A STUDY
OF THE RELATIONSHIP
BETWEEN SELECTED PERSONALITY VARIABLES
AND
OUTCOME RATINGS IN BEHAVIOR THERAPY

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ABSTRACT

A STUDY OF THE RELATIONSHIP BETWEEN SELECTED PERSONALITY VARIABLES AND OUTCOME RATINGS IN BEHAVIOR THERAPY

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The outcome ratings of behavior therapists and their patients and three personality variables (Dogmatism, Intolerance of Ambiguity, and Ego Development) were submitted to correlational analyses, in an attempt to challenge the widely held belief that the outcome of behavior therapy is determined by the techniques and programs used and not appreciably by the personality of the participants. The results revealed, for successful patients, a pattern of positive correlations of therapists' outcome ratings with Dogmatism and the earlier levels of Ego Development, and negative correlations with the later levels. For the unsuccessful patients, this pattern is reversed. A fair number of these correlations reached significance levels, some in the successful group, some in the unsuccessful one. When a significant correlation in one group was matched with the corresponding one in the other, the difference between the two was found to be significant in a number of instances.

A significant correlation was also found between therapists' and patients' degree of satisfaction with the therapy, but none between their respective ratings of symptom remission, indicating that they more readily agree on the subjective judgment than on the more objective one.

These findings were interpreted as supporting the hypothesis that the personalities of the participants bear some relation to the perception of outcome in behavior therapy. The implication for understanding the various factors affecting outcome and appropriate matching of patient and therapist were discussed.

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INTRODUCTION

In the last two decades there has been an increasing number of clinical studies aimed at a better understanding of the variables associated with psychological treatments. Four major classes of factors affecting therapeutic outcome have been identified and studied: therapist attributes, patient attributes, interaction between therapist and patient attributes, and treatment modality (Luborsky et al., 1971). The relative importance accorded to these several factors has varied with the therapeutic orientation under consideration. Personal characteristics and interaction have been least studied in relation to behavior therapy. An important reason for this is, no doubt, the more or less generally accepted assumption among its proponents that in behavior therapy the outcome depends principally on the techniques and programs used and only incidentally on factors that are considered primordial in other forms of psychological treatment (Goldfried and Davison, 1976).

The goal of the present thesis was to test the hypothesis that in behavior therapy personal and interactional factors bear a relationship to therapists' and patients' judgments of outcome; hence, that such factors also have a significant effect in this, as they have been shown to have, in the other forms of clinical interventions, usually referred to as psychotherapies.

It has been observed that personality variables in the therapist and in the patient, as well as the congruence between these variables affect the patient-therapist interactions in psychotherapy (Van der Veen, 1965; Moos, 1970). It has also been reported that particular therapists have greater success with certain kinds of patients than

with others (Whitehorn & Betz, 1965). It is reasonable to expect therefore, that in psychotherapy the therapeutic relationship is influenced by personality factors in the therapist and in the patient, and further, that these factors can affect the probability of successful therapeutic outcome. Strupp (1964), among others, has shown the importance of the therapeutic relationship and he concluded: "a solid working relationship in which the participants develop a sense of mutual trust is unquestionably a sine qua non for all forms of psychotherapy. In its absence there can be no successful psychotherapy. The presence of such a factor which suffuses and permeated all assessments, ratings, and evaluation, by patients as well as by therapists, was abundantly demonstrated (p. 11).

Some researchers have examined patient-therapist personality congruence with global personality measures. Carson and Heine (1962) and Mendelsohn and Geller (1965) used the MMPI. These studies showed a curvilinear relationship between patient-therapist personality similarity and successful outcome; that is, for the group at both high and low extremes of similarity the mean success scores were lower than for the groups between the extremes. However, neither Lichenstein (1966) nor Carson and Llewellyn (1966) were able to replicate the Heine study. Wogan (1970), also using the MMPI, found the relationship to be linear, with greater similarity correlating positively with higher success ratings.

One of the reasons for the equivocal findings may be that only the shape of the profiles, and not the elevation of the scales, was taken into account. Similarity in both shape and elevation may mean that patient and therapist share similar problems, and thus the therapist

may be empathic and understanding but not able to be sufficiently objective. On the other hand, similarity, with lower elevations on the part of the therapist, may mean that the therapist shares the emotional responses and attitudes of his patient, but does not experience them as problematic; thus he can be both empathic and objective enough to be helpful.

While the former researchers used global personality measures, others have focused on more specific variables. A positive relationship between therapeutic success and patient-therapist similarity has been found for the following variables: race and social class (Carkhuff & Pierce, 1967; Hollingshead & Redlich, 1958), the Dominance, Social Presence, and Social Participation scales of the California Personality Inventory (Tuma & Gustad, 1957), and sex (Persons et al., 1974; Luborsky et al., 1971; Mendelsohn & Geller, 1965). There is some evidence that patients rated as more successful show a shift in the course of therapy toward a greater similarity to their therapist in Rorschach responses (Sheehan, 1953; Graham, 1960), in Kelly's Role Construct Repertory Test (Landfield & Nowas, 1964), and in measures of moral values (Rosenthal, 1955).

A complementary relationship on the Leary interpersonal dimensions of dominance-submission was found to correlate positively with successful therapy outcome in a study by Swenson (1967). Whitehorn and Betz (1960) found that the type "A" therapist was most successful with hospitalized schizophrenic patients while the type "B" therapist was most successful with the neurotic out-patients. If these results are interpreted in terms of an interpersonal approach-avoidance dimension the complementarity hypothesis is supported; that is, the withdrawn schi-

zophrenic reacts more favourably to the approaching therapist, while the more socially responsive out-patient neurotic reacts more favourably to the less approaching therapist. However, Dietzel & Abeles (1975), examining the Leary dominance-submission, approach-avoidance dimensions, concluded that no single level of complementarity is associated with successful outcome. What they deem crucial, rather, is the therapeutic timing of complementary levels. They found successful outcome to be associated with greater therapist complementariness in the beginning and end phases of therapy and less in the middle. The similarity-complementarity debate remains unresolved.

One of the limitations of the research in this area is that most of it has been done within humanistic and psychodynamic orientations, very little in the behavioral one. Those outside the behavioral orientation have tended to dismiss it. For example, Luborsky et al. (1971) omitted behavior therapy in their review because it did not fit their definition of psychotherapy. Behaviorists, as mentioned earlier, may have not addressed themselves to this question for other reasons; Goldfried and Davison (1976) suggest that perhaps the reason why personality characteristics and the therapeutic relationship have tended to be deemphasized is due to the belief of behavior therapists that behavioral "therapeutic techniques have been shown to be effective in their own right".

The evidence for this conclusion has, however, become a debated issue. Some behaviorists (e.g. Morris & Suckerman, 1974; Wolpe & Lazarus, 1966) maintain that the therapeutic relationship is important for successful desensitization; others (e.g. Lang et al., 1970; Krapfl & Nawa, 1969) contend that it is the specific program of instruction,

not therapist or relationship variables, that is the viable aspect of desensitization therapy. Both the Lang and the Krapfl studies found that live and automated desensitization groups were significantly better (using the Snake Avoidance Test which measures proximity to a live snake) than the control group, but that there was no significant difference between the two desensitization groups. They concluded that a relationship with a live therapist is not essential for successful treatment with desensitization. However, in the Krapfl study the therapist was actually present in the room with the automated group. Although the interaction between the therapist and patient was said to be of an "impersonal nature", this qualification does not rule out the possibility that the interaction was an effective variable in the situation. In the Lang study there was considerable involvement with the therapist in the automated group, in that the subjects received from him four preliminary training sessions in relaxation and hierarchy building, as well as instructions designed to acquaint them with the operation of the automated device and theoretical explanations of desensitization. Further, in the "live" group the therapist were admittedly inexperienced, a factor known to be related to poorer outcome (Bergin & Garfield, 1971). Also, the live therapists conducting the desensitization sessions were different from the ones conducting the training sessions; this is a departure from the usual live desensitization with one therapist, and introduces a possibly disruptive break in the patient-therapist relationship, which may have implied for the patient the experimenters' bias concerning the lack of importance of this aspect of the therapy.

In contrast, the Morrison & Suckerman study found that the group with a "warm" therapist improved significantly more (Snake Avoidance

Test used) than either the "cold" therapist group or the control group. Therapist warmth was operationalized in terms of the therapist's voice quality. In an effort to provide a more stringent test of the importance of therapist warmth, a second study was conducted in which this factor was varied within an automated desensitization procedure. The results showed that warm automated therapists' subjects demonstrated the greatest improvement, that there was a significant difference between warm and cold therapists' groups, and no significant difference between cold therapist and control groups. Another study (Ryan & Gyzynsky, 1971) hypothesized that many of the feelings and attitudes regularly observed in traditional psychodynamic therapy could be observed in behavior therapy as well. The results suggested that the important elements in the behavior therapies of the subjects were interpersonal ones, much as has been demonstrated in psychodynamic therapy. Patients felt that the most universally helpful elements of their experiences were the therapists' calm sympathetic listening, support, approval, advice, and "faith". Dittman, Parloff, & Geller, (1969) suggest that behavior therapy is not so simple and straightforward as is generally believed. After five days' observation of the clinical activities of Wolpe and Lazarus, they concluded, among other things, that elements in the patient-therapist relationship may play a powerful role in treatment. They quote Lazarus as follows: "Indeed, even the results of a specific technique like systematic desensitization cannot be accounted for solely in terms of graded hierarchies and muscle relaxation". There seems to be some evidence then, to indicate that behavior therapy may not be working on the basis of techniques alone.

The above review of research in patient and therapist personality

interaction in psychotherapy and in behavior therapy indicates that the findings in this area have been inconsistent. A number of weaknesses in methodology may account for a large part of this inconsistency. First, a majority of studies used inexperienced therapists. These can be expected to be experimenting with a variety of "styles" and therefore produce inconsistent results. It has also been shown that outcomes do differ significantly as a function of experience level (Bergin & Garfield, 1971). Secondly, the number of sessions on which data are based is frequently very small, e.g. one initial interview. This does not allow for the establishment of a relationship between the patient and the therapist or for therapeutic effects to have occurred. Thirdly, the sample size is frequently small, e.g. four therapists with two patients each. Fourthly, student volunteers or roleplayers are frequently used as patients. Results from such studies are not as easily or as accurately generalizable as those based on actual therapy cases. Finally, a great variety of outcome measures have been used. What is defined as success in one study may not meet the more stringent criteria of another, making comparisons between studies more difficult.

In spite of inconsistencies in the findings, psychotherapists generally subscribe to the notion that personal and interactional variables have important effects on the outcome. Because behaviour therapists, at least in their theoretical commitments, professedly ignore or deny the importance of these variables, it seemed appropriate to concentrate on their orientation as the focus of this study.

The major issues in this debate are not unrelated to those in the person/situation controversy; and the interactionist approach may also prove fruitful to the question of the significant factors in the thera-

peutic process (cf. Endler & Magnusson, 1976; Magnusson & Endler, 1977; Mischel, 1979). The basic assumptions and the general theoretical framework of the present study are those of interactionism.

Briefly summarized, the older dispositionist position holds that the primary determinants of behaviour are intraorganismic or intrapersonal, and can be operationalized and measured as traits of temperament or personality, as attitudes, beliefs, etc. Its proponents "emphasize traits as the prime determinants of behavior and ... assume a basic personality core, which serves as a predispositional basis for behavior in different situations" (Endler & Magnusson, 1976, p.2). The situationist view is that "behavior is a function of its antecedents ... and the laws relating behavior to its antecedents can be discovered in the manner of other natural sciences, by the observation and analysis of empirical events" (Farber, 1964, p.6). Thus "the study of personality is essentially coterminous with the study of behavior" (Farber, 1964, p.5), and the causal or controlling variables in behavior are external to the organism. Interactionism, on the other hand, considers both of these viewpoints as overly simplified. It maintains that the individual is an intentional active agent, who brings to the situation cognitive and motivational factors, that the behavior in the situation is generally adaptive, hence that the psychological meaning of the situation is a determinant factor. Thus "actual behavior is a function of a continuous process of multidirectional interaction or feedback between the individual and the situation he or she encounters" (Magnusson & Endler, 1977, p.4).

Traditionally, the psychodynamic approaches, though different from the trait approaches with respect to the kinds of data used and the

methods of data collection, have nevertheless tended to lean towards the dispositional or personal interpretation of behavior (even if occasional schools, as for example H.S. Sullivan's, stressed social interaction as a factor of central importance). But when it comes to the therapeutic process as such, the psychodynamic schools tend to adopt a more interactionist position, in the sense that they view the outcome as the result of the interaction (more precisely the intersubjective relation) between therapist and patient.

The behavioral or behavior modification approach has adopted a relatively clear situationist stance, since the specific techniques and programs are identified as the primary determinants of the therapeutic outcome, and the role of patient and therapist characteristics and interactions as secondary.

On general theoretical grounds alone, it is difficult to see how the behavioral therapeutic encounter is such a unique kind of event that its outcome should be unaffected by the apparently universal reality of interactionism.

What we call the outcome of a therapeutic process is usually formalized as either reduction of symptoms, or degree of satisfaction or both. These two criteria of outcome are also taken as the dependent variables in most outcome studies of clinical interventions (Kazdin, 1978; Luborsky et al., 1971,1976). Symptom reduction is often considered as more easily observable, hence objective, whereas degree of satisfaction is more subjective. It is important to keep in mind however that the "outcome" is in both instances a judgment expressed by the therapist (Luborsky et al., 1971), or the patient or both, and that this judgment is frequently about the presence or absence of some subjective state.

