

CLIENT-THERAPIST COMPLEMENTARITY
AND THERAPEUTIC OUTCOME

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CLEASON S. DIETZEL

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This is to certify that the
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ABSTRACT

CLIENT-THERAPIST COMPLEMENTARITY AND THERAPEUTIC OUTCOME

By

Cleason S. Dietzel

This study investigated the varying levels of client and therapist behavioral complementarity during the three stages of psychotherapy for successful and unsuccessful outcome groups. Behavioral complementarity, as defined by Leary (1957) and Carson (1969), refers to the degree of reward (i.e., interpersonal reinforcement) experienced by both interaction participants as a result of the particular behaviors exchanged. In terms of the Leary Interpersonal Circumplex (1957), which was used to rate the interpersonal behaviors of clients and therapists, complementarity occurs on the basis of reciprocity on the dominance-submissive axis [dominance complements (elicits and reinforces) submissiveness; submissiveness complements dominance] and on the basis of correspondence on the friendly-hostile axis [friendly behaviors complement friendliness; hostility complements hostility].

Complementarity Indices (C1), for each therapeutic dyad at three periods (early, middle, and later) in the therapeutic relationship, were obtained by summing the weighted proportions (the weightings--3, 2, and 1--reflected the relative level of complementarity in the respective interactions) of interactions in the sixteen cells of the Complementarity Matrix. (The 4 x 4 matrix contained an outcome cell for all possible interactions, given four possible eliciting behaviors X four possible respondent behaviors: (1) friendly-dominant, (2) friendly-submissive, (3) hostile-submissive, (4) hostile-dominant.)

Therapeutic outcome was assessed via clinical ratings of pre- to post-therapy MMPI profile changes; a measure which was found to have relatively good reliability and validity. Ten successful and ten unsuccessful outcome cases were included in the sample.

The following hypotheses were investigated:

Hypothesis Ia: There will be significant differences in the level of therapist complementarity between the successful and unsuccessful psychotherapy groups.

Hypothesis Ib: There will be significant differences in the level of client complementarity between the successful and unsuccessful psychotherapy groups.

A global index of complementarity (the mean C1 score representing the C1 scores from the three stages of therapy) was used to test Hypotheses Ia and Ib. Neither hypothesis was supported at a significant level by the data, although there was a moderate trend for successful clients

and therapists to interact at a somewhat lower level of complementarity than unsuccessful dyads.

Hypotheses II through V investigated client-therapist complementarity patterns for successful and unsuccessful cases during the three stages of psychotherapy.

Early Stage of Psychotherapy

Hypothesis II: During the early stage of psychotherapy, the level of therapist complementarity will be directly related, at a significant level, to the degree of manifest client maladjustment.

Hypothesis II was based on the assumption that clients who enter therapy exhibiting a more restricted, narrow range of interpersonal behaviors will be more invested in, and capable of, eliciting highly complementary responses from therapists. This assumption was supported by a rank order correlation coefficient of .51 ($p < .02$).

Hypothesis IIIa: During the early stage of psychotherapy, there will be no significant differences in the level of therapist complementarity between the successful and unsuccessful psychotherapy groups.

Hypothesis IIIb: During the early stage of psychotherapy, there will be no significant differences in the level of client complementarity between the successful and unsuccessful psychotherapy groups.

It was assumed that during the early stage of the therapeutic relationship, the levels of client-therapist complementarity would not differ significantly relative to outcome but would be moderately high in all dyads to promote the relationship-building tasks that characterize this stage of therapy. Both hypotheses were supported by

the data. The findings indicated that successful clients and therapists, during this initial phase of therapy, were mutually interacting at a moderately high level of complementarity to the other's elicitations. It was suggested that such complementarity levels were contributory to the maintenance of security operations, minimal anxiety, and the development of a vital working relationship. The interactions of unsuccessful dyads, on the other hand, were marked by differing levels of complementarity. Unsuccessful clients responded at a moderately high level of complementarity to the therapist's elicitations but "unsuccessful" therapists responded to the client's elicitations at a moderately lower level of complementarity. It was suggested that such differing complementary levels would contribute to a premature reduction in client security operations, increased levels of anxiety, and more tenuous relationships.

Middle Stage of Therapy

Hypothesis IVa: During the middle stage of psychotherapy, the level of therapist complementarity will be significantly lower in the successful, as opposed to unsuccessful, psychotherapy group.

Hypothesis IVb: During the middle stage of psychotherapy, the level of client complementarity will be significantly lower in the successful, as opposed to unsuccessful, psychotherapy group.

Hypotheses IVa and IVb tested the following theoretical assumptions: Client-therapist interaction patterns, leading to constructive client change, will reflect lower levels of complementarity during this middle, or "working," phase

of therapy. The non-complementarity, disconfirming behavioral exchanges are prerequisite for behavior change. Interaction patterns, leading to no change or deterioration (unsuccessful), will be characterized by significantly high levels of client and therapist complementarity. Both hypotheses were confirmed, at high levels of significance, by the data. These findings lend considerable support to the Interpersonalists' position regarding the reciprocal impact which client and therapist have on each other. In addition, these findings clearly support Carson's (1969) views concerning the differing complementarity patterns leading to successful and unsuccessful behavior change.

Later Stage of Therapy

Hypothesis Va: During the later stage of therapy, the level of therapist complementarity will be significantly higher in the successful, as opposed to unsuccessful, psychotherapy group.

Hypothesis Vb: During the later stage of psychotherapy, the level of client complementarity will be significantly higher in the successful, as opposed to unsuccessful, psychotherapy group.

