	-.17	-.28	-.12	-.29	-.20	.12	.38	-.16	.13	-.21	.09	.20	-.13	.01	.36	-.14	.08	-.14	-.07	.03	-.07
Cpt.I	.06	.32	.19	.07	-.02	.29	-.41*	-.32	-.28	-.13	.05	.33	.35	.09	.02	-.27	-.04	.51	-.12	-.23	-.36	.29	.08	.11
Cpt.II	.44*	.33	.11	.35	-.09	.57*	.47*	-.05	-.40	.18	.12	.23	.34	.29	-.01	-.08	.23	-.18	-.03	-.06	.21	.10	.40	-.29
SCI	-.31	-.05	.17	.00	.03	.29	-.50(*)	-.21	-.16	-.39	.02	.16	.30	-.12	-.14	.17	-.16	.01	-.29	-.05	.06	.43	-.21	-.12
SCII	.24	.14	-.19	.27	.15	.48	.54(*)	-.13	-.28	.30	-.28	.38	.22	.21	-.06	-.25	.13	.12	-.28	-.09	-.18	-.16	.63(**)	.01
Ill	.29	.01	-.20	.13	-.05	-.22	.26	.34	.39	.22	.16	.04	-.18	-.21	-.11	-.16	-.10	-.01	.04	-.12	-.02	-.59*	.43	.54
Symp.	-.24	-.29	-.05	.25	.11	-.58*	-.16	.23	.57(*)	.02	.11	-.27	-.48*	-.43	-.20	-.08	-.02	-.15	-.06	-.16	-.03	-.71**	-.06	.48
SS	-.20	.06	-.24	-.20	.35	-.01	.36	-.13	-.19	.12	-.41	-.18	-.01	.05	-.14	.09	-.05	-.11	.07	.04	-.19	.07	-.08	-.28
Soc.	.07	-.30	.19	.04	-.69***	.39	-.26	-.20	-.24	-.34	.14	.36	.06	.45	-.24	-.34	.06	-.04	-.03	-.51*	.12	-.22	.34	-.19

Table 26. Criteria for Improvement Ratings

		Improvement Rating						
		+3	+2	+1	0	-1	-2	-3
Self-Ideal Self Distance	Change	< -0.4	-0.21 to -0.4	-0.01 to -0.2	0.00	+0.01 to +0.2	+0.21 to +0.4	> +0.4
Self-Mother Distance	Change	< -0.4	-0.21 to -0.4	-0.01 to -0.2	0.00	+0.01 to +0.2	+0.21 to +0.4	> +0.4
Average Ideal-Parent Distance	Change	> +0.4	+0.21 to +0.4	+0.01 to +0.2	0.00	-0.01 to -0.2	-0.21 to -0.4	< -0.4
% age of Individualised Grid Predictions Confirmed		90.1 to 100	70.1 to 90	50.1 to 70	50.0	30.1 to 49.9	10.1 to 30	0 to 10
S.S.I. : Total Symptoms	Change	<-10	-6 to -10	-1 to -5	0	+1 to +5	+6 to +10	> +10
E.P.I.: Neuroticism	Change	<-10	-6 to -10	-1 to -5	0	+1 to +5	+6 to +10	> +10
H.D.H.Q.:Hostility	Change	<-10	-6 to -10	-1 to -5	0	+1 to +5	+6 to +10	> +10
Therapist's Rating of Change		14 to 15	12 to 13	10 to 11	9	7 to 8	5 to 6	3 to 4

Table 27. Differences between Pre-Treatment Scores of Group Psychotherapy Improvers and Non-Improvers

		Age	Class	VIQ	DIQ	TEQ	C	SSI:N	SSI:P	AH	CO	PH	SC	G	HOQ	EPI:N
Improvers	Mean	30.67	2.56	113.57	18.25	24.63	22.75	16.22	7.11	6.11	5.11	1.00	8.11	3.22	19.56	17.22
	S.D.	6.86	0.73	9.71	5.70	3.11	9.88	6.10	2.37	1.45	2.03	0.71	1.90	0.97	3.97	2.99
Non-Improvers	Mean	27.67	3.22	101.29	17.25	33.50	47.38	16.44	8.00	6.44	6.89	2.22	7.67	3.33	22.22	17.44
	S.D.	6.42	2.22	8.94	6.76	6.63	8.80	5.20	4.30	2.70	3.18	1.79	2.29	1.32	6.61	2.13
	t	0.96	-0.85	2.46	0.32	3.43	5.26	0.08	0.54	0.33	1.41	1.91	0.45	0.20	1.04	0.18
	d.f.	16	16	12	14	14	14	16	16	16	16	16	16	16	16	16
	p	0.35	0.21	0.015	0.38	0.002	<0.001	0.94	0.30	0.75	0.18	0.038	0.33	0.84	0.32	0.86
		2-tail	1-tail	1-tail	1-tail	1-tail	1-tail	2-tail	1-tail	2-tail	2-tail	1-tail	1-tail	2-tail	2-tail	2-tail

		S-I	Sex.Id.	S-M	S-F	M-F	I-P	NS	NI	T-GP	Cpt.I	Cpt.II	SCI	SCII	Ill	Symp.
Improvers	Mean	1.49	1.02	1.10	1.04	0.91	1.23	10.22	5.89	0.65	42.74	21.53	0.96	0.46	78.45	63.59
	S.D.	0.16	0.28	0.36	0.28	0.34	0.21	2.54	1.69	0.25	11.31	5.86	0.35	0.42	22.36	21.98
Non-Improvers	Mean	1.13	1.03	1.01	1.03	0.92	0.95	7.56	4.78	0.59	49.98	21.17	0.57	0.66	76.42	73.66
	S.D.	0.16	0.14	0.23	0.19	0.40	0.35	3.71	1.20	0.16	9.76	6.33	0.46	0.33	17.93	15.19
	t	4.75	0.10	0.63	0.16	0.09	2.08	1.78	1.61	0.57	1.46	0.12	2.02	1.13	0.20	1.13
	d.f.	16	16	16	16	16	16	16	16	16	16	16	16	16	15	16
	p	<0.001	0.92	0.54	0.87	0.93	0.054	0.047	0.13	0.29	0.085	0.45	0.03	0.28	0.42	0.28
		1-tail	2-tail	2-tail	2-tail	2-tail	2-tail	1-tail	2-tail	1-tail	1-tail	1-tail	1-tail	2-tail	1-tail	2-tail

Table 28. Differences between Pre-Treatment Scores of Behaviour Therapy Improvers and Non-Improvers.

		Age	Class	V.IQ.	D.IQ.	T.E.Q.	C	S.S.I.:N	S.S.I.:P	AH	CO	PH	SC	G	H.O.Q	E.P.I.:N
Improvers	Mean	32.82	3.27	98.91	11.19	39.73	45.82	16.36	4.09	4.27	5.36	1.27	7.82	2.82	21.36	16.09
	S.D.	11.13	1.35	11.25	7.91	3.29	11.04	7.76	2.30	2.10	2.98	1.19	2.75	1.40	6.30	4.81
Non-Improvers	Mean	34.20	2.80	104.40	12.00	38.20	33.40	15.60	5.80	5.40	5.60	1.20	6.60	3.00	25.40	17.40
	S.D.	12.42	0.84	12.80	3.81	10.26	12.01	7.34	4.87	1.34	2.07	0.84	1.14	1.41	4.51	1.82
	t	0.22	0.72	0.87	0.22	0.46	2.03	0.19	0.98	1.09	0.16	0.12	0.94	0.24	1.28	0.58
	d.f.	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
	p	0.83	0.49	0.40	0.42	0.33	0.031	0.86	0.18	0.29	0.88	0.90	0.18	0.81	0.22	0.57
		2-tail	2-tail	2-tail	1-tail	1-tail	1-tail	2-tail	1-tail	2-tail	2-tail	2-tail	1-tail	2-tail	2-tail	2-tail

		S-I	Sex.Id	S-M	S-F	M-F	I-P	NS	NI	T-GP	Cpt.I	Cpt.II	SCI	SCII	Ill	Symp.
Improvers	Mean	1.56	1.02	1.18	1.08	0.92	1.05	10.45	5.55	0.41	48.44	24.42	1.10	0.73	64.45	54.93
	S.D.	0.21	0.50	0.36	0.34	0.34	0.29	2.02	2.46	0.23	7.42	5.78	0.51	0.64	9.49	17.53
Non-Improvers	Mean	1.37	1.26	1.02	1.15	1.03	1.08	11.80	5.00	0.43	41.65	20.92	1.03	0.57	59.29	61.10
	S.D.	0.26	0.23	0.19	0.19	0.26	0.08	1.64	1.41	0.23	9.67	3.35	0.35	0.24	14.53	9.25
	t	1.61	0.99	0.93	0.46	0.61	0.28	1.30	0.46	0.14	1.55	1.25	0.25	0.55	0.86	0.73
	d.f.	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
	p	0.065	0.34	0.37	0.66	0.55	0.78	0.22	0.66	0.44	0.14	0.12	0.40	0.59	0.41	0.24
		1-tail	2-tail	2-tail	2-tail	2-tail	2-tail	2-tail	2-tail	1-tail	2-tail	1-tail	1-tail	2-tail	2-tail	1-tail

CHAPTER FIVE

Discussion of the Findings

Pre-Treatment Data

i) Relationships between the Measures: One of the main features which is evident on inspection of the pre-treatment correlation matrices and principal components analysis is the separation obtained between the repertory grid measures and the questionnaire measures. This could be interpreted as being in keeping with the common finding in multivariate studies of the importance of method factors, as opposed to factors associated with the hypothetical constructs tapped by the measures concerned (Campbell and Fiske, 1959; Mischel, 1968.) Alternatively, it could be argued that the grid is tapping areas of psychological functioning at a different level of abstraction, and one more in tune with unconscious processes, than the much more direct questionnaire methods, with which measures derived from it might therefore be expected to exhibit only a moderate relationship.

Certain significant, meaningful relationships did obtain between grid and questionnaire measures, and particularly between those features presumed to be indicative of maladjustment. Thus, construing of the self as being highly characterised by the symptoms was associated with the number of neurotic, as well as with the number of obsessional, symptoms admitted to on the S.S.I. in the total sample, and, in behaviour therapy clients, with Self-Criticism and Neuroticism. Construing of the self as ill was associated with the total number of neurotic symptoms admitted to on the S.S.I. in the total sample and in the behaviour therapy clients, together with the numbers of anxiety state, neurotic depressive, and obsessional symptoms. High self - ideal self discrepancy was related to obsessoid scoring on the H.O.Q., as well as to a tendency to admit to psychic symptoms, and, in behaviour therapy clients, to the number of neurotic symptoms admitted to on the S.S.I., but, in contrast to Sperlinger's (1976) findings, it was not significantly related to Neuroticism. A high distance between self and father elements was related to obsessoid scoring on the H.O.Q., and, in group psychotherapy clients, to Self-Criticism and Neuroticism. While in group psychotherapy clients a high distance between self and mother elements was also related to Self-Criticism, in behaviour therapy clients it was inversely related to Projected Delusional Hostility, a finding contrary to expectations. The inverse relationship between the distance between mother and father elements and the number of anxiety state symptoms admitted to on the S.S.I. was another unexpected finding, as was its inverse relationship in the group psychotherapy clients to the number of psychotic symptoms. The results of the present study therefore did not support Teichman's (1970) finding of an association between psychological distress and construed dissimilarity of the parents. Also unexpected were the findings concerning the average distance between the ideal self and parent elements, which was inversely related to Self-Criticism (although the relationship was reduced to a non-significant level on partialling out age) and in behaviour therapy clients to obsessoid scoring on the H.O.Q., while in group therapy clients it was inversely related to the number of psychotic symptoms admitted to on the S.S.I. In group psychotherapy clients, isolation of the self element was related to the number of neurotic symptoms admitted to on the S.S.I., to Self-Criticism, Neuroticism, and obsessoid scoring on the H.O.Q. Isolation of the ideal self element was related to a tendency to admit to somatic symptoms, and, unexpectedly, to hysteroid scoring on the H.O.Q. in the total sample. The percentage of the variance accounted for by the

first component from the grid was positively related to the number of psychotic symptoms admitted to on the S.S.I. and to Neuroticism in the total sample, as well as to the number of obsessional symptoms and to obsessoid scoring on the H.O.Q., findings which support the view that obsessionality is associated with rigid structure in the personal construct system, although Makhlouf-Norris and Norris (1973) did not find the grids of their obsessive-compulsive clients to be characterised by large first components. The size of the first component was also positively related to Complaining of Others, a finding which can perhaps be related to Topgu's (1976) demonstration of a relationship between aggressiveness and cognitive simplicity. A large second component was, in behaviour therapy clients, associated with obsessoid scoring on the H.O.Q. High loading of the self element on the first component was related to the number of anxiety state and obsessional symptoms, as well as the total number of neurotic symptoms, admitted to on the S.S.I., to Self-Criticism, and to obsessoid scoring on the H.O.Q. High loading of the self element on the second component was related to Neuroticism in the group psychotherapy clients.

To summarise the major findings, the hypothesised relationships were demonstrated between certain of a cluster of questionnaire measures suggestive of maladjustment, viz. number of neurotic symptoms on the S.S.I., number of psychotic symptoms on the S.S.I., Neuroticism, Self-Criticism, Complaining of Others, and obsessoid responding on the H.O.Q.; and certain of a cluster of grid measures presumed to be indicative of maladjustment, viz. construing of the self as ill and as characterised by the symptoms, a high distance between the self and ideal self and between the self and father elements, isolation of the self element, large first and second components, and a high loading of the self element on the first component and on the second component. Grid features which were unexpectedly associated with less maladjusted responding on certain of the questionnaires were a high average distance between ideal self and parent elements, a high distance between mother and father elements, and isolation of the ideal self element, while the findings with the measure of the distance between self and mother elements were somewhat ambiguous.

The relationships found between the content of the constructs applied to the self, symptoms, and illness and responses to the D.I.Q., T.E.Q., and Conservatism Scale were also in accordance with expectations. Thus, a medical-physical set to treatment, external direction of interest, and conservative social attitudes tended to be associated with construing of self, symptoms, and illness in terms of high structure and low self-sufficiency, but not in terms of inactive social interaction. These results support the view that an individual's treatment expectancies and related personal adjustment strategies have their basis in his personal construct system. The relationships between other grid measures and scores on the D.I.Q., T.E.Q. and Conservatism Scale are rather less easy to interpret. Thus, while it might have been expected that conservative social attitudes would be related to construing of the parents as close to the ideal self (although this relationship only obtained in the total sample, and not when verbal I.Q. and social class were partialled out), as well as to construing of the self as close to the ideal self (a finding which obtained with group psychotherapy clients), the relationship between conservative attitudes and a tendency to cross-sex identification in the total sample is contrary to expectations. Similarly, while it is meaningful that inner-directed clients see their ideals as relatively unobtainable and that there is therefore a positive correlation in the total sample between D.I.Q. scores and isolation of the ideal self in the grid, the relationship between high D.I.Q. scores and construing of the self as similar to the father is unexplained, and the

relationships between high D.I.Q. scores and a large first component from the grid, a small second component, and a low loading of the self element on the second component (none of these relationships reaching significance on partialling out verbal I.Q.) are contrary to expectations if the size of the first component is considered to be an index of cognitive simplicity (Chetwynd, 1977.) However, these latter unexpected findings have received some independent confirmation from Wijesinghe (personal communication), as well as being similar to those of Bieri and Messerley (1957.) The relationships in group psychotherapy clients between a psychological set to treatment and construing of the self and parents as dissimilar to the ideal self were, however, in the expected direction.

Interrelationships between the grid measures revealed that several of those features regarded as indicative of maladjustment clustered together as expected. Thus, there were two related clusters concerning construing of the self: construing of the self as dissimilar to the ideal self and as ill, and a high loading of the self element on the first component, were significantly interrelated, as were construing of the self as dissimilar to the father and mother, and isolated from the other elements in general. No support was provided for the finding by Ryle and Lunghi (1972) of a relationship between construing of the self as similar to the parents and of the parents as resembling each other. An interesting difference between the group psychotherapy and behaviour therapy clients was that, while in the former subjects and in the sample as a whole, construing of the self as ill was significantly related to construing of the self as characterised by the symptoms, in the behaviour therapy clients the relationship between these two measures was negative: it may be that the well-defined symptoms of the behaviour therapy clients acted as a defence against more diffuse feelings of illness, which were therefore more pronounced in those clients who were less "symptom-centred." The expected relationships were demonstrated in the total sample between construing of the self as highly characterised by the symptoms, construing of the therapist as similar to the G.P., and the use of a large number of constructs concerning self-sufficiency. The results obtained with the other grid measures were rather more ambiguous, although the expected positive relationships did obtain (but less so in group therapy clients) between the size of each of the first two components and the loading of the self element on the respective component, as well as the expected negative relationships between the size of the first and the second component, and between the loading of the self on the first and second component. The relationships obtained with two measures were contrary to expectations: isolation of the ideal self element and construing of the parents as dissimilar to the ideal self tended to be related to "adjusted" scores on the other grid measures. These results are in broad agreement with those of Wijesinghe (personal communication), but it should be remembered that there is contamination amongst the grid measures which would serve to influence the relationships obtained: the measure of isolation of the self element incorporates the distance of that element from the ideal self and parent elements, a similar situation obtaining with the measure of isolation of the ideal self, while the size of the first component puts a limit on that of the second, and the same is true for the loading of the self element on the first and second components.

Turning to the interrelationships between the questionnaire measures, there were high correlations in the expected direction between the symptom measures, the various components of hostility, and the personality measures of Neuroticism and the Hysteroid-Obsessoid dimension. Obsessoid scoring on the H.O.Q. was positively correlated in the total sample to the number of neurotic and obsessional symptoms and Self-Criticism, and negatively to Acting-Out Hostility and Complaining of Others, confirming Caine's (1965)

finding of a relationship between obsessoid personality structure and intropunitive hostility. There was therefore considerable redundancy amongst these questionnaire measures (and, indeed, some overlap between items on the S.S.I., H.D.H.Q., and Neuroticism Scale), suggesting that a shorter battery could be used in future research without any appreciable loss of information: for example, the highly significant correlation between the number of neurotic symptoms on the S.S.I. and Neuroticism implies that they are essentially measuring the same thing and that the inclusion of both measures in the battery was unnecessary. This association of Neuroticism with variables at the symptom level was as hypothesised, and casts further doubt on Eysenck's view of Neuroticism as a stable personality trait. The very high degree of intercorrelation in the pilot sample amongst the scores on the S.S.I. subscales is reminiscent of Morris' (1974) finding with the Middlesex Hospital Questionnaire, which led her to question its validity as an instrument for differential diagnosis, but it should be remembered that the S.S.I. measures used in the pilot study were derived from the a priori S.S.I. subscales, which are not claimed to be pure diagnostic measures but merely formed the basis for the empirical scales derived for differential diagnosis. The correlations obtained between a tendency to admit to psychic, as opposed to somatic, symptoms and aspects of hostility were consistent with the results of Foulds (1966.)

The relationships demonstrated between a psychological set to treatment and both internal direction of interest and liberal social attitudes were in line with the findings of Caine and his colleagues (Caine et al., 1973; Caine and Wijesinghe, 1976.) Despite the relationships of these characteristics with youth, higher social class, and higher verbal I.Q., the intercorrelations between them remained, at a reduced level, even when each of these variables was partialled out, and the only one which was just reduced to a non-significant level on partialling out verbal I.Q. was that between internal direction of interest and a psychological treatment set. They were not, however, significantly intercorrelated in the sample of behaviour therapy clients, a group which Caine has not studied separately, although including them in his larger samples. The relationships found between internal direction of interest and Neuroticism (although reduced to a level just short of significance on partialling out verbal I.Q.), as well as various components of hostility, are similar to those demonstrated by Meikle (personal communication) with low back pain patients, and to the findings of Wakefield et al. (1976) using the Myers-Briggs Type Indicator, against which the D.I.Q. was validated. These results can be explained if it is assumed that internal direction of interest implies greater openness to subjective experience, as can the relationship between internal direction of interest and number of psychotic symptoms which is obtained when social class is partialled out. The relationship, obtained on partialling out social class, between a psychological set to treatment and psychic, rather than somatic, symptoms is also as expected, as are the relationships in the total sample between conservative social attitudes and Projected Delusional Hostility and Complaining of Others, although the latter relationship falls below statistical significance when verbal I.Q. and social class are partialled out. Caine's finding (personal communication) of a significant relationship between internal direction of interest and hysteroid personality structure was not confirmed in the present sample.

ii) Differences between Clients Assigned to Different Therapies: Some of the most interesting differences between the group psychotherapy and behaviour therapy clients were observed in considering the content of their construct systems at pre-treatment assessment in terms of Landfield's (1971) categories. As expected, the behaviour therapy clients were more preoccupied with

self-sufficiency and tended to construe themselves and their symptoms as characterised by its lack: their treatment allocation to an approach involving greater dependence on the therapist may have represented a response of the clinician concerned to his perception of these aspects of their construing. Alternatively, their allocation to a more structured treatment approach could have resulted from the clinician's perception of their tendency to construe themselves, their symptoms, and illness as highly involved and relatively highly organised as compared to the group therapy clients (this being the combination of construct poles which Landfield designates as "high structure".) Similarly, the tendency of the group therapy clients to construe their symptoms and illness in terms of Inactive Social Interaction and Low Tenderness, the combination of construct poles which Landfield refers to as "low social orientation" (or which might more appropriately be termed "deficient social interaction" in these clients), may have contributed to the clinical decision to allocate them to a treatment approach which places an emphasis on social interaction. Their construing of their symptoms and illness as implying lack of organization could also have been influential in their allocation to a less structured treatment approach. Such relationships between the content of the clients' construct systems and their treatment allocation may have been relatively direct, resulting from the clinicians' construing of their construct systems, or more indirect, by means of a client's construct system determining his "choice" of symptoms, and treatment preferences (cf. Smail, 1970; McPherson, 1972; McPherson and Gray, 1976.) Thus, the behaviour therapy clients did tend to present with more clear-cut, circumscribed symptoms, perhaps reflecting their preoccupation with "high structure" constructs, together with symptoms involving dependence on others. The group psychotherapy clients, on the other hand, tended to present with much more diffuse symptoms, and particularly with difficulties in social interaction, and again this reflects the predominant content of their construct systems. The only finding contrary to expectations was the use of more Factual Description constructs by group psychotherapy clients, but this result is based on very small numbers of constructs. The tendency in behaviour therapy clients to construe their symptoms in terms of High Tenderness may indicate the complex problems of reconstruction involved in, and consequent resistance to, therapeutic change; or, in more dynamic terms, it could be interpreted as reflecting their secondary gain from their symptoms.