This is not only true for the criterion of satisfaction, but also with respect to the fate of many symptoms, as for instance obsessive thoughts, fears and phobias, anxiety, depression, hallucinations, and the like.

Viewed from this perspective, the question of the determinants of therapeutic outcome becomes, at least to a certain extent, a question of the determinants of judgments regarding self and other; and the theoretical context is, to the same extent, the social psychological context of person perception. It is therefore argued here that the therapeutic encounter, whatever the treatment modality, gives rise to the same kinds of interactional processes that have been shown to be inherent in any social encounter, as for instance processes of impression formation (Wrightsman, 1974), impression management (cf. Goffman, 1959; Alexander & Knight, 1971), attribution (cf. Shaver, 1975), ingratiation (Jones, 1964), and other influence attempts such as approval seeking, and so on, and that these processes are modulated by the needs and personality characteristics, the plans and goals of each participant. In other words, as the therapeutic relation develops, both the therapist and the patient are probably trying to achieve the most practicable perception of each other and of themselves, at the same time that each probably works at adjusting her/his conception of self (cf. Gergen, 1971) and at presenting an image of self (cf. Goffman, 1959) such as to facilitate the interaction given the context, and to lead to a satisfactory conclusion, given their respective general philosophies and the specific goals that first led to the encounter. So much imperceptible probing and feedback, so much mutual press and yield, give and take is likely to be involved in this kind of interaction that it seems difficult to view the changes taking place in the patient, at least those of a sub-

jective nature as in feelings and fears, etc., as mere reactions to situational elements presented and structured by the therapist.

There is another perspective in which to consider the outcome judgments in behavior therapy, including judgment about behavioral and somatic symptoms, such as heart palpitations, migraines, obesity, addictions, etc. This perspective is suggested by the great kinship of behavior therapy to psychological experimentation claimed by some of its proponents (cf. Krasner, 1971; Mahoney, 1974; O'Leary & Wilson, 1975), and it finds its origin in one of the most fundamental problems of experimental design in psychology: that of internal validity (Campbell, 1957). Internal validity refers to the confidence one can have that the changes in the dependent variable are attributable to changes in, and only in, the independent variable. This confidence is continually threatened by a host of uncontrolled extraneous variables and unnoticed influences such as attitudes, needs, expectations, roles, etc., on the part of both subjects and experimenter (see e.g. Webb, Campbell, Schwartz, & Sechrest, 1966; Silverman, 1977).

The stimulus-response experimental paradigm in which behavior therapists are pleased to construe their clinical activities makes the question of internal validity inescapable. How confident can one be that changes in the behavior or somatic symptoms of a patient are primarily attributable to the programs and contingencies set up by the therapist and not to the kind of factors that an experimenter would consider as extraneous and a psychotherapist as essential? Could some changes result, for instance, from a desire (to paraphrase Orne, 1962) to comply with the demand characteristics of the therapeutic relationship and with the therapist's expectations, or, to expand on Rosenberg

(1965), from "an active anxiety-toned concern that the subject (patient) win a positive evaluation from the experimenter (therapist) or at least that he provide no grounds for a negative one"?

The problem is made the more acute by the circumstance that in behavior therapy, unlike in many experimental designs, there are no blind controls: the therapist sets up the conditions, manipulates the presumed independent variables, and makes the outcome judgments.

These general considerations illustrate the theoretical framework of the present study. The purpose is to show that the judgments of the therapist and the patient as to the outcome of a behaviour therapy are themselves the outcome of complex interactional processes in which the personality characteristics and orientations of each play a determining role.

In examining personality variables associated with the patient-therapist interaction, few researchers give any rationale for their particular choice of personality characteristics. Yet it seemed reasonable to ask whether some personality dimensions are more important than others in affecting therapeutic interactions; and whether the implicit assumptions of particular therapeutic techniques bear any relation to the particular personalities of those who use them, either as therapists or as patients. Assuming that such correspondences are the case, the choice of personality variables to be studied should be based on an examination of the theory, techniques, and task demands of a given therapeutic orientation. Treatment modalities usually have at their foundation a particular theory with certain underlying assumptions. Specific techniques are developed which involve specific task demands for both patient and therapist. These task demands vary from one orientation to

another insofar as different techniques are used. It is therefore plausible to assume that these distinctive task demands implicate different salient personality characteristics in different treatment orientations. The idea that some personality characteristics play a greater role in some orientations than in others has already been suggested by Swenson (1967). He postulated that "different psychotherapists theorize differently because they behave differently, and they behave differently because they have different personalities". This was suggested as the explanation for the familiar finding that different therapists using different methods, presumably based upon different theories, obtain about the same rate of success.

To determine the task demands in behavior therapy, let us examine some of its major theoretical assumptions and techniques: Behavior is lawful, and is a function of specifiable antecedent, organismic, and consequent conditions (Goldfried and Davison, 1976; Switzgebel & Kolb, 1974). Some behaviorists hold that behavior can be studied and modified by focusing entirely on environmentalistic variables. The techniques are fairly circumscribed and structured and usually require a fair amount of information and instruction giving. It is basically a one-way interaction paradigm, from the therapist to the patient. Given these assumptions and techniques, it seems reasonable to suggest dogmatism and intolerance-tolerance of ambiguity as relevant personality variables to be studied in connection with behaviour therapy, for the following reasons.

The lawfulness and specificity of behavior therapy should greatly reduce the amount of ambiguity with which the therapist and patient must contend. Hence, one may presume that therapists who choose behavior

therapy as the preferred mode of treatment, and patients who are comfortable with and cooperative in behavior modification procedures, share a dislike for or discomfort with ambiguous situations, and therefore they should both tend to obtain high scores on a measure of intolerance of ambiguity. Further, one may expect patients and therapists who are unlike each other on this dimension to be more likely to perceive the general outcome as unsuccessful.

The second proposed variable is dogmatism. It is the therapist who has the knowledge of the laws of behavior, and he who decides which variables are to be examined and changed and how this will be done. This places him in a position of considerable authority and requires him to be directive in his approach. Hence, clinicians who prefer this therapeutic approach presumably favor and enjoy this kind of relationship. The patient, for his part must be able to comfortably accept this authority and direction if the therapy is to progress successfully. Therefore, it is expected that the greater the patient-therapist congruence on this dimension, the more likely they would be to perceive the outcome successfully.

Finally, a third dimension was chosen as particulary relevant: Ego development. Most psychotherapeutic approaches view the therapeutic process as one of growth. Therapeutic change is understood as movement from an earlier to a later level of development. The behavior approach, on the other hand, considers therapeutic change strictly in terms of learning and unlearning of behaviors, without any developmental implications. Indeed, the behavior therapies, like the traditional learning theories, make no special assumptions regarding patterns of development. These are assumed to be largely determined by the patterns of environ-

mental conditions and circumstances in which the individual grows. Maturational and cognitive-developmental theories, on the other hand, postulate that the development of organisms, both physical and psychological, follows a species-specific sequence of steps or stages, and that each stage shows a characteristic set of needs, orientations, behaviors, and so on. Furthermore, within the psychotherapeutic approaches, the dynamic ones in particular, the therapist is expected to be, at least at the outset, at a later developmental level than the patient. But for the behavior therapies (and this sets them apart from virtually all other orientations), the nature and the state of the therapist's own development is irrelevant to the therapeutic process and outcome. It would therefore seem apposite to try to determine whether ego development both in the patient and the therapist is related to the judgments of outcome in behavior therapy.

The developmental approach adopted for this purpose is that of Jane Loevinger (1970); first, because it shows a high degree of consistency with a good number of other developmental theories (cf. Loevinger, 1976), and secondly, because the measuring instrument developed by Loevinger is among the most practical while exhibiting respectable levels of validity and reliability (see chapter 2).

Loevinger's model considers ego development from the aspects of interpersonal and cognitive styles, and assigns seven interpersonal maturity levels (I-levels) on this basis. It is a hierarchic model which covers ego development from birth to maturity, and which has the following properties: There is an invariable order to the stages of development; no stage can be skipped; each stage is more complex than the preceding one; each stage is based on the preceding one and pre-

pares for the succeeding one. Loevinger (1976) states that she has taken as "the name for each stage a term from common speech, the name of some broad human function or characteristic. No such function arises all at once in one stage and perishes in the passage to the next. Impulsiveness, self-protection, conformity and so on are terms that apply more or less to everyone. Though stage names suggest characteristics that are usually at a maximum at the stage, nothing less than the total pattern defines the stage." (p.15). She also warns against equating stages of Ego development with levels of adjustment or mental health, since "well-adjusted" and "mentally healthy" persons can be found at all levels of Ego development. For better understanding and to facilitate later discussion, the major characterizations of Ego development at each stage will be presented in a schematic way: Presocial symbiotic stage (I-1). The major problem in this first stage is the distinction of self from non-self. The ego can hardly be said to exist prior to the end of this stage. Language is perhaps the crucial factor in bringing this period to an end.

Impulsive stage (I-2).

- The world is dichotomized into good vs. bad, mean vs. nice.
- Causation is understood only in concrete terms.
- People are seen as sources of supply (good= good to me, bad= bad to me).
- Affects are seen as bodily states, not as inner feelings.
- Sexual and aggressive impulsivity is blatant.

Self-protective, opportunistic stage (Delta).

- Desire to protect and control self and the situation leads to manipulative and exploitive attitude toward people.
- The world is seen as divided into those who rule and those who are ruled; e.g. battle between sexes, parents vs. children.
- Work is seen, at best, as a means to an end, not as an opportunity.
- Blame for failure is placed on others and on external and impersonal cause such as one's figure or eyes.
- Real responsibility is not assumed: One should try to get away with whatever one can.
- Rules are seen as loss of freedom.

Self-protective Conformist stage (Delta-3).

- This is a transition stage combining characteristics of the preceeding and the following stages.

Conformist stage (I-3).

- Self is described in socially acceptable terms.
- Conventional social norms are accepted without question.
- There is dependence on popularity and approval.
- Absolute terms are used, without contingencies.
- Belonging is equated with security.
- There is preoccupation with concrete and external aspects of life.
- Interpersonal interactions are described in terms of behaviors rather than feelings.
- Inner life is mentioned in terms of generalities, e.g. happy, sad, fun, embarrassed.
- Feelings are sometimes denied; inner conflict is not acknowledged.
- The emphasis is on concrete things, on outcomes rather than processes.

Self-aware (transition) stage (I-3/4).

- This is the modal stage for our society (according to Loevinger).
- There is an increase in self-awareness.
- There is a new-found appreciation of multiple possibilities.

Conscientious stage (I-4).

- Complex thinking and also perception of complexity is present.
- Alternatives that are polar opposites are combined.
- Life is seen as presenting many possibilities and alternatives.
- Achievement motive is very high; self-improvement is also stressed.
- There is a strong sense of responsibility, with a conception of rights and privileges and fairness.
- Own self-evaluated standards are used.
- Long-term goals are made.
- Means are distinguished from ends; there is a concern with purpose in life.
- There is a vivid sense of individual differences and a clear conception of mutuality, variability, sympathy and understanding.
- The problem of impulse and control is clearly conceived.
- Ability to see other's point of view is evident.
- Appearances are distinguished from underlying feelings; the physical is contrasted with the mental.
- There is a concern with the problem of dependence/independence; emotional dependence has not yet been separated from other types of dependence, e.g. financial.

Individualistic stage (I-4/5).

- This stage is marked by a heightened sense of individuality.
- Psychological causality and development are natural modes of thought.
- Dependence/independence problem is seen as emotional rather than purely pragmatic.

Autonomous stage (I-5).

- Conflicting alternatives are seen as aspects of many-faceted life situation; there is high tolerance of ambiguity.
- Sharply differentiated composite responses are common.
- Individuality and uniqueness in self and others is cherished.
- Complex psychological causality is understood; self is seen in interpersonal context; complexity and circularity of social interaction is recognized.
- Emotions are differentiated and vividly conveyed; sensual experiences are vividly conveyed.
- Spontaneity, genuineness, intensity, fantasy, sensitivity to life's paradoxes, non-hostile existential humour are evident.
- There is concern for broad social perspectives or issues.

Integrated stage (I-6).

- The characteristics of I-5 are prominent, usually in combination.
- There is respect for others' autonomy.
- The search for self-fulfillment is strong.
- Role conflicts have been reconciled.
- There is conceptual complexity with the uniting of the specific and the general.
- Concern for inner life and for outer life are united.
- There is a sense of reconciliation to one's destiny.

With respect to the question of interaction between therapist and patients, it seems reasonable to expect the therapeutic process to unfold more smoothly, harmoniously and successfully when the particular techniques used coincide with the basic interpersonal and cognitive styles (i.e. I-levels) of both the therapist and the patient. By considering Lovinger's description of the various I-levels in relation to the descriptions and underlying assumptions of behavior therapy, one would expect that therapist and patients who adopt and exploit satisfactorily these techniques will tend to possess those psychological characteristics which peak at the I-3 level. For at this level there is a focus on the concrete and external aspects of life; interpersonal interaction is construed in terms of behavior; behavior itself is seen as governed by rules; and there is an emphasis on outcomes rather than on processes.

In summary, this study hypothesizes that in behavior therapy, the progress and conclusion of the treatment are affected by the interaction between the participants' personalities. Of course, the interactionist

model, because it assumes mutual influences between variables, precludes the identification of them as independent or dependent, at least when refinements of laboratory controls are unavailable. The study is therefore limited to correlational analyses. Even if there is a sense in which outcome judgments could be considered as the dependent variable, the model assumes that these judgments are elaborated over time and that at any moment they influence and are being influenced by personality characteristics of the individual making them as well as by the situation, of which the therapeutic partner's personality is perhaps the most important element. Thus without specifying the nature or direction of influences, this study hypothesizes the existence of correlations between two sets of variables: personality characteristics and outcome judgments.