These predictions were based on the assumption that the interaction patterns for the "successful" dyads during this later phase of therapy would be marked by high levels of mutual complementarity resulting from the broadened range of newly-acquired behaviors available to the client. Both hypotheses were not supported by the data. There was, in fact, a moderate trend in the opposite direction. Several explanations were suggested. One, the emphasis on

"short-term therapy" in the present population results in an extension of the "therapy work" right up to the time of termination. Consequently, complementarity levels remain lower where such is occurring. Secondly, early theoretical formulations failed to consider the possibility that complementarity levels in the "unsuccessful" dyads would go so high.

An analysis of client behavioral coordinates revealed the following results: In the successful group, 7 of the 10 clients exhibited movement (from early to later stages of therapy) toward a more flexible, varied range of interpersonal behaviors. Nine of the 10 successful clients manifested no change or movement toward a more rigid restricted behavioral repertoire. Five of the 9 unsuccessful clients fit the latter category and most clearly represent client deterioration.

Exploratory Questions

In addition to the experimental hypotheses, several exploratory questions were examined. The first, investigated the patterns of complementarity over the three stages of therapy within each outcome group. Between-stage differences were significant for the successful group but not for the unsuccessful group.

Secondly, the pre- to post-therapy MMPI outcome measure was compared with an outcome measure derived from changes in client's behavioral coordinates from early to

later stages of therapy. A Phi coefficient of .61 ($p < .01$) suggested a significant relationship between the two outcome measures.

Thirdly, the relationship between changes in the frequency (from early to later therapy stages) of specific eliciting behaviors and the complementarity contingencies associated with those behaviors, was examined and discussed.

Fourthly, complementarity levels in like-sex and opposite-sex dyads were examined. No sex differences were obtained.

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To Louise

who through her caring, support, patience,
and understanding assisted immeasurably
with the continuation and completion of
this study.

To Laurie

To Becky

To Beth

for their willingness to forego the evening
bike rides, the picnics in East Lansing
Park, frisbee on the back lawn, and the
other times with Dad.

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INTRODUCTION

Psychotherapy continues to be an important area of research activity in psychology. Although considerable progress has been made, there is a continuing need to investigate and understand the significant process dimensions in psychotherapy which predict, and relate to, client change.

One of the significant trends in the current psychological literature is toward a social, interpersonal definition of behavior. In an increasing number of theoretical and empirical studies, the search for the causal, or motivational, antecedents of behavior has shifted from an analysis of the individual and intrapsychic phenomena to a consideration of interpersonal processes. At the same time, there is a growing tendency to view psychopathology not as an underlying personal disease but as an interpersonal event which is activated and maintained between or among individuals (Malone, 1970).

In psychotherapy research, this trend is reflected in a number of studies (to be reviewed in the next chapter) in which the focus has shifted to an analysis of the interpersonal behavior patterns of client and therapist. A

main objective, in these studies, has been to isolate and identify important relationship dimensions which elucidate the complex process of psychotherapy. With this emphasis on relationship dimensions, psychotherapy is conceptualized as an extended sequence of interactions between client and therapist where each, by his own behavior, exerts some impact on the subsequent behavior of the other (Kell & Mueller, 1966).

Analyses of the sequential verbal interactions of client and therapist have resulted in a compelling amount of evidence in support of the reciprocal and complementary principles of interpersonal behavior; principles which have potential as significant relationship variables for mapping therapeutic processes. The reciprocal principle, outlined by Leary (1957), proposes that behavior has both an eliciting value (i.e., the tendency for S's behavior to stimulate, or "pull" behavior from the other person) and a reinforcing value (i.e., the tendency for S's behavior to confirm, or disconfirm, the preceding behavioral stance of the other person). The closely related concept of "behavioral complementarity," elaborated by Carson (1969), suggests that particular behaviors tend to elicit, and reinforce, other specific classes of behavior. In terms of the Leary (1957) Circumplex model which was used in the present study, behavioral "complementarity occurs on the basis of reciprocity in respect to the dominance-submissive axis (dominance tends to induce submission and

vice versa) and on the basis of correspondence in respect to the love-hate axis (love induces love, and hate induces hate)," (Carson, 1969, p. 112).

Assuming that interpersonal behavior is governed in part by the principles of reciprocity and complementarity, it would follow theoretically that the therapist, as a result of his own varying behavioral stance, has the ability to influence (as an eliciting and reinforcing agent) the subsequent behavior patterns of the client. For therapy to succeed, it would follow that the therapist must avoid the adoption of an interpersonal position complementary to and confirmatory of the maladaptive (pre-therapy) stance to which the client almost invariably attempts to move in the course of the therapeutic interaction (Carson, 1969).

One of the main objectives in the present study was to relate the level of therapist complementarity during various stages of the therapy relationship to therapy outcome, i.e., successful--vs--unsuccessful cases. Secondly, the study investigated changes in the level of client complementarity (i.e., the extent to which the client responds complementarily to the "eliciting" behaviors of the therapist) during various stages of therapy for both outcome groups. Except for a series of studies by Swenson (1967), the relationship between client-therapist complementarity and therapeutic outcomes has not been investigated.

Thirdly, an attempt was made to examine what affect the pre-therapy level of client "psychopathology" has on therapist complementarity. One assumption is that severely maladjusted clients are restricted to a narrower, more rigid behavioral repertoire and consequently have a greater "investment" in forcing the therapist into a complementary, self-confirming behavioral stance.