The significant differences observed on the other grid measures between the group therapy and behaviour therapy clients were also as expected, with the former clients being less symptom-centred and expecting their therapist to be less like their G.P. (and presumably, therefore, less directive and less likely to employ the medical model), even before they had met the therapist.

Turning to the findings with the questionnaire measures, these were also in accordance with expectations. Those clients allocated to group psychotherapy were more verbally intelligent (partly, no doubt, because assessment of verbal I.Q. was a routine part of the pre-treatment screening for this form of therapy in one of the settings studied) and their more psychological set to treatment and internal direction of interest were as hypothesised and confirmed the findings of Caine and Wijesinghe (1976), the pre-eminence of treatment expectancies in differentiating the two groups being revealed by the discriminant function analysis. However, the difference between the groups in scores on the Conservatism Scale did not reach statistical significance, and that on direction of interest was reduced to a level just short of significance on taking the difference in verbal I.Q. into account, although Wijesinghe (personal communication) has noted that preference for activities in the verbal sphere can be regarded as an

important component of internal direction of interest. The more diffuse nature of the presenting symptoms of the group psychotherapy clients, and their possibly greater initial degree of subjective distress, appears to be reflected in their admitting to more psychotic symptoms, more Neuroticism, and more hostility in certain areas. The failure to confirm the hypothesis that the group psychotherapy clients would admit to more psychic, as opposed to somatic, symptoms than the behaviour therapy clients may be due to the fact that the largest category of items in the psychic scale consists of obsessional symptoms, which are not represented at all in the somatic scale, for all the obsessive-compulsive clients in the present sample underwent behaviour therapy.

Change Data

i) Grid Predictions: The confirmation of significantly more individualised than general predictions of change in grid measures confirms the findings of Winter and Trippett (1977), although it should be noted that the set of general predictions used in the present study consisted of a refinement of that used by the latter workers, attempting to take into account numerous previous research findings and to increase the relevance of the predictions to the population studied. It also provides further support for the argument that outcome criteria in research on the psychological therapies are not uniform but rather should be tailored to the individual client. However, the demonstration of no significant difference between the percentage of individualised predictions confirmed and that of extremity control predictions confirmed raised the question that the success of the individualised predictions may merely have been a reflection of the fact that the great majority of these predictions were of a decrease in the extremity of some grid measure, and that the content of the particular measure concerned may therefore have been irrelevant. Such a reduction in the "extremity" of a person's construing may, of course, in itself be indicative of positive therapeutic outcome (cf. Hamilton, 1968; Chetwynd, 1977) and if meaningful outcome criteria can be derived from an individual's grid simply by mechanically extracting those features which reach a certain level of extremity this would be economically preferable to the considerably less arbitrary and more laborious process of detailed examination of aspects of the content and structure of the grid, on which the derivation of the individualised predictions was based.

This issue is clarified when the relationships between the success of the three sets of grid predictions and the degree of change in other measures are considered, for while confirmation of both the individualised and the general grid predictions tended to be highly associated with positive change on other measures, this was not the case with the extremity control predictions. Similarly, on dividing the follow-up subjects into "improvers" and "non-improvers" on the basis of their degree of change on several measures, it was found that in the former, but not in the latter, group significantly more individualised than extremity control predictions were confirmed. It would appear, therefore, that while there is a tendency for regression to the mean in serial grids administered during therapy (or perhaps in serial grids administered under any circumstances), so that changes in such grids can be predicted simply by cataloguing all the extreme scores in the initial grid and expecting a decrease in their extremity, such changes bear little or no relationship to increase in the psychological adjustment of the person completing the grids and are therefore of no value as outcome criteria. In order to make grid predictions which do have some bearing on psychological adjustment and therapeutic outcome, it is necessary to take into account the content of the grid measures concerned. Furthermore, for these predictions to have personal relevance for the subject, and

therefore for greater likelihood of their confirmation, it is necessary for the extremity of the subject's score on each particular measure to be considered. The process of making individualised grid predictions therefore in effect consists of an integration of the processes of making general and of making extremity control predictions as defined in the present study: from the set of measures which the predictor feels to be relevant to psychological maladjustment, those measures on which scores exceed a certain criterion of extremity in a particular individual's grid are selected and a decrease in their extremity predicted. The nature of the grid predictions employed in the present study is summarised in Figure 2:

Figure 2. Types of Grid Prediction

a) General Prediction:	there will be a change in direction X on measure Y in all clients who respond to therapy e.g. in all clients the distance between the actual and ideal self elements will decrease.
b) Extremity Control Prediction:	there will be a decrease in the extremity of all grid scores which exceed a certain level of extremity in a particular client's grid e.g. all construct correlations at above the 5% significance level will decrease in magnitude; all element distances greater than 1·5 will decrease; all element distances less than 0·45 will increase.
c) Individualised Prediction:	on those measures considered to be pertinent to psychological maladjustment, there will be a reduction in the extremity in a particular client's grid e.g. the distance between the actual and ideal self elements will decrease if that distance is greater than 1·1; the distance between the actual and ideal self elements will increase if that distance is less than 0·5.

No rationale was provided for the choice of the individualised predictions in the Winter and Trippett (ibid.) study, and in the present study these predictions were also made on an ad hoc basis. They are therefore subject to the criticism that, based as they are on the interaction between the construct systems of predictor and client, they are not amenable to replication. An attempt has therefore been made above to categorise all the individualised predictions used in the present study as a preliminary to developing general guidelines for making such predictions. The classification of the individualised predictions which has been presented above is not considered to be exhaustive, being based on the grids of only 40 subjects, but it does provide a basis for the construction of a classification system of predictions which may be of general utility in the psychological therapies. It can be seen that some of the predictions approach the status of universal applicability, at least in this particular sample: for example, the prediction of a decrease in the distance between the self and ideal self elements was made 38 times out of a possible 40. In order to identify those

predictions which appear to be the most pertinent, however, it is necessary to consider both the frequency with which each was confirmed and the relationship between change in each grid measure considered and change in independent measures.

Lack of confirmation of a prediction could be due to one of three reasons: faulty choice of the measure, change in the predicted direction on the measure concerned not being associated with increased psychological adjustment; the use of too lenient a criterion of a "pathological" score on a particular measure; the fact that the client concerned has not improved. The predictions which received least confirmation, those of a decrease in the distance between ideal self and parent elements, and of a decrease in the distance between the mother and father elements, appear to fall into the first category as they were also those whose confirmation tended to be associated with negative change on other measures. It will be remembered that a high average distance between the ideal self and parent elements, and a high distance between the mother and father elements were related to less maladjusted responding to the questionnaire measures in the pre-treatment sample, and it would therefore appear that therapeutic improvement was, contrary to expectations, generally associated with a reduction in idealisation of the parents and increased differentiation in the construing of the mother and father. The predictions concerning change in the average "z" score from conversion of construct correlations to "z" scores also lacked strong confirmation, but there are several purely methodological factors which could influence the magnitude of this score besides changes in the tightness of an individual's construct system. The score was only based on the first 15 constructs in the grid, so that it would not be affected by possible increases in the size of repeat grids, but these were the same constructs as employed in the initial grid and may therefore no longer have been very meaningful to the subject, so that a decrease in the degree of intercorrelation between them, which would have been quite independent of changes in the psychological adjustment of the client, might have been expected. Except in cases of initially extreme tightness or looseness of construing, predictions that change in degree of construct intercorrelation would accompany successful therapy would therefore seem inappropriate in a serial grid investigation designed as in the present study.

In the case of the predictions, also relatively unsuccessful, of an increase in initially low sexual identification scores, it would appear that it was not the choice of measure, but rather the choice of the criterion of pathologically low scoring, that was inappropriate. If the cut-off point for classification of a sexual identification score as pathological is reduced to -0·15, the ratio of confirmed to disconfirmed predictions using this measure is much improved: 5 predictions are confirmed, all in clients designated as "improvers", and 2 are disconfirmed, one of these in a "non-improver."

The fact that a particular type of prediction tends to be confirmed does not per se provide an indication of its usefulness as a measure of positive therapeutic change, for it would only be expected that predictions are confirmed in clients who do actually improve during therapy. It is necessary, therefore, to examine the success of each type of prediction in the improvers and in the non-improvers separately, an analysis (excluding those predictions for which no follow-up data was available) which is presented in Table 29, and from which it can be seen that, apart from those predictions which are considered above, there is a tendency for greater confirmation of each prediction in the improvers than in the non-improvers. For example, only one of the cases of disconfirmation of a prediction of a

Type of Prediction	Percentage Confirmed	
	Improvers	Non-Improvers
a) Element distances:		
i) decrease in distance between self and ideal self	95.0	36.4
ii) decrease in distance between self and father	75.0	50.0
iii) decrease in distance between self and mother	81.8	33.3
iv) decrease in distance between ideal self and father	37.5	75.0
v) decrease in distance between ideal self and mother	50.0	50.0
vi) decrease in distance between mother and father	55.6	37.5
vii) decrease in distance between ideal self and therapist	-	100.0
b) Increase in Sexual Identification Score	66.7	50.0
c) Relationships between elements and constructs:		
i) increase in angular distance between self element and symptom pole	82.7	56.0
ii) increase in angular distance between self element and 'low desirability' construct pole	97.9	73.1
iii) increase in angular distance between father element and 'low desirability' construct pole	100.0	100.0
iv) increase in angular distance between mother element and 'low desirability' construct pole	-	25.0
v) increase in angular distance between therapist element and 'low desirability' construct pole	-	100.0
d) Sum of squares accounted for by self element:		
i) decrease	100.0	80.0
ii) increase	-	100.0
e) Increase in variation about mean of self construct	66.7	100.0
f) Construct correlations:		
i) increase in angular distance between construct pole 'like me' and symptom pole	91.3	64.3
ii) decrease in angular distance between construct pole 'like me' and symptom pole	-	50.0
iii) increase in angular distance between construct pole 'like me' and 'low desirability' pole	96.4	80.0
iv) increase in angular distance between symptom pole and 'high desirability' pole	77.8	100.0
v) increase in angular distance between 'low desirability' and 'high desirability' poles	100.0	50.0
vi) increase in angular distance between symptom pole and 'low desirability' pole	76.9	66.7
vii) change towards social consensus in a relationship between constructs	92.3	66.7
g) Decrease in variation about mean of construct associated with pathology	100.0	-
h) Average 'Z' score from conversion of construct correlations to 'Z' scores:		
i) decrease	66.7	33.3
ii) increase	0.0	0.0

Table 29. The Individualised Grid Predictions: Percentages Confirmed in the Improvers and Non-Improvers

decrease in the distance between self and ideal self elements occurred in the improvers. However, it should be remembered that decrease in this score, together with a decrease in the distance between self and mother elements and an increase in the average distance between self and parent elements, contributed towards the classification of the clients in terms of improvement.

While precise guidelines can be provided for predictions of change in element distances, which can therefore be highly amenable to replication, the predictions concerning changes in construct interrelationships or in relationships between constructs and elements contain a greater subjective element on the part of the predictor. Thus, while the client himself designated certain construct poles as symptom poles in the present study, so that a prediction of an increase in the angular distance between a symptom pole and the self element or the construct pole "like me in character" is relatively straightforward, as is a prediction of a decrease in this distance when it is initially high and the client therefore appears to be dissociating himself from the symptom, the same cannot be said of predictions involving "low" or "high" desirability construct poles, a categorisation made by the predictor in this study. One of the difficulties with such predictions is that a construct pole considered desirable by the predictor may not be considered desirable by the client, or indeed by another predictor. This difficulty could be overcome to some extent by only designating as "desirable" those construct poles which are highly related to the ideal self element in the client's construct system. However, it could be argued that the social desirability of a client's construct poles may be as relevant as their personal desirability to the client, living as he does in a social context, and that the predictor's classification of the client's constructs is in terms of social desirability. As it happened, the predictions in the present study concerning construct poles adjudged by the predictor to be of low desirability were rather more successful than those concerning the construct poles provided by the client as describing their symptoms.

Similar difficulties arise with the predictions of change in construct correlations which the predictor considers to depart from social consensus, a judgement which may differ from predictor to predictor. Nevertheless, there was a high degree of confirmation of such predictions in the present study, and it is considered that it is in such aspects of construing that the essence of the client's predicament may be revealed, so that to ignore them because of doubts as to their objectivity could be to ignore the most significant findings from a repertory grid. More detailed consideration of these predictions may serve to elucidate the rationale behind them and hence facilitate their replicability. Thus, relationships between high and low desirability construct poles can indicate the client's implicative dilemmas (Hinkle, 1965; Tschudi, 1977), or in other terms the pay-offs of his symptoms (Greenwald, 1973), his secondary gains. For example, the pay-offs for the client in the present study who was referred for treatment of his deviant sexual behaviour may have been demonstrated in his construing of people who are "likely to commit an indecent assault" as "people I am proud of" and who are "confident in themselves." Other examples of such construct relationships in the present study mostly involved "High Tenderness" construct poles (Landfield, 1971.) There was the client who associated being "sensitive to others' sensitivities" with a cluster of "low desirability" construct poles: being "neurotic", "like a psychiatric patient", "unsuccessful", not being "intellectual", and not "trying to understand"; and similarly the client who associated being "unfeeling" with being "stable" and "extraverted", while being "feeling" was related to "worrying" and to the symptom poles of "having obsessions", "feeling uncomfortable in different positions", and being "hypersensitive to clothes." Other "high desirability" construct poles which clients associated with their symptoms were being

"sympathetic, warm, and understanding", "having a wider, understanding view", being "not the complaining type", being "a person who comes down to somebody's level", being "truthful", and being "careful with money."

In other clients, non-consensual construct correlations, mostly involving relationships between symptom constructs and constructs which the predictor did not categorise in terms of social desirability, were lent added weight on considering the client's general life-style and the presumed personal desirability of the construct poles to the client. In some cases, although an attempt was made to base the grid predictions purely on inspection of the pre-treatment grid, they may have been influenced by the predictor's knowledge of other aspects of the client's life, such as his occupation. For example, there was the wood-turner who saw "having one's brains in one's hands" as associated with the symptom poles of being "tense" and "frightened of accidents"; and similarly the art student for whom being "creative" was related to the symptom pole of "having a chip on one's shoulder." In other cases, the predictor may have been influenced by more subtle cues from the client, as in the case of the very unfashionably dressed, inarticulate man who saw being "old-fashioned" and being "not well-educated" as highly associated with his symptoms; or the accountant, of extremely conventional appearance and manner, who saw being "serious-minded" as implying "feeling unsettled", "feeling that things are ganging up on me", and "suffering from feelings of inferiority." Finally, it was considered that the predicament of some clients was crystallised in the association between a construct pole, neither desirable nor undesirable in itself except in certain situations, and a "low desirability" construct pole, as in the relationships which obtained in a number of clients between High Forcefulness (Landfield, 1971) construct poles such as "dominant" and such construct poles as "ill."

The remaining category of predictions of changes in construct correlations concerned a decrease in the relationships between the symptom poles of symptom constructs and "low desirability" construct poles. Such predictions may at first sight appear contradictory to those of a decrease in construct correlations assumed to reflect the pay-off of the symptoms. However, they were made on the assumption that, if confirmed, that part of the client which he had singled off as the symptom would become more acceptable to him. Such a state might be considered analogous to those considered desirable by approaches as diverse as Morita therapy (Miwa and Usa, 1970), with its attempts to arrive at the accepting state of arugama to counteract the vicious circle of self-consciousness, toroware; logotherapy (Frankl, 1964), which again aims at freedom from self-consciousness; and Gestalt therapy (Perls et al., 1965), with its emphasis on self-acceptance. The majority of these predictions concerned a decrease in the client's tendency to construe his symptoms as implying "illness", and many also were of a decrease in the extent to which the symptoms were seen to imply lack of intelligence. For example, it was predicted that a beneficial change in the client who presented one of her major problems as "having a broken marriage" would be that she no longer construed people with broken marriages as being "ill." Similarly, it was predicted that reduction of the social performance anxieties of the client who described himself as "unable to communicate" would necessitate seeing the latter characteristic less as a sign of "stupidity."

We are now in a position to amend the classification of individualised grid predictions presented in Chapter Four in order to produce a set of guidelines for the making of such predictions. It is suggested that the researcher wishing to derive outcome predictions from inspection of a client's pre-treatment grid should scan the grid in the areas indicated below and

select those features which exceed his criterion of extremity. Suggestions for the latter criterion are not given, except in the case of the sexual identification score, as this will depend on the confidence with which the prediction is being made: for example, the researcher may feel more confident in predicting a decrease in the relationship between a client's self construct and a symptom construct than in predicting a decrease in the relationship between a construct pole which he considers of low desirability and the construct pole "like me in character", and he would therefore require a lower angular distance between the two constructs in order to make the latter prediction. Similarly, it would appear from the present study that a prediction of a decrease in the distance between the self and ideal self elements can be made with greater confidence than a prediction of a decrease in the distance between the self element and a parent element, so that the latter prediction might only be made if the distance between the elements were relatively high. Suggested individualised grid predictions are presented in the following list, which is not considered exhaustive:-

a) element distances: i) if the distance between the self and ideal self elementsis initially high, this distance will decrease;
ii) if the distance between the self and ideal self elements is initially low, this distance will increase;
iii) if the distance between the self and father elements is initially high, this distance will decrease;
iv) if the distance between the self and mother elements is initially high, this distance will decrease;

b) sexual identification: if the score obtained on subtracting the distance between the self and same-sex parent elements from the distance between the self and opposite-sex parent elements is equal to or less than -0.20, this score will increase;

c) relationships between elements and constructs: i) if there is a low angular distance (i.e. high relationship) between the self element and the symptom pole of a symptom construct, this distance will increase;
ii) if there is a high angular distance between the self element and the symptom pole of a symptom construct, this distance will decrease;
iii) if there is a low angular distance between the self element and a "low desirability" construct pole, this distance will increase;
iv) if there is a very high angular distance between the self element and a "low desirability" construct pole considered to be descriptive of psychological distress, this distance will decrease;
v) if there is a very low angular distance between the father element and a "low desirability" construct pole, this distance will increase;
vi) if there is a very low angular distance between the mother element and a "low desirability" construct pole, this distance will increase;

d) sum of squares accounted for by the self element: when this sum of squares is initially very high, it will decrease;

e) variation about the mean of the self construct: when this score is initially very low, it will increase;

f) construct correlations: i) if there is a low angular distance (high correlation) between the symptom pole of a symptom construct and the construct pole "like me in character," this distance will increase;

ii) if there is a high angular distance between the symptom pole of a symptom construct and the construct pole "like me in character", this distance will decrease;

iii) if there is a low angular distance between a "low desirability" construct pole and the construct pole "like me in character", this distance will increase;

iv) if there is a very high angular distance between a "low desirability" construct pole and the construct pole "like me in character", this distance will decrease;

v) if there is a low angular distance between the symptom pole of a symptom construct and a "high desirability" construct pole, this distance will increase;

vi) if there is a low angular distance between a "low desirability" and a "high desirability" construct pole, this distance will increase;

vii) if there is a low angular distance between the symptom pole of a symptom construct and a "low desirability" construct pole, and if the relationship between these constructs is considered inappropriate, the angular distance will increase;

viii) any other relationship between constructs which is considered non-consensual will change in the direction of social consensus.

ii) Relationships amongst the Change Data: No attempt was made to tailor predictions of change in scores on the questionnaire measures to the individual client, except in the case of the Hostility and Direction of Hostility Questionnaire, for which it was predicted that a client's score on a particular measure would move towards the mean of the normal subjects in the standardisation sample if it initially differed from that mean by more than one standard deviation. The fact that the degree of confirmation of such individualised predictions did not differ significantly from that of general H.D.H.Q. predictions, applied to each client, of decrease in each component of hostility, in total hostility, and in intropunitiveness would appear to be due to the homogeneity of the sample with respect to hostility, most of the clients being more hostile, and showing a greater tendency to direct their hostility inwards, than the normal standardisation sample. The only other measures which could be considered to be individualised were those of change in the client's ratings of the extent to which he suffered from what he regarded as his three major problems; and the therapist's rating of change in the client.

It could be argued, then, that it was inappropriate to attempt to validate change on individualised grid measures against change on measures which were largely not themselves individualised, but in view of the homogeneity of the sample in terms of the global aspects of felt distress tapped by the questionnaire measures, tailoring of outcome criteria to the individual client was in the main considered unnecessary with these latter measures. The great majority of the clients admitted to a large number of symptoms, obtained high Neuroticism scores, and exhibited high levels of hostility, largely intropunitively directed, so that predictions of decrease in the extent to which they were characterised by each of these features were generally applicable, but the same could not be said of the aspects of their construing revealed by the repertory grid, except their tendency to construe themselves as dissimilar to their ideal selves. So, while the questionnaire measures considered in the present study can provide gross criteria of therapeutic outcome of seemingly general relevance, at least to neurotic clients voluntarily attending for therapy, these measures may be insufficiently sensitive or pertinent to the focus of therapy to adequately

monitor the therapeutic process, and for this purpose measures at the level of abstraction of the individualised indices of aspects of construing would appear to be necessary. Changes in both these types of measure should, however, be associated with therapeutic improvement, although perhaps with different areas of the latter, and if the individualised grid measures are valid it would therefore be expected that changes in them would bear some relation to changes in the questionnaire measures.

It will be recalled that the change scores on different measures were generally positively intercorrelated, except for the grid indices of decrease in the average distance between the ideal self and parent elements, decrease in the distance between mother and father elements, and to some extent decrease in the isolation of the ideal self element and in sexual identification scores. Also, decrease in the extrapunitive components of hostility, particularly Projected Delusional Hostility, was generally less highly related to positive change in other measures than was decrease in intropunitive hostility. The results of the principal components analysis of the change data were comparable to those of the principal components analysis of the pre-treatment data and, as such, consistent with the common finding of factors being largely determined by the methods of measurement used. Thus, grid variables obtained the highest loadings on the first factor, which contrasted construing of the self as more similar to the mother, the ideal self, and the other elements in general with construing of the parents as more similar to the ideal self and to each other. The second component received high loadings from the questionnaire measures, concerning as it did variables at the symptom level: decrease in number of symptoms, Neuroticism, and Hostility. It is necessary to proceed to the third component before "mixing" of measures occurs, this component being concerned with the percentage of individualised grid predictions confirmed, together with a reduction in the distance between self and father elements, as well as with those non-grid variables with a more individual emphasis: therapist ratings of improvement, reduction in the client's ratings of the extent to which he suffers from his major problems, and duration of therapy. It is of some interest, and lends support to the doubts which have been cast on the validity of therapist ratings, that the variable with which the therapist rating of improvement was most highly correlated was duration of therapy, although the latter was not highly related to the measures of change, and was associated with <u>increase</u> in Neuroticism and Hostility. Having made a large investment in terms of time in treating a client, the therapist might find himself in a position of cognitive dissonance (Festinger, 1957) and as such liable to see the client as having improved, regardless of the client's actual progress. In fairness to the therapist, though, his ratings of improvement were significantly associated with decrease in the client's symptom ratings: therapists construed as improved those clients who said that they had improved in terms of the severity of their presenting symptoms.