A first question naturally arises regarding the relation between the therapist's and the patient's outcome judgments, with respect to both abatement of symptoms and satisfaction with therapy. Within the logic of behavior therapy, there are no symptoms. Patient's presenting problems are not the external manifestation of underlying conflicts, but learned habits. As such they are identifiable and objective. Hence therapist and patient should readily agree on whether they have abated or not. Since the avowed purpose of undertaking the therapy is the elimination of the problem, both the therapist and the patient should be satisfied if this happens and dissatisfied if it does not. Thus, from the perspective of the behavioural approach, the first hypothesis would be that therapists' and patients' judgments regarding both symptom (problem) reduction and degree of satisfaction will be positively correlated.

From an interactionist point of view, the relation between therapist's and patient's outcome judgments is not as straightforward. Even if therapist and patient are seen as influencing each other, their perspectives are nevertheless different, and there is no reason a priori why they should evolve identical judgments, although such an occurrence is also possible. Whether they agree or not in their judgments depends on the particularities and vicissitudes of the unfolding interaction. So many factors affect the latter that a clearcut prediction is for all practical purposes impossible. Similarly, from an interactionist approach, judgments regarding degree of satisfaction are not necessarily linked to those regarding symptom reduction. In other words, depending on the particularities of the participants' personalities and of the interaction between them, it would be possible for a judgment of acceptable symptom reduction to be accompanied by one of dissatisfaction with the therapeutic process, or for a judgment of insufficient symptom abatement to be accompanied by one of high satisfaction with the therapy. Since all combinations are deemed possible, no predictions can be made.

However, even if no interactionist hypothesis can be formulated regarding the relationship between therapists' and patients' outcome judgments, the one suggested by the logic of behavior therapy, and which could therefore be called the behavioral hypothesis, can be tested. Hence the first hypothesis to be considered is that a positive correlation can be expected between therapists' and patients' ratings of symptom reduction (improvement) and of degree of satisfaction with the therapy.

A second hypothesis is that the effects of the interaction between patient and therapist manifest themselves in the relation between scores

on measures of dogmatism, tolerance-intolerance of ambiguity, and ego development on the one hand, and outcome judgments on the other. Specifically, the following two predictions will be tested:

1. The first prediction pertains to the relation between the patient's personality and both patient's and therapist's outcome judgments: there will be a positive correlation between patient scores on dogmatism, intolerance-tolerance of ambiguity and number of responses at the I-3 level of Loevinger's scale on the one hand, and the two types of outcome judgments on the other. One would expect a negative correlation between outcome judgments and the later Ego Development levels (above I-4) since the characteristics of these levels do not concur with the task demands in behavior therapy.

Since the patient's personality is the focus of attention in a treatment process, the therapist's characteristics are expected to be less obtrusive and to have weaker effect than the former on outcome judgments. Besides, since therapists by their training are familiar with the personality tests used or with the theoretical concepts underlying them, they cannot be considered to meet the criteria of "naive" subjects, and their scores would, no doubt, raise difficulties of interpretation. Therefore no predictions are made concerning therapist personality and outcome judgments.

2. The second prediction concerns the relation of personality congruence to outcome judgments: there will be a positive correlation between the degree of similarity of patient and therapist personalities (as expressed in the difference scores of the dogmatism, intolerance-tolerance of ambiguity, and ego development scales), and both types of outcome judgments by both therapist and patient.

METHOD

Normative sample

To insure that the therapists used in the study were a representative sample of behavior therapists, scores on the three personality measures as well as descriptive information including age, sex, years of experience, professional status, orientation, and use of therapy techniques were obtained from behavior therapists across Canada and the United States. The relevant questionnaires and scales as well as a covering letter (see Appendix I) were mailed to members of the Association for the Advancement of Behavior Therapy (A.A.B.T.). The addressees comprised all the 94 Canadian members and a random sample of 80 U.S.A. members, including some from each state listed in the directory.

Subjects

Therapists. The three therapists (one female, two male) were experienced and had been using behavior therapy techniques for seven, eight and ten years in outpatient clinics and/or private practice. Two were clinical psychologists and one a psychiatrist who classifies himself as a behavior therapist. (The original intention had been to have a sample of six therapists from three different orientations; two behavior therapists, two Rogerians, two analysts and 20 patients for each therapist, 10 successful and 10 unsuccessful. This proved an unobtainable objective.) When asked to rank-order the following 11 therapy modes, all three therapists chose behavioral modes (underlined) as those with which they most closely identify themselves.

THERAPY MODES

body therapy	operant conditioning
classical conditioning	psychoanalysis

cognitive behavior modification	psychodynamic
existential	rational-emotive
gestalt	Rogerian
humanistic	

In rating the following 26 therapy techniques according to frequency of use, all three rated only behavioral techniques as most frequently used.

THERAPY TECHNIQUES

assertion training	meaning attribution
aversion	non-verbal exercises
awareness exercises	play therapy
contingency management	progressive relaxation
covert reinforcement	rational emotive
covert sensitization	record keeping
desensitization	response costs (operant conditioning)
dream analysis	Rogerian reflection
empty chair	role reversal
flooding	satiation
free association	social skill training
instrumental control (biofeedback)	thought stoppage
interpretation	token economy

Techniques used by the three therapists included, desensitization, flooding, progressive relaxation, biofeedback, contingency management, thought stoppage, record keeping, assertion training. Table I shows a comparison between the therapists used in this study and A.A.B.T. normative sample.

Patients. The 29 patients comprised 19 females and 10 males. Only patients whose therapy was considered complete by the therapist were included in the study. All patients' therapy had been concluded within the last year. The presenting problems included the following: phobia 39%, pain due to tension 21%, marital problems 14%, depression 11%, "nervous breakdown" 7%, obesity 4%, lack of assertiveness 4%. Table II gives a description of the patients across the three therapists.

TABLE I

COMPARISON BETWEEN A.A.B.T. SAMPLE AND THERAPISTS

	A.A.B.T.	THERAPISTS
Sex	M = 18, F = 7	M = 2, F = 1
Median age	35.5	40.5
Median no. of years of experience	5.5	8.5
Professional status:		
PhD psychology	N = 15	1
MA	5	1
MSW	2	0
Psychiatrist	1	1
M.D.	1	0
Intolerance-Tolerance of Ambiguity:		
range	31-71	39-55
mean score	47.8	47
Dogmatism		
range	82-147	99-124
mean score	109	114
Ego Development:		
Delta	N = 1	0
I-3	2	0
I-3/4	6	1
I-4	11	1
I-4/5	5	1
mean no. of responses below I-3	1.4	1.3
mean no. of responses above I-3/4	13	13.3

TABLE II

DESCRIPTION OF PATIENTS

	Total		Therapist A		Therapist B		Therapist C	
	Suc	Uns	Suc	Uns	Suc	Uns	Suc	Uns
Number of patients (29)	16	13	6	5	5	5	5	3
male (10	5	5	3	4	1	0	1	1
female (19)	11	8	3	1	4	5	4	2
Mean age	39	35	39	39	39	34	40	31
Level of education								
high school	8	3	3	2	3	1	2	0
university	8	10	3	3	2	4	3	3
Family income (in $1,000)	20 - 30		20 - 30		20 - 30		20 - 30	
Marital status								
married	10	10	4	4	3	5	3	1
single	3	2	1	1	2	0	0	1
divorced	3	1	1	0	0	0	2	1

Suc = successful
Uns = unsuccessful

Materials

1) Therapist information questionnaire (Appendix II). This included sex, age, level of education, years of experience in behavior therapy, a check-list of preferred therapy modes, and a check-list of therapeutic techniques used. The latter was used in order to demonstrate that the use of behavior therapy techniques predominated over other therapeutic techniques.

2) Patient information questionnaire (Appendix III). This included sex, age, marital status, level of education, level of income, number of therapy sessions attended, and a brief description of the presenting problems.

3) Therapists' and patients' outcome questionnaire (Appendix IV). These questionnaires are identical in content; only the phrasing is different to address the proper respondant. Questions 1 and 2 deal with the perception of outcome in general, question 3 with the perception of outcome in relation to specific presenting problems, and question 4 with the degree of disturbance at the time of entering therapy. Only questions 2 and 3 were used in the statistical analyses. Question 3 operationalized perception of outcome in terms of extent of change in the presenting problem. A six-point rating scale ranging from "got worse" to "completely disappeared" was used. In question 2 satisfaction "with the results of the therapy experience" was rated on a six-point scale ranging from "extremely dissatisfied" to "extremely satisfied".

4) Rokeach's Dogmatism (D) Scale. This is a 40-item six-point scale measuring authoritarianism. Reliabilities in the .80's have been regularly reported. Rokeach (1956) and Plant (1965) demonstrated that the Dogmatism Scale correlates more highly with the California F

(authoritarianism) than with the California E (ethonocentrism), but that the correlation between the D and E scale is lower than that between the F and E scales. They concluded that the Dogmatism scale is less loaded on prejudice than is the California F and is a better measure of general authoritarianism regardless of a subject's specific ideological or attitudinal position. The range of possible scores on the Dogmatism scale is between 40 and 240. A score of 120 and above indicates that the respondant has answered more items in the direction of dogmatism than in the opposite direction.

5) Budner's scale of Intolerance-tolerance of Ambiguity is a 16 item six-point Likert-type scale. Intolerance-tolerance of Ambiguity is viewed as a way of evaluating rather than handling reality; specifically, intolerance of ambiguity is defined as "the tendency to perceive (i.e. interpret) ambiguous situations as sources of threat", tolerance of ambiguity as "the tendency to perceive ambiguous situations as desirable". Ambiguous situations are identified as those characterized by novelty, complexity, or insolubility. The scale has been shown to be free of such artifacts as acquiescence and social desirability. Validation data show moderate correlations with other measures of that dimension, and with judgments of autobiographical material, and peer ratings in terms of intolerance-tolerance of ambiguity.

A test-retest reliability of .85 has been reported (Budner, 1962). Reliability coefficients based on 12 samples ranges from .38 to .62. Since these figures compare unfavorably with those usually reported, some of the contributing factors cited by Budner should be noted. One is the use of the alpha rather than the split-half coefficients which tends to overestimate the reliability estimates. A second factor is the

already mentioned freedom of the scale from artifacts such as acquiescence and social desirability which, because they are consistent, tend to maximize reliability estimates. Finally, there is the nature of the concept itself, the definition of which posits a complex, multidimensional construct. It is generally true that the more complex the construct and measure, the lower will the reliability estimate be. Robinson and Shaver (1969) stated in their review of the test that "Although the alpha reliabilities appear lower than the more common split-half coefficients, the instrument seems to have acceptable reliability considering its probably multidimentionality".

The range of possible scores is between 16 and 96. A score of 48 and more indicates that the subject has answered more items in the direction of intolerance of ambiguity.

6) The Washington University Sentence Completion Test developed by Jane Loevinger. This is a 36-item sentence completion test which measures stages of ego development. Loevinger's concept of ego development can be, very broadly, referred to as "the framework of meaning which one subjectively imposes on experience" (Hauser, 1976). Loevinger states that the definition of ego development is best given by pointing to the successive stages. Table III, taken from Loevinger & Wessler, 1970, describes the various stages in terms of impulse control or "moral" style, conscious preoccupations, and cognitive style. Hauser (1976) reviewed reliability and validation studies and reports interrater correlations ranging between .89 and .92, test-retest reliability of .79, split-half reliability of .90 and internal consistency reliability between .80 - .89. Validity has been fairly extensively tested and appears good (Buros, 1971).

TABLE III

SOME MILESTONES OF EGO DEVELOPMENT

STAGE	CODE	IMPULSE CONTROL CHARACTER DEVELOPMENT	INTERPERSONAL STYLE	CONSCIOUS PREOCCUPATIONS	COGNITIVE STYLE
Presocial			Autistic		
Symbiotic	I-1		Symbiotic	Self vs. non-self	—
Impulsive	I-2	Impulsive, fear of retaliation	Receiving, dependent, exploitative	Bodily feelings, especially sexual and aggressive	Stereotyping, conceptual confusion
Self-Protective		Fear of being caught, externalizing blame, opportunistic	Wary, manipulative, exploitative	Self-protection, trouble, wishes, things, advantage, control	
Conformist	I-3	Conformity to external rules, shame, guilt for breaking rules	Belonging, superficial niceness	Appearance, social acceptability, banal feelings behavior	Conceptual simplicity, stereotypes, cliches
Conscientious-Conformist	I-3/4	Differentiation of norms, goals	Aware or self in relation to group, helping	Adjustment, problems, reasons, opportunities (vague)	Multiplicity
Conscientious	I-4	Self-evaluated standards, self-criticism, guilt for consequences, long-term goals and ideals	Intensive, responsible, mutual, concern for communication	Differentiated feelings, motives for behavior, self-respect, achievements, traits, expression	Conceptual complexity, idea of patterning
Individualistic	I-4/5	A d d: Respect for individuality	A d d: Dependence as an emotional problem	A d d: Development, social problems, differentiation of inner life from outer	A d d: Distinction of process and outcome
Autonomous	I-5	A d d: Coping with conflicting inner needs, toleration	A d d: Respect for autonomy, interdependence	Vividly conveyed feelings, integration of physiological and psychological, psychological causation of behavior, role conception, self-fulfillment, self in social context	Increased conceptual complexity, complex patterns, toleration for ambiguity, broad scope, objectivity
Integrated	I-6	A d d: Reconciling inner conflicts, renunciation of unattainable	A d d: Cherishing of individuality	A d d: Identity	

NOTE: "A d d:" means in addition to the description applying to the previous level

Taken from Loevinger & Wessler, 1970

Procedure

The therapists were contacted (two by personal interview, one by mail) in order to explain the purpose of the study and the procedure for selection of patients described above, and to be given the materials for themselves and their patients. They were told very generally that the project involved investigation of possible factors influencing outcome.