REVIEW OF THE LITERATURE

Behavioral Analysis System

Before proceeding with a discussion of the theory and research on complementarity and psychotherapy, it will be helpful to briefly describe the behavioral scoring system which will be used in the present study. Carson (1969), after reviewing a majority of the systems which have been developed to analyze and classify interpersonal behaviors, presented the following conclusions:

On the whole, the conclusion seems justified that major portions of the domain of interpersonal behavior can profitably and reasonably accurately be conceived as involving variations on two independent bipolar dimensions. One of these may be called a dominance-submission dimension; it includes dominant, assertive, ascendant, leading, controlling (etc.) behaviors on the one hand, and submissive, retiring, obsequious, unassertive, following (etc.) behaviors on the other. The poles of the second principle dimension are perhaps best approximated by the terms hate versus love; the former includes hateful, aggressive, rejective, punishing, attacking, disaffiliative (etc.) behaviors, while the latter includes accepting, loving affectionate, affiliative, friendly (etc.) social actions (p. 102).

One of the recently developed behavioral rating systems (composed of a circular grid defined by the two orthogonally-positioned dimensions cited above) is the Interpersonal Circumplex Model developed by Leary (1957)

and his research associates at the Kaiser Foundation. With this model, interpersonal behaviors are rated and categorized into one of four quadrants outlined by the dominance-submissive and friendly-hostile axes: (1) friendly-dominant, (2) friendly-submissive, (3) hostile-submissive, and (4) hostile-dominant.¹

Behavioral Complementarity

The term "complementarity," as it will be used in the present study, refers to the degree of reward (i.e., gratification, reinforcement) derived by both interaction participants as a result of the behaviors exchanged. Interpersonal theory and previous research (to be reviewed shortly) suggest that the exchange of particular combinations of behaviors results in varying degrees of reward. Interactions which are deemed "rewarding" for both participants are defined as complementary.

In terms of the Leary System, complementarity occurs on the basis of reciprocity in respect to dominance-submission and on the basis of correspondence in respect to hostility-affection. To illustrate the principle of complementarity let us assume that Client A and Therapist B are interacting and their moment-by-moment behaviors are being rated on the Leary Circumplex. If A emits a friendly-submissive (F-S) response (let us say that A is

¹A more detailed discussion of the Leary Circumplex and rating procedures can be found in the Methods chapter and Appendix C.

seeking advice about a problem--he is asking B a question), and B responds in the friendly-dominant (F-D) mode (he nurtures, instructs, etc.) the interaction is conceived as mutually rewarding and therefore highly complementary.

(Later it will be pointed out that the level of "inferred" reward is determined both by theoretical propositions and also empirically in terms of the relative frequency of particular responses to particular eliciting behaviors.) Another way to view the interaction in our example is to say that A, by his behavior, is defining his own stance with B and is also, through this assumed stance, attempting to elicit ("pull") a particular behavior (or stance) from B. Thus, if A enacts F-S behavior, he is "inviting" B to behave both friendly and dominant. If B responds to the "invitation" (as he did in our example) both in terms of the type of affect exchanged (friendliness with friendliness) and from the position requested (dominance following submissiveness), then the interaction is deemed most rewarding and complementary.

If, following our example, B responds to A's F-S behavior with either a hostile-dominant (H-D) or friendly-submissive (F-S) response, the degree of inferred reward (and complementarity) is less. With the H-D response, the desired ascendant position is taken by B but the affective exchange is non-rewarding. With the F-S response, the desired affect is experienced but B has failed to take the ascendant position "requested" by A. Thus, either of these

responses represent a mixed reward/cost outcome and the interaction is viewed as less complementary.

Now assume that B responds to A's F-S behavior with a hostile-submissive (H-S) response (suspicion, withdrawal, sulking). If such an exchange occurs, A has failed to acquire the "requested" behavior on both dimensions. It is assumed that such interactions are the least rewarding and the most costly. (Later cost will be equated with reduced security operations and anxiety.)

To follow another example, assume that A responds from a H-S stance. A H-D response by B would be most complementary whereas a F-S response would be least complementary. Either a F-D or H-S response would result in an intermediate reward outcome for A.

One of the assumptions within this interpersonal model, which derives in part from traditional learning theory, is that B's highly complementary response (in the first example--F-D) will increase the probability of A's eliciting behavior whereas a low complementary response from B will decrease the probability of A's eliciting behavior. Consequently, the varying patterns of complementarity (from high to low) within an extended sequence of interactions should be related in predictable ways to the subsequent behavioral patterns of either participant.²

²Notice that the same principles can be applied to client as sender and therapist as respondent, or therapist as sender and client as respondent.

To evaluate behavioral complementarity as a process variable it was necessary to develop an operationalized, quantitative measure, or index, which would reflect the level of complementarity over an extended sequence of interactions. To accomplish this, a 4 x 4 matrix was constructed containing an "interaction cell" for all possible interactional combinations (see Figure 1). All 16 cells were assigned weightings (3, 2, or 1) to reflect the level of complementarity represented in that interaction. Cells representing interactions which are deemed complementary

Respondent Behaviors

(weighted) proportions	H-D	F-D	F-S	H-S
Hostile-dominant (H-D)	(2)p	(1)p	(2)p	(3)p
Friendly-dominant (F-D)	(1)p	(2)p	(3)p	(2)p
Friendly-submissive (F-S)	(2)p	(3)p	(2)p	(1)p
Hostile-submissive (H-S)	(3)p	(2)p	(1)p	(2)p

$$\text{Complementarity Index} = \Sigma \text{Column} + \Sigma \text{Column} + \Sigma \text{Column} + \Sigma \text{Column}$$

Figure 1

Complementarity Matrix

on both dimensions [(1) $FD \rightarrow FS$, (3) $HD \rightarrow HS$, (4) $HS \rightarrow HD$] were weighted with a Factor 3. Cells representing interactions which are non-complementary on both axes [(1) $HD \rightarrow FD$, (2) $FD \rightarrow HD$, (3) $FS \rightarrow HS$, (4) $HS \rightarrow FS$] were weighted by a Factor 1. Cells representing intermediate levels of complementarity [(1) $FD \rightarrow FD$, (2) $HD \rightarrow HD$, (3) $FS \rightarrow FS$, (4) $HS \rightarrow HS$, (5) $FD \rightarrow HS$, (6) $HS \rightarrow FD$, (7) $HD \rightarrow FS$, (8) $FS \rightarrow HD$] were weighted by a Factor 2.