<u>iii) Levels of Change</u>: It was expected, in line with the theoretical framework and research findings of Foulds (1959, 1965) and Caine (1965a), that a progressive decrease in degree of change during therapy would be observed in moving from consideration of variables at the symptom level to those at the level of attitudes, and on moving from the latter variables to personality variables, and this expectation received some support on comparing the pre- and post-treatment scores of those clients who had remained in therapy for at least nine months. Thus, much the most significant decreases were demonstrated in the number of neurotic symptoms to which clients admitted, and in Neuroticism, which, despite Eysenck's view of three-dimensional man at the personality level, is regarded in this study as a symptom measure in view of its high correlation with other such measures. At the level of

attitudinal variables, there were significant decreases in Self-Criticism, Guilt, and Complaining of Others; while on the grid such decreases occurred in the distance between self and ideal self elements and in isolation of the self element, both of which appear to be associated with felt distress and symptom variables, as can be observed in the pre-treatment correlation matrix. There was no significant change on the hysteroid-obsessoid personality dimension, or on any of the other measures considered.

The change towards construing of the self as more similar to other people is consistent with the findings of Fielding (1975), while the construing of the self as more similar to the ideal self confirms the many findings, reviewed above, of increase in self-esteem during therapy. That neither of these changes were merely part of a general reduction in extremity of construing is shown by their negative correlations, approaching statistical significance, with the measure of decrease in extremity.

iv) Difference in Change between Different Groups of Clients: Although it had been expected that the changes observed in the group psychotherapy clients would be more fundamental than those observed in the behaviour therapy clients, with whom change would be largely at the symptom level, no significant differences were found between the change scores of these two groups. It is possible that this was due to removal of symptoms by behaviour therapy instigating a benign cycle (Yalom, 1971) of changes in construing of the self by the client and significant others. However, it seems more likely that it reflects the fact that the behaviour therapists in the present study could not be construed as "behaviorists" in that by no means did they practise "pure" behaviour therapy: in many cases they were all too eager, at least as far as purity of the research design is concerned, to work psychotherapeutically with a client after, or concurrently with, work on the symptoms by behavioural methods. While, in those cases where therapy clearly followed sequential stages, the post-treatment assessment for behaviour therapy clients was regarded as that after the initial behavioural phase of treatment, in other cases transitions from one treatment approach to another were much more blurred and imperceptible.

Similarly, it was expected that change would be less, and of a more superficial nature, in those clients who dropped out of group psychotherapy within the first three months than in the clients who remained in group therapy for a longer period. In fact, although therapist ratings of improvement were lower in the former clients, the only other significant difference was that the drop-outs showed a greater decrease in Acting-Out Hostility. Are we to conclude, then, that length of stay in group psychotherapy bears little or no relation to the degree of change produced, or that the changes observed in the group therapy clients would have occurred anyway as a result of spontaneous remission in the absence of therapy? An alternative explanation of the present findings is that the improvements observed in the drop-outs represent a "flight into health", and that such changes would therefore be expected to be transient. However, the number of drop-outs who returned for follow-up assessments was too small to allow this hypothesis to be tested in the present study.

The lack of any appreciable difference in degree of improvement between group drop-outs and stayers does provide some confirmation of the previously mentioned findings of Malan et al. (1976) as well as of Garfield's (1963) demonstration of more favourable self-reports at follow-up in treatment drop-outs than in stayers. It also provides support for the common practice in psychotherapy research, criticised by Rachman (ibid.), of excluding drop-outs from the analysis rather than classing them as treatment failures.

Relationships between Pre-Treatment and Change Data

Analysis of the relationships between pre-treatment and change data provides implications for treatment selection, and accordingly such correlations were calculated for the follow-up sample as a whole, and also separately for the group psychotherapy clients and for the behaviour therapy clients in the sample. The most consistent finding was of a strong positive relationship between degree of change on a particular measure and the pre-treatment score on that measure, and this was not unexpected. Apart from anything else, there is more "freedom for movement" for a person on a dimension on which they initially occupy a position far from the normal mean than on a dimension on which they are initially close to the mean.

In attempting to identify those variables which were most consistently associated with therapeutic improvement, positive change on a particular measure was taken to be change in the predicted direction, except for those measures on which change in the predicted direction was generally not associated with such change on other measures. Thus, positive change on the grid measures of distance between the mother and father elements, and average distance between the ideal self and parent elements was defined as change in the direction opposite to that predicted, while change in isolation of the ideal self element and in Projected Delusional Hostility were excluded from the analysis. The identification of those aspects of the pre-treatment data most consistently related to positive change provided a picture of the client who tends to improve with therapy as someone of upper social class, who does not exhibit psychotic symptoms or projected delusional hostility, but is self-critical, sees himself as dissimilar to his ideal self and to other people in general, and as highly characterised by his symptoms, and whose repertory grid exhibits a large second component. These findings are very much as expected: the client who responds to therapy is in touch with reality; is motivated to change, in that he is dissatisfied with himself; and has a construct system which is open to change in that it contains more than one workable dimension of seeing the world. The repertory grid results are consistent with those of previous studies (Orford, 1974; Sperlinger, 1976), and with the view of Fransella and Crisp (1970) that a large second construct dimension is a favourable prognostic sign.

In considering relationships between pre-treatment and change data in the group psychotherapy and behaviour therapy clients separately, a clearer picture emerges of the client who responds to group psychotherapy than of the client who responds to behaviour therapy inasmuch as there were many more significant correlations between the pre-treatment and change data in the group therapy than in the behaviour therapy clients. The client who shows improvement in group therapy is of upper social class and high verbal ability, has a psychological set to treatment, and expects his therapist to be dissimilar to his G.P., a finding which can be related to Heine's (1962) demonstration of a relationship between premature termination of therapy and lack of differentiation of the psychotherapist from other medics. He does not exhibit psychotic symptoms or projected delusional hostility, is low in Neuroticism, and sees himself as dissimilar to his ideal self. His concern about himself might be thought to be revealed in the tendency for the self element to be highly loaded on the first principal component of his grid, and this first component takes up a small percentage of the variance.

By contrast, the client who typically responds to behaviour therapy is described by considerably fewer characteristics: he is self-critical and

sees himself as dissimilar to his ideal self, but differs from the client who responds to group therapy in that he is of low verbal ability and tends to see himself as being highly characterised by his symptoms. His grid exhibits a large second component.

These findings were to a large extent reflected in the differences observed between improvers and non-improvers in each treatment modality when this categorisation was made on the basis of change on those dimensions which appeared from the principal components analysis to be most important. An additional analysis carried out on these groups was of differences in the content of the constructs which they used, and the finding that improvers in group psychotherapy used significantly fewer constructs than non-improvers in Landfield's "Tenderness" category, while there was some evidence of a reverse tendency in behaviour therapy clients, was not expected. More easy to interpret is the highly significant tendency for more constructs to be highly related to the symptom constructs in behaviour therapy improvers than in non-improvers, the opposite tendency being observed in the group psychotherapy clients, and the more specific differences between these groups in terms of the content of constructs related to the symptom constructs appearing to be a function of these global differences. It would seem, then, that a symptom-oriented treatment such as behaviour therapy is only likely to be effective with those clients whose symptoms occupy a central, superordinate, position in their construct systems, such clients presumably not finding group psychotherapy a meaningful approach to their problems.

The other major additional finding from analysis of the differences between improvers and non-improvers was that on the Conservatism Scale the group psychotherapy improvers showed more liberal social attitudes than the non-improvers, while the reverse was the case in the behaviour therapy sample. This is consistent with the theoretical framework of Caine (e.g. Caine and Wijesinghe, 1976), who has yet to provide evidence, except from clients' evaluations of their response to group psychotherapy, of a relationship between Conservatism and treatment outcome. It should be noted, though, that the difference in treatment expectancies between the group psychotherapy improvers and non-improvers, which had also confirmed the findings of Caine and Wijesinghe, fell short of significance on allowing for the difference in verbal ability between these groups: it will be remembered, however, that preference for verbal activities has been suggested to be one of a constellation of characteristics bearing on the development of a psychological set to treatment.

The finding that the group psychotherapy improvers tended to be males was unexpected and remains unexplained, although it could possibly be related to the fact that the therapist in one of the groups was male, while in the other group an experienced male therapist worked successively with three less experienced female cotherapists, only the last of whom was able to make a permanent commitment to the group. Another tentative explanation is that females have generally been found to exhibit more conservative social attitudes than males (Wilson, 1975), such attitudes having been related to lack of response to group psychotherapy in the present study.

CHAPTER SIX

Conclusions and Implications

We are now in a position to consider the broader implications provided by the findings of the present study with regard to the issues and questions raised in the first two chapters.

The Repertory Grid: Validity and Usefulness

One of the aims of the study was to examine the validity and usefulness of the repertory grid technique in this area of research on the psychological therapies, and several of the findings discussed above bear on this issue.

Thus, a number of grid indices assumed to be indicative of maladjustment have been found to be meaningfully interrelated, and associated with independent measures of maladjustment; and positive change on these grid measures during therapy has been associated with positive change on the non-grid measures. The grid indices concerned were construing of the self as dissimilar to the ideal self, to the parents (particularly the father), and to other people in general, and also as ill and highly characterised by the symptoms. Grid indices which showed some relationship to this cluster were large first and second components, and high loadings of the self element on these components. The picture which emerges from the present study of the personal construct system of the neurotic client is therefore in substantial agreement with that provided by Ryle and Breen (1972).

However, the grid measures of cross-sex identification, which Ryle (1975) feels may indicate unresolved oedipal problems, and of isolation of the ideal self, were less clearly associated with maladjustment, and further evidence of their validity is required before they can be confidently employed as indices of the latter. The unexpected tendency for lack of ideal-self isolation to be associated with more maladjusted responses on some of the other measures may be a reflection of a fantasy in the neurotic population, discussed above, that the ideal self could be attainable if only symptoms could be removed, and the inverse relationship observed between isolation of the actual self and isolation of the ideal self may indicate the clients' resistance to the state of alienation in which they would find themselves if no aspect of the self-concept were seen as socially viable (cf. Fransella, 1972; Makhlouf-Norris and Norris, 1973; Bruch, 1974.) Alternatively, the findings with the measure of ideal-self isolation, and the similar results obtained with the measure of dissimilarity of the parents to the ideal self, could be indicative of clients' initial idealization of their parents and others, leading them to construe themselves in very negative terms by contrast, so that a reduction in such idealization would be associated with a more favourable self-concept and hence therapeutic improvement. Other findings which were contrary to expectations were that construing of the parents as dissimilar to each other appeared to be associated with psychological adjustment, and increase in their construed dissimilarity appeared to be associated with therapeutic improvement. The attempt to translate the psychoanalytic concept of splitting of the parents into grid terms has therefore not proved successful, if it is correct to regard parental splitting as a pathological sign.

While general grid indices of maladjustment are of some value, and predictions of therapeutic outcome based on them are likely to be confirmed, particularly in a relatively homogeneous sample such as the present one, a major contention of this study has been that it is more appropriate to

tailor such outcome criteria to the individual client. Support has been provided for this latter argument by the corroboration of the finding of Winter and Trippett (ibid.) of greater confirmation of individualised than of general grid predictions, and a criticism of the Winter and Trippett study has been answered in that confirmation of such individualised predictions has been related to positive change on independent measures, while this was not the case for control predictions of reduction in extremity of grid responses. It is considered that it would be desirable to include such control predictions in all studies which monitor changes in an individual's construing, and that, due to their more arbitrary nature, they would not pose the problem, encountered by Winter and Trippett in their attempt to take up Slater's (1969) suggestion of using specific control constructs, of being more tailored to the construct system of the investigator than to that of the subject. However, although the findings of the present study are not consistent with the view (Hamilton, 1968; Chetwynd, 1977) that extremity of construing is indicative of maladjustment, it is possible that extremity in certain construct subsystems, such as those concerning the self and the symptoms, is associated with psychopathology, so that predictions of a general decrease in extremity in these areas during therapy would be likely to be confirmed.

A diagnostic cookbook of grid indices is not felt to be desirable, as this would only serve to perpetuate the myths of trait psychology and nosological psychiatry, whereas in attempting to arrive at some understanding of an individual's personal construct system it is with the total configuration provided by a grid that one is concerned. However, it is considered desirable to maximise the degree to which the grid can provide a reliable and valid picture of the individual's personal construct system while minimising the extent to which this picture is influenced by the personal construct system of the investigator. It was to this end that general guidelines for making individualised grid predictions were devised in the present study.

Turning to the differences in grid results observed between the group psychotherapy and behaviour therapy clients, these were also very much as expected, showing the self-construction of the former clients to be less centred on their symptoms, and that they expected their therapist to be less like their G.P., as well as tending to construe themselves, their symptoms and illness more in terms of low self-sufficiency and high structure. This latter demonstration of meaningful differences in the content of the constructs used by the two groups has provided evidence for the validity of the construct categorisation system employed, which, with some modifications, was that developed by Landfield (1971.) The preponderance of Self-Sufficiency constructs elicited from the present sample as compared to those in previous studies may be due to the subjects being more disturbed, and preoccupied with their need for help, than Landfield's college students, Fransella's (1972) stutterers with "no demonstrable psychiatric disorder or psychiatric history", and Sperlinger's (1976) non-psychiatric patients, whom he found to use fewer Self-Sufficiency constructs than his "improved depressed subjects."

The differences which obtained between the grids of the clients who responded to therapy and those of the clients who did not improve were also according to expectations in that the former clients construed themselves as unlike their ideal selves, as well as isolated from other people in general, and their symptoms played a large part in their construing of themselves, while their construct systems appeared sufficiently flexible to provide avenues for change. In considering the group psychotherapy clients separately,

the importance of their expectations regarding the therapist was once again demonstrated in that there was less likelihood of improvement in those clients who, prior to treatments, imagined that their therapist would be characterised by the same constructs as they used to describe their G.P. A seemingly related finding was that clients whose symptoms were central to their construing of themselves, and carried more implications in terms of other constructs, suggesting that they had a high degree of superordinacy in the construct system, were likely to improve during behaviour therapy but not likely to improve in group psychotherapy.

It is considered, therefore, that both in the relationships demonstrated between grid measures and independent measures, and in the differences observed between the grids of different groups of clients, the present study has provided evidence for the validity of the repertory grid in the assessment of aspects of psychological maladjustment and response to the psychological therapies. The relatively few grid measures with which results were contrary to expectations have been indicated above.

As well as consideration of its validity, evidence has also to be provided for the usefulness of the repertory grid in order to justify the employment in research on therapy of a technique which is considerably more time-consuming in administration and interpretation than are standard questionnaires. Indeed, such justification might be thought particularly necessary in view of the correlations which have been obtained in this study between some of the grid and questionnaire measures. It should be remembered that, despite these correlations, separation of the grid and questionnaire measures was achieved in the principal component analyses, and it is considered that this is due to their tapping domains at different levels of abstraction. It is contended that the repertory grid, with its relatively low face validity, is able to monitor unconscious processes, revealing aspects of a person's construing of which he may not be aware, and that these areas are demonstrated by features such as the implicative dilemmas, which were taken into account in devising the individualised grid outcome criteria, such non-consensual construct relationships being regarded by Ryle (1975) as indicating unconscious fantasies. As it is at this level of unconscious processes that intervention is focused in most forms of psychotherapy, the grid would seem a more appropriate instrument for monitoring the effects of psychotherapy than questionnaires tapping areas of psychological maladjustment and distress of which the subject is much more aware. However, if a more straightforward symptom measure is required, the grid can also provide this in the relationships between symptom constructs and the self construct or element.

Outcome Criteria

Implicit in the above discussion is the view that psychological change can occur at various different levels, and that change at certain levels is more superficial and more easily achieved than change at other levels. The distinction drawn by Foulds (1965) and Caine (1965) between variables at the levels of symptoms, attitudes, and personality is considered useful in this regard, and some evidence has been provided in this study for the relative ease of change at the symptom level, the clients who did not drop out of therapy showing, as a group, much more change in symptoms than in other areas of psychological functioning.

If therapeutic change is multidimensional, a complete picture of the effects of therapy can only be obtained by using measures pertinent to each of these dimensions. So, if the therapy under study aims at more than mere symptom-removal, the test battery employed in assessing its effectiveness

should, as suggested above, include measures at the levels of "attitudes" and "personality" as well as symptom measures. It is considered that the repertory grid can span all these areas, in that it reveals aspects of construing at different levels of awareness. However, if the researcher wishes to include more traditional measures in his battery, there is probably little to choose between the various available symptom measures, although the results of the present study suggest that those, such as the Symptom-Sign Inventory, which can provide indices of both neurotic and psychotic symptomatology, may be of particular relevance to such issues as treatment selection. Also, the Hostility and Direction of Hostility Questionnaire would appear to be a useful instrument, sensitive to changes occurring during therapy, and the present study has provided some confirmation of Caine's (1965a) finding of reduction in hostility, and particularly its intropunitive components, during therapy.

It has been argued above that the particular dimensions on which change is sought during therapy, and the direction of movement on these dimensions which is considered positive, will vary from person to person, and that therapy outcome criteria should therefore be tailored to the individual client. This argument has been supported with the confirmation in the present study of the findings of Winter and Trippett (ibid.) of greater success of individualised than of general predictions of therapeutic outcome in grid terms. However, similar differences did not obtain between individualised and general predictions of change in scores on the Hostility and Direction of Hostility Questionnaire, and it would seem that this was due to the relative homogeneity of the clients in the more gross areas of psychological functioning tapped by this and the other questionnaire measures, as also in those grid measures, such as self - ideal self distance and correlation between self and symptom constructs, which relate to felt distress. In those very few clients in the present sample, such as the sexual offender, who did not complain of many symptoms and, compared with the normal mean, were not neurotic or characterised by intropunitive hostility, change during therapy would have been expected to occur, if at all, in the direction opposite to that indicated by the general predictions. Therefore, it is felt that in studies of more heterogeneous samples, particularly in those containing clients who have been referred by the courts or whose treatment is in some other sense not entirely voluntary, all outcome criteria should be individualised, as should also be the case when small samples are considered. With large samples of out-patient neurotics attending for therapy voluntarily, it may only be necessary to tailor outcome criteria to the individual on measures, such as the grid, tapping areas more molecular than the domain of symptoms.

Treatment Selection

The present study has revealed a number of differences between clients undergoing group psychotherapy and those undergoing behaviour therapy, as well as those characteristics related to improvement in each type of therapy. To the extent that the features associated with referral to a particular therapy were also those associated with improvement in that therapy, it can be concluded that correct decisions as to treatment allocation were being made in the settings considered. Evidence has been provided that this was the case to a large degree with the group psychotherapy clients, as construing of the self as not highly characterised by the symptoms, construing of the therapist and G.P. as dissimilar, a psychological set to treatment, and high verbal ability distinguished both group psychotherapy clients from behaviour therapy clients and clients who improved with group psychotherapy from those who did not, although group psychotherapy clients admitted to more psychotic symptoms than behaviour therapy clients, while the presence

of psychotic symptoms contra-indicated improvement in group psychotherapy. Differences in the content of the constructs used by the group psychotherapy and behaviour therapy clients were not entirely comparable with the differences between the group psychotherapy improvers and non-improvers, but a possible explanation for the discrepancies observed has been provided above in that the differences are confounded by the higher relationship of the symptom constructs with other constructs in the group therapy non-improvers than in the improvers.

Improvement in the behaviour therapy clients was associated with considerably fewer characteristics, but construing of the self as highly characterised by the symptoms was related to improvement, as well as differentiating behaviour therapy clients from group therapy clients. However, a high level of Self-Criticism, while being related to improvement in behaviour therapy, also characterised group psychotherapy, as opposed to behaviour therapy, clients. It appeared, though, that self-criticism was one of a cluster of features indicative of dissatisfaction with the self, which was a prerequisite for improvement in all clients, regardless of the type of therapy which they received. Other factors which seemed to be generally associated with good prognosis were the absence of psychotic features, and the presence of a flexible construct system, ~~a dimension which was related to improvement in behaviour therapy and a low likelihood of dropout from group psychotherapy~~.

If these general characteristics of clients who improve with therapy are excluded, a picture emerges of the features which were specifically related to improvement in a particular type of therapy. Treatment expectancies and related social attitudes appeared to be particularly important in this regard, improvement in group psychotherapy being associated with a psychological set to treatment, an expectation that the therapist would be dissimilar to the client's G.P., and liberal social attitudes, while conservative social attitudes appeared to be predictive of improvement with behaviour therapy. Another major dimension seemed to concern the superordinacy of the client's symptom constructs in his construct system, improvement in behaviour therapy being related to a marked tendency to construe the self in terms of the symptoms, and for the symptom constructs to be highly related to other constructs, particularly those concerning low self-sufficiency, while the reverse was true for group psychotherapy. Obsessoid personality and high salience of the self element in the construct system also characterised those who responded to group psychotherapy. In addition, high verbal ability was, as expected, related to improvement in group psychotherapy and low verbal ability to improvement in behaviour therapy, but the relationship observed between sex and response to group therapy was less easily explained.