Each therapist mailed questionnaires (including patient information, outcome, and the three personality measures) to 12 patients, six of whom they judged as successful and six as unsuccessful according to their own individual criteria. The same covering letter was used by all therapists. Code names and numbers were used for all subjects. Therapists completed the therapist information questionnaire, one outcome questionnaire for each patient, and the three personality measures. All materials were mailed directly to the researcher.

The Dogmatism and Intolerance-tolerance of Ambiguity scale items, which are answered in the same manner, were scrambled in order to minimize recognition by subjects of the particular dimensions tested.

Scoring of personality scales. The scoring of both the Dogmatism and Intolerance-tolerance of Ambiguity scales followed a straightforward method of summing the ratings for each item, which resulted in a numerical score for each subject.

For the Sentence Completion Test, each sentence completion was scored by two raters independently in accordance with Loevinger and Wessler's (1970) system for the measurement of Ego development. Both raters had thoroughly worked through the self-training procedure described by Loevinger and Wessler. The raters scored each completion with no knowledge of the subject, except where gender was obvious in the

completions. All completions to each stem were scored across subjects before proceeding to completions for the next stem. This procedure allows the raters to see a wide range of possible responses to a particular stem and minimizes the possible biasing effects of knowledge of previous responses by a given subject. The inter-rater reliability was .77 at this stage.

A second stage of the scoring procedure was concerned with those completions assigned discrepant scores by the two raters. Since it was not possible for the completions in question to be re-analyzed by both raters together (one resided in Canada, the other in U.S.A.) an alternative procedure was adopted. In the few cases where the ratings were two stages apart, the completions were assigned the stage in between; where the ratings were two adjacent stages, the completions were assigned the higher of the two ratings.

In addition to the overall I-level, the number of responses at each stage of Ego Development was used as a separate independent variable because this yields a great deal more information about the particular functioning of each subject. For example, the subjects who are both rated at the I-3/4 level, would be treated as identical if only the overall I-level were used. However, an examination of the number of responses at each stage might show that one subject's responses are confined to three stages with the highest number of responses at the Conformist (I-3) level, while the other's responses spread over four stages with the highest number of responses at the transition stage I-3/4.

Methods of Analysis

The first hypothesis, concerning the relationship between therapists'

and patients' outcome ratings, was tested by correlation analyses between therapists' and patients' improvement and satisfaction ratings.

The second hypothesis, concerning the relationship between outcome ratings and scores on the personality measures, contained two predictions the first of which was tested by correlation analyses between scores on the personality measures and the two types of outcome ratings by both therapists and patients. As well, multiple regression analyses were made with outcome ratings treated as the dependent variable and scores on the personality measures as the independent variables. The same correlation and multiple regression analyses were then made with the patients divided into successful and unsuccessful groups, according to the perception of the therapist.

The second prediction, pertaining to the relationship between the outcome ratings and therapist-patient personality similarity, was tested by correlation analyses between outcome ratings and therapist-patient difference scores on the personality measures. Multiple regression analysis was also conducted using outcome ratings as the dependent variable and difference scores as the independent variables.

A factor analysis and correlation analysis were made of the eleven independent variables (scores on the personality measures) in order to gain a clear understanding of the relationship between them.

RESULTS

Patient-therapist agreement

The so-called behavioural hypothesis regarding agreement between therapists and patients on outcome judgment does not seem to be supported by the evidence. The correlation between therapists' and patients' ratings of improvement was not significant ($r = .14$, $p < .05$). When rating alledgedly objective and specifiable events (e.g. reduction in fear of flying, grinding of teeth, migraine headaches, alcohol abuse, agoraphobia, blushing), the judgment of patients and therapists did not coincide. Of the 16 patients classified as successful by their therapist, six rated their improvement lower than did their therapist. In contrast, of the 13 patients deemed unsuccessful by their therapist, 11 gave higher improvement ratings than did their therapist.

On the other hand, where satisfaction outcome judgments were concerned, there was a sizeable and significant positive correlation between therapists' and patients' judgments ($r = .64$, $p < .001$). When making judgments about subjective feelings of satisfaction, therapists and patients showed a strong tendency to agree. Within the individual subjects, when the improvement rating was not the same as the satisfaction rating, the latter was most often higher. Only two patients rated their satisfaction lower than their improvement.

Thus, these results contradict the putative expectation of the behavioural hypothesis, that patients and therapists should agree more readily in judging objective events (improvement) than subjective ones (satisfaction). Exactly the opposite obtained here. These findings, however, are quite compatible with the assumptions of the interactionist point of view.

Patient and therapist outcome ratings

The second hypothesis pertains to the relation between personality characteristics and outcome judgments. This led to a first prediction of a positive correlation between patient scores on the personality measures and the two types of outcome ratings. These correlations appear in Table IV. On the whole, they do not support the prediction. The correlations between outcome ratings and patient scores on Dogmatism and Intolerance of Ambiguity are mostly negligible. As to Ego Development levels, a positive correlation had been predicted, particularly with the number of patient responses at the I-3 (Conformity) level. Yet Table IV shows significant negative correlations with three of the four ratings. On the other hand, the significant positive correlations with general I-level, and the number of responses at the I-4 (Conscientious) level, or the negative ones between I-2 (Impulsive) and Delta-3 (Self-protective Conformist), and therapist satisfaction, or between Delta (Self-protective) and patient satisfaction, are not unexpected. Positive correlations with later stages and negative correlations with earlier stages would probably also be found in other therapy orientations, since it has been found that, in general, more mature, cognitively integrated and multidimensional patients tend to do well in therapy (Luborsky et al., 1971). The negative correlation with number of responses at the I-5 level is also in accordance with expectations; this will be discussed later.

These data were submitted to multiple regression analyses, and the results are presented in Table V. Outcome ratings were treated as the dependent variable while the independent variables were the patients' scores on the personality tests.

TABLE IV

PEARSON CORRELATIONS BETWEEN
OUTCOME RATINGS & PATIENT PERSONALITY VARIABLES

	IMPROVEMENT		SATISFACTION	
	Ther.	Pat.	Ther.	Pat.
Intolerance	.18	.26	.24	.18
Dogmatism	.02	-.09	-.19	-.21
I-level	.42**	.17	.47**	.47**
I-2	-.14	-.03	-.32*	-.05
Delta	-.28	-.12	-.24	-.38*
Delta/3	-.00	-.11	-.34*	-.30
I-3	-.43**	-.12	-.39*	-.36*
I-3/4	.10	.17	.10	.17
I-4	.38*	.30*	.41**	.32*
I-4/5	.26	-.18	.27	.31*
I-5	.22	-.37*	.20	.19
Ther. Improvement	---	---	---	---
Pat. Improvement	.14	---	---	---
Ther. Satisfaction	.81***	.30	---	---
Pat. Satisfaction	.49**	.61***	.64***	---

* = $p < .05$
** = $p < .01$
*** = $p < .001$
The Bonferroni (.10) experiment-wise alpha = .002

Ther. = therapist
Pat. = patient

TABLE V

SIGNIFICANT PREDICTORS ON DEPENDENT MEASURES
MULTIPLE REGRESSION ANALYSES WITH FORWARD (STEPWISE) INCLUSION

CRITERION	STEP	SIGNIFICANT PREDICTORS	B WEIGHT	MULTIPLE R
T improve	1	I-3	-.1596*	.43*
	2	Dogmatism	.2230	.53**
	3	Intolerance	.4235	.61**
	4	I-level	.2454	.62*
	5	I-2	.1847	.63*
P improve	1	I-5	-.8299**	.37*
	2	I-level	.2680**	.60**
	3	Delta	.2888	.65**
	4	Intolerance	.2843	.67**
	5	I-2	.1625	.69**
	6	Dogmatism	.3802	.69*
	7	I-4/5	-.6440	.69*
T satis	1	I-level	.6755*	.47**
	2	Intolerance	.4308	.52*
	3	I-2	-.3752	.55*
P satis	1	I-level	.6407**	.47**
	2	Intolerance	.2280	.49*
	3	I-2	.1851	.51*

T improve = therapist improvement ratings
T satis = therapist statisfaction ratings
P improve = patient improvement ratings
P satis = patient satisfaction ratings

* = $p < .05$
** = $p < .01$

According to these results, the best predictors of therapist improvement ratings were the number of patient responses at the I-3 level followed by the scores on Dogmatism and Intolerance of Ambiguity. A low number of I-3 responses combined with high Dogmatism and high Intolerance of Ambiguity scores would predict a high therapist improvement rating. The low number of I-3 responses as significant predictor of high therapist improvement rating is not in accord with the prediction. This finding is clarified in the next subsection. The combination of high Dogmatism and high Intolerance of Ambiguity scores as significant predictors of high therapist outcome rating can be taken as evidence in support of the prediction, for the personality characteristics underlying such scores, blend well with the task demands in behavior therapy. Although the F (multiple R) is still significant when general I-level and number of responses at the I-2 level are added to the equation, the increase in amount of variance accounted for is only 2%.

Concerning the significant predictors of patient improvement ratings listed in Table V, it is of interest to note that a high number of responses at the later Ego Development levels (I-5, I-4/5) are predictive of low patient improvement ratings, whereas a high number of responses at the earlier levels (Delta/3, Delta), Intolerance of Ambiguity and Dogmatism are predictive of high patient improvement ratings.

The best predictors of both therapist and patient satisfaction ratings were I-level, Intolerance of Ambiguity and number of responses at the I-2 level. High I-level and high Intolerance of Ambiguity were predictive of high satisfaction ratings on the part of both therapists and patients. However, where the I-2 level was concerned, high satisfaction was related, on the part of the therapists, to a low number of

responses but, on the part of the patients, to a high number of responses.

Successful vs. unsuccessful patients

The same analyses were done with the personality data grouped into the categories of successful and unsuccessful patients (as sorted by their therapist). These analyses, whose results are shown in Table VI, shed a different light on the data. When the scores of all patients were analysed together (as in Table IV) there was a negative correlation between outcome ratings and number of patient responses at the I-3 level. This was the opposite of the predicted relationship. However, Table VI shows that whereas for the unsuccessful patients the correlations between therapist outcome ratings and number of I-3 responses are negative as before, for the successful group the correlations are in the predicted direction, that is, for successful patients, a higher number of I-3 responses is related to higher therapist outcome ratings and the correlation is significant for one of the criteria, namely satisfaction. Thus, even in considering only one of the variables, I-3, not only does it bear a significant relationship to the therapist's perception of outcome, but it does so differentially in successful and unsuccessful patients. The same kind of divergent correlations among the successful and unsuccessful patients also obtains between a number of other variables and therapist outcome ratings. The difference between these correlations is significant in most instances (by the test of significance of the difference between two independent correlation coefficients, using Fisher's Z-transformation): Dogmatism and satisfaction ($p < .05$); I-level and satisfaction ($p < .05$); I-2 and satisfaction ($p < .01$); Delta/3 and satisfaction ($p < .05$); I-3 and

TABLE VI

PEARSON CORRELATIONS BETWEEN OUTCOME RATINGS
AND PERSONALITY VARIABLES OF SUCCESSFUL & UNSUCCESSFUL PATIENTS

	SUCCESSFUL PATIENTS				UNSUCCESSFUL PATIENTS			
	IMPROVEMENT CRITERION		SATISFACTION CRITERION		IMPROVEMENT CRITERION		SATISFACTION CRITERION	
	Ther.	Pat.	Ther.	Pat.	Ther.	Pat.	Ther.	Pat.
Intolerance	.38	.21	.43	-.02	-.32	.61	.14	.25
Dogmatism	.31	-.03	.41	-.03	.28	-.12	-.50*	-.26
I-level	-.21	-.29	-.30	.13	.50*	.49*	.53*	.44
I-2	.26	.10	.41	.30	-.23	-.08	-.61**	-.05
Delta	.07	.20	.32	.07	-.49	-.29	-.28	-.44
Delta/3	.29	.24	.17	.22	.25	-.41	-.65**	-.48*
I-3	.28	-.07	.45*	-.24	-.67**	-.04	-.34	-.13
I-3/4	-.14	.28	-.04	.01	.42	-.02	.16	.27
I-4	-.48	.27	-.65**	-.03	.54	.25	.55*	.23
I-4/5	0	-.40	-.05	.27	.26	.11	.33	.26
I-5	.01	-.60**	-.15	.17	-.37	.08	.33	-.05

* = $p < .05$
** = $p < .01$
The Bonferroni (.10) experiment-wise alpha = .001

Ther. = therapists
Pat. = patients

improvement ($p < .01$) and satisfaction ($p < .05$); I-4 and improvement ($p < .01$) and satisfaction ($p < .001$). These results are congruent with the interactionist framework and show not only the presence of, but also the complexity of, the relationship between perception of outcome and personality variables.

Correlations between patient improvement ratings and general I-level were negative for successful and positive (significantly) for unsuccessful patients. The difference between these correlation coefficients was significant ($p < .05$). The difference between the correlation coefficients concerning the I-5 level and successful and unsuccessful patient improvement ratings was not quite significant. Interestingly, I-5 is the only variable which is significantly correlated with the outcome ratings of the successful patients.