Inserting the proportions of interactions from a given time segment into the respective cells, multiplying by the appropriate weightings, and summing across the 16 cells, results in a "Complementarity Index" (C1) which reflects the levels of complementarity in the rated session(s). Larger C1 scores reflect higher levels of complementarity in the interaction sequence whereas smaller C1 scores result from a series of exchanges where the respondent was less complementary to the sender's elicitations. The distribution of C1 values therefore provided the quantitative values for the process variable under study.

Behavioral Complementarity and Interpersonal Relations

In any discussion of interpersonal behavior, one invariably draws upon the contributions of H. S. Sullivan. While a number of theorists (including Horney, Fromm, and Erickson) incorporate social factors in their explanation

of behavior, Sullivan (1953) was one of the earliest to clearly define behavior from an interpersonal perspective. (For several comprehensive summaries of Sullivanian theory, the reader is referred to Ford and Urban [1963, Chapter 14], Carson [1969, Chapter 2], and Mullahy [1970].)

Complementary interactions develop, according to Sullivan, as a result of the individual's need for security and interpersonal integration. In his "theorem of reciprocal emotion," Sullivan states: "Integration in an interpersonal situation is a reciprocal process in which (1) complementary needs are resolved, or aggravated; (2) reciprocal patterns of activity are developed, or disintegrated; and (3) foresight of satisfaction, or rebuff, of similar needs are facilitated" (1953, p. 198). Carson (1969), in an excellent analysis of interpersonal theory, arrives at a similar conclusion: "The purpose of interpersonal behavior, in terms of its security-maintenance functions, is to induce from the other person behavior that is complementary to the behavior preferred. It is assumed that this induced, complementary behavior has current utility for the person inducing it, in the sense that it maximizes his momentary security" (p. 112). In another place, Carson states: "The successful prompting of complementary behavior in the other person may be assumed to have a security-enhancing reward value, while the failure of the other person to adopt a complementary stance

might threaten or diminish security" (p. 144). It would appear then that the basis for behavioral complementarity resides in the individual's need to achieve interpersonal security which, in turn, is enhanced through the mutual gratification of underlying complementary needs.

What then are the complementary needs and the reciprocal behavior patterns which develop in response to those needs? Much of the research evidence points to the following sequences: Complementarity occurs on the basis of reciprocity in respect to the dominance-submissive axis (dominance tends to induce submission, and vice versa) and on the basis of correspondence in respect to the friendly-hostile axis (friendly behavior induces friendliness, and hostility induces hostility) (Carson, 1969).

Heller, Myers, and Kline (1963) trained four client-actors to play the roles of (1) dominant-friendly, (2) dependent-friendly, (3) hostile-dominant and (4) dependent-hostile clients. Each client-actor was presented in counter-balanced order to 34 interviewers-in-training for half-hour interviews. Interviews were observed through a one-way mirror by judges trained to rate the interviewer behaviors on the Leary Circumplex. The results clearly supported the four main hypotheses: (1) dependent behavior evokes dominant behavior, (2) dominant behavior evokes dependent behavior, (3) hostility elicits hostility, and (4) friendliness pulls friendliness. Although the study

has some limitations (i.e., the use of actors and inexperienced interviewers restricts the generalizations that are possible), it represents considerable support for the principle of behavioral complementarity.

In a study by Raush, Dittman, and Taylor (1959), the interpersonal behaviors of six "hyperaggressive" boys (ages 8-10) from a residential treatment center were rated with the Leary system during early and late phases of the treatment program. In each phase, the children were observed twice in each of six settings as they interacted with each other and with various adults. Among the many interesting findings reported, there was considerable support for complementarity in both the peer-peer interactions and child-adult exchanges. For peer-peer behaviors, the most significant findings were "that passive aggression evokes dominant aggression and dominant aggression evokes passive aggression" (p. 25). In the child-adult interactions, complementarity was again demonstrated but in differing behavioral categories. Adults "sent" primarily friendly-dominant responses (58%--early phase, 72%--later phase) and "received" primarily friendly-passive responses (43%--early phase, 63%--later phase) (pp. 23-24). In addition to providing evidence for behavioral complementarity in a number of different interpersonal relationships and settings, this study points out the sequential impact which current behavior has on subsequent

response patterns (as reflected in the increasing levels of complementarity from early to later stages of the study.

In another study, Mackenzie (1968) rated the interpersonal behaviors of normal and clinic family members (mother-father, mother-son, father-son) during fifteen-minute sessions as they discussed a predetermined topic. Using the Leary system, she obtained results which essentially support the complementary sequences cited previously. In the normal family group, the greatest proportion of mother-son interactions (25%) involved friendly-dominant behaviors followed by friendly-passive behaviors. The highest proportion of son-mother interactions (24%) included friendly-passive responses followed by friendly-dominant responses. Similar patterns of complementarity were evident in the normal group father-son and son-father interactions.