In general, the present study has provided support for the view of Caine and his colleagues (Caine et al., 1973; Caine and Wijesinghe, 1976) that treatment expectancies constitute a major factor in response to treatment, and are a reflection of an individual's personal adjustment strategies. Thus, the relationships obtained between scores on the Treatment Expectancies Questionnaire, the Direction of Interest Questionnaire, and the Conservatism Scale were in line with this theoretical framework and previous research findings, as were the differences observed on these measures between clients assigned to behaviour therapy and group psychotherapy, and between those who improved and those who did not in each type of therapy. The demonstration in this study of the expected associations between these variables and response to group psychotherapy constitutes stronger evidence for their importance than was provided by Caine and Wijesinghe (ibid.) as "harder" outcome measures were employed than the ratings of these latter workers,

some of which could have been contaminated by expectancy factors. In addition, the present study provides the first demonstration of a relationship between conservative social attitudes and response to behaviour therapy. Relationships have also been found between internal direction of interest and aspects of hostility and symptomatology, which it is suggested may be due to greater openness to experience of subjective distress in the inner-directed client, and may possibly be a mediating factor in the relationship between direction of interest and treatment expectancy. While some of the relationships and differences demonstrated fell short of statistical significance when verbal ability was taken into account, it has been argued above that it may be considered inappropriate to control for verbal ability in this area, as preference for activities in the verbal sphere could be regarded as an integral characteristic of the inner-directed person, with his liberal social attitudes and psychological set to treatment, while the outer-directed person, with conservative social attitudes and a medical-physical treatment set may show a preference for more practical activities, much as in the association shown by Hudson (1966) between academic interests and the dimension of convergent-divergent thinking, which itself has been related to direction of interest and treatment expectancies by Caine et al. (ibid.) It would be interesting in this regard to examine the relationships of a measure of non-verbal intellectual ability with scores on the D.I.Q., T.E.Q., and Conservatism Scale.

The postulated relationships of direction of interest, treatment expectancies, and social attitudes with response to therapy are illustrated diagrammatically in Figures 3 and 4.

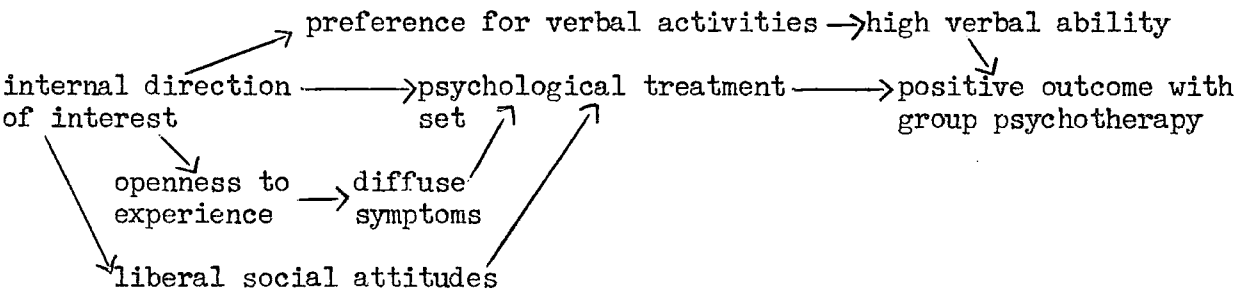


Figure 3. Postulated Relationships between Personal Adjustment Strategies, Treatment Expectancies, and Response to Group Psychotherapy

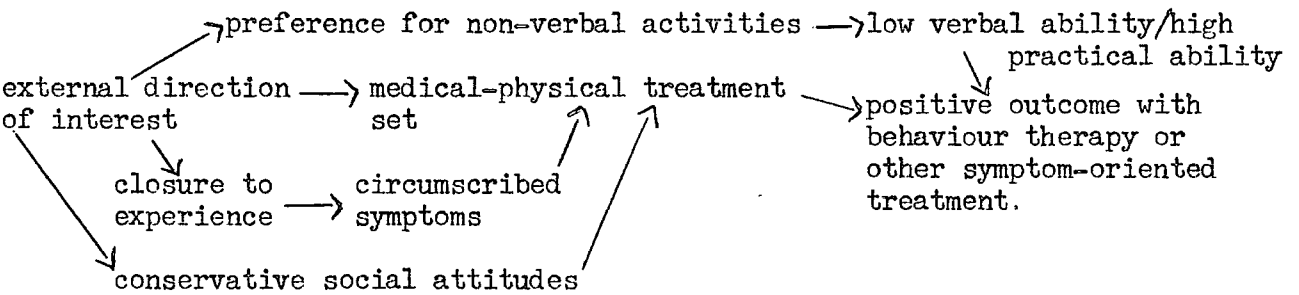


Figure 4. Postulated Relationships between Personal Adjustment Strategies, Treatment Expectancies, and Response to Behaviour Therapy

It has been argued above that an individual's personal construct system will determined not only the symptoms which he "selects" but also his expectations regarding treatment, and consequently his response to different types of therapy. As Bannister and Mair (1968) suggest:

> "If psychiatrists construe their treatments as 'physical' and 'psychological', then outcome could be examined in relation to the patient's view of his condition along these dimensions. If the patient regards his condition as an 'illness' of mysterious origin, unrelated to his present outlook or past way of life, or if he has been persuaded by the hospital to accept such a view, then he may well respond to equally mysterious electricity or equally mysterious chemicals as the appropriate agents of recovery. Conversely, if in grids whose constructs embody his complaints and his philosophy, close relationships between the two are found, then physical treatment might be outside the range of convenience of the constructs he is using to subsume his 'illness', and possibly lack efficacy."

The view that symptomatology, and treatment expectancies and outcome, are related to construing is supported by the results of the present study. Thus, the tendency of the group psychotherapy clients to construe themselves, their symptoms, and illness more in terms of deficient social interaction and low organization, and less in terms of low self-sufficiency and high structure, than the behaviour therapy clients has been related to the nature of the presenting symptoms in the two samples and the characteristics of the therapies to which the clients were clinically assigned. The finding that group psychotherapy clients construed themselves as less characterised by their symptoms than behaviour therapy clients, while similar differences were observed between the features related to improvement in the two forms of therapy, were also as expected, as was the evidence that superordinacy of the symptom constructs was related to improvement in behaviour therapy and to lack of improvement in group psychotherapy. While it could be argued that symptom-oriented approaches would only increase the meaningfulness of the symptoms to the client, and thus increase his resistance to change (cf. Fransella, 1972), the present results suggest that if the symptom already carries a great many implications within the construct system, a therapeutic approach which does not focus upon it will not be meaningful to the client and therefore will be unlikely to be effective. However, if such a client's symptoms are directly attacked, and their intensity decreased, by an approach such as behaviour therapy, he may be more concerned to concentrate on other construct subsystems, perhaps elaborating his construing of himself as a person without symptoms, and a less symptom-centred approach might then be more appropriate.

That the relationships between construing and response to therapy may be mediated by treatment expectancies and the related personal adjustment strategies, which may therefore have a basis in the content of an individual's construct system, has been suggested by the tendency for a medical-physical treatment set, external direction of interest, and conservative social attitudes to be associated with construing of the self, symptoms, and illness in terms of high structure and low self-sufficiency, but not deficient social interaction, as well as by the interrelationships between use of a large number of Self-Sufficiency constructs, construing of the self as highly characterised by the symptoms, and the expectation that the therapist will be similar to the G.P. While the present findings require replication, and in particular further evidence needs to be provided in support of Landfield's (1971) demonstration of a relationship between the predominant content of the client's construct system and his response to therapy, they are consistent with the view that rather than the client being a passive victim of a disease process, his construing actively determines his presenting symptoms and treatment preferences and outcome. A model of the postulated relationships between construing and response to therapy is presented in Figure 5).

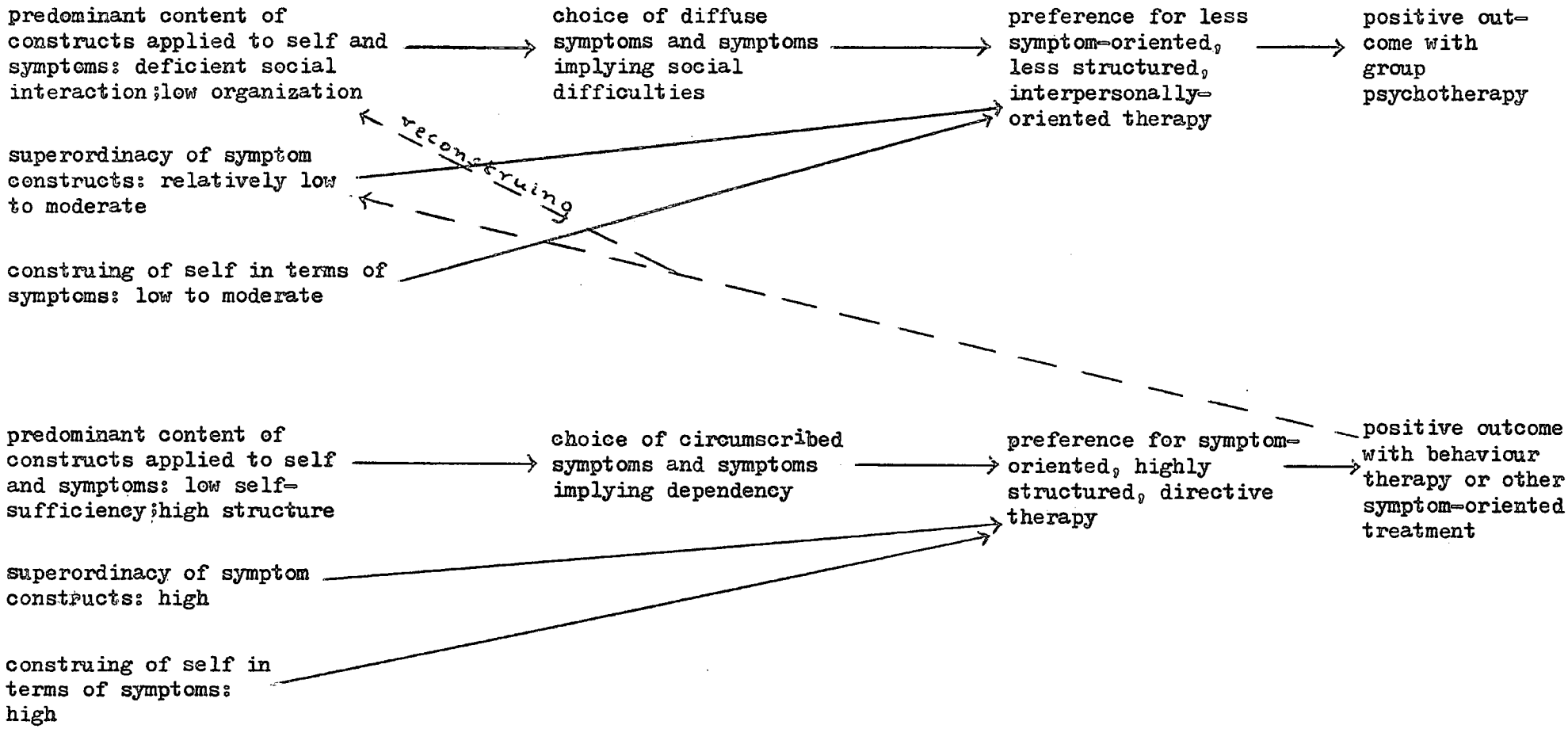


Figure 5. Postulated Relationships between Construing and Response to Therapy

Although, as indicated above, the clinicians in the treatment settings under study appeared to a large extent to be making their decisions as to therapy allocation on a correct basis, it might be considered that such decisions could be made rather more systematic and appropriate by incorporating the Treatment Expectancies Questionnaire, Direction of Interest Questionnaire, and Conservatism Scale, possibly together with the Mill Hill Vocabulary Scale, in the pre-treatment assessment. The necessity for such refinement of treatment selection procedures is demonstrated particularly by the relatively high drop-out rate of clients from group psychotherapy in the present treatment settings and elsewhere (Yalom, 1966), with consequent wastage of therapeutic resources. One advantage of the suggested questionnaires is their ease of administration (particularly if, with the T.E.Q., only the questions loading on the first component from the original principal component analysis are used) and interpretation, while the grid, which has also been shown in the present study to provide implications for treatment selection, is more time-consuming and some of the relevant measures derived from it, such as the distance between therapist and G.P. elements, may be considered to overlap with the T.E.Q. Nevertheless, a short form of the grid, focusing on the areas which the present study has suggested to be relevant to treatment selection, might be useful, but if not used the present results indicate that the clinician, in his pre-treatment assessment, would do well to attend to the extent to which the client is symptom-centred and the constructs which he uses in describing his symptoms, himself, and his notions of therapeutic change. These constructs could, if required, be extracted from a tape of the pre-treatment interview.

As Kelly (1955) points out, "Rather than deplore the client's inadequate conceptualisation of psychotherapy, we need to understand his own personal construction of change if we are to help him bring about a change."

Therapy and Personal Construct Theory

It has been implied in the discussion of treatment selection that there are no universal panaceas amongst the psychological therapies, and that the treatment approach employed should be fitted to the individual client. A client will be unlikely to respond to a form of therapy which does not match his expectancies and is not within the range of convenience of his construct system, and the demonstration in the present study of no significant difference at any level in the degree of change of group psychotherapy and behaviour therapy clients perhaps suggests that the "depth" of a client's psychological change is more a function of the extent of the match between his construing and the treatment approach than the focus of therapeutic intervention. Despite the therapist's theoretical and ideological persuasions, the client who is highly concerned about her symptom of obsessional checking that doors are locked, and asks for removal of this symptom, is likely to find meaningless an interpretation of her difficulties in terms of sexual conflicts; while even the most committed behaviour therapist is occasionally confronted with the phobic who will obstinately insist on talking about his relationship with his mother rather than concentrating on his hierarchy of spiders. Nevertheless, as suggested by the dotted arrows in Figure 5), there may come a stage in therapy where sufficient reconstruing has occurred for the client to be ready to switch from one therapeutic approach to another, and this was fairly common practice in the treatment settings considered, with the direction of such a switch nearly always being from behaviour therapy to psychotherapy or marital therapy rather than vice versa.

Such a treatment strategy, with its focus on the individual client, is very much within the spirit of personal construct theory. While the rules

and procedures of personal construct psychotherapy have not been adequately described in the literature, it can subsume most, if not all, existing therapies and provide a cloak for those who do not consider their eclecticism respectable. Some treatment approaches appear to lie more within its focus of convenience than others, however, and here one might include, in addition to fixed role therapy (Kelly, 1955), the cognitive behaviour therapies (Mahoney, 1974) and rational-emotive therapy (Ellis, 1962), while Tschudi (ibid) has explored its links with transactional analysis. In addition, an attempt has been made within the present study and in previous work (Ryle, 1975) to translate concepts derived from psychoanalytic theory into construct theory terms, and more extensive links between the two theories might fulfil the need for a less static description of man's psychological processes than is provided by psychoanalytic theory, a need which Schafer (1976) has endeavoured to meet with his "action language". Kelly's philosophy of constructive alternativism allows such openness to other models, but it is considered that this should take the form of a productive interchange rather than a hostile (in construct theory terms) attempt to force the ideas of one theory into the conceptual straitjacket of another.

While the repertory grid has been employed in the present study primarily as an instrument for the investigation of treatment selection, process, and outcome, its use has raised questions as to the efficiency of treatment approaches employed with particular clients as compared to approaches focused more explicitly on the client's construing, and in particular on the implicative dilemmas revealed in the pre-treatment grids of some clients. Thus, rather than massed electrical aversion, an alternative treatment approach would have been to explore with the sexual offender in the sample why he needed to commit indecent assaults in order to become "a person I am proud of." Similarly, with Client 6, attempts to define ways in which a successful person, free of symptoms, could also be "sensitive to others' sensitivities" might have led to more rapid treatment gains than his group psychotherapy. In working along these lines with clients, the use of Mair's (1977) metaphor of the person as a "community of selves" could be fruitful.

Further Research

The primary aim of the present study has not been to evaluate the effectiveness of different forms of therapy, but rather to explore the usefulness of the repertory grid technique as an instrument for carrying out such evaluation. Therefore, a no-treatment control group was not employed, and so it is not possible to assert that the changes observed in the clients were a function of therapy, although some, such as the reduction in the distance between self and ideal self elements, have not been found to occur in the absence of therapy in previous research (Sperlinger, 1976.) It would be of particular interest in future research to examine any changes which might occur in serial grids administered to subjects not undergoing therapy, and to assess whether such changes are as predictable as those which occur during therapy.

A repertory grid study always poses a problem of selection of particular aspects of a very large amount of information, as well as selection of particular modes of analysis, and consequently there are many areas of the grid data in the present study which, for reasons of economy of time, it has not been possible to explore but which could be usefully investigated in future research. Further analyses of the present data will focus on aspects of the internal validity of the repertory grid, such as the comparability of pictures of construing of the self obtained from examination of the self element with those from examination of the self construct (cf. Mair, 1967a),

together with the relationship of discrepancy in these two self-constructions to other measures of maladjustment (cf. Fransella and Crisp, 1978); and the association between clients' choice of the constructs which they considered most important and the degree of variation about the means of these constructs, a measure which would be expected to indicate their importance to the subject (cf. Bannister and Salmon, 1967.) It might also be of interest, in assessing the possibilities of change during therapy in the present study, to employ the methods of analysis developed by Makhlouf-Norris and Norris (1973), testing the hypothesis that an articulated construct system, in providing more avenues for reconstruing, is a good prognostic sign, and exploring the possibility that one of the features of successful therapy is the development of linkages between disparate clusters of constructs. Again, the use of Slater's (1968) DELTA programme, although essentially furnishing no more information than was obtained by inspection of the INGRID analyses of serial grids, would have provided, in such measures as the general degree of correlation between grids, convenient ways of comparing the extent of change in different groups of clients.

The findings of the present study regarding the content of constructs elicited at the pre-treatment assessment are promising but need to be replicated with larger samples of constructs elicited from each subject, without the constraint of asking the subject to produce psychological constructs, and ideally in a study in which the constructs are independently classified by more than one researcher. Work along these lines is under way at present, with the constructs being extracted from tapes of pre-treatment interviews with clients, and monthly intervals between future assessments allowing much more detailed examination of the therapeutic process and its relationship to the findings of the pre-treatment assessment than was possible in the present study. Further inspection of the present data is allowing examination of changes in the content of clients' construct systems, and particularly in the constructs which they apply to themselves and their symptoms, and this work could be usefully extended in future research, such changes being expected to accompany the more fundamental changes in other measures if Kelly's (1955) view of the therapeutic process is correct.

Independent replication is also required of the comparison of individualised and general outcome predictions in grid terms, as in both studies which have demonstrated greater success of the former type of prediction, the predictions have been made by the same author. While the general predictions employed in the present study represent a refinement of those in the Winter and Trippett (ibid.) study, they should be further refined in future research, with the exclusion of those predictions which have been found to be consistently unsuccessful in the present study. The prediction that a general reduction in extremity of construing of the self and the symptoms would be associated with positive therapeutic change could also be tested.

It would also be of interest to examine the presenting patterns of more homogeneous samples of clients than those studied here. The present sample of agoraphobic clients undergoing a combined form of therapy was not sufficiently large to enable any firm conclusions to be drawn about these clients, although they did exhibit certain features of interest, such as the very marked emphasis on self-sufficiency in their construct systems. An investigation of construing in a much large sample of agoraphobics is now under way.

While it has been argued that a client's pattern of presenting problems and his treatment expectancies are a function of the content of his construct system and his personal adjustment strategies, it should be remembered that the problems and expectancies of the clients studied may not have been in their pristine condition as the initial assessment of the clients occurred in

most cases after they had been subject to the influence of their G.P. and of a consultant psychiatrist. It remains for further research, which is being planned at present, to attempt to demonstrate the existence of a consistent pattern of construing, adjustment strategies, treatment expectancies, and presenting problems in clients before they have gone through the stage of being assessed by a psychiatrist, and also, if possible, before seeing their G.P. regarding their problems. It would be desirable in such research to use a measure of psychological, as opposed to somatic, symptoms less biased towards particular diagnostic groups than that employed in the present study. Another area for further study concerns change in treatment expectancies and personal adjustment strategies during therapy, for in the present investigation the relevant measures were only administered at the pre-treatment assessment.

The present study is completed but for some of the clients in the sample therapy and follow-up go on. Their serial assessments, over a period of at least four years, will allow intensive long-term investigation of response to therapy.

APPENDIX ONE

The Individualised Grid Predictions

The individualised grid predictions for each client in the follow-up group are listed below. For those clients who underwent a post-treatment assessment, direction of change on the grid measures concerned is indicated using the following convention:

c. = change in predicted direction;

n.= change in opposite to predicted direction;

n.c. = no change.

Client 1: It was predicted that: i) in view of the initially low variation about the mean of the self construct, and therefore apparent low meaningfulness of this construct to him, the variation about its mean would increase (c.); ii) there would be an increase in his initially low self-esteem, with a consequent decrease in the distance between the self element and the ideal self element (c.); iii) his father would come to be seen as more similar to his ideal self, the distance between these elements decreasing (n.); iv) his mother would come to be seen as more similar to his ideal self, the distance between these elements decreasing (n.); v) the initially large distance between the elements "self" and "mother" would decrease (c.); vi) as splitting mechanisms appear to be operating in his construing of his mother and father, the distance between these elements would decrease (c.); vii) he would construe himself less as "having a chip on his shoulder", the angular distance between this construct pole and the self element increasing (c.); viii) he would construe himself as less "depressed", the angular distance between this construct pole and the self element increasing (c.); ix) he would construe himself less as "seething inside", the angular distance between this construct pole and the self element increasing (n.); x) he would see being "creative" and "having a chip on one's shoulder" as less highly associated, the angular distance between these two construct poles increasing (c.).

Client 2: It was predicted that: i) as he initially exhibited cross-sex identification, his sexual identification score would increase (c.); ii) in view of his low self-esteem, the distance between the self and the ideal self elements would decrease (c.); iii) he would construe himself as less "shallow", the angular distance between the self element and this construct pole increasing (c.); iv) he would construe himself as less "like a psychiatric patient", the angular distance between this construct pole and the construct pole "like me in character" increasing (c.); v) he would construe himself less as "letting his emotions come too much to the surface", the angular distance between this construct pole and the construct pole "like me in character" increasing (c.); vi) he would construe himself less as "not recognising that he is making life a misery for everyone else", the angular distance between this construct pole and the construct pole "like me in character" increasing (c.); vii) he would construe himself as less "anxious", the angular distance between this construct pole and the construct pole "like me in character" increasing (c.); viii) he would construe himself less as "trying to be too many people", the angular distance between this construct pole and the construct pole "like me in character" increasing (c.); ix) he would construe himself as less "unable to communicate", the angular distance between this construct pole and the construct pole "like me in character" increasing (c.); x) he would see "inability to communicate" as less associated with "stupidity", the angular distance between these two construct poles increasing (c.); xi) in view of the initially large first component from the INGRID analysis, with its implication of a rigid construct

system, the average "z" score from transforming construct correlations to "z" scores would decrease (n.).