The former analyses all used the patients' personality scores as the independent variables. In the therapy situation it is the patient who is the focus of attention and who both directly and indirectly reveals information about himself; the therapist is not likely to be directly self-disclosing, but will remain as neutral as possible. Therefore, it was felt that the patients' personality characteristics would be more likely to play a strong role in the situation, than would those of the therapist. Nevertheless, the therapist's personality and style of interaction is a part of the patient's environment or situation. Therefore, correlations and multiple regressions were also calculated using the therapist's personality scores as the independent variables.

Patient improvement ratings bore no significant relationship to therapist's personality scores, but their satisfaction ratings did so in the following variables: Conscientious (I-4) $r = -.38$, $p < .05$;

Impulsive (I-2) $r = .38, p < .05$; Delta/3, $r = .38, p < .05$; Conformist (I-3) $r = .35, p < .05$; I-level $r = -.31, p < .05$; and lastly Intolerance of Ambiguity $r = .31, p < .05$. Scores in the earlier levels of Ego Development (Impulsive, Delta/3 and Conformist) and in Intolerance of Ambiguity were significantly and positively correlated with patient satisfaction ratings, whereas high I-level and high number of responses at the Conscientious (I-4) level were associated with a low patient satisfaction rating. The multiple regression analysis revealed that the number of responses at the Self-protective level was the best predictor (significantly) of patient ratings.

Correlation between the therapists' personality scores and their own outcome ratings were also computed. As might be expected, no significant correlations were found.

Therapist-Patient Similarity and Outcome ratings

Another way of analyzing the interactional process in therapy is to look at the therapist-patient personality similarity/difference and how it relates to the perception of outcome. If such a relationship exists, then, as stated in the second prediction, we would expect significant correlations between outcome ratings and difference scores on the personality variables. These correlations appear in Table VII. The therapist improvement rating shows no significant correlations with the personality difference scores. There is a significant negative correlation, however, between the improvement ratings of patients on the one hand and general I-level and number of responses at the I-3/4 level on the other. That is, the greater the similarity between therapist and patient in I-level and number of responses at the I-3/4 level, the higher the patient improvement rating tended to be. The similarity in

TABLE VII

CORRELATIONS BETWEEN THERAPIST-PATIENT
DIFFERENCE SCORES AND IMPROVEMENT AND SATISFACTION RATINGS

	IMPROVEMENT		SATISFACTION	
	Ther.	Pat.	Ther.	Pat.
Intolerance	.01	.00	-.03	-.03
Dogmatism	.05	-.20	-.20	-.35*
I-level	-.10	-.35*	-.35*	-.27
I-2	-.16	-.14	-.35*	-.04
Delta	-.27	-.22	-.30	-.35*
Delta/3	-.02	-.08	-.28	-.08
I-3	-.02	-.05	-.09	.11
I-3/4	-.18	-.44**	-.37*	-.33*
I-4	-.20	-.08	-.26	-.18
I-4/5	.09	-.08	-.18	-.07
I-5	.23	.29	-.00	.06

* = $p < .05$
** = $p < .01$
The Bonferroni (.10) experiment-wise alpha = .002

Pat. = patient
Ther. = therapist

number of I-3/4 responses is also significantly correlated with both therapist and patient satisfaction ratings. Again, the greater the therapist-patient similarity, the higher was the satisfaction rating.

The intercorrelation matrix appearing in Table VIII shows that the I-3/4 level stands out rather sharply in that it is the only level which is negatively correlated with all the other ego development levels. It forms a clear dividing line between earlier and later levels. Whereas all earlier levels are positively correlated with each other and negatively with those later than I-3/4, all the levels later than I-3/4 are positively correlated with each other and negatively with those earlier than I-3/4. Again, in the factor analysis of the personality variables (Figure I) the I-3/4 level is shown to stand apart in a separate cluster between the earlier and later ego development levels. According to Loevinger (1976), I-3/4 responses are characterized by newly-developed self-consciousness (self-awareness, self-criticism), a deepened interest in interpersonal relations, and a new sense of seeing multiple possibilities and alternatives in situations. This point will be discussed further in the next section.

To further clarify the similarity-outcome relationship, the data were submitted to a regression analysis with the difference scores as the independent variable and patient improvement ratings as the dependent variable. The results appear in Table IX. The best predictors of patient improvement ratings are similarity scores at the I-3/4 level, the Delta/3 level, and the general I-level. In combination these variables accounted for 40% of the variance in patient improvement ratings. The more similar the patient and therapist were in number of responses at the I-3/4 level and in general I-level, and the least similar at the

TABLE VIII

CORRELATION MATRIX

	1	2	3	4	5	6	7	8	9	10	11	12	13
1. AGE													
2. Education	-.11												
3. Intolerance	.22	-.26											
4. Dogmatism	-.31*	-.05	-.11										
5. I-level	.20	.18	.08	-.52**									
6. Impulsive	-.24	-.10	-.04	.06	-.33*								
7. Self-protective	-.29	-.13	-.27	.37*	-.63***	.12							
8. Transition	-.30	-.11	-.16	.56***	-.48**	.35	.35*						
9. Conformist	-.28	-.11	.12	.54***	-.78***	.36*	.44**	.22					
10. Transition	.36*	-.02	.18	-.30	.13	-.03	-.70***	-.17	-.25				
11. Conscientious	.34*	.13	.03	-.43**	.73***	-.56***	-.48**	-.34*	-.84***	-.19			
12. Transition	-.00	.10	-.17	-.40*	.67***	-.22	-.15	-.29	-.69***	-.27	.35*		
13. Autonomous	-.12	.22	-.13	-.22	.58***	-.16	-.11	-.23	-.43**	-.36*	.17	.77***	

* = p .05
** = p .01
*** = p .001

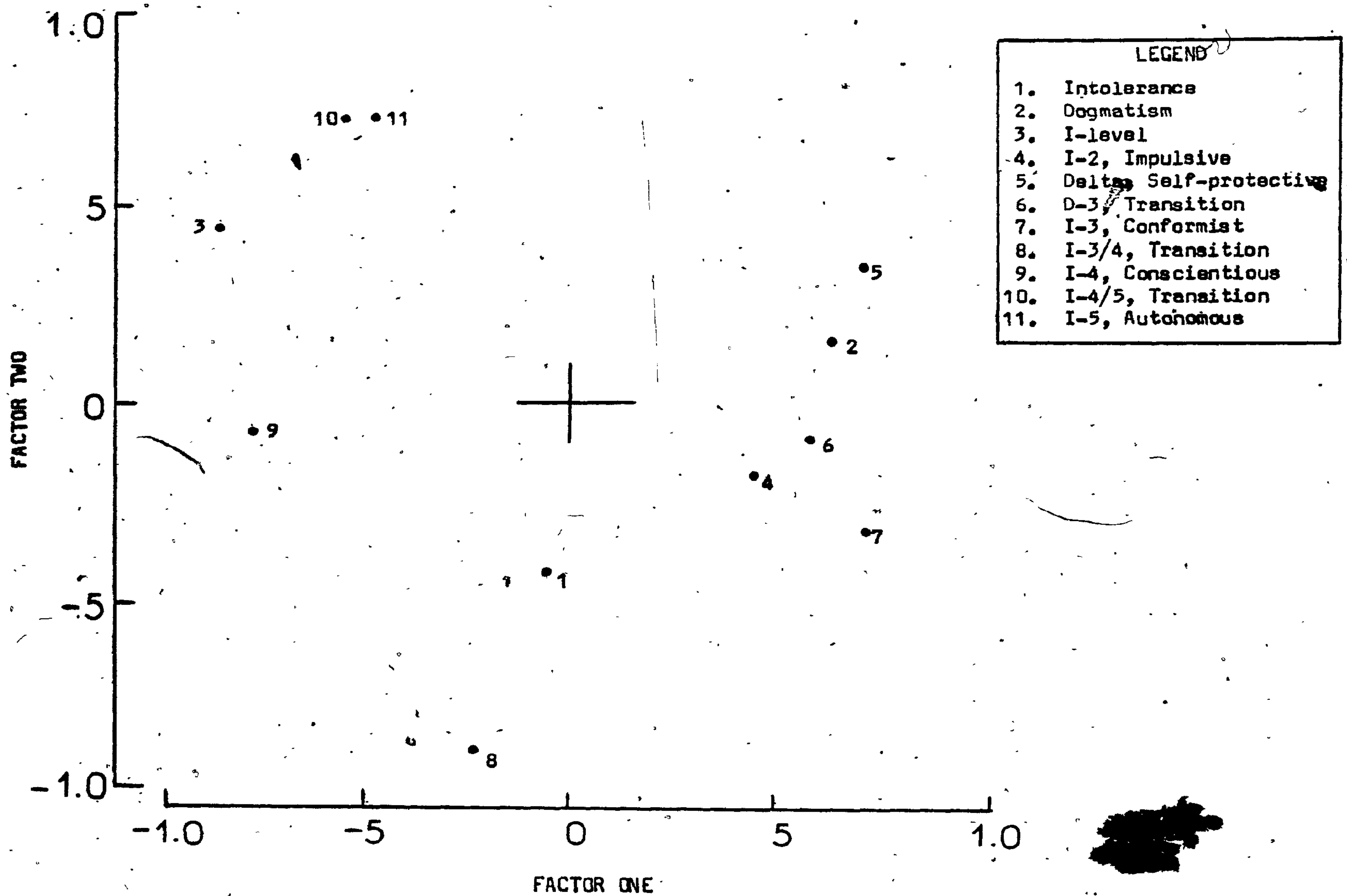

FIGURE 1: Varimax rotated two factor solution (Principal components, Type PA-1)

TABLE IX

SIGNIFICANT PREDICTORS ON DEPENDENT MEASURES

MULTIPLE REGRESSION ANALYSIS WITH FORWARD (STEPWISE) INCLUSION

CRITERION	STEP	SIGNIFICANT PREDICTORS +	B WEIGHT	MULTIPLE R
P improve	1	I-3/4	-.2645*	.44*
	2	Delta/3	.9530**	.51*
	3	I-level	-.6626	.62**
	4	I-4	.1204	.65**
	5	Dogmatism	-.1599	.67**
	6	Intolerance	.2384	.69*
	7	I-4/5	-.1344	.70*
	8	I-2	.2015	.71*

P improve= patient improvement ratings

+ therapist-patient difference scores

* = $p < .05$

** = $p < .01$

Delta/3 level, the higher was the patient improvement rating.

A multiple regression analysis of therapist outcome ratings on personality similarity scores yielded no significant results.

A look at the direction of differences between therapist and patient scores on ego development produces some interesting information. Figures 3, 4 and 5 can serve to clarify these differences. It can be seen that therapist A is fairly similar to his patients, while therapists B and C show greater differences from their patients. However, the differences for therapists B and C are in opposite directions: Therapist B has fewer responses at the earlier levels and more at the later. Figure 3 shows that Therapist A has the largest percentage of his responses at the I-4 level. He is more like his successful than his unsuccessful patients. Therapist B (Figure 4) has the largest percentage of responses at the I-4 stage. He is also more like his successful than unsuccessful group, and in addition is at a later level than both groups. Figure 5 shows that therapist C has the largest percentage of his responses at the I-3 level. He is more like his unsuccessful than his successful group, and in addition is at an earlier level than both groups of patients. Comparing these figures, it can be seen that for all three therapists, the patients who are perceived by the therapist as successful are at a later level of ego development than those who are perceived as unsuccessful. This holds true even where the therapist himself is at an earlier level than both groups of patients. This suggests that patients' I-level play a definite part in therapists' perception of outcome, in further incidental support of the hypothesis.