With the clinic families, complementarity was also exhibited but in different behavioral quadrants. The highest proportion of mother-son exchanges (28%) involved hostile-dominant behaviors followed by hostile-passive behaviors. In turn, the greatest proportion of son-mother interactions (27%) included the exchange of hostile-passive and hostile-dominant responses. Clinic father-son interactions were primarily friendly-dominant

(father) and hostile-passive (son). It is interesting to note that the clinic mother-son relationship is more complementary than the father-son relationship, which is complementary on only the dominance-submission axis.

Mueller (1969) scored and compared the interpersonal responses of clients and therapists during initial and later sessions of psychotherapy using the Leary model. The proportions of behaviors in each quadrant for each therapeutic dyad were then rank-order correlated for each phase of treatment. Tables 3 and 4 (pp. 14-15) reveal significant positive correlations between the complementary quadrant behaviors whereas non-complementary quadrants are generally marked by significant negative correlations. Again, as in the Raush et al. (1959) study, the degree of complementarity generally increased from initial to later stages of therapy.

In general, these studies provide considerable support for the principle of behavioral complementarity and its occurrence in a broad variety of interpersonal situations and relationships. Moreover, it was noted that the level of complementarity varied in relation to the personal characteristics of both relationship participants as well as to their interaction over time. As such, behavioral complementarity would appear to be a viable, sensitive

relationship dimension for mapping the psychotherapeutic processes which lead to successful, as opposed to, unsuccessful outcome.

Client-Therapist Complementarity
and Therapeutic Outcome

The degree of complementarity which is present early, or develops later, in a given therapeutic relationship would appear to be governed to a great extent by the unique pattern of needs and security-maintaining interpersonal behaviors which each participant brings to, or acquires in, the therapeutic encounter. Although the therapist's behaviors are influenced in part by his socially-defined role as "helper," it has become apparent that much of his behavior during therapy reflects his own unique pattern of needs and security operations, i.e., his personality (Swensen, 1967). Hopefully, the therapist's security operations are flexible enough, and sufficiently varied, to permit a "comfortable" assessment of, and appropriate response to, the client's eliciting behaviors. Where this is not the case, there is a greater chance that the client's elicitations will lead to increased anxiety in the therapist and a greater possibility of impulsive, self-protective responses.

The client, likewise, brings to the relationship a particular set of needs and security operations. In many cases, the therapeutic candidate seeks help because his

behavioral stance (personality) and behavioral repertoire are constricted and limited as a result of his earlier relationships with "significant others" (parents, siblings, extended family members, teachers, and such). In therapy, he hopes to have those experiences with the therapist which will permit him to learn new, and more adequate, appropriate ways of behaving in a variety of interpersonal settings.

Leary (1957) and Carson (1969) have suggested that the range of behaviors exhibited interpersonally reflect the individual's level of personal adjustment, an idea alluded to in the previous discussion of therapist behaviors. They point out that individuals, who in differing situations and following various eliciting behaviors, exhibit the same inflexible, inappropriate behavior can be viewed as functioning toward the "severely maladjusted" end of the adjustment continuum, whereas individuals who are able, without an undue amount of anxiety, to respond appropriately and complementarily to a broad range of interpersonal situations and behaviors, are seen as being psychologically healthy. It is assumed that the therapist represents the "healthy" member of the therapy dyad and consequently is in a position to utilize the principle of complementarity to promote client growth rather than using the client to validate his own behavior.

Both variables (i.e., personality and personal adjustment) and their unique interaction can be expected to exert considerable influence on the degree of client-therapist complementarity. Obviously, the level of complementarity can range from very low to very high either within a given relationship or across a number of client-therapist dyads.

What, then, is the optimum level of complementarity required to maximize the probability that psychotherapy will be successful? Swensen (1967), who has done most of the research in this area, predicted that the degree of success in therapy would be directly related to the level of client-therapist complementarity, with the assumption that complementary relationships are the most "harmonious and satisfying" for both participants and consequently most successful (pp. 7-8). In the first of three reported studies, Swensen utilized published data from a study by Carson and Heine (1962) to test his predictions. Using a formula developed by Leary (1957),³ he rescored MMPI profiles which were obtained from clients and therapists in the original study and used the scores to categorize each subject in one of the quadrants of the Leary Circumplex.

³Leary and his research associates developed the formula to predict interpersonal behavior from the MMPI. The formula, using T-scores from eight scales, yields a dominance-submission score $[(Ma - D) + (Hs - Pt)]$, and a love-hate score $[(K - F) + (Hy - Sc)]$.

Outcome measures were derived from supervising psychiatrist's ratings of client improvement.

The results clearly supported his predictions: "Group I had the lowest complementarity between client and therapist and had the least success in therapy, and Group IV had the greatest complementarity and had the greatest success in therapy" (1967, p. 9). Groups II, III, and V were intermediate on both the complementarity and outcome dimensions.

Since the procedure in the initial study was performed on data not originally collected to test the complementarity hypothesis, Swensen (1967) conducted two replicate studies again utilizing MMPI scores to assess the interpersonal stances of clients and therapists. The therapists were clinical psychology graduate students enrolled in a therapy practicum and clients were people seeking help in the University Psychological Service Center. The outcome measure was therapist's ratings which took into consideration changes in the client's school grades, social activity, family conflicts, and symptom status (p. 9). The findings again indicated "that more clients improved when client and therapist were opposite on dominance-submission, but on the love-hate dimension greater improvement was found when therapist and client were the same on the love-hate dimensions" (p. 10).