Client 3: It was predicted that: i) as she initially exhibited cross-sex identification, her sexual identification score would increase (n.); ii) in view of her low self-esteem, the distance between the self and ideal self elements would decrease (c.); iii) as splitting mechanisms appeared to operate in her construing of her parents, the distance between the mother and father elements would decrease (n.); iv) she would come to see her mother as closer to her idealself (n.); v) she would come to construe herself as less "unhappy", the angular distance between the self element and this construct pole increasing (c.); vi) she would come to see herself less as "having an outlook which is not rational", the angular distance between the self element and this construct pole increasing (c.); vii) she would come to see herself less as "disliking people", the angular distance between the self element and this construct pole increasing (c.); viii) she would come to see herself as less "unfulfilled", the angular distance between the self element and this construct pole increasing (c.).

Client 4: It was predicted that: i) in view of her lack of identification with either parent, the distance between the self and mother elements would decrease (n.); ii) as would the distance between the self and father elements (c.); iii) her splitting of her parents would decrease, with the distance between the mother and father elements decreasing (n.); iv) as she saw her parents as very dissimilar to her ideal self, the distance between this element and the mother element would decrease (c.); v) as would the distance between the ideal self and father elements (c.); vi) in view of the initial low variation about the mean of the self construct, and therefore apparent low meaningfulness of this construct to her, the variation about its mean would increase (c.); vii) and, similarly, there would be an increase in the sum of squares accounted for by the self element (c.); viii) she would come to see herself as less "depressed", the angular distance between this construct pole and the construct pole "like me in character" increasing (c.); ix) in view of the initially large first component from the INGRID analysis, the average "z" score from transforming construct correlations to "z" scores would decrease (c.).

Client 5: It was predicted that: i) in view of the initial low variatiom about the mean of the self construct, the variation about its mean would increase (c.); ii) and the isolation of the self element would decrease, with the sum of squares accounted for by it decreasing (c.); iii) as his level of self-esteem was initially low, the distance between the self and ideal self elements would decrease (c.); iv) as he initially identified with neither parent, the distance between the self and father elements would decrease (c.); v) as would the distance between the self and mother elements (c.); vi) he would come to see himself as less "like a psychiatric patient", the angular distance between this construct pole and the self element increasing (c.); vii) he would see himself as less "ill", the angular distance between this construct pole and the self element increasing (c.); viii) he would come to see himself less as "having difficulties in communication", the angular distance between this construct pole and the self element increasing (c.); ix) he would come to see himself less as being "unable to handle social situations", the angular distance between this construct pole and the self element increasing (c.); x) he would come to see himself as more "confident", the angular distance between this construct pole and the self element decreasing (c.); xi) he would come to see himself as more "able to make his needs felt", the angular distance between this construct pole and the self element decreasing (c.); xii) he would construe "inability to handle social situations" as less "ill", the angular distance between these two construct poles increasing (c.).

Client 6: It was predicted that: i) in view of the initial low variation about the mean of the self construct, the variation about its mean would increase (n.); ii) and, similarly, the sum of squares accounted for by the self element would decrease (c.); iii) as his level of self-esteem was initially low, the distance between the self and ideal self elements would decrease (c.); iv) he would come to identify more with his parents, the distance between the self and father elements decreasing (n.); v) and the distance between the self and mother elements decreasing (c.); vi) he would see his parents as closer to his ideal self, the distance between the latter element and the mother element decreasing (c.); vii) and the distance between the ideal self and father elements decreasing (c.); viii) he would construe himself as less "like a psychiatric patient", the angular distance between this construct pole and the self element increasing (c.); ix) he would come to see himself as less "ill", the angular distance between this construct pole and the self element increasing (c.); x) he would come to see himself as less "depressed", the angular distance between this construct pole and the self element increasing (c.); xi) he would come to see himself as less "frightened of succeeding in case he fails", the angular distance between this construct pole and the self element increasing (c.); xii) he would come to see himself as having less "difficulty in communication", the angular distance between this construct pole and the self element increasing (c.); xiii) he would come to see himself as less "neurotic", the angular distance between this construct pole and the self element increasing (c.); xiv) he would see being "neurotic" and being "sensitive to others' sensitivities" as less highly associated, the angular distance between these construct poles increasing (c.); xv) he would see being "like a psychiatric patient" and being "sensitive to others' sensitivities" as less highly associated, the angular distance between these construct poles increasing (c.); xvi) he would no longer see being "intellectual" as implying not being "sensitive to others' sensitivities", the angular distance between these construct poles decreasing (c.); xvii) he would come to see being "sensitive to others' sensitivities" as more highly associated with being "successful", the angular distance between these construct poles decreasing (c.); xviii) he would come to see being "sensitive to others' sensitivities" as more highly associated with "trying to understand", the angular distance between these construct poles decreasing (c.); xix) he would see being "frightened of succeeding in case he fails" less as implying being "ill", the angular distance between these construct poles increasing (c.); xx) he would see being "depressed" as less highly associated with being "ill", the angular distance between these construct poles increasing (n.).

Client 7: It was predicted that: i) in view of her initially low level of self-esteem, the distance between the self and ideal self elements would decrease (n.); ii) as she exhibited cross-sex identification, her sexual identification score would increase (c.); iii) as she initially identified strongly with neither parent, the distance between the self and mother elements would decrease (n.); iv) as would the distance between the self and father elements (n.); v) her splitting of her parents would lessen, with the distance between the mother and father elements decreasing (n.); vi) she would come to see herself as less of a "trouble-maker", the angular distance between this construct pole and the construct pole "like me in character" increasing (c.); vii) she would come to see herself as less "ill", the angular distance between this construct pole and the construct pole "like me in character" increasing (c.); viii) she would come to see herself as more of a "person who accepts", the angular distance between this construct pole and the construct pole "like me in character" decreasing (n.); ix) as would its angular distance from the self element (c.); x) she would come to see herself as less "dishonest", the angular distance between this

construct pole and the self element increasing (n.); xi) she would come to see herself as less "discontented with life", the angular distance between this construct pole and the self element increasing (c.); xii) she would come to see being "sympathetic, warm and understanding" as less highly associated with being "discontented with life", the angular distance between these construct poles increasing (c.); xiii) she would come to see being "sympathetic, warm and understanding" as less highly associated with being "indoctrinating", the angular distance between these construct poles increasing (c.); xiv) she would come to see being "intellectual" as less highly associated with being "able to control emtions", the angular distance between these construct poles increasing (c.).

Client 8: It was predicted that: i) in view of his initially low self-esteem, the distance between the self and ideal self elements would decrease (n.); ii) as he exhibited cross-sex identification, his sexual identification score would increase (c.); iii) he would come to see himself as more "self-sufficient", the angular distance between this construct pole and the self element decreasing (c.); iv) he would come to see himself as more "confident", the angular distance between this construct pole and the self element decreasing (c.); v) he would come to see himself as more "generous", the angular distance between this construct pole and the self element decreasing (c.); vi) he would see himself as more "mature", the angular distance between this construct pole and the self element decreasing (c.); vii) he would see himself as less "like a psychiatric patient", the angular distance between this construct pole and the self element increasing (c.); viii) he would come to see himself as less "tense", the angular distance between this nonstruct pole and the self element increasing (c.); ix) he would come to see himself as less "ill", the angular distance between this construct pole and the self element increasing (n.); x) he would come to see himself less as "not feeling strong love for anyone", the angular distance between this construct pole and the self element increasing (n.); xi) he would come to see himself less as "feeling inner anger and not knowing what at", the angular distance between this construct pole and the self element increasing (c.); xii) he would see himself as less "confused", the angular distance between this construct pole and the self element increasing (c.); xiii) he would come to see "not feeling strong love for anyone" as associated with being "aggressive", the angular distance between these construct poles decreasing (c.).

Client 9: It was predicted that: i) as her level of self-esteem was initially very low, the distance between the self and ideal self elements would decrease (c.); ii) as her parents were also seen as dissimilar to her ideal self, the distance between the latter element and the mother element would decrease (c.); iii) as would its distance from the father element (c.); iv) in view of her initial cross-sex identification, her sexual identification score would increase (c.); v) her splitting of her parents would lessen, with the distance between the mother and father elements decreasing (n.); vi) she would come to see herself as less "unpopular", the angular distance between this construct pole and the self element increasing (c.); vii) and its angular distance from the construct pole "like me in character" also increasing (c.); viii) she would come to see herself less as "lacking interest in things", the angular distance between this construct pole and the self element increasing (c.); ix) and its angular distance from the construct pole "like me in character" also increasing (c.); x) she would see herself as less "unable to talk to people", the angular distance between this construct pole and the self element increasing (c.); xi) and its angular distance from the construct pole "like me in character" also increasing (c.); xii) she would see herself less as "having sexual problems", the

angular distance between this construct pole and the self element increasing (c.); xiii) and its angular distance from the construct pole "like me in character" also increasing (c.); xiv) she would come to see herself as less "like a psychiatric patient", the angular distance between this construct pole and the self element increasing (c.); xv) and its angular distance from the construct pole "like me in character" increasing (c.); xvi) she would see herself as more "self-reliant", the angular distance between this construct pole and the self element decreasing (n.).

Client 10: It was predicted that: i) in view of his initially low level of self-esteem, the distance between the self and ideal self elements would decrease; ii) as he saw his parents as dissimilar to his ideal self, the distance between the ideal self and father elements would decrease; iii) as would the distance between the ideal self and mother elements; iv) as he initially saw himself as dissimilar to his wife, the distance between the latter element and the self element would decrease; v) in view of his initially low sexual identification score, this score would increase; vi) he would come to see himself as less "tense", the angular distance between this construct pole and the construct pole "like me in character" increasing; vii) he would come to see himself as less "hysterical", the angular distance between this construct pole and the construct pole "like me in character" increasing; viii) he would see "having his brains in his hands" as less highly associated with being "frightened of accidents", the angular distance between these construct poles increasing; ix) similarly, he would see "having his brains in his hands" as less highly associated with being "tense", the angular distance between these construct poles increasing; x) he would see being "tense" and being "forceful" as less highly associated, the angular distance between these construct poles increasing; xi) he would see being "truthful" as less highly associated with being "tense", the angular distance between these construct poles increasing; xii) he would see being "truthful" as less highly associated with being "frightened of accidents", the angular distance between these construct poles increasing; xiii) he would see "having a bad temper" as less highly associated with being "frightened of accidents", the angular distance between these construct poles increasing.

Client 11: It was predicted that: i) in view of her initially low level of self-esteem, the distance between the self and ideal self elements would decrease; ii) as she exhibited isolation of the self element, the sum of squares accounted for by this element would decrease; iii) as the self was seen as dissimilar to both parents, the distance between the self and mother elements would decrease; iv) as would the distance between the self and father elements; v) there would be an increase in the initially low sexual identification score; vi) she would come to see herself as more "reliable", the angular distance between this construct pole and the construct pole "like me in character" decreasing; vii) she would see herself as less characterised by "lack of identity", the angular distance between this construct pole and the construct pole "like me in character" increasing; viii) she would see herself as less subject to "sudden mood changes", the angular distance between this construct pole and the construct pole "like me in character" increasing; ix) she would see herself as having less of a "sense of unreality", the angular distance between this construct pole and the construct pole "like me in character" increasing; x) she would see herself as less "ill", the angular distance between this construct pole and the construct pole "like me in character" increasing; xi) she would see being "not so keen on company" as less highly associated with "lack of identity", the angular distance between these construct poles increasing; xii) she would see being "not so keen on company" as less highly associated with a

"sense of unreality", the angular distance between these construct poles increasing; xiii) she would see being "not so keen on company" as less highly associated with being "like a psychiatric patient", the angular distance between these construct poles increasing; xiv) in view of the initially large first component from the INGRID analysis, the average "z" score from converting construct correlations to "z" scores would decrease.

Client 12: It was predicted that: i) as his level of self-esteem was initially low, the distance between the self and ideal self elements would decrease (c.); ii) as he exhibited cross-sex identification, his sexual identification score would increase (n.); iii) his splitting of his parents would lessen, the distance between the mother and father elements decreasing (c.); iv) he would come to see himself as less "ill", the angular distance between this construct pole and the self element increasing (c.); v) he would see himself as less "miserable", the angular distance between this construct pole and the construct pole "like me in character" increasing (c.); vi) he would see himself as less of a "brooder", the angular distance between this construct pole and the construct pole "like me in character" increasing (c.); vii) he would come to see his father as less of "a person I'm afraid of", the angular distance between this construct pole and the father element increasing (c.); viii) he would come to be less "afraid of" people who are "miserable", the angular distance between these construct poles increasing (c.); ix) he would come to be less "afraid of" people who "annoy" him, the angular distance between these construct poles increasing (c.); x) he would see being "a worrier" and being "old-fashioned" as less highly associated, the angular distance between these construct poles increasing (c.); xi) he would see being "a worrier" and being "not well-educated" as less highly associated, the angular distance between these construct poles increasing (c.); xii) he would see being "depressed" and being "old-fashioned" as less highly associated, the angular distance between these construct poles increasing (c.); xiii) he would see being "depressed" and being "not well-educated" as less highly associated, the angular distance between these construct poles increasing (c.); xiv) he would see "having a gap in one's marriage" and being "not well-educated" as less highly associated, the angular distance between these construct poles increasing (c.); xv) he would see being "depressed" and being "ill" as less highly associated, the angular distance between these construct poles increasing (c.).

Client 13: It was predicted that: i) in view of her initially low level of self-esteem, the distance between the self and ideal self elements would decrease; ii) as she exhibited isolation of the self element, the sum of squares accounted for by this element would decrease; iii) she would come to see herself as being less "unable to push herself to go out", the angular distance between this construct pole and the self element increasing; iv) she would come to see herself as less characterised by "worrying when meeting new people", the angular distance between this construct pole and the self element increasing; v) she would come to see herself as less characterised by "thinking she can't do things as well as others", the angular distance between this construct pole and the self element increasing; vi) in view of the initially high percentage of the variance accounted for by the first two components from the INGRID analysis, the average "z" score from converting construct correlations to "z" scores would decrease.

Client 14: It was predicted that: i) in view of his initially low level of self-esteem, the distance between the self and ideal self elements would decrease (c.); ii) as he exhibited cross-sex identification, the sexual identification score would increase (c.); iii) he would come to see himself as less "unstable", the angular distance between this construct

pole and the self element increasing (c.); iv) he would come to see himself as less "ill", the angular distance between this construct pole and the self element increasing (c.); v) he would see himself as suffering less from "feelings of inferiority", the angular distance between this construct pole and the self elements increasing (c.); vi) he would see himself less as "feeling that things are ganging up on him", the angular distance between this construct pole and the self element increasing (c.); vii) he would see himself as less "unsettled", the angular distance between this construct pole and the self element increasing (c.); viii) he would see being "serious-minded". as less highly associated with "suffering from feelings of inferiority", the angular distance between these construct poles increasing (c.); ix) he would see being "serious-minded" as less highly associated with "feeling that things are ganging up on him", the angular distance between these construct poles increasing (n.); x) he would see being "serious-minded" as less highly associated with "feeling unsettled", the angular distance between these construct poles increasing (c.); xi) he would see "feeling unsettled" as less highly associated with being "ill", the angular distance between these construct poles increasing (c.).

Client 15: It was predicted that: i) as her level of self-esteem was initially low, the distance between the self and ideal self elements would decrease (n.); ii) in view of her cross-sex identification, her sexual identification score would increase (n.); iii) as she exhibited isolation of the self element, the sum of squares accounted for by this element would decrease (c.); iv) as she saw herself as dissimilar to her parents, the distance between the self and mother elements would decrease (c.); v) as would the distance between the self and father elements (c.); vi) her splitting of her parents would lessen, the distance between the mother and father elements decreasing (c.); vii) she would come to see her father as closer to her ideal self, the distance between these elements decreasing (n.); viii) she would see herself less as "having an inferiority complex", the angular distance between this construct pole and the self element increasing (c.); ix) she would see herself as less "lacking in confidence", the angular distance between this construct pole and the self element increasing (c.); x) she would see herself as less prone to "panic easily", the angular distance between this construct pole and the self element increasing (c.); xi) she would come to see herself as more "self-confident", the angular distance between this construct pole and the self element decreasing (n.); xii) and its angular distance from the construct pole "like me in character" also decreasing (c.).

Client 16: It was predicted that: i) in view of his low level of self-esteem, the distance between the self and ideal self elements would decrease (c.); ii) he would see his father as closer to his ideal self, the distance between these elements decreasing (c.); iii) he would come to see himself as having less "difficulty in relating to the opposite sex", the angular distance between this construct pole and the self element increasing (c.); iv) and its angular distance from the construct pole "like me in character" also increasing (c.); v) he would see himself as less "depressed", the angular distance between this construct pole and the self element increasing (c.); vi) he would see himself less as "lacking direction in life", the angular distance between this construct pole and the self element increasing (c.); vii) and its angular distance from the construct pole "like me in character" also increasing (c.); viii) he would see himself as less "ill", the angular distance between this construct pole and the self element increasing (c.); ix) he would see himself as less "like a psychiatric patient", the angular distance between this construct pole and the self element increasing (c.); x) he would see himself as less "rigid", the angular distance between this construct pole and the self element increasing (n.);

xi) he would see himself as less "self-centred", the angular distance between this construct pole and the self element increasing (c.); xii) he would see himself as more "mentally quick", the angular distance between this construct pole and the self element decreasing (c.); xiii) he would come to see being "conservative" and "having difficulty in relating to the opposite sex" as being less highly associated, the angular distance between these construct poles increasing (c.); xiv) he would come to see being "conservative" and being "depressed" as less highly associated, the angular distance between these construct poles increasing (c.); xv) in view of the large first component from the INGRID analysis, the average "z" score from converting construct correlations to "z" scores would decrease (n.).

Client 17: It was predicted that: i) in view of her initially low self-esteem, the distance between the self and ideal self elements would decrease (n.c.); ii) her splitting of her parents would lessen, with a decrease in the distance between the mother and father elements (n.); iii) she would come to see herself as feeling less "disturbed", the angular distance between this construct pole and the construct pole "like me in character" increasing (c.); iv) she would come to see herself as less "over-anxious", the angular distance between this construct pole and the construct pole "like me in character" increasing (c.); v) she would come to see herself as less "ill", the angular distance between this construct pole and the self element increasing (c.); vi) she would come to see herself as having less "difficulty to act in harmony in relationships", the angular distance between this construct pole and the self element increasing (c.); vii) as she appeared to dissociate herself from the symptom construct pole "feeling angry", the angular distance between this construct pole and the construct pole "like me in character" would decrease (n.); viii) she would come to see "having a wider, understanding view" and "having difficulty to act in harmony in relationships" as less highly associated, the angular distance between these construct poles increasing (c.); ix) she would come to see "having difficulty to act in harmony in relationships" and "feeling angry" as more highly associated, the angular distance between these construct poles decreasing (c.); x) in view of the small first component from the INGRID analysis, suggesting a rather loose construct system, the average "z" score from conversion of construct correlations to "z" scores would increase (n.c.).

Client 18: It was predicted that: i) as his level of self-esteem was initially low, the distance between the self and ideal self elements would decrease (n.); ii) in view of his lack of identification with either parent, the distance between the self and father elements would decrease (c.); iii) as would the distance between the self and mother elements (n.); iv) as splitting appeared to operate in his construing of his parents, the distance between the mother and father elements would decrease (c.); v) he would come to see himself as less "apprehensive about new situations", the angular distance between this construct pole and the construct pole "like me in character" increasing (c.); vi) he would see himself as less characterised by "opting out of situations which he finds stressful", the angular distance between this construct pole and the construct pole "like me in character" increasing (c.); vii) he would see himself as less characterised by "lack of confidence in group situations", the angular distance between this construct pole and the self element increasing (c.); viii) he would see being "an agnostic" and being "ill" as less highly associated, the angular distance between these construct poles increasing (c.); ix) he would see being "dominant" and being "ill" as less highly associated, the angular distance between these construct poles increasing (c.); x) in view of the very small first component from the INGRID analysis, the average "z" score from converting construct correlations to "z" scores would increase (n.).

Client 19: It was predicted that: i) in view of her low level of self-esteem, there would be a decrease in the distance between the self and ideal self elements (c.); ii) as she saw her parents as dissimilar to her ideal self, there would be a decrease in the distance between the ideal self and mother elements (n.); iii) and a decrease in the distance between the ideal self and father elements (c.); iv) her splitting of her parents would lessen, with a decrease in the distance between the mother and father elements (n.); v) she would come to see herself as less characterised by "brooding over things that people say", the angular distance between this construct pole and the self element increasing (n.); vi) she would come to see herself as feeling less "unwanted and unliked", the angular distance between this construct pole and the self element increasing (n.); vii) she would come to see herself as less characterised by the construct pole "gives me guilt feelings", the angular distance of which from the self element would increase (c.); viii) she would initially see herself as more characterised by the symptom, from which she appeared to dissociate, of being "unable to cope with people who don't conform with her", the angular distance between this construct pole and the construct pole "like me in character" decreasing (c.); ix) she would come to see her mother as less likely to "give her guilt feelings", the angular distance between this construct pole and the mother element increasing (c.); x) she would see her mother as less characterised by the construct pole "doesn't help me", the angular distance of which from the mother element would increase (n.); xi) she would see her mother as less "wicked and extremely hurtful", the angular distance of this construct pole from the mother element increasing (n.); xii) she would see her mother as more characterised by the construct pole "brought out the best in me", the angular distance of which from the mother element would decrease (n.); xiii) as she saw her therapist as likely to be dissimilar to her ideal self, the distance between these elements would decrease (c.); xiv) as she did not see her therapist as being likely to be characterised by the construct pole "brought out the best in me", the angular distance of this construct pole from the therapist element would decrease (c.); xv) she would come to see being "aggressive" as less highly associated with being "like a psychiatric patient", the angular distance between these construct poles increasing (n.); xvi) she would see being "intolerant" as less highly associated with "feeling unwanted and unliked", the angular distance between these construct poles increasing (n.); xvii) in view of the large first component from the INGRID analysis, the average "z" score from the conversion of construct correlations to "z" scores would decrease (n.).