In summary, high patient improvement ratings were found to be related to greater similarity between therapists and patients in number

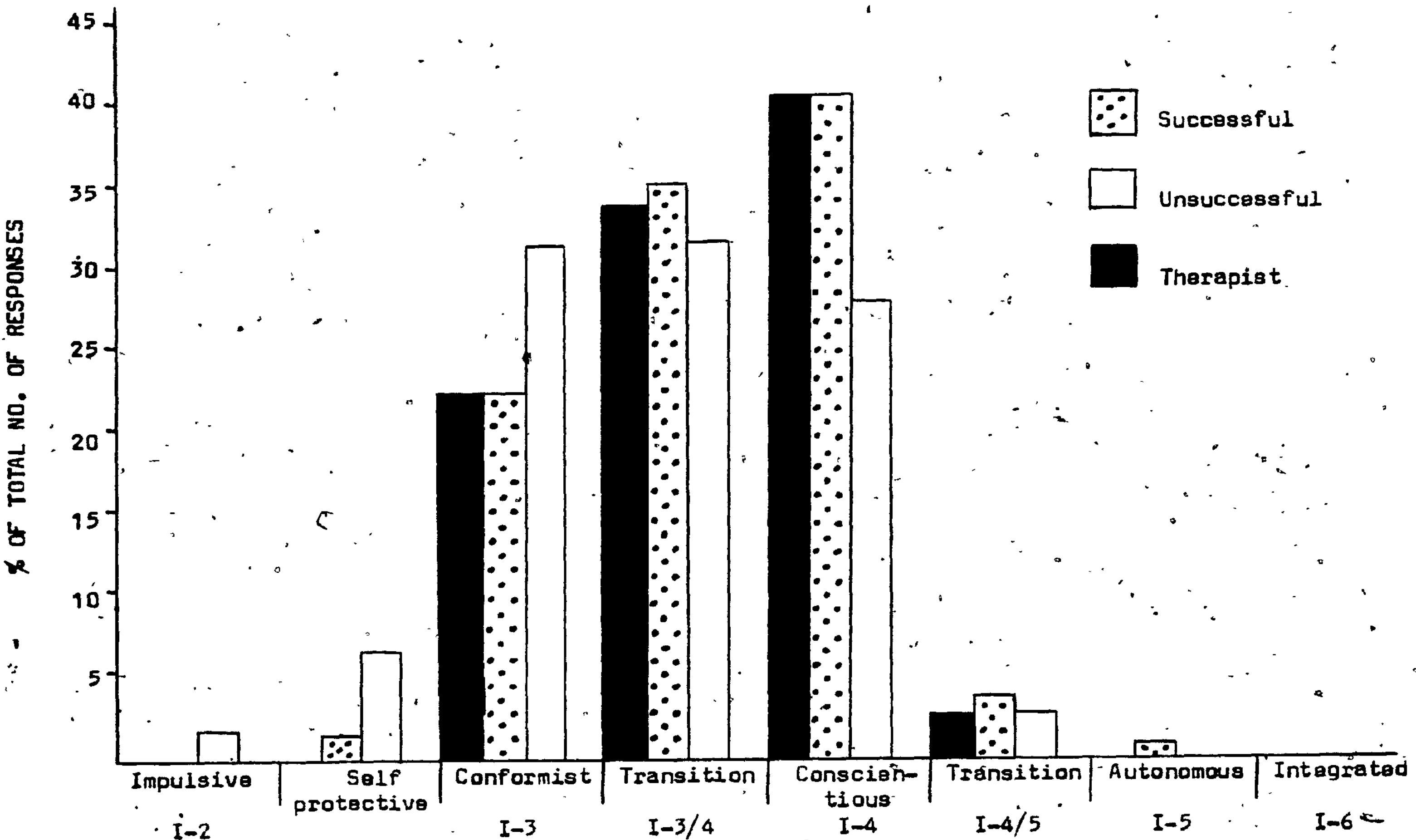

FIGURE 3: Mean percent of sentence completions at each Ego Development level for therapist A, successful and unsuccessful patients.

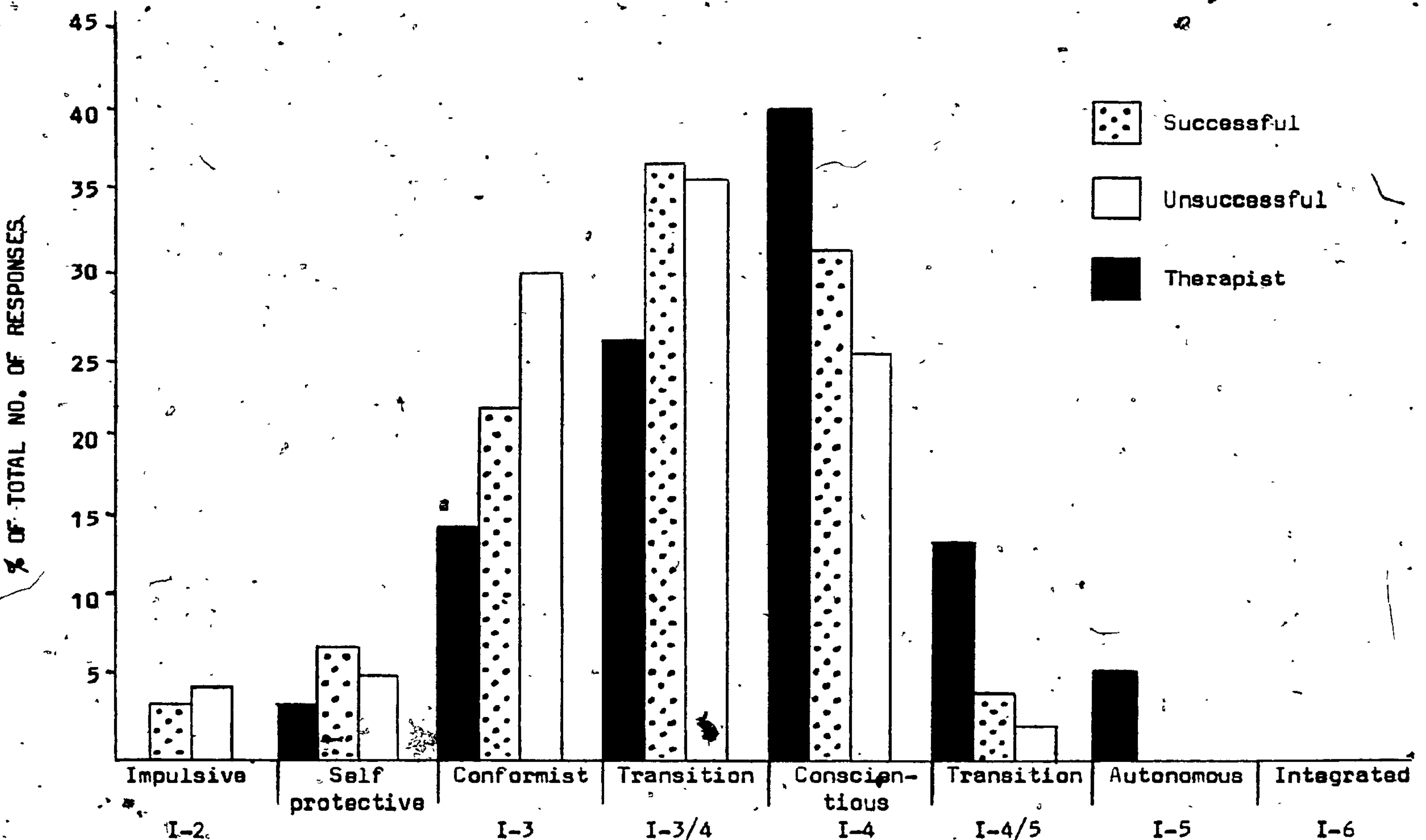

FIGURE 4: Mean percent of sentence completions at each Ego Development level for therapist B, successful and unsuccessful patients.

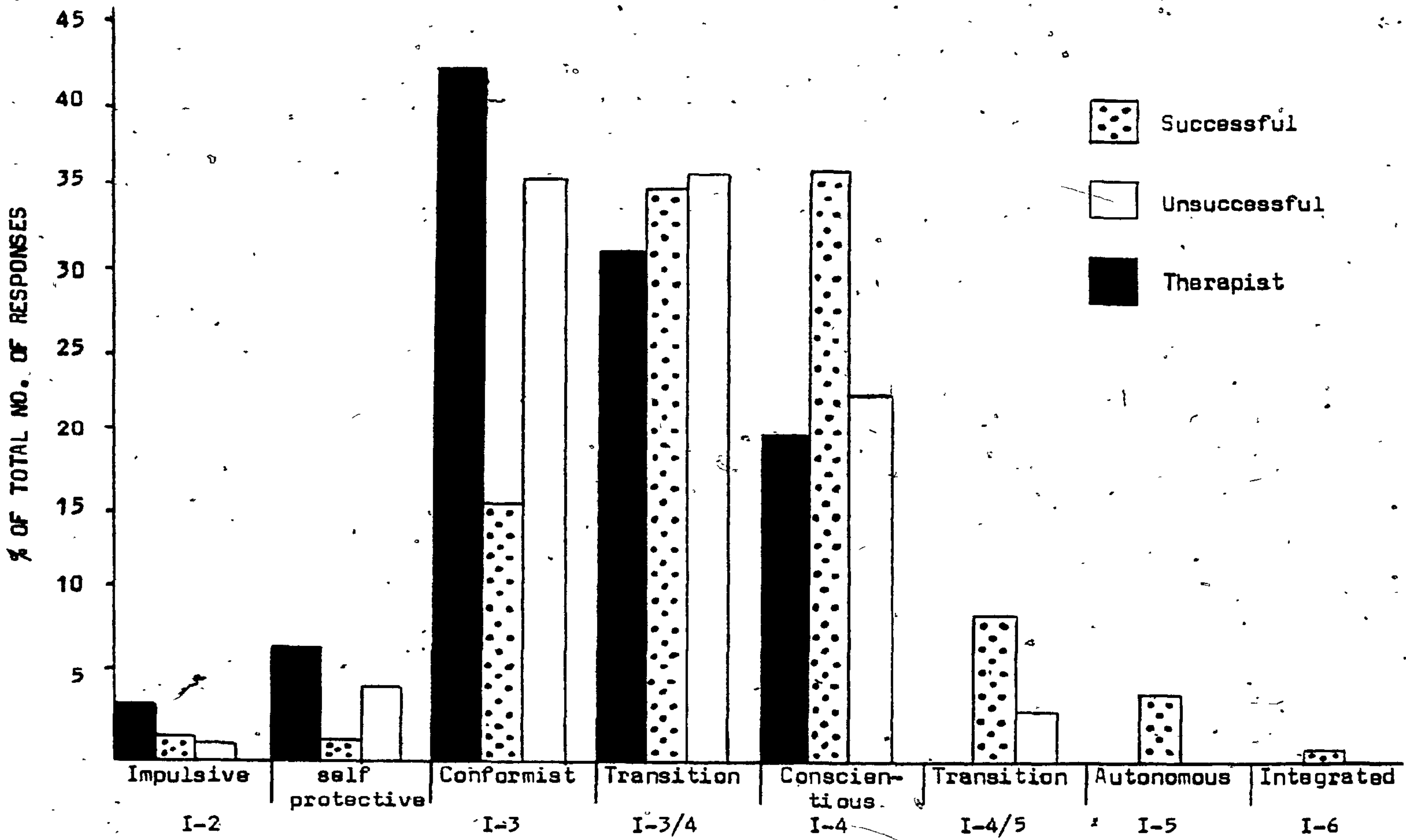

FIGURE 5: Mean percent of sentence completions at each Ego Development level for therapist C, successful and unsuccessful patients.

of responses at the I-3/4 level and in general I-level. Therapist improvement ratings were not significantly related to similarity on the personality tests.

Personality characteristics and therapeutic orientation

It was argued in the introduction that therapists and patients in behavior therapy would tend to score towards the dogmatic and intolerant end of scales measuring these variables and close to the I-3 level of ego development. The following data show that on the whole this choice of personality variables was justified.

A score of 120 or above on the Dogmatism scale indicates that the respondent has answered more items in the direction of Dogmatism than in the opposite direction. The mean scores on this scale were 114 for therapists and 127 for patients. It should be noted that the Dogmatism scale and its rationale are, no doubt, better known and therefore more transparent to the therapists than to the patients.

A score of 44 or more on the Intolerance-tolerance of Ambiguity scale indicates that the respondent has answered more items in the direction of intolerance than tolerance. The mean scores on this scale were 47 for the therapists and 52 for the patients. The comment about the transparency of the scales also applies here.

On the Ego development scale the mean score for the therapists was six, which represents the I-4 stage, for the patient 5.5. which represents half-way between the I-3/4 and I-4 stages. Thus both patients and therapists scored at a later level than predicted. Part of the reason for this may be due to the scoring system used. Theoretically and ideally the overall I-level should be related equally to both later and earlier level responses. Yet it was seen in Figure 2 that overall

I-level appears in the same cluster with the last three levels and is therefore much more closely related to these. In addition, Loevinger's scoring manual requires that omissions be scored at the I-3 level whereas the writer feels that it would be more theoretically approriate to score these at the Self-protective level. Thus the scoring system tends to produce a higher overall I-level than would be obtained if the stems were scored on the basis of Loevinger's theoretical description of the stages alone.

In the introduction it was further suggested that patients who deviate from this pattern (tendency to higher Dogmatism and Intolerance of Ambiguity scores and a large percentage of responses at the I-3 level) will be more likely to be perceived by the therapist as unsuccessful. If this is so, then the mean Dogmatism and Intolerance of Ambiguity scores of the successful patients should be higher than for the unsuccessful and the mean Ego development level of the successful patients should be closer to the I-3 level than that of the unsuccessful.

On the Ambiguity variable, the mean score for the successful patients was higher (53.38) than that of the unsuccessful (50.23). The difference was not statistically significant (p .05). Unsuccessful patients were somewhat more dogmatic as reflected by their score (mean 130.1) than were the successful group (mean 123.9). The difference was not statistically significant.

On the Ego development test successful patients scored at the I-4 level and the unsuccessful at the I-3/4 level. Successful patients had fewer responses at the earlier levels and more at the later when compared to the unsuccessful. The differences between the groups are greatest on the overall I-level, at the I-3 level where the unsuccessful

had more responses, and at the I-4 level where the successful had more responses. It has already been shown that all three therapists perceived the later Ego development patients as successful.

DISCUSSION

This study had a twofold purpose: to investigate the hypothesis that some widely held beliefs regarding the role of personality variables in behavior therapy are untenable, and that outcome judgments in behavior therapy are influenced by the interaction between personality and situation variables. The major findings tend on the whole to support this position.

The first hypothesis, derived from behavioural arguments, that therapists' and patients' outcome ratings should be positively correlated, was not confirmed. The findings of a substantial agreement between therapists and patients on the more subjective satisfaction judgment and of a lack of agreement on the more objective improvement judgment are more compatible with the assumptions of the interactionist point of view of complex patterns of influence between the factors involved.