Carson (1969) has presented an opposing hypothesis that success in therapy is related to lower levels of therapist complementarity. He suggests that successful client change requires that the therapist avoid responding in a complementary way to the maladjusted, constricted behavioral patterns which the client brings to the relationship. Although responding in a non-complementary way threatens the client's security and consequently raises anxiety, such therapist maneuvers are deemed necessary to launch the client into the "therapeutic work" and ultimately on to changed behavioral patterns. Carson offers the following as a "cardinal therapeutic tactic": "the therapist must avoid the adoption of an interpersonal position complementary to and confirmatory of the critical Self-protective position to which the client will almost invariably attempt to move in the course of the therapeutic interaction" (p. 280). He continues by saying, "the therapist must be one person in the client's life--and he will frequently be the only one in a sustained relationship--who does not yield to the client's pressure to supply confirmatory information to the latter's crippled Self" (p. 280). Halpern (1965), writing from a slightly different theoretical orientation but in basic agreement, states: "For psychotherapy to succeed the therapist must avoid becoming unwittingly ensnared in the disturbance-perpetuating maneuvers of his patient" (p. 177). Beir (1966)

concurr: "one can see the therapeutic process as one in which the therapist refuses to reinforce the patient's present state of adjustment by refusing to make the response the patient forcefully evokes in him" (p. 13).

Carson has failed to report any research which would test his interesting hypothesis on complementarity and therapeutic outcome. Swensen's findings, on the other hand, are called into question by several methodological limitations. The most serious limitation derives from his use of the MMPI for defining the subject's interpersonal stances. Leary and Coffey (1955) reported only low to moderate correlations between the MMPI predictive indices and the ratings of actual, observed interpersonal behavior in two separate samples of group therapy patients (N = 123). Correlations were in the .42 to .47 range on the dominance-submission axis and in the .25 to .67 range on the love-hate dimension. Secondly, Swensen collected the MMPI data prior to therapy raising further questions about the subject's actual quadrant positions during the therapeutic relationship. Unfortunately, the validity of the outcome measure which he used (supervising psychiatrist's ratings) has also been questioned (Metzoff & Kornreich, 1970).

As an initial part of the present study, the opposing hypotheses of Swensen and Carson will be re-examined using an improved design. The level of behavioral

complementarity will be assessed by rating the actual client-therapist behaviors in a representative sample of audio-taped therapeutic sessions (using the Leary system) and incorporating these ratings in the Complementarity Matrix discussed on page 9. The present design, which assesses the sequential interactions of client and therapist during a given session and across sessions, permits one to examine the process with client as "sender" and therapist as "responder" (therapist complementarity) or vice versa (client complementarity). Although the level of therapist complementarity will receive the most attention, the relationship between client complementarity and therapeutic outcome will also be investigated.

The outcome measure, in the present study, which categorized clients into (1) successful or (2) unsuccessful therapy groups was derived from trained clinician's ratings of the degree of improvement, or deterioration, evident on pre- to post-therapy MMPI profiles.⁴

Client-Therapist Complementarity During Various Stages of Psychotherapy and Therapeutic Outcome

In an attempt to understand, and resolve, the conflicting hypotheses of Swensen and Carson (the reader) will recall that Swensen predicted a direct relationship between the level of client-therapist complementarity and

⁴The data, to be reviewed in the Methods chapter, bear out the reliability and validity of this outcome measure.

the degree of therapeutic success whereas Carson proposed an inverse relationship between the process and outcome variables), the idea emerged that an analysis of psychotherapy stages, or phases, might reveal that both hypotheses were valid but at different periods in the therapeutic relationship. Stated in another way, it seemed theoretically possible that "successful" psychotherapy processes would involve both higher and lower levels of client-therapist complementarity but during different stages of the relationship. In part, this thinking was generated by the psychoanalytic literature regarding the development and resolution of "transference" phenomenon in successful therapeutic relations (Alexander & French, 1946). In addition, the following conceptualizations are an outgrowth of the present experimenter's observations of differing interactional patterns in psychotherapeutic relationships leading to successful and unsuccessful outcome.

In most discussions on the phases or periods of psychotherapy, there is considerable agreement for at least three basic stages: (1) an early stage marked by relationship-enhancing, rapport-building behaviors; (2) a middle stage when much of the "therapeutic work" is accomplished; and (3) a later stage devoted to integration, resolution, and increased adjustment (Alexander & French, 1946; Crowder, 1970; Mullahy, 1970).

Early Stage

In considering the process dimensions of client and therapist complementarity there was little reason to believe that these dimensions would display divergent patterns (for successful and unsuccessful cases) during the early stage of therapy. It is likely, although there is empirical evidence at present to support this prediction, that therapist complementarity levels will be moderately high in both outcome groups during the early part of the relationship to enhance the relationship-building process and to guarantee the maintenance of security operations. Mullahy (1970) suggests that the interviewer, early in the relationship, must "function so that no complicating situation arises" (p. 561). Carson (1969) points out that a reduction in the client's security operations too early in the relationship drastically raises the possibility of an early termination. Consequently, it would appear that the therapist's task is to provide a sufficient proportion of complementary, confirming responses for the client while at the same time remaining alert to the possibility of becoming overly-complementary and entrapped by the client's disordered elicitations.

It is also likely that client complementarity is moderately high during this early stage of therapy. Crowder (1970) in his study on transference and transference dissipation described the initial period of therapy as a time

of "reality-oriented behaviors" prior to the development of the transference neurosis. As such, one would predict that a greater proportion of the client's behaviors are in response to the therapist's actual behaviors and are consequently more complementary.

Carson (1969) presents the interesting thesis that the degree of client maladjustment will directly influence the level of therapist complementarity. He suggests that clients who enter therapy with a severe degree of manifest maladjustment (i.e., their behavioral repertoire is restricted, or confined, to a small portion of the Circumplex) have a stronger "investment" in obtaining and maintaining a particular interpersonal stance. This strong interest in a particular stance apparently results from the extreme anxiety which, as a result of earlier relationships with significant others, is associated with the other behavioral positions in the interpersonal circle.