Client 20: It was predicted that: i) in view of her initially low self-esteem, the distance between the self and ideal self elements would decrease; ii) as she exhibited isolation of the self element, the sum of squares accounted for by this element would decrease; iii) as she showed little identification with either parent, the distance between the self and mother elements would decrease; iv) as would the distance between the self and father elements; v) in view of her cross-sex identification, there would be an increase in her sexual identification score; vi) her splitting of her parents would lessen, with a decrease in the distance between the mother and father elements; vii) she would come to see herself as more "sophisticated", the angular distance between this construct pole and the self element decreasing; viii) she would come to see herself as less "ill", the angular distance between this construct pole and the self element increasing; ix) she would see herself as less "unstable", the angular distance between this construct pole and the self element increasing; x) she would see herself as less "unable to fit in with other people", the angular distance between this construct pole and the self element increasing; xi) she would see herself as less characterised by "having a broken marriage", the angular distance between this construct pole and the self element increasing;

xii) she would see herself as more "superior", the angular distance between this construct pole and the self element decreasing; xiii) she would see "having a broken marriage" as less highly associated with being "ill", the angular distance between these construct poles increasing; xiv) she would see "having a broken marriage" as less highly associated with being "like a psychiatrist patient", the angular distance between these construct poles increasing; xv) she would see being "unstable" as less highly associated with being "ill", the angular distance between these construct poles increasing; xvi) she would see being "daft" and being "casual" as less highly associated, the angular distance between these construct poles increasing; xvii) in view of the large first component from the INGRID analysis, the average "z" score from the conversion of construct correlations to "z" scores would decrease.

Client 33: It was predicted that: i) in view of her low level of self-esteem, the distance between the self and ideal self elements would decrease; ii) as she exhibited isolation of the self element, the sum of squares accounted for by this element would decrease; iii) she would come to see her mother as closer to her ideal self, the distance between these elements decreasing; iv) and she would also see her father as closer to her ideal self, with a decrease in the distance between these elements; v) she would show less splitting of her parents, the distance between the mother and father elements decreasing; vi) in view of her cross-sex identification, her sexual identification score would increase; vii) she would come to see herself as more "self-assured", the angular distance between this construct pole and the self element decreasing; viii) and its angular distance from the construct pole "like me in character" also decreasing; ix) she would come to see herself as "hating crowds" less, the angular distance of this construct pole from the self element increasing; x) and its angular distance from the construct pole "like me in character" also increasing; xi) she would come to see herself less as "getting tired easily", the angular distance of this construct pole from the self element increasing; xii) she would come to see herself as "detesting travelling" less, the angular distance of this construct pole from the self element increasing; xiii) she would come to see herself as less "like a psychiatric patient", the angular distance of this construct pole from the construct pole "like me in character" increasing; xiv) she would see being "careful about money" as less highly associated with "getting tired easily", the angular distance between these construct poles increasing; xv) she would see being "careful about money" as less highly associated with "hating crowds", the angular distance between these construct poles increasing.

Client 34: It was predicted that: i) as her level of self-esteem was low, the distance between the self and ideal self elements would decrease (n.); ii) as she exhibited isolation of the self element, the sum of squares accounted for by this element would decrease (c.); iii) as she identified with neither parent, the distance of the self element from the mother element would decrease (c.); iv) as would the distance of the self element from the father element (n.); v) as she saw her parents as dissimilar to her ideal self, the distance of the latter element from the mother element would decrease (n.); vi) as would its distance from the father element (n.); vii) her splitting of her parents would lessen, the distance between the mother and father elements decreasing (n.); viii) she would come to see herself as less "like a psychiatric patient", the angular distance of this construct pole from the self element increasing (c.); ix) she would see herself as less "ill", the angular distance of this construct pole from the self element increasing (c.); x) and its angular distance from the construct pole "like me in character" also increasing (c.); xi) she would see herself as less "afraid of people vomiting", the angular distance of this construct

pole from the self element increasing (n.); xii) and its angular distance from the construct pole "like me in character" also increasing (n.); xiii) she would see herself as less characterised by "having a phobia", the angular distance between this construct pole and the self element increasing (n.); xiv) and its angular distance from the construct pole "like me in character" also increasing (n.); xv) she would see herself as more "calm", the angular distance of this construct pole from the self element decreasing (n.); xvi) and its angular distance from the construct pole "like me in character" also decreasing (c.); xvii) she would see being "energetic" and being "like a psychiatric patient" as less highly associated, the angular distance between these construct poles increasing (n.); xviii) she would see "living a full life" and being "like a psychiatric patient" as less highly associated, the angular distance between these construct poles increasing (n.); xix) she would see "having initiative" and being "like a psychiatric patient" as less highly associated, the angular distance between these construct poles increasing (c.).

Client 35: It was predicted that: i) in view of her low level of self-esteem, there would be a decrease in the distance between the self and ideal self elements (c.); ii) as she showed little identification with either parent, the distance between the self and mother elements would decrease (c.); iii) as would the distance between the self and father elements (c.); iv) she would come to see herself as less "unable to stand being dirty", the angular distance between this construct pole and the self element increasing (c.); v) she would see herself as less "depressed", the angular distance between this construct pole and the self element increasing (c.); vi) she would see herself as having less of a "mania for washing", the angular distance between this construct pole and the construct pole "like me in character" decreasing (c.); vii) she would see people who are "not the complaining type" as less likely to have a "mania for washing", the angular distance between these construct poles increasing (c.); viii) she would see people who are "not the complaining type" as less likely to be "depressed", the angular distance between these construct poles increasing (n.).

Client 36: It was predicted that; i) as his level of self-esteem was initially low, the distance between the self and ideal self elements would decrease (c.); ii) as he saw himself as very dissimilar to his mother, the distance between these elements would decrease (c.); iii) as he saw his parents as dissimilar to his ideal self, the distance between the latter element and the father element would decrease (n.); iv) as would its distance from the mother element (c.); v) his splitting of his parents would lessen, the distance between the mother and father elements decreasing (n.); vi) he would come to see himself as less likely to "worry", the angular distance between this construct pole and the self element increasing (c.); vii) and its angular distance from the construct pole "like me in character" also increasing (c.); viii) he would see himself as less characterised by "having obsessions", the angular distance between this construct pole and the self element increasing (c.); ix) and its angular distance from the construct pole "like me in character" also increasing (c.); x) he would see himself as less "uncomfortable in different positions", the angular distance between this construct pole and the self element increasing (c.); xi) and its angular distance from the construct pole "like me in character" also increasing (c.); xii) he would see himself as less "ill", the angular distance between this construct pole and the self element increasing (c.); xiii) he would see himself as less "hypersensitive to clothes", the angular distance of this construct pole from the self element increasing (c.); xiv) and its angular distance from the construct pole "like me in character" also increasing (c.); xv) he would see himself as

more "extraverted", the angular distance of this construct pole from the self element decreasing (c.); xvi) and its angular distance from the construct pole "like me in character" also decreasing (c.); xvii) he would see himself as more "happy", the angular distance of this construct pole from the self element decreasing (c.); xviii) and its angular distance from the construct pole "like me in character" also decreasing (c.); xix) he would see himself as more "stable", the angular distance of this construct pole from the self element decreasing (c.); xx) and its angular distance from the construct pole "like me in character" also decreasing (c.); xxi) he would come to see being "extraverted" and being "unfeeling" as less highly associated, the angular distance between these construct poles increasing (c.); xxii) he would come to see being "stable" as less highly associated with being "unfeeling", the angular distance between these construct poles increasing (c.); xxiii) he would come to see being "feeling" as less highly associated with "worrying", the angular distance between these construct poles increasing (c.); xxiv) he would come to see "having obsessions" as less highly associated with being "feeling", the angular distance between these construct poles increasing (c.); xxv) he would come to see "feeling uncomfortable in different positions" as less highly associated with being "feeling", the angular distance between these construct poles increasing (c.); xxvi) he would come to see being "hypersensitive to clothes" as less highly associated with being "feeling", the angular distance between these construct poles increasing (c.); xxvii) in view of the large first component from the INGRID analysis, the average "z" score from conversion of construct correlations to "z" scores would decrease (c.).

Client 37: It was predicted that: i) in view of her low level of self-esteem, the distance between the self and ideal self elements would decrease (c.); ii) as she saw her parents as dissimilar to her ideal self, the distance between the mother and ideal self elements would decrease (c.); iii) as would the distance between the father and ideal self elements (c.); iv) she would come to see herself as less "selfish", the angular distance between this construct pole and the self element increasing (c.); v) she would see herself as more "sure of herself", the angular distance between this construct pole and the self element decreasing (c.); vi) and its distance from the construct pole "like me in character" also decreasing (c.); vii) she would see herself as less "ill", the angular distance between this construct pole and the self element increasing (c.); viii) she would see herself as having less "feelings of guilt", the angular distance between this construct pole and the self element increasing (c.); ix) and its angular distance from the construct pole "like me in character" also increasing (c.); x) she would see herself as less characterised by "not making the best of life", the angular distance between this construct pole and the self element increasing (c.); xi) she would see herself as less characterised by "worrying about how she has treated the family", the angular distance between this construct pole and the self element increasing (n.); xii) she would see herself as less "like a psychiatric patient", the angular distance between this construct pole and the self element increasing (c.); xiii) she would see "having feelings of guilt" and being "ill" as less highly associated, the angular distance between these construct poles increasing (c.).

Client 38: It was predicted that: i) in view of her initially low self-esteem, the distance between the self and ideal self elements would decrease (c.); ii) she would come to see herself as less "anxious about the family", the angular distance between this construct pole and the self element increasing (c.); iii) and its angular distance from the construct pole "like me in character" also increasing (c.); iv) she would see herself as suffering less from "nerves, panics, and headaches", the angular distance

between this construct pole and the self element increasing (c.); v) she would see herself as less "unable to go out by herself", the angular distance between this construct pole and the self element increasing (c.); vi) she would see herself as more "detached and optimistic", the angular distance between this construct pole and the self element decreasing (c.); vii) and its angular distance from the construct pole "like me in character" also decreasing (c.); viii) she would see herself as less "like a psychiatric patient", the angular distance between this construct pole and the self element increasing (c.); ix) she would see suffering from "nerves, panics, and headaches" as less highly associated with being "ill", the angular distance between these construct poles increasing (c.).

Client 39: It was predicted that: i) as her level of self-esteem was initially low, there would be a decrease in the distance between the self and ideal self elements (c.); ii) her splitting of her parents would decrease, the distance between the mother and father elements decreasing (c.); iii) she would see herself as less "terrified of storms", the angular distance between this construct pole and the self element increasing (n.); iv) she would see herself less as "suffering from nerves", the angular distance between this construct pole and the construct pole "like me in character" increasing (c.); v) she would see herself as less "erratic and a terrible liar", the angular distance between this construct pole and the construct pole "like me in character" increasing (c.); vi) she would see being "unhelpful" as less highly associated with "not liking mice", the angular distance between these construct poles increasing (c.); vii) she would see "saying one thing and meaning another" as less highly associated with "not liking mice", the angular distance between these construct poles increasing.

Client 40: It was predicted that: i) in view of her low self-esteem, the distance between the self and ideal self elements would decrease (c.); ii) as she exhibited isolation of the self element, the sum of squares accounted for by this element would decrease (c.); iii) as she saw herself as dissimilar to both parents, the distance between the self and mother elements would decrease (c.); iv) as would the distance between the self and father elements (c.); v) as she exhibited cross-sex identification, her sexual identification score would increase (c.); vi) she would come to see herself as less "afraid of touching things", the angular distance between this construct pole and the self element increasing (c.); vii) she would see herself as less characterised by "being unable to get it out if something gets stuck in her mind", the angular distance between this construct pole and the self element increasing (c.); viii) and its angular distance from the construct pole "like me in character" also increasing (c.); ix) she would see herself as less "afraid of walking past children", the angular distance between this construct pole and the self element increasing (c.); x) she would see herself as less "like a psychiatric patient", the angular distance between this construct pole and the self element increasing (c.); xi) and its angular distance from the construct pole "like me in character" also increasing (c.); xii) "a person I depend upon" will become a less important construct for her, the variation about its mean decreasing (c.).

Client 41: It was predicted that: i) in view of her initially low self-esteem, the distance between the self and ideal self elements would decrease (c.); ii) as she exhibited isolation of the self element, the sum of squares accounted for by this element would decrease (c.); iii) as she saw herself as dissimilar to both parents, the distance between the self and mother elements would decrease (n.); iv) as would the distance between the self and father elements (c.); v) there would be an increase in her initially low sexual identification score (n.); vi) she would come to see herself as more "independent", the angular distance between this construct pole and the self element decreasing (c.); vii) and its angular distance from the construct pole "like me in character" also decreasing (n.);

viii) she would see herself as more "business-like and secure", the angular distance of this construct pole from the self element decreasing (c.); ix) and its angular distance from the construct pole "like me in character" also decreasing (c.); x) she would see herself as less "like a psychiatric patient", the angular distance between this construct pole and the self element increasing (c.); xi) she would see herself as less characterised by "not liking making decisions", the angular distance between this construct pole and the self element increasing (c.); xii) and its angular distance from the construct pole "like me in character" also increasing (n.); xiii) she would see herself as less "nervous about things that are different", the angular distance between this construct pole and the self element increasing (n.c.); xiv) and its angular distance from the construct pole "like me in character" also increasing (n.); xv) she would see herself as less "ill", the angular distance between this construct pole and the construct pole "like me in character" increasing (n.); xvi) she would see herself as less characterised by "not liking doing things on her own", the angular distance between this construct pole and the self element increasing (n.); xvii) and its angular distance from the construct pole "like me in character" also increasing (c.); xviii) she would see "not liking making decisions" and being "ill" as less highly associated, the angular distance between these construct poles increasing (n.); xix) she would see being "nervous about things that are different" and being "ill" as less highly associated, the angular distance between these construct poles increasing (n.).

Client 42: It was predicted that: i) as his level of self-esteem was low, there would be a decrease in the distance between the self and ideal self elements; ii) as he showed isolation of the self element, the sum of squares accounted for by this element would decrease; iii) as he saw himself as dissimilar to both his parents, the distance between the self and father elements would decrease; iv) as would the distance between the self and mother elements; v) in view of his cross-sex identification, his sexual identification score would increase; vi) his splitting of his parents would lessen, with a decrease in the distance between the mother and father elements; vii) there would be a decrease in the initially very high distance between the father and ideal self elements; viii) he would come to see himself as having fewer "nervous habits", the distance between this construct pole and the self element increasing; ix) he would see himself less as "being on guard all the time and embarrassed in company", the angular distance between this construct pole and the self element increasing; x) he would see himself as less "claustrophobic", with an increase in the angular distance between this construct pole and the self element; xi) he would initially come to see himself as less likely to "never complain", the angular distance between this construct pole and the construct pole "like me in character" increasing; xii) as he appeared to see the symptom constructs as having little applicability to the elements, there would be an increase in the construct mean of the construct "has nervous habits"; xiii) an increase in the construct mean of the construct "on their guard all the time and embarrassed in company"; xiv) and an increase in the construct mean of the construct "claustrophobic".

Client 43: It was predicted that: i) in view of his low level of self-esteem, there would be a decrease in the distance between the self and ideal self elements (n.); ii) as he showed little identification with either parent, there would be a decrease in the distance between the self and father elements (c.); iii) and a decrease in the distance between the self and mother elements (n.); iv) his splitting of his parents would lessen, with a decrease in the distance between the mother and father elements (c.); v) as he saw both parents as dissimilar to his ideal self, the distance

between the father and ideal self elements would decrease (c.); vi) as would the distance between the mother and ideal self elements (c.); vii) he would come to see himself as less likely to "get hyperanxious and panic", the angular distance between this construct pole and the construct pole "like me in character" increasing (n.); viii) and its angular distance from the self element also increasing (c.); ix) she would see himself as less "afraid of death", the angular distance between this construct pole and the construct pole "like me in character" increasing (n.); x) and its angular distance from the self element also increasing (c.); xi) he would come to see being "not very intelligent" and "getting depressed" as less highly associated, the angular distance between these construct poles increasing (c.); xii) he would see being "not very intelligent" and being "afraid of death" as less highly associated, the angular distance between these construct poles increasing (n.); xiii) he would come to see being "less self-sacrificing" and being "depressed" as less highly associated, the angular distance between these construct poles increasing (c.).

Client 44: It was predicted that: i) in view of his low level of self-esteem, the distance between the self and ideal self elements would decrease; ii) as he exhibited isolation of the self element, the sum of squares accounted for by this element would decrease; iii) as he saw himself as dissimilar to both parents, the distance between the self and father elements would decrease; iv) as would the distance between the self and mother elements; v) as he exhibited cross-sex identification, his sexual identification score would increase; vi) as he saw both parents as dissimilar to the ideal self, the distance between the latter element and the father element would decrease; vii) as would its distance from the mother element; viii) he would see himself as less "ill", the distance between this construct pole and the self element increasing; ix) he would see himself as less "unreliable to himself", the distance between this construct pole and the self element increasing; x) he would see himself as less "free and easy", the distance between this construct pole and the self element increasing.

Client 45: It was predicted that: i) as her self-esteem was low, the distance between the self and ideal self elements would decrease (c.); ii) as she showed isolation of the self element, the sum of squares accounted for by this element would decrease (c.); iii) as she saw herself as dissimilar to both parents, the distance between the self and mother elements would decrease (c.); iv) as would the distance between the self and father elements (c.); v) she would come to see herself less as "lacking confidence", the angular distance between this construct pole and the self element increasing (c.); vi) she would see herself as less "like a psychiatric patient", the angular distance between this construct pole and the self element increasing (c.); vii) she would see herself as less "ill", the angular distance between this construct pole and the self element increasing (c.); viii) she would see herself as having less "difficulty mixing socially", the angular distance between this construct pole and the self element increasing (c.); ix) she would see herself as having less "difficulty in doing certain things on my own", the angular distance between this construct pole and the self element increasing (c.); x) she would see herself as less likely to "get panic-stricken", the angular distance between this construct pole and the self element increasing (c.); xi) she would see herself as more "happy-go-lucky", the angular distance between this construct pole and the self element decreasing (c.).

Client 46: It was predicted that: i) in view of her low self-esteem, the distance between the self and ideal self elements would decrease (c.); ii) as she exhibited isolation of the self element, the sum of squares

accounted for by this element would decrease (c.); iii) as she identified with neither parent, the distance between the self and mother elements would decrease (n.); iv) as would the distance between the self and father elements (n.); v) there would be an increase in her initially low sexual identification score (n.); vi) she would see her father as closerto her ideal self, the distance between these elements decreasing (c.); vii) she would see herself as less likely to "worry about things", the angular distance between this construct pole and the self element increasing (c.); viii) and its angular distance from the construct pole "like me in character" also increasing (c.); ix) she would see herself less as "having thoughts about hurting her husband and baby", the angular distance between this construct pole and the self element increasing (n.); x) she would see herself less as "thinking all the time", the angular distance of this construct pole from the self element increasing (n.); xi) and its angular distance from the construct pole "like me in character" also increasing (c.); xii) she would see herself as less "obsessional", the angular distance of this construct pole from the self element increasing (c.); xiii) she would see herself as less "ill", the angular distance of this construct pole from the self element increasing (n.); xiv) and its angular distance from the construct pole "like me in character" also increasing (c.); xv) she would see herself as less "like a psychiatric patient", the angular distance of this construct pole from the self element increasing (c.); xvi) she would see herself as more "intelligent", the angular distance of this construct pole from the self element decreasing (c.); xvii) and its angular distance from the construct pole "like me in character" also decreasing (c.); xviii) she would no longer see "thinking all the time" as implying not being "intelligent", the angular distance between these construct poles decreasing (c.); xix) she would no longer see being "obsessional" as implying not being "intelligent", the angular distance between these construct poles decreasing (c.); xx) she would see her father as more "intelligent", the angular distance between this construct pole and the father element decreasing (c.).

Client 47: It was predicted that: i) as his level of self-esteem was initially low, there would be a decrease in the distance between the self and ideal self elements (n.); ii) as he exhibited isolation of the self element, there would be adecrease in the sum of squares accountedfor by this element (n.); iii) he would come to see his father as closer to his ideal self, the distance between these elements decreasing (c.); iv) he would see himself as more likely to be "always happy", the angular distance between this construct pole and the self element decreasing (c.); v) he would see himself as less "like a psychiatric patient", the angular distance between this construct pole and the self element increasing (n.); vi) and its angular distance from the construct pole "like me in character" also increasing (n.); vii) he would see himself as less "ill", the angular distance between this construct pole and the self element increasing (n.); viii) he would see himself less as "his own worst enemy", the angular distance between this construct pole and the self element increasing (n.); ix) he would see himself less as "having no confidence in anything he does", the angular distance between this construct pole and the self element increasing (n.); x) and its angular distance from the construct pole "like me in character" also increasing (n.); xi) he would see himself less as "wishing he could alter things that happened in the past", the angular distance between this construct pole and the self element increasing (n.); xii) and its angular distance from the construct pole "like me in character" also increasing (c.); xiii) he would see himself as more "happy-go-lucky", the angular distance of this construct pole from the self elements decreasing (n.).

Client 48: It was predicted that: i) as his level of self-esteem was low, there would be a decrease in the distance between the self and ideal self elements (c.); ii) he would come to see his parents as closer to his ideal self, the distance between the ideal self and father elements decreasing (n.); iii) and the distance between the ideal self and mother elements decreasing (n.); iv) in view of his cross-sex identification, his sexual identification score would increase (c.); v) he would come to see himself as less "frustrated", the angular distance between this construct pole and the self element increasing (c.); vi) and its angular distance from the construct pole "like me in character" also increasing (c.); vii) he would see himself as less of a "bitch", the angular distance between this construct pole and the self element increasing (c.); viii) and its angular distance from the construct pole "like me in character" also increasing (c.); ix) he would see himself as less "ill", the angular distance between this construct pole and the self element increasing (c.); x) and its angular distance from the construct pole "like me in character" also increasing (c.); xi) he would see himself as less characterised by "not knowing who or what he is", the angular distance between this construct pole and the self element increasing (c.); xii) and its angular distance from the construct pole "like me in character" also increasing (c.); xiii) he would see himself less as "feeling trapped", the angular distance of this construct pole from the self element increasing (c.); xiv) and its angular distance from the construct pole "like me in character" also increasing (c.); xv) he would see himself as less "obsessional", the angular distance between this construct pole and the self element increasing (c.); xvi) and its angular distance from the construct pole "like me in character" also increasing (c.); xvii) he would see himself as more "emotionally stable", the angular distance between this construct pole and the self element decreasing (c.); xviii) he would see himself as less "inconsiderate", the angular distance between this construct pole and the self element increasing (c.); xix) he would see himself as less "like a psychiatric patient", the angular distance between this construct pole and the self element increasing (c.).