It was mentioned in the introduction that the behavioral approach in therapy, like the traditional learning theories, makes no particular assumption regarding patterns of development, and does not consider level of ego development as a relevant variable in therapeutic outcome. A major finding of this study is the significant relationship between outcome judgments and ego development. The second hypothesis, which is supported by this finding, was based on arguments that dynamic interactional factors are operating in behavior therapy, as in other orientations, and have some bearing on how the therapist and patient perceive the outcome. The significant correlations that were found between personality characteristics of the patient and both therapist and patient outcome ratings, and between personality similarities and outcome

ratings, tend to confirm the hypothesis that behavior therapy is not different from other therapeutic orientations with respect to the influence of personality variables on the outcome. Phrased differently, these findings do not support the belief that the outcome of behavior therapy is a function of techniques and programs exclusively.

It was predicted at the outset that a positive correlation would be found between patients' scores on Dogmatism and Intolerance of Ambiguity, their general I-level and the number of responses at the I-3 level on the one hand and outcome ratings on the other. The obtained correlations reached significance levels for three variables (Dogmatism, I-level and I-3). The correlations with I-3 and Dogmatism however, were significant only for therapists' satisfaction ratings, and in the predicted direction only for successful patients; the I-level correlations were as predicted only for unsuccessful patients. Nevertheless, these findings can be considered in general agreement with the prediction, and to support the underlying hypothesis that in behaviour therapy personality is related to outcome. Yet it is difficult to make theoretical interpretations of these relationships because a correlational design was used. Besides, the interactionist perspective commands prudence in the determination of causes and effects, independent and dependent variables and the direction of influence generally.

Furthermore, the data were collected at the end of the therapeutic process, so that even if Dogmatism scores and number of responses at the Conformist level are significantly correlated with the therapists' satisfaction ratings, it is impossible to know whether the personality characteristics manifested in the test scores are ones that influenced the participants' initial perception of each other, or whether they

reflect changes resulting from their mutual interaction. It is also impossible to specify the exact manner in which the various factors were interacting, nor the sequence of successive influences and counter-influences. For example, although the therapists supplied their lists of successful and unsuccessful patients after the treatment was terminated, it cannot be asserted that the judgment of success or failure was made at the time of termination, or even that there is any specific moment during the therapeutic process at which this judgment was made. The judgment itself is probably an ongoing process which is set off at the time of the first encounter between therapist and patient, is influenced by the therapist's perception of the patient and influences in turn the manner in which the therapist acts towards the patient, who reacts accordingly, and so on in a continuous sequence of actions, reactions and counteractions.

Regardless of when and how the therapist's judgment of success and failure arose, the way in which outcome ratings are related to patients' personality variables interacts with this judgment. When patients judged to be successful are considered, the therapists' outcome ratings are positively correlated with patient Dogmatism and Conformist level responses and negatively with the Conscientious level responses. When the patients are judged unsuccessful, exactly the opposite obtains (and five of the six differences between the corresponding pairs of correlations are significant). One can only guess at the nature of the interaction reflected in these findings. It may be that Dogmatism or a Conformist or Conscientious disposition have a different meaning for the therapist when other factors lead him to perceive the therapeutic process as successful or unsuccessful; or it may be that some patients'

Conformist disposition leads them to agree implicitly with the therapist's theoretical outlook, a state of affairs that would be conducive to a judgment of success; while others tend to conform to the culturally prevalent anti-behavioral bias and accept the negative public image of behavior therapy (Turkat & Feuerstein, 1978), thus introducing tensions in the therapeutic process. Since the attitudes characteristic of each of these levels are incompatible (cf. the descriptions in the introduction and the fact that the two stages are negatively correlated: $r = -.84$, $p < .001$), one would expect that if outcome ratings are positively related to one they would be negatively related to the other and vice-versa. No doubt, other interpretations are possible and it must be left to future research to clarify the issue.

Another puzzling result of separating successful and unsuccessful patients concerns the relationship between outcome ratings and general level of development. When the two groups are combined, it is found that, in general, outcome ratings are positively correlated with general I-level and with number of responses at levels above I-3 and negatively with number of responses at I-3 and earlier levels. It was pointed out in the previous section that such results are compatible with what obtains in other forms of psychotherapy. However, when the groups are separated, this pattern of correlations is found only with the unsuccessful patients and the reverse with the successful ones. In particular there is a significant negative correlation ($r = -.60$, $p < .01$) between number of responses at the I-5 (Autonomous) level and patient improvement ratings. These results make sense if we allow that the attitudes associated with the I-5 level (less external, less concrete, more differentiated) are the opposite of those which were earlier assumed to be

compatible with the techniques of behavior therapy. A patient with several responses at the I-5 level might therefore find the approach too limiting. The comments made by the patient with the highest number of I-5 responses may illustrate this point. This patient gave a very low improvement rating with a higher satisfaction rating and attempted to clarify this discrepancy in this way: "I learned a lot about behavioral therapy itself and various principles. I was satisfied with what Dr. X could do — however, behavioral therapy has limitations which therefore could not help me." In contrast, a patient with a majority of responses at the I-3/4 and I-4 levels and few or none at the I-5 will not have to compromise any I-5 level awareness of psychological complexity and individual uniqueness, a preference for self-direction and a distaste for circumscribed situations - all characteristics of the I-5 level.

It is interesting to note that for successful patients only four variables are significantly correlated with outcome ratings, whereas for unsuccessful patients eleven correlations are significant. Moreover, 12 of the significant correlations deal with therapists' outcome ratings, and only three with patients' outcome ratings. From this we might conclude that the interplay or interaction between perception of outcome and specific personality variables in the patient are of greater importance in the unsuccessful than in the successful patients, and that therapists' more than patients' perception of outcome is affected by these interactions. From an interactionist point of view, it seems reasonable to infer in a general way that, with the unsuccessful patients, the interaction process (impression formation and management, etc.) has not worked out smoothly and/or that the general philosophies

of therapist and patient do not agree, and that these social encounter difficulties have a tendency to interfere with and influence the perception of outcome.

Another important finding relates to the second prediction that the similarity or difference between patients and therapist in particular personality characteristics was related to outcome judgments. The results suggest that greater similarity between therapist and patient in general I-level and in number of responses at the I-3/4 level are related to a favourable perception of outcome on the part of the patient, and that greater similarity in number, whether high or low, of I-3/4 responses is related to greater satisfaction ratings on the part of both patient and therapist. These results suggest that the I-3/4 stage may be a crucial transition stage which bears special further investigation. The change in the direction of correlations between levels I-3 and I-4 has already been noted. It may be that patients who are operating primarily at the I-3/4 stage are in a kind of uncomfortable developmental confusion, having outgrown or rejected the behavior patterns of earlier stages, but not being yet able to comprehend or visualize the development ahead. Their uncertainty may be reflected in a defensive inability to deal with perspectives and attitudes different from their own. From the therapist's point of view, such patients could be frustrating and less satisfying to work with unless there is a clear conceptualization of this stage of development and specific measures are taken to demonstrate understanding and support to the patient. A similar study using another orientation as a comparison would be useful. For example, in an orientation such as Rogerian therapy, where the support and empathy is an integral part of the technique,

we might find less concern for similarity at the apparently vulnerable I-3/4 stage.

A closer look at the A.A.B.T. norm sample provides some additional results which are relevant to a discussion on congruence between personality variables and therapy orientations. These results pertain to the relationship between these behavior therapists' Ego development levels and their choice of particular therapy techniques. On the Ego development test 77% of the therapists scored at the I-3 , I-3/4 or I-4 level. According to research results (Loevinger, 1970) most of the late adolescent and adult population in urban U.S.A. are at these levels. Thus it can be stated that most of the therapists in this sample scored at the same levels as the majority of the general population.

A factor analysis of the frequency-of-use ratings of the various therapeutic techniques revealed three major factors. The complete Rotated Factor Matrix is presented in Appendix VI. Since the loadings were relatively high the cutoff point used was .50. The first factor had high positive loadings on the following techniques:

progressive relaxation	.78
thought stoppage	.75
assertion training	.71
rational emotive	.68
desensitization	.65

This may be called the cognitive techniques factor. The second factor had high positive loadings on:

covert reinforcement	.84
covert sensitization	.72
token economy	.71
satiation	.69
contingency management	.61
record keeping	.58
operant conditioning	.51

This may be called the instrumental techniques factor.

The techniques positively associated with this factor are ones that are frequently used in institutional settings, whereas those associated with the first factor are used primarily in private therapy. Thus, these factors may be classified not only as to what type of behavioral approach they represent, i.e. cognitive or instrumental, but also as to what setting they are used in, i.e. private or institutional. The third factor had high positive loadings on:

Non-verbal exercises	.77
free association	.72
dream analysis	.66
play therapy	.66
awareness exercises	.63
empty chair	.60
role reversal	.54
interpretation	.52

This clearly may be called the dynamic techniques factor. Both factors 1 and 2 had negative loadings on dream analysis and free association. These two techniques are strongly associated with the analytic orientation. What is indicated here is a bipolar conception, on the part of these behavior therapists, in regard to therapeutic techniques, with analytic techniques at one extreme and behavioral techniques at the other. Precisely which behavioral techniques are seen at the other extreme seems to depend on whether one is cognitively or instrumentally oriented. As was suggested earlier, it may also depend on whether one is working in private practice or in an institution. We might ask whether the instrumentally oriented behavior therapist is attracted to institutional work and the cognitively oriented therapist to private practice because it is in these settings they can use the techniques they feel most comfortable with; do they use particular techniques because they are working in a particular setting? That is, do they use particular techniques because of external demands (the setting in which

they work) or because of internal demands (personal attitudes, beliefs, preferences)? A look at factors 1 and 2 in relation to the I-levels of the therapists provides some clues to these questions.

In the following description only techniques which are used 55% or more of the time will be included. Therapists at the I-3/4 and below (N = 9) most frequently used techniques associated with the instrumental factor, less frequently used the cognitive techniques, and there is only one instance of a therapist using a dynamic technique. The two therapists at the I-3 stage used only instrumental techniques. In contrast, therapists at the I-4/5 stage (N = 5) used cognitive techniques more frequently than instrumental and, in addition, three out of the five used some dynamic techniques.

It has already been suggested that further research using other orientations, which have different task demands, as comparison groups would be useful. We would then be able to see whether the variables most strongly related to outcome ratings would also fit in with the task demands of those orientations. Such research would have implications for initial assessment, for appropriate selection of patients by therapists, and for selection of the most fitting therapy mode by patients. It could also lend further support to and clarification of the suggestion made in the introduction, namely that, from the theoretical points of view of Ego Development and of the various orientations, some patients might be better suited than others for particular therapeutic approaches.

The important interactional relationships which were revealed will require further research to clarify. Obtaining data at the beginning and midpoint of therapy as well as at termination would unravel

some of the questions which are raised by the results of this study, as to timing and direction of changes in personality variables and timing of the perceptions regarding successful and unsuccessful outcome.

In conclusion, it can be said, that although not all initial predictions have been confirmed, the general hypothesis of the study has received reasonable support. The results show that the outcome judgments in behavior therapy bear a relationship to dynamic interactional processes as they do in other therapeutic orientations.

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APPENDIX I

Dear

I am involved in some research which requires your help. This research project aims to identify some of the factors responsible for successful behavior therapy. The ultimate objective is to develop a good match between therapists and clients so that the probability of successful therapy will be increased.

Your participation would be of tremendous help to us. It involves the completion of the enclosed questionnaires. The time required is estimated to about one and a half hours.

Your anonymity is assured in that only a code number will identify the questionnaires that you receive. The research coordinator will not have your name. Completed questionnaires will be mailed by you directly to the research coordinator in the enclosed addressed and stamped envelope, and will at no time be available to me.

Behavior therapy has already helped many people achieve a more contented fuller life. We must nevertheless keep trying to improve our methods and our understanding of the therapy process by continually doing careful research.

I thank you in advance for your assistance.

Yours truly,

____

APPENDIX II

PLEASE FILL IN THE FOLLOWING INFORMATION:

Sex: M___ F___ Age: ___ Last degree received (specialty): ___

How many years have you been doing behavior therapy (excluding training: ___

RANK-ORDER THREE OF THE FOLLOWING THERAPY MODES WITH WHICH YOU MOST CLOSELY IDENTIFY YOURSELF:

___ Body therapy
___ Classical conditioning
___ Cognitive behavior modification
___ Existential
___ Gestalt
___ Humanistic
___ Operant conditioning
___ Psychoanalysis
___ Psychodynamic
___ Rational-Emotive
___ Rogerian

RATE (FROM 1 TO 6) THE FOLLOWING TECHNIQUES IN TERMS OF FREQUENCY OF YOUR USAGE:

1 - very frequently (75% or more)
2 - quite frequently (55-75%)
3 - from time to time (35-55%)
4 - occasionally (15-35%)
5 - infrequently (15% or less)
6 - not at all

___ assertion training
___ aversion
___ awareness exercises
___ contingency management
___ covert reinforcement
___ covert sensitization
___ desensitization
___ dream analysis
___ empty chair
___ flooding
___ free association
___ instrumental control (biofeedback)
___ interpretation
___ meaning attribution
___ non-verbal exercises
___ play therapy
___ progressive relaxation
___ rational emotive
___ record keeping
___ response costs (operant conditioning)
___ Rogerian reflection
___ role reversal
___ satiation
___ social skill training
___ though stoppage
___ token economy

APPENDIX III

PLEASE FILL IN THE FOLLOWING INFORMATION:

AGE: ______

SEX: M _____ F _____

MARITAL STATUS: SINGLE _____ MARRIED _____ SEPARATED _____
DIVORCED _____ WIDOWED _____

EDUCATION: (FILL IN NUMBER OF YEARS AT HIGHEST LEVEL ATTAINED)

__________ Elementary

__________ High School

__________ University

ANNUAL INCOME LEVEL: (YOUR OWN IF SINGLE: FAMILY INCOME IF MARRIED)

__________ above $30,000

__________ $20,000 - $30,000

__________ $15,000 - $20,000

__________ $10,000 - $15,000

__________ $ 7,000 - $10,000

__________ below $7,000

TOTAL NUMBER OF THERAPY SESSIONS: __________

GIVE A BRIEF DESCRIPTION OF THE PROBLEM(S) WHICH BROUGHT YOU TO THERAPY:

APPENDIX IV

PATIENT'S CODE NO : ____________

PLEASE COMPLETE ONE COPY OF THIS PAGE FOR EACH PATIENT. BE SURE TO WRITE THE PATIENT'S CODE NUMBER AT THE TOP OF THE PAGE.