Because of his constricted stance, the maladjusted client is also more invested in forcing the therapist into a complementary stance and is willing, as Carson (1969) suggests, to use "rule-breaking" behaviors (symptoms) to accomplish this goal:

The disordered person, driven by powerful forces, is likely to have acquired a very high degree of expertise in moving others into the positions he needs them to be in, and he is often quite prepared, if necessary, to go to very extreme lengths in the exercise of power in order to achieve his goals (p. 281).

Thus, although it is unlikely that the early stage of therapy will reveal differing patterns of client and therapist complementarity in relationship to outcome, there are indications that the degree of client maladjustment will directly influence the level of therapist complementarity during this period of the relationship.

Middle Stage

Assuming that the preliminary relationship-building tasks are successfully negotiated, the therapeutic process will move into the middle, or "work" stage. It is during this stage that the greatest differences in complementarity patterns for the successful and unsuccessful cases, can be expected.

With potentially successful cases, the therapist will begin to respond in less complementary ways to the client's maladjusted behaviors. Carson (1969) succinctly states the role of the "successful" therapist: "By varying his own stance toward the client in deliberate, planned ways, making full and sensitive use of the prompts and "reinforcements" available to him, he may succeed in inducing the client to sample repeatedly portions of the (interpersonal) matrix that he previously neglected or avoided. The use of complementarity in the systematic way indicated here would have the immediate effect of steering the client toward new varieties of interpersonal experience" (p. 288).

As a result of the therapist's non-complementary, disconfirming behaviors, the client can be expected to experience a loss of security and increased anxiety which Sullivan (1956) believed served the constructive function of "mobilizing the patient" for the therapeutic work. During this period of heightened anxiety, the potentially successful client is purported to exhibit the highest level of "transference" (Mueller, 1969) or, in interpersonalist's terms, "parataxic distortions":

The greatest complexity of the psychiatric interview is brought about by the interviewee's substituting for the psychiatrist a person or persons strikingly different in most significant respects from the psychiatrist. The interviewee addresses his behavior toward this fictitious person who is temporarily in the ascendancy over the reality of the psychiatrist, and he interprets the psychiatrist's remarks and behavior on the basis of this same fictitious person (Sullivan, 1954, pp. 26-27).

Sullivan makes it quite clear that the client during this period of increased anxiety is responding to the therapist on an "as if" basis (i.e., as if he were a significant other from the past). One would predict in such cases, that the level of client complementarity (to the actual behaviors of the therapist) would be considerably lower.

In the potentially unsuccessful relationships, one would predict that the therapist will continue to provide behaviors, of a highly complementary variety, to the client. This unfortunate situation would most likely develop in those relationships where the preferred behavioral stance

(personality) of the therapist happens to be complementary to the disordered stance of the client. Such disorder-enhancing responses could also result from the therapist becoming inadvertently caught up in the "pull" of the client's behavior; a therapeutic mistake which is easily made because of the strong investment which the client has in eliciting self-confirming behaviors from the therapist. Where such highly complementary relationships develop, one can expect an intensification of the client's presenting difficulties and, subsequently, client deterioration.

Later Stage

Toward the end of therapy (later stage), one can expect "successful" relationships to be characterized by relatively high levels of complementarity. Assuming that the therapist, during the previous "working" stage, was successful in helping the client to sample new portions of the Circumplex, it should follow that the client's more expanded, flexible behavior repertoire would permit him to respond in more appropriate, complementarity ways to the therapist's eliciting behaviors. It is also during this later phase of treatment, following a resolution of the transference neurosis, that the client can be seen responding to the therapist as a real person (Alexander & French, 1946). It can also be expected that therapist

complementarity will be higher as he (the therapist) attempts to confirm, or validate, the newly-acquired behaviors which the client is trying out.

In summary, the patterns of client and therapist complementarity leading to successful therapeutic outcome are conceptualized as decreasing from early to middle stages of therapy, and increasing from middle to later stages. In contrast, the patterns of client and therapist complementarity leading to unsuccessful outcome are seen as linear with little, or no, change over the three stages.

Since no previous research is available relating complementarity patterns during the various stages of therapy, to therapeutic outcome, the present study represents an initial attempt to validate these predictions.

EXPERIMENTAL HYPOTHESES

Hypothesis I: There will be significant differences in client-therapist complementarity between the successful and unsuccessful psychotherapy groups.

Ia: There will be significant differences in the level of therapist complementarity between the successful and unsuccessful psychotherapy groups.

Ib: There will be significant differences in the level of client complementarity between the successful and unsuccessful psychotherapy group.

These hypotheses represent re-examination of the Swensen and Carson predictions discussed on pages 12-15.

Predictions Concerning Stages of Psychotherapy

Hypothesis II: During the early stage of psychotherapy, the level of therapist complementarity will be directly related, at a significant level, to the degree of manifest client maladjustment.

This prediction was made on the assumption that therapists will tend, during the initial part (i.e., early stage) of the therapeutic relationship, to function at a higher level of behavioral complementarity with more severely maladjusted clients.

Hypothesis III: During the early stage of psychotherapy, there will be no significant differences in the level of client-therapist complementarity between the successful and unsuccessful psychotherapy groups.

IIIa: During the early stage of psychotherapy, there will be no significant differences in the level of therapist complementarity between the successful and unsuccessful psychotherapy groups.

IIIb: During the early stage of psychotherapy, there will be no significant differences in the level of client complementarity between the successful and unsuccessful psychotherapy groups.