Client 49: It was predicted that: i) in view of his low level of self-esteem, the distance between the self and ideal self elements would decrease (c.); ii) as he saw himself as dissimilar to both parents, the distance between the self and father elements would decrease (n.); iii) as would the distance between the self and mother elements (c.); iv) he would come to see his father as closer to his ideal self, the distance between these elements decreasing (n.); v) he would come to see himself as less "ill", the angular distance between this construct pole and the self element increasing (c.); vi) he would see himself less as "having lost his nerve on the road", the angular distance between this construct pole and the self element increasing (n.); vii) he would see himself less as "having lost his level of judgement", the angular distance between this construct pole and the self element increasing (n.); viii) he would see himself less as "having lost his confidence to undertake things", the angular distance between this construct pole and the self element increasing (n.); ix) he would see being "a person who comes down to somebody's level" and "having lost his nerve on the road" as less highly associated, the angular distance between these construct poles increasing (c.); x) he would see being "a person who comes down to somebody's level" and "having lost his level of judgement" as less highly associated, the distance between these construct poles increasing (c.); xi) he would see being "a person who comes down to somebody's level" and "having lost his confidence to undertake things" as less highly associated, the distance between these construct poles increasing (n.); xii) he would see being "a person who comes down to somebody's level" and being "ill" as less highly associated, the distance between these

construct poles increasing (c.);

Client 50: It was predicted that: i) as his level of self-esteem was low, the distance between the self and ideal self elements would decrease (c.); ii) as he saw his parents as dissimilar to his ideal self, the distance between the latter element and the father element would decrease (c.); iii) as would its distance from the mother element (n.); iv) his splitting of his parents would lessen, with a decrease in the distance between the mother and father elements (c.); v) he would see himself as less "ill", the angular distance between this construct pole and the self element increasing (c.); vi) he would see himself as less "anxious", the angular distance between this construct pole and the self element increasing (n.); vii) he would see himself as feeling less "insecure", the angular distance between this construct pole and the self element increasing (c.); viii) he would see himself as suffering less from "inferiority feelings", the angular distance between this construct pole and the self element increasing (c.); ix) he would see himself as less "puritanical", the angular distance between this construct pole and the self element increasing (c.); x) he would see himself as less of a "womaniser", the angular distance between this construct pole and the self element increasing (c.); xi) he would see himself as less characterised by being "not very strong", the angular distance between this construct pole and the self element increasing (c.); xii) he would see being "a womaniser" as less associated with being "ill", the angular distance between these construct poles increasing (c.).

Client 51: It was predicted that: i) as he saw his parents as dissimilar to his ideal self, the distance between the latter element and the father element would decrease; ii) as would its distance from the mother element; iii) his splitting of his parents would lessen, with a decrease in the distance between the mother and father elements; iv) he would see himself as less "likely to commit an indecent assault", the angular distance between this construct pole and the self element increasing; v) he would initially see himself as less of "a person I'm proud of", the angular distance between this construct pole and the self element increasing; vi) and its angular distance from the construct pole "like me in character" also increasing; vii) he would initially see himself as less of "a person I think a lot of", the angular distance between this construct pole and the self element increasing; viii) and its angular distance from the construct pole "like me in character" also increasing; ix) he would initially see himself as less "well-adjusted", the angular distance between this construct pole and the construct pole "like me in character" increasing; x) he would see being "likely to commit an indecent assault" as less highly associated with being "a person I'm proud of", the angular distance between these construct poles increasing; xi) he would see being "likely to commit an indecent assault" as less highly associated with being "confident in oneself", the angular distance between these construct poles increasing.

Client 52: It was predicted that: i) in view of her low self-esteem, the distance between the self and ideal self elements would decrease (c.); ii) as she exhibited isolation of the self element, the sum of squares accounted for by this element would lessen (c.); iii) as she showed cross-sex identification, her sexual identification score would increase (c.); iv) she would see herself as closer to her mother, the distance between the self and mother elements decreasing (c.); v) she would see her father as closer to her ideal self, the distance between these elements decreasing (n.); vi) her splitting of her parents would lessen, with a decrease in the distance between the mother and father elements (n.); vii) she would see herself as more "self-assured", the angular distance between this construct

pole and the self element decreasing (c.); viii) and its distance from the construct pole "like me in character" also decreasing (c.); ix) she would see herself as less "unable to go out by herself", the angular distance between this construct pole and the self element increasing (c.); x) and its angular distance from the construct pole "like me in character" also increasing (c.); xi) she would see herself as less "inactive", the angular distance between this construct pole and the self element increasing (c.); xii) and its angular distance from the construct pole "like me in character" also increasing (c.); xiii) she would see herself as less characterised by "not thinking that she is any good at anything", the angular distance between this construct pole and the self element increasing (n.); xiv) and its angular distance from the construct pole "like me in character" also increasing (c.); xv) she would see herself as less "unable to get down and tackle a job", the angular distance between this construct pole and the self element increasing (c.); xvi) and its angular distance from the construct pole "like me in character" also increasing (c.); xvii) she would see herself as less "lacking in self-confidence", the angular distance between this construct pole and the self element increasing (c.); xviii) and its angular distance from the construct pole "like me in character" also increasing (c.); xix) she would see herself as more characterised by "not being afraid of tackling anything", the angular distance between this construct pole and the self element decreasing (c.); xx) and its angular distance from the construct pole "like me in character" also decreasing (c.); xxi) she would see it as more likely that "nothing would worry her", the angular distance between this construct pole and the self element decreasing (c.); xxii) and its angular distance from the construct pole "like me in character" also decreasing (c.); xxiii) she would see herself as having more "responsibilities regarding work", the angular distance between this construct pole and the self element decreasing (c.); xxiv) and its angular distance from the construct pole "like me in character" also decreasing (c.); xxv) she would see herself as less "ill", the angular distance between this construct pole and the construct pole "like me in character" increasing (c.); xxvi) in view of the large first component from the INGRID analysis, the average "z" score from conversion of construct correlations to "z" scores would decrease (c.).

APPENDIX TWO

Case Studies

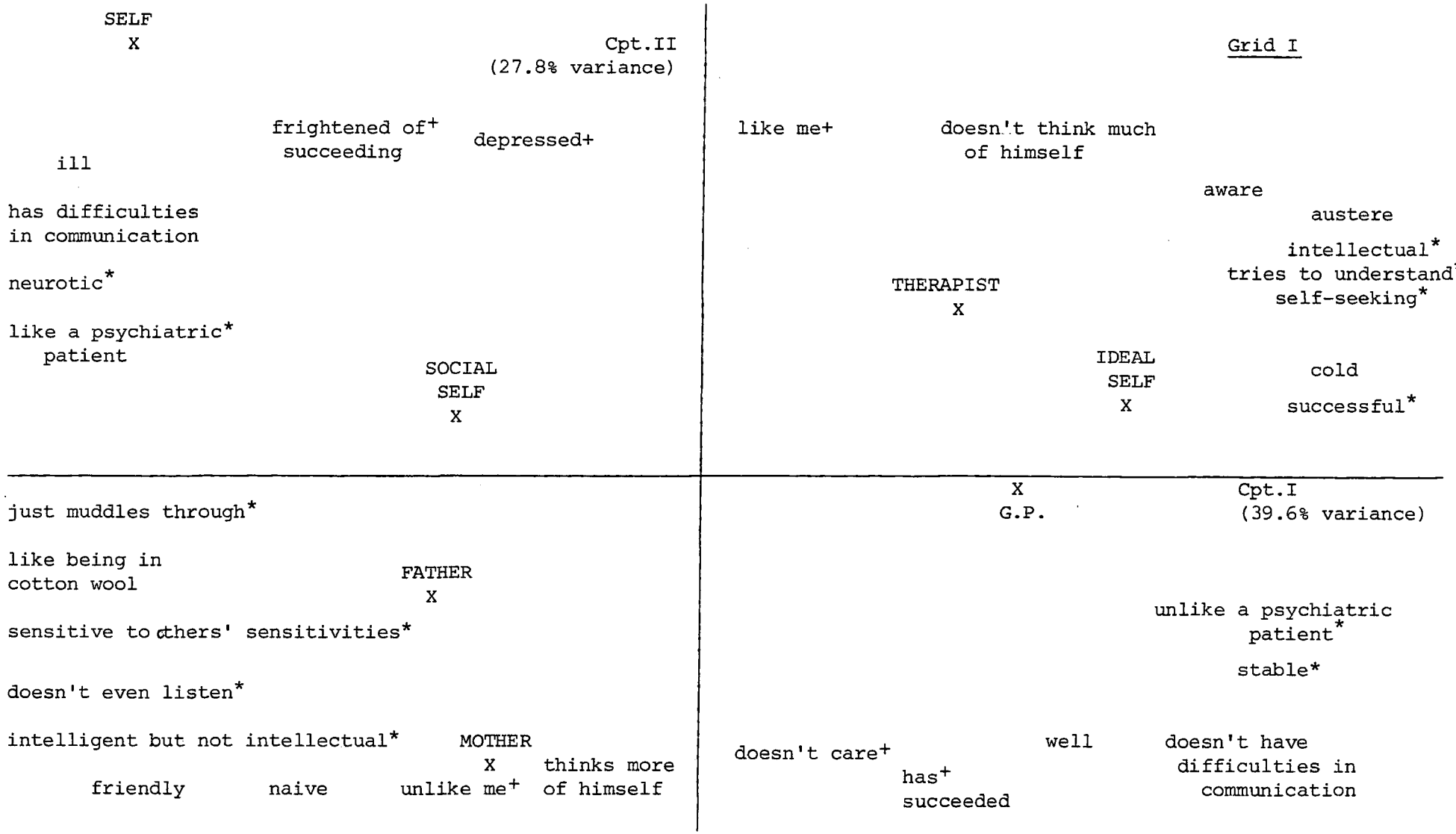
Client 6 was a 27-year old homosexual man, who worked as a clerk and lived with a man friend. His presenting complaints were depression, inferiority feelings, and "fear of succeeding in case I fail." The referring psychiatrist related the client's depression to his mother's death when he was aged 9 years, and also remarked that: "He is more intelligent than his Secondary Modern record would suggest, but he has been too timid to allow himself to make full use of his abilities. He feels that he did not want to grow up." His self-destructiveness was occasionally expressed directly in such actions as punching himself in the eye, or less extremely be staying away from work to such an extent that his job was in jeopardy.

It was not unexpected, therefore, that his responses to the H.D.H.Q. at the initial assessment revealed a high level of intropunitive hostility. On the repertory grid, one of the major features was the isolation of the self element from all other elements, including the ideal self, as is immediately apparent from its extreme position in the top left-hand quadrant of the plot of elements in construct space (see Figure 6.) It was considered that another aspect of his construing which was central to his problems was the implicative dilemma revealed in the high relationships between being "sensitive to others' sensitivities" and a cluster of negatively evaluated construct poles including "just muddling through" (his contrast pole to "successful"), not being "intellectual" or "trying to understand", and being "neurotic" and "like a psychiatric patient." If he were to allow himself to be "successful", he would also run the risk of becoming "self-seeking" (as opposed to being "sensitive to others' sensitivities"), "cold", and "austere"*; but denying himself success also caused him to be "neurotic" and "like a psychiatric patient." His fear of succeeding therefore took on a rather different light from that in which he presented it.

He remained in a psychotherapy group for about 18 months, and was the only client amongst those studied who was considered by the therapist to have become "much better" in presenting symptoms, intrapersonal functioning, and general social functioning. On examination of data from the serial assessments, however, it is apparent that therapeutic change did not follow a direct progression for him, but rather that there were considerable fluctuations in his condition during therapy, perhaps reflecting the cycles of reconstruction which Kelly suggests are part of the therapeutic process. Thus, the questionnaire results suggested that deterioration occurred at the symptom level, with an increase in intropunitive hostility, in the first three months of therapy, and that recovery from this position was followed by further deterioration evident at Assessment IV, that prior to termination of treatment. Considerable change occurred between this assessment and the next, which took place after he had discontinued therapy, so that by the fifth assessment he was very much improved at the symptom level in relation to his pre-treatment state. While changes in such grid measures as the distance between self and ideal self elements appeared to parallel those in the questionnaire measures, changes in construct relationships, perhaps reflecting aspects of construing more at the level of unconscious processes, were observed to precede those in the other measures, showing a "trough" at Assessment III, with recovery by Assessment IV. The main changes which were contrary to predictions were those in construing of the parents in relation

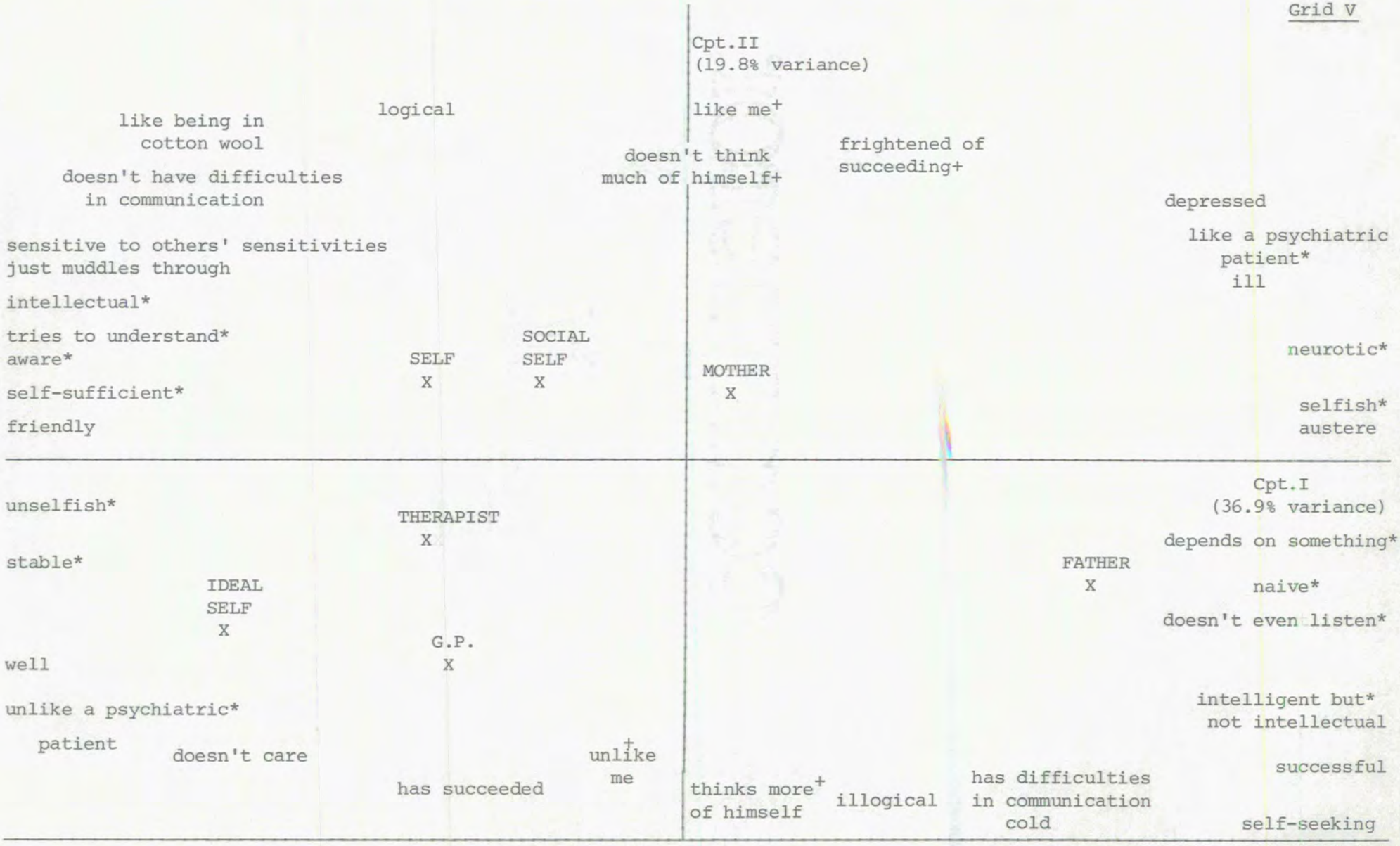
* These latter two implications of success were overlooked when the individualised predictions were made.

Figure 6. Client 6 : Plots of Selected Elements in Construct Space.



* = high loading of construct on Cpt. I
+ = high loading of construct on Cpt. II

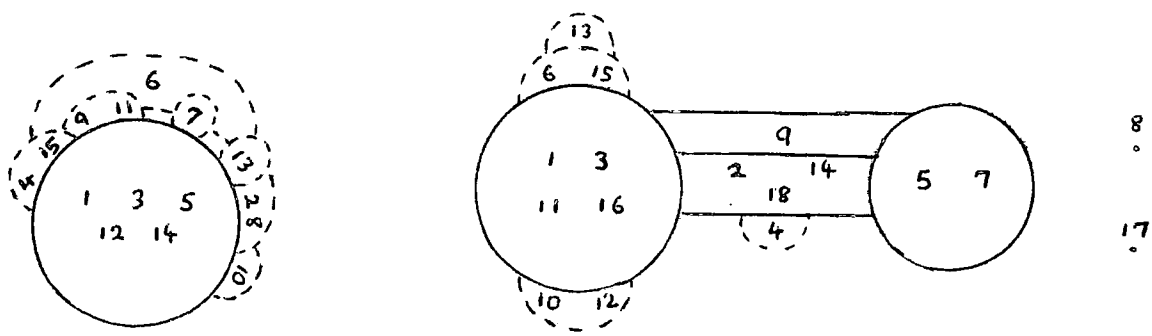
Figure 6. (Cont.) Client 6 : Plots of Selected Elements in Construct Space



* = high loading of construct on Cpt.I; + = high loading of construct on Cpt.II

to the ideal self: at termination of therapy, he saw his parents as somewhat more dissimilar to his ideal self than he did at its commencement, and the increase in similarity of these elements which was apparent at Assessment III coincided with more "pathological" construct relationships. Changes on representative grid and questionnaire measures are presented graphically in Figure 7: although, for clarity of presentation, only changes in selected measures are shown, these can be thought to represent various different levels of abstraction (i.e. questionnaire symptom measures; grid measures of the relationship between the self and other elements; grid measures of the relationship between the parents and the ideal self element; grid measures of construct relationships), and changes on other measures from the same level of abstraction as those presented did not differ markedly from the changes in these.

At the post-treatment grid assessment, as well as the marked changes apparent from the plot of elements in construct space, towards more evaluatively positive construing of the self, which was seen as very much more similar to the other elements, there were considerable changes in the implications of being "sensitive to others' sensitivities" (as opposed to being "self-seeking"), with a reversal in the direction of the correlation of this construct with the constructs "neurotic - stable", "like a psychiatric patient - unlike a psychiatric patient", "just muddles through - successful", "doesn't even listen - tries to understand", and "intelligent but not intellectual - intellectual." With the latter two constructs, the changes were such that their correlations with "sensitive to others' sensitivities - self-seeking" became statistically significant in the direction opposite to the correlations at the pre-treatment assessment; and sensitivity to others' sensitivities also came to be significantly related to being "aware" and being "unselfish." These changes may reflect an increased acceptance of his femininity, as is perhaps also revealed in his construing of himself as more similar to his mother, which, in the absence of any change in his construing of himself in relation to his father, caused a movement from same-sex to cross-sex parental identification. They were also accompanied by the construct system becoming articulated (Makhlouf-Norris and Norris, 1973), as opposed to the monolithic system revealed at the pre-treatment assessment (see Figure 8.) Such a system would be thought to be sufficiently flexible to allow any further changes in construing which could be considered desirable, and which are possibly revealed by the fact that at the end of treatment being "successful" was still associated with being "austere", although to a lesser degree than at the initial assessment, as well as with being "selfish."



Assessment I Assessment V

Figure 8. The Conceptual Structure of Client 6 at Pre- and Post-Treatment Assessments. (The numbers represent constructs.)

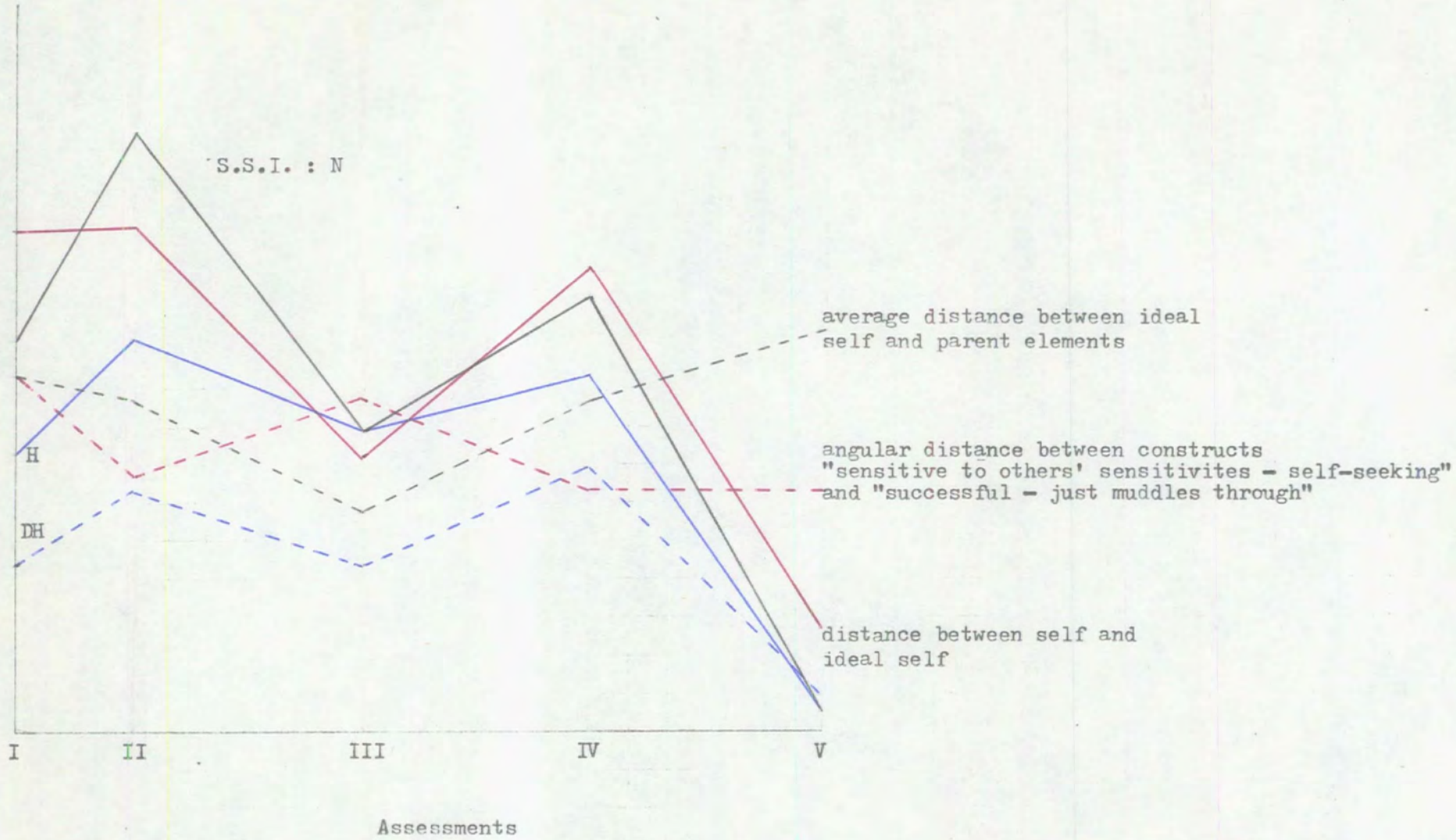


Figure 7. Client 6 : Changes on Selected Measures during Therapy.