1. HOW MUCH DID THE PATIENT BENEFIT FROM THERAPY?

   ________ a great deal
   ________ a fair amount
   ________ to some extent
   ________ very little
   ________ not at all

2. EVERYTHING CONSIDERED, HOW SATISFIED ARE YOU WITH THE RESULTS OF THIS PATIENT'S THERAPY EXPERIENCE?

   ________ extremely satisfied
   ________ moderately satisfied
   ________ fairly satisfied
   ________ fairly dissatisfied
   ________ moderately dissatisfied
   ________ extremely dissatisfied

3. TO WHAT EXTENT DID THE PATIENT'S COMPLAINTS OR SYMPTOMS THAT BROUGHT HER (HIM) TO THERAPY CHANGE AS A RESULT OF TREATMENT?

   ________ completely disappeared
   ________ very greatly improved
   ________ considerably improved
   ________ somewhat improved
   ________ not at all
   ________ got worse

4. TO WHAT EXTENT DID THE PROBLEM(S) THAT BROUGHT THE PATIENT TO THERAPY AFFECT HER (HIS) LIFE?

   ________ affected all life in general
   ________ affected several areas of life
   ________ affected primarily one area of life
   ________ affected only very specific situations

CHECK ONE OF THE CHOICES IN EACH QUESTION:

1. HOW MUCH HAVE YOU BENEFITED FROM THE THERAPY?

- ________ a great deal
- ________ a fair amount
- ________ to some extent
- ________ very little
- ________ not at all

2. EVERYTHING CONSIDERED, HOW SATISFIED ARE YOU WITH THE RESULTS OF YOUR THERAPY EXPERIENCE?

- ________ extremely satisfied
- ________ moderately satisfied
- ________ fairly satisfied
- ________ fairly dissatisfied
- ________ moderately dissatisfied
- ________ extremely dissatisfied

3. TO WHAT EXTENT HAVE YOUR COMPLAINTS OR SYMPTOMS THAT BROUGHT YOU TO THERAPY CHANGED AS A RESULT OF TREATMENT?

- ________ completely disappeared
- ________ very greatly improved
- ________ considerably im/roved
- ________ somewhat improved
- ________ not at all
- ________ got worse

4. TO WHAT EXTENT DID THE PROBLEM(S) THAT BROUGHT YOU TO THERAPY AFFECT YOUR LIFE?

- ________ affected my whole life in general
- ________ affected several areas of my life
- ________ affected primarily one area of my life
- ________ affected only very specific situations

APPENDIX V

FOLLOWING THESE INSTRUCTIONS ARE SOME INCOMPLETE SENTENCES. PLEASE FINISH EACH ONE IN ANY WAY YOU WISH. THERE ARE NO RIGHT OR WRONG ANSWERS. IF YOU ARE A MALE, IGNORE THE WORDS IN THE BRACKETS; IF YOU ARE A FEMALE, READ THE BRACKETED WORDS RATHER THAN THOSE IMMEDIATELY PRECEEDING THEM.

1. Raising a family
2. Most women (men) think that men (women)
3. When they avoided me
4. If my mother
5. Being with other people
6. The thing I like about myself
7. My mother and I
8. What gets me in trouble is
9. Education
10. When people are helpless
11. Women are lucky because
12. My father
13. If I had more money
14. I just can't stand people who
15. A wife should
16. I feel sorry
17. When I am nervous
18. A man's (woman's) body
19. When a child won't join in group activities
20. Men are lucky because
21. When they talked about sex, I
22. At times he (she) worried about
23. I am
24. A man (woman) feels good when
25. My main problem is
26. When I get mad
27. The worst thing about being a man (woman)
28. A good mother
29. Sometimes he (she) wished that

30. When I am with a woman (man)

31. When he (she) thought of his (her) mother, he (she)

32. If I can't get what I want

33. Usually he (she) felt that sex

34. A man's (woman's) job is

35. My conscience bothers me if

36. A man (woman) should always

THE FOLLOWING IS A STUDY OF WHAT THE GENERAL PUBLIC THINKS AND FEELS ABOUT A NUMBER OF IMPORTANT SOCIAL AND PERSONAL QUESTIONS. THE BEST ANSWER TO EACH STATEMENT BELOW IS YOUR PERSONAL OPINION. WE HAVE TRIED TO COVER MANY DIFFERENT AND OPPOSING POINTS OF VIEW. YOU MAY FIND YOURSELF AGREEING STRONGLY WITH SOME OF THE STATEMENTS, DISAGREEING JUST AS STRONGLY WITH OTHERS, AND PERHAPS UNCERTAIN ABOUT OTHERS; WHETHER YOU AGREE OR DISAGREE WITH ANY STATEMENT, YOU CAN BE SURE THAT MANY PEOPLE FEEL THE SAME AS YOU DO.

MARK EACH STATEMENT IN THE LEFT MARGIN ACCORDING TO HOW MUCH YOU AGREE OR DISAGREE WITH IT. PLEASE MARK EVERY ONE.

Write +1, +2, +3, -1, -2, -3, depending on how you feel in each case.

+1 I agree a little
+2 I agree on the whole
+3 I agree very much

-1 I disagree a little
-2 I disagree on the whole
-3 I disagree very much

_____ 1. The United States and Russia have just about nothing in common.

_____ 2. An expert who doesn't come up with a definite answer probably doesn't know too much.

_____ 3. The highest form of government is a democracy and the highest form of democracy is a government run by those who are most intelligent.

_____ 4. Even though freedom of speech for all groups is a worthwhile goal, it is unfortunately necessary to restrict the freedom of certain political groups.

_____ 5. It is only natural that a person would have much better acquaintance with ideas he believes in than with ideas he opposes.

_____ 6. I would like to live in a foreign country for a while.

_____ 7. Man on his own is a helpless and miserable creature.

_____ 8. Fundamentally, the world we live in is a pretty lonesome place.

_____ 9. There is really no such thing as a problem that can't be solved.

_____ 10. Most people just don't give a "damn" for others.

_____ 11. I'd like it if I could find someone who would tell me how to solve my personal problems.

_____ 12. It is only natural for a person to be rather fearful of the future.

_____ 13. There is so much to be done and so little time to do it in.

_____ 14. A good job is one where what is to be done and how it is to be done are always clear.

_____ 15. Once I get wound up in a heated discussion I just can't stop.

_____ 16. People who fit their lives to a schedule probably miss most of the joy of living.

_____ 17. In a discussion I often find it necessary to repeat myself several times to make sure I am being understood.

_____ 18. In a heated discussion I generally become so absorbed in what I am going to say that I forget to listen to what the others are saying.

_____ [illegible] It is better to be a dead hero than to be a live coward.

_____ 20. In the long run it is possible to get more done by tackling small, simple problems rather than large and complicated ones.

_____ 21. While I don't like to admit this even to myself, my secret ambition is to become great, like Einstein, or Beethoven, or Shakespeare.

_____ 22. The main thing in life is for a person to want to do something important.

_____ 23. It is more fun to tackle a complicated problem than to solve a simple one.

_____ 24. If given a chance I would do something of great benefit to the world.

_____ 25. In the history of mankind there have probably been just a handful of really great thinkers.

_____ 26. There are a number of people I have come to hate because of the things they stand for.

_____ 27. A man who does not believe in some great cause has not really lived.

_____ 28. Often the most interesting and stimulating people are

those who don't mind being different and original.

_______ 29. It is only when a person devotes himself to an ideal or cause that life becomes meaningful.

_______ 30. What we are used to is always preferable to what is unfamiliar.

_______ 31. Of all the different philosophies which exist in this world there is probably one which is correct.

_______ 32. A person who gets enthusiastic about too many causes is likely to be a pretty "wishy-washy" sort of person.

_______ 33. To compromise with our political opponents is dangerous because it usually leads to the betrayal of our own side.

_______ 34. People who insist on a yes or no answer just don't know how complicated things really are.

_______ 35. When it comes to differences of opinion in religion we must be careful not to compromise with those who believe differently from the way we do.

_______ 36. In times like these, a person must be pretty selfish if he considers primarily his own happiness.

_______ 37. A person who leads an even, regular life in which few surprises or unexpected happenings arise, really has a lot to be grateful for.

_______ 38. The worst crime a person could commit is to attack publicly the people who believe in the same thing he does.

_______ 39. In times like these it is often necessary to be more on guard against ideas put out by people or groups in one's own camp than by those in the opposing camp.

_______ 40. A group which tolerates too much differences of opinion among its own members cannot exist for long.

_______ 41. There are two kinds of people in this world; those who are for the truth and those who are against the truth.

_______ 42. I like parties where I know most of the people more than ones where all or most of the people are complete strangers.

_______ 43. My blood boils whenever a person stubbornly refuses to admit he's wrong.

_______ 44. Teachers or supervisors who hand out vague assignments give a chance for one to show initiative and originality.

_______ 45. A person who thinks primarily of his own happiness is beneath contempt.

_______ 46. Most of the ideas which get printed nowadays aren't worth the paper they are printed on.

_____ 47. In this complicated world of ours the only way we can know what's going on is to rely on leaders or experts who can be trusted.

_____ 48. The sooner we all acquire similar values and ideals the better.

_____ 49. It is often desirable to reserve judgment about what's going on until one has had a chance to hear the opinions of those one respects.

_____ 50. In the long run the best way to live is to pick friends and associates whose tastes and beliefs are the same as one's own.

ROTATED FACTOR MATRIX

Factor 1 - Cognitive		Factor 2 - Instrumental		Factor 3 - Dynamic	
progressive relaxation	(.78)	covert reinforcement	(.84)	non-verbal exercises	(.77)
thought stoppage	(.75)	covert sensitization	(.72)	free association	(.72)
assertion training	(.71)	token economy	(.71)	dream analysis	(.66)
rational emotive	(.68)	satiation	(.69)	play therapy	(.65)
desensitization	(.65)	contingency management	(.61)	awareness exercises	(.63)
biofeedback	(.48)	record keeping	(.58)	empty chair	(.60)
meaning attribution	(.41)	operant conditioning	(.51)	role reversal	(.54)
Rogerian reflection	(.36)	social skill training	(.48)	interpretation	(.52)
covert sensitization	(.32)	desensitization	(.43)	Rogerian reflection	(.42)
record keeping	(.32)	aversion	(.33)	social skill training	(.38
role reversal	(.32)	play therapy	(.23)	meaning attribution	(.37)
aversion	(.31)	flooding	(.19)	assertion training	(.32)
flooding	(.29)	progressive relaxation	(.16)	thought stoppage	(.18)
interpretation	(.19)	role reversal	(.15)	progressive relaxation	(.09)
covert reinforcement	(.19)	awareness exercises	(.14)	covert reinforcement	(.08)
empty chair	(.14)	biofeedback	(.13)	token economy	(.08)
social skill training	(.09)	Rogerian reflection	(.12)	contingency management	(.06)
awareness exercises	(.09)	non-verbal exercises	(.10)	rational emotive	(.05)
satiation	(.06)	rational emotive	(.00)	satiation	(.05)
contingency management	(.00)			covert sensitization	(.02)
		interpretation	(-.01)		
non-verbal exercises	(-.10	thought stoppage	(-.04)	flooding	(-.04)
dream analysis	(-.16)	meaning attribution	(-.06)	aversion	(-.05)
operant conditioning	(-.26)	empty chair	(-.16	desensitization	(-.15)
play therapy	(-.43	free association	(-.22)	record keeping	(-.21)
free association	(-.36)	assertion training	(-.24)	biofeedback	(-.22)
token economy	(-.41	dream analysis	(-.37)	operant conditioning	(-.23)

APPENDIX VII

DERIVING TOTAL PROTOCOL RATINGS FOR EGO DEVELOPMENT

The step by step procedure for deriving total protocol ratings (TPRs) is given in chapter 6 of Loevinger & Wessler (1970). Briefly, it involves first, rating each sentence completion according to its own section of the manual without regard to the context. Each rating is recorded. Secondly, a frequency distribution of the item ratings is made, and then a cumulative frequency distribution (ogive). The TPR is then determined by using the ogive rules listed on p. 129.

APPENDIX VIII

MEANS, STANDARD DEVIATION AND RANGE OF PATIENT PERSONALITY VARIABLES

VARIABLE	MEAN	STANDARD DEVIATION	RANGE
Intolerance	51.55	8.87	40-53
Dogmatism	126.48	26.25	85-176
I-level	5.5 *	1.02	Delta I-5
I-2	.6 **	.86	0-2
Delta	.9	1.92	0-4
D/3	.6	.78	0-2
I-3	8.9	4.74	1-18
I-3/4	12.2	2.85	4-17
I-4	11.1	4.41	2-18
I-4/5	1.6	1.97	0-9
I-5	.4	1.18	0-5

* 5.5 = halfway between I-3/4 and I-4
** mean number of responses at this level