Client 6 appears to have dealt with his fear of succeeding not by significantly reducing the negative implications of success, but by reducing the negative implications of its lack: "just muddling through" (the contrast pole to being "successful") no longer carries the implications of being "neurotic" and "like a psychiatric patient", and his need to succeed is presumably therefore less strong.

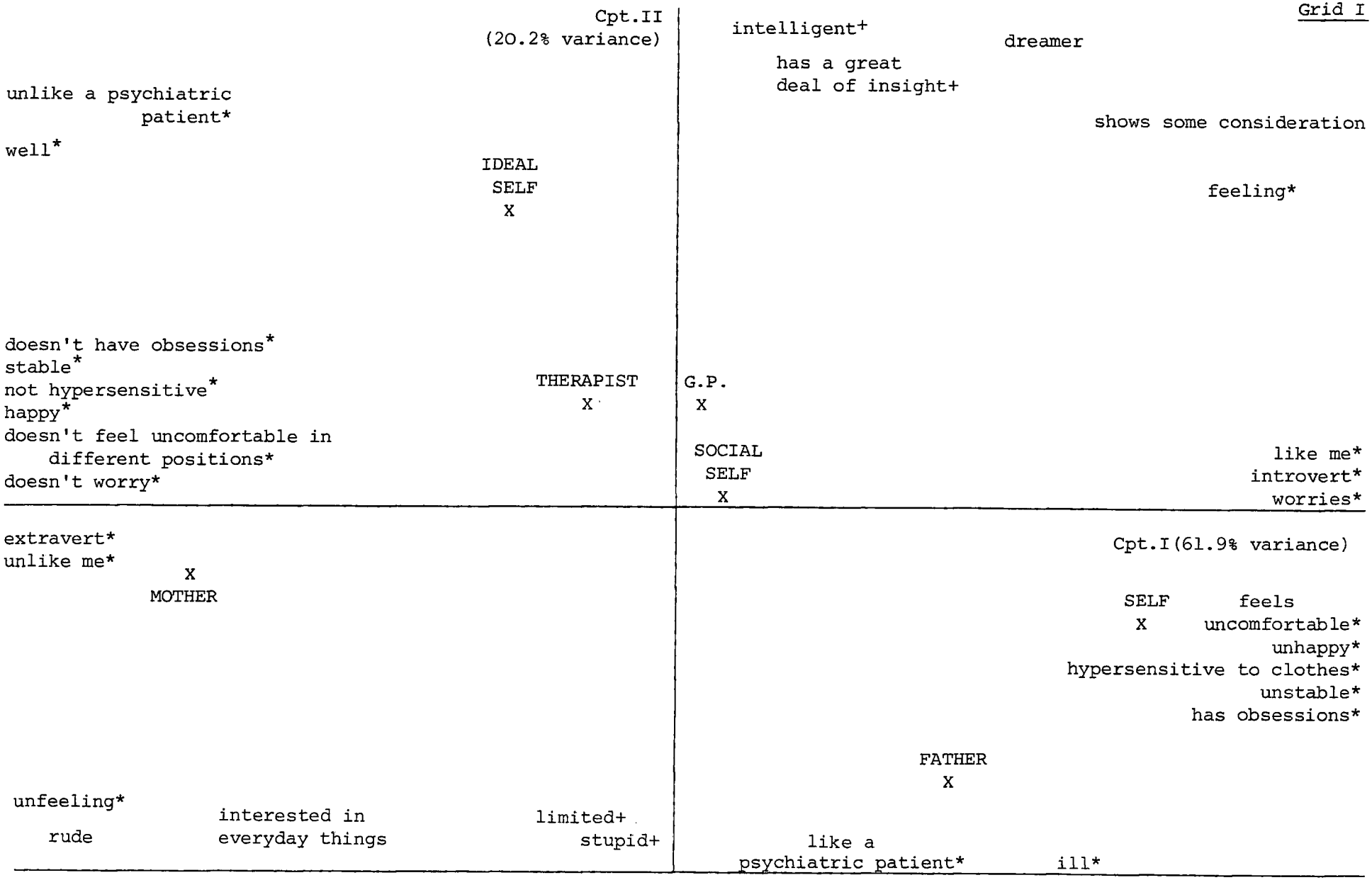
Client 36 was a 22-year old male postgraduate student, who presented with obsessive-compulsive symptoms consisting of elaborate rituals and thoughts concerning his eyes, hair, mouth, clothes, and occasionally other parts of the body. The referring psychiatrist was not able to offer any explanation regarding the development of these symptoms, although remarking that the client's father had also undergone psychiatric treatment for ritualistic behaviour. He felt that "were it not for his obsessions I think that one would regard him as a very normal obsessoid personality."

However, the client admitted to a large number of symptoms of a varied nature at the pre-treatment questionnaire assessment, which provided a picture of a neurotic individual with a high level of hostility, predominantly intropunitively directed. INGRID analysis of the repertory grid revealed a rigid construct system, with the self and the mother polarised on the first component, which concerned constructs relating to the symptoms, psychological distress, and introversion, characteristics which he ascribed to himself (see Figure 9.) Somewhat similarly to Client 6, a major implicative dilemma appeared to centre around the construct "feeling - unfeeling", the former pole of which was highly associated with the symptom poles "has obsessions", "hypersensitive to clothes", and "feels uncomfortable in different positions", as well as other construct poles describing psychological maladjustment and introversion.

The initial treatment approach consisted of a behaviour therapy programme, with an emphasis on response prevention and modification of expectancies, which immediately brought the rituals under control, followed by thought stopping techniques. However, reduction in the intensity of the obsessional symptoms was accompanied by an increase in anxiety and depression, and accordingly the treatment became more psychotherapeutic in emphasis, focusing on "his extreme dependency on parents, feelings of inadequacy, being unsure in interpersonal situations and his inability to establish any serious heterosexual relationships." (therapist's notes.) After about 18 months of individual therapy, the client was transferred to a psychotherapy group so that he might "test himself out in the social sphere." He attended the group for a further 18 months, and the therapist felt that he made "a moderate improvement and progress", except perhaps in the area of heterosexual relationships.

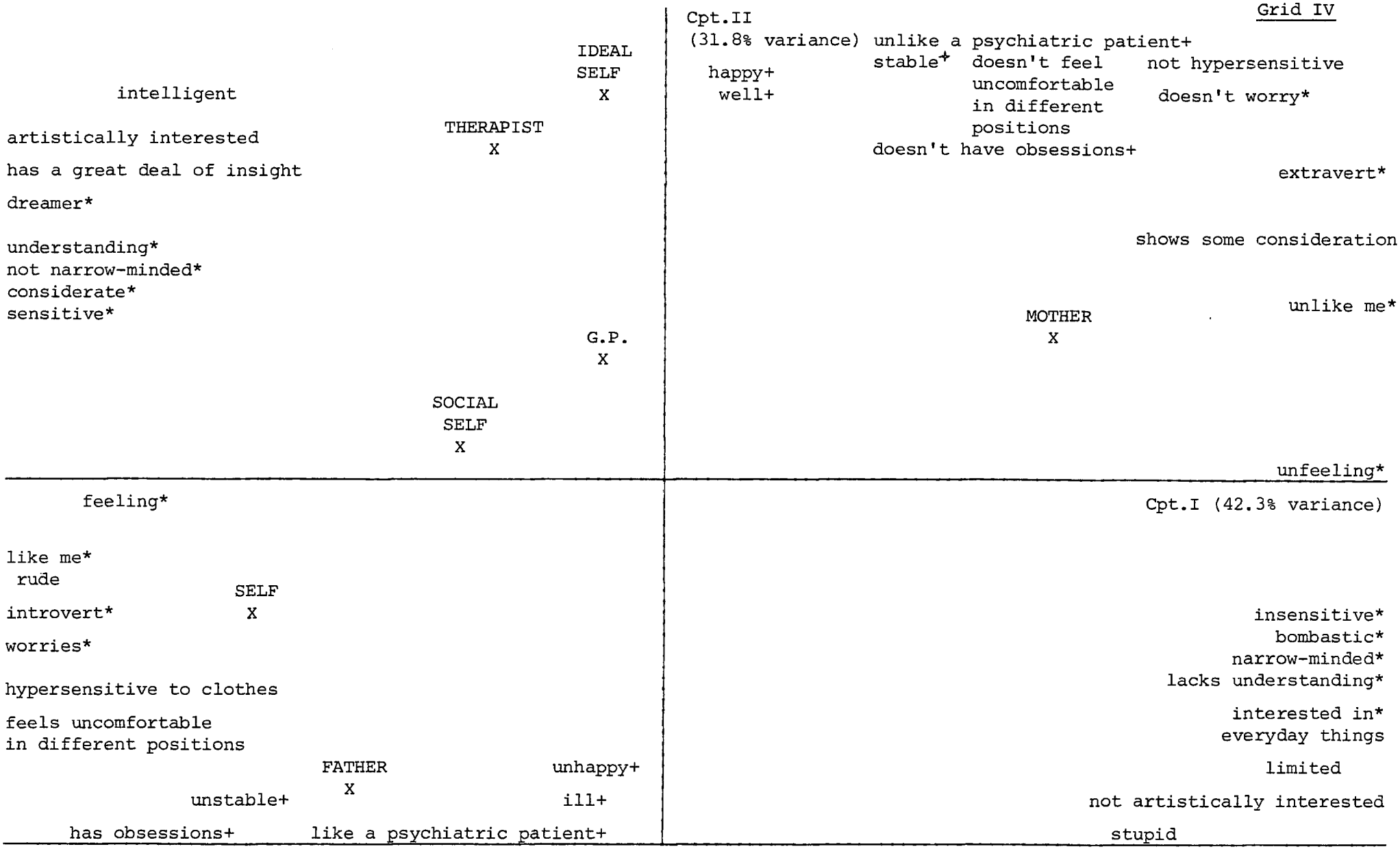
The questionnaire results showed a steady reduction in symptoms over this period but that, while hostility decreased, the extent to which this was intropunitively directed increased at first before decreasing. On the repertory grid, the self element moved closer to the ideal self and to the mother, and the self was generally construed in more socially desirable terms after showing some movement away from the ideal self in the first three months of therapy. It can be seen in Figure 9 from the plot of elements in construct space for Assessment IV (which followed termination of behaviour therapy) that the self and ideal self elements no longer occupy diagonally opposite quadrants, and the reduction in salience of the symptom constructs is reflected in the fact that they no longer load heavily on the major dimension of construing. However, at Assessment VI, the only grid assessment for which results are available after he joined the psychotherapy group, some movement is apparent towards construing himself less favourably.

Figure 9. Client 36: Plots of Selected Elements in Construct Space



* = high loading of construct on Cpt.I ; + = high loading of construct on Cpt.II

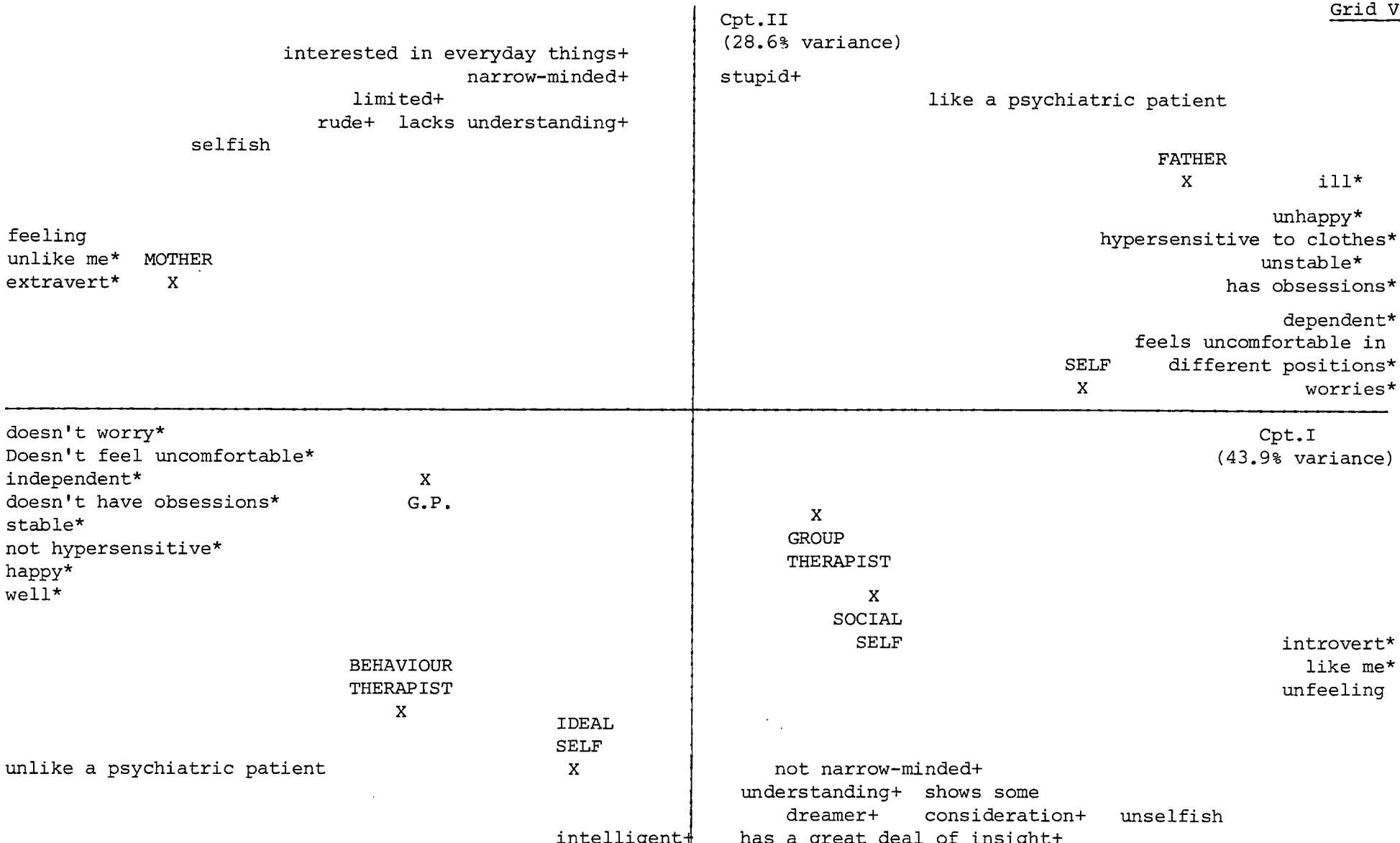
Figure 9.(Cont.) Client 36: Plots of Selected Elements in Construct Space



* = high loading of construct on Cpt.I; + = high loading of construct on Cpt.II

Figure 9 (Cont.) Client 36: Plots of Selected Elements in Construct Space

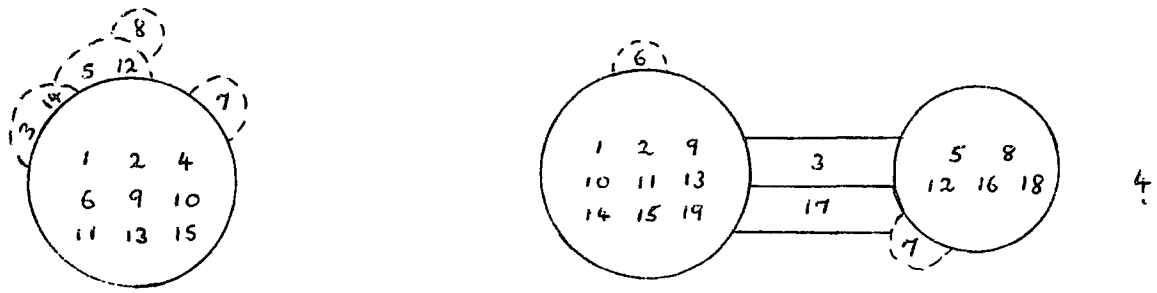
Grid VI



* = high loading of construct on Cpt.I; + = high loading of construct on Cpt.II

Changes that were contrary to predictions were that his construing of his parents became more polarised, and his father was seen as more dissimilar to his ideal self, in relation to which his construing of his mother showed little change.

In contrast to the other grid measures, it was not until Assessment VI, after he joined the psychotherapy group, that marked changes occurred in his use of the construct "feeling - unfeeling", the relationships of which with the constructs "has obsessions - does not", "feels uncomfortable in different positions - does not", "hypersensitive to clothes - is not", "unstable - stable", "worries - does not", and "introverted - extraverted" showed a reversal in direction from the initial assessment. Psychological distress and introversion therefore no longer carried the implication for him of being "feeling", and the resolution of the implicative dilemma centred on the construct "feeling - unfeeling" (construct 4 in Figure10) appeared to have been achieved by the reduction of this construct to impermeability (Kelly, 1955), for at Assessment VI it had become an isolated construct (Makhlouf-Norris and Norris, ibid.), showing no statistically significant correlations with other constructs. At the same time, the structure of the construct system showed a change from its original monolithic state to being articulated, and therefore presumably more flexible.



Assessment I Assessment VI

Figure10. The Conceptual Structure of Client 36 at the Pre-Treatment and Final Assessments

It is of interest that what may be regarded as the more fundamental reconstruing in Client 36 occurred only after he joined the psychotherapy group. It appears that these changes may have been related to his construing of himself in a less favourable light at this time. Although this latter change is not reflected in the questionnaire measures, it might have been predicted, on the assumption that changes in construing precede behavioural changes, that an increase in intensity of symptoms and in "felt distress" would have been apparent at Assessment VII. It was therefore particularly unfortunate, from the research point of view, that the client had to leave the group rather hastily some months after Assessment VI in order to take up a lectureship in another area.

While in nearly all cases for whom post-treatment follow-up data was available, there was no appreciable change in test results after termination of therapy, it is instructive to consider two clients for whom this was not the case.

Client 45 was a 38-year old housewife who presented with social anxieties and certain agoraphobic symptoms, which appeared to be related to the increasing independence of her children. Pre-treatment questionnaire

assessment revealed a neurotic individual, of obsessoid personality, who admitted to a large number of symptoms and showed a very high level of hostility, predominantly intropunitively directed. On the repertory grid, she saw herself as very dissimilar to her ideal self, her parents, and other people in general. She construed herself in a generally unfavourable light: for example, as "lacking confidence", "having difficulty in mixing socially", "having difficulty in doing certain things on my own", and as likely to "get panic-stricken."

Treatment consisted of systematic desensitization, and she was discharged after about three months, her symptomatic improvement being reflected in the marked change in her ratings of the intensity of her symptoms, and the therapist's rating of the latter, and of her general social functioning, as "much improved." Her neuroticism and hostility had decreased, although the latter was relatively more intropunitively directed. On the grid, she construed herself as closer to her ideal self and to other people in general, and in much more favourable terms, although there was little change in her construing of herself in relation to the symptoms of "having difficulty doing certain things on my own" and "getting panic-stricken." This improvement was maintained and consolidated on the questionnaire measures and grid measures of element distances at Assessment III, although it was felt that changes towards seeing herself once again as "having difficulty mixing socially", "always worrying", and "lacking confidence" perhaps augured badly for the future. This latter prediction was confirmed at Assessments IV, V, and VI, when, although continuing to admit to relatively few symptoms on the S.S.I. and, at the two later assessments, showing decreases in total Hostility, her hostility became more intropunitively directed and her level of Neuroticism increased. On the grid, her construing of herself became increasingly disparaging until at Assessment VI there had been movement in a "pathological" direction on all but one of the grid measures used in the individualised predictions. At this time, about two years after being discharged from the clinic, she sought further help, therefore confirming the impression obtained from the assessment data that she had relapsed.

In retrospect, it was felt that her discharge had been premature in that it had occurred at a time when, although reporting symptomatic relief, she had shown no fundamental reconstruing of herself in relation to two of her presenting symptoms; and the reduction of hostility that had occurred had only been in its extrapunitive components so that she had become, on the balance, more intropunitive in her direction of hostility.

Client 41 was a 24-year old housewife who was referred because of phobic anxieties, coupled with frequency of micturition when she was faced with unfamiliar situations or travelling. She had suffered from neurotic symptoms for most of her life, and the referring psychiatrist felt that a not insignificant factor was her parents' overanxiousness concerning her, as were her father's psychiatric history and her marital dissatisfaction. She presented her symptoms as "not liking making decisions", "being nervous about things that are different", and "not liking doing things on my own", and she admitted to a large number of other symptoms at the initial questionnaire assessment, which revealed an extremely high level of intropunitive hostility. On the repertory grid, she saw herself as dissimilar to her ideal self, her parents, and other people in general, and the construct poles which she used to describe herself largely implied low self-sufficiency.

The treatment approach employed was systematic desensitization, and she was discharged after about three months, the therapist considering her to be "much better" symptomatically and "better" in her inter- and intra-personal

functioning. This improvement was reflected in a decrease in her ratings of her symptoms, as well as in the number of symptoms to which she admitted, her hostility and the degree to which it was intropunitively directed, and her level of Neuroticism, coupled with movement from an obsessoid to a hysteroid presentation of herself. However, on the grid, while the distance between her self and ideal self had decreased, there appeared to have been no appreciable change in her construing of herself, for as many of the individualised predictions concerning application of construct poles to herself were disconfirmed as were confirmed: she still construed herself as highly characterised by her symptoms.

It was not until Assessment III that there was appreciable confirmation of the individualised grid predictions, coupled with further reduction in her hostility, which became predominantly extrapunitively directed. She therefore appears to have been something of a "late bloomer" (Liberman et al., 1973), and the considerable positive changes which occurred in the six months following her discharge may be related to her observation that she felt the major component of therapy to have been its facilitation of her communication with her husband, whom she now saw as being able to understand her. The reduction in intensity of her symptoms which occurred during the desensitization programme could be seen as having set in motion an "adaptive spiral" (Yalom, 1971) of more satisfactory personal relationships, which may have been necessary for appreciable changes in construing to occur.

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