Hypothesis IV: During the middle stage of psychotherapy, the level of client-therapist complementarity will be significantly lower in the successful, as opposed to unsuccessful, psychotherapy group.

IVa: During the middle stage of psychotherapy, the level of therapist complementarity will be significantly lower in the successful, as opposed to unsuccessful, psychotherapy group.

IVb: During the middle stage of psychotherapy, the level of client complementarity will be significantly lower in the successful, as opposed to unsuccessful, psychotherapy group.

Hypothesis V: During the later stage of psychotherapy, the level of client-therapist complementarity will be significantly higher in the successful, as opposed to unsuccessful, psychotherapy group.

Va: During the later stage of psychotherapy, the level of therapist complementarity will be significantly higher in the successful, as opposed to unsuccessful, psychotherapy group.

Vb: During the later stage of psychotherapy, the level of client complementarity will be significantly higher in the succesful, as opposed to unsuccessful, psychotherapy group.

The theoretical assumptions underlying these last three predictions are discussed on pages 21-26.

METHOD

Source of Data

Psychotherapeutic cases for the present study were obtained from the research library at the Michigan State University Counseling Center. All clients were late adolescents, self-referrals, and undergraduates at the university. Clients came to the Center seeking help primarily for personal and social problems.

If, following the intake interview, it was mutually agreed that the client would enter therapy (and they had not been in therapy previously), they were asked to participate in the research project.

Therapist assignments were made on the basis of available time and matching client-therapist schedules. The therapists represented two levels of experience: (1) a staff group including 7 Ph.D. counseling and clinical psychologists with 2 to 20 years of psychotherapy experience, and (2) a therapist-in-training group composed of 4 second-year interns, 8 first-year interns, and 1 practicum student. Except for the practicum student, all interns had completed their practicum experience with an

average of two years of supervision. A summary of client and therapist characteristics, including number of sessions, is presented in Table 1.

Selection of Cases

Therapy cases used to test the hypotheses were selected from the tape library on the basis of two criteria. The first criterion was that the client must have continued in therapy for at least nine sessions. It was felt that this minimum was necessary to provide some separation in time between the three stages of therapeutic interaction which were sampled and also to provide sufficient time for the process variable, under scrutiny, to develop. Secondly, it was necessary that both pre- and post-therapy MMPI profiles were available for each client since these data were used to determine therapeutic outcome.

Selection of Sessions

Data were selected from cases at three different points to assess the interaction patterns during early, middle, and later stages of therapy. The first and second sessions (early stage), the pre-median and median sessions (middle stage), and the second last and last sessions (later stage) were selected. In all, six sessions per case, for a total of 120 sessions, were selected for analysis.

Six of the 120 tapes were not ratable because of poor quality sound tracks (volume too low, distorted signal,

Table 1
Client-Therapist Characteristics and Number of Sessions
for Two Outcome Groups (N = 20)

Group	Number of Cases	Client Sex		Therapist Sex		Mean Experience Level ^a	Mean Number of Sessions ^b
		M	F	M	F		
Successful	10	4	6	6	4	2.50	15.00
Unsuccessful	10	5	5	8	2	1.80	17.40

35

Experience Levels: 1 = senior staff; 2 = 2nd yr. interns; 3 = 1st yr. interns;
4 = practicum student

at = 1.662, not significant

bt = 1.365, not significant

and such). Where these difficulties were encountered, adjacent sessions were substituted. For example, with one case where sessions 19 and 20 were to be rated (and session 20 was unratable), session 18 was rated instead. In no case, did the substitution result in a loss of stage representation (i.e., in the above example, session 18 was still four sessions from the boundary dividing the middle and later stages of therapy and eight sessions from the median session which represented the middle stage).

In the studies discussed earlier (Chapter 1) where the Leary System was used, the usual procedure was to rate a portion of a session and then regard the sample as representative of the entire data. This procedure was used in the present study as well. A 15-minute segment of each selected session was rated. The rated segment was begun at 15 minutes into the session and ended at 30 minutes into the session. This particular segment was selected to avoid the "hello" and "good-bye" interactions which characteristically occupy the beginning and ending of sessions and to focus on the intermediate portion where the more typical, significant interaction patterns likely occur.

Behavioral Analysis System

The method of tape analysis used in this study involved the interpersonal system of behavioral analysis developed by Freedman, Leary, Ossorio, and Coffey (1951),

elaborated by LaForge et al. (1954), LaForge and Suczek (1955), Leary (1957), and LaForge (1963), and applied in a variety of empirical settings by Crowder (1970), MacKenzie (1968), Mueller (1969), Mueller and Dilling (1968), Raush et al. (1959), Raush et al. (1960), and Swensen (1967).

According to this method, each response unit (an uninterrupted speech) of client and therapist is scored and located in one of four quadrants defined by two orthogonally-positioned axes: a dominant-submissive axis and an affiliative-disaffiliative (love-hate) axis. Illustrative verbs for the four quadrants include; (1) dominate, teach, give, support (friendly-dominant); (2) love, cooperate, trust, admire (friendly-submissive); (3) submit, condemn self, distrust, complain (hostile-submissive); and (4) hate, punish, reject, boast (hostile-dominant) (see Figure 2).

An important aspect of this method of behavioral analysis requires that the rater examine and analyze the interpersonal behaviors of both therapy participants as attempts on the part of each to create an emotional state in the interaction intended to evoke, or elicit, a predictable response from the other. As such, raters are to empathize with the person who is responding from the position of the person to whom the behavior is directed (Freedman et al., 1951). Appendix C contains a more detailed description of scoring procedures along with illustrative examples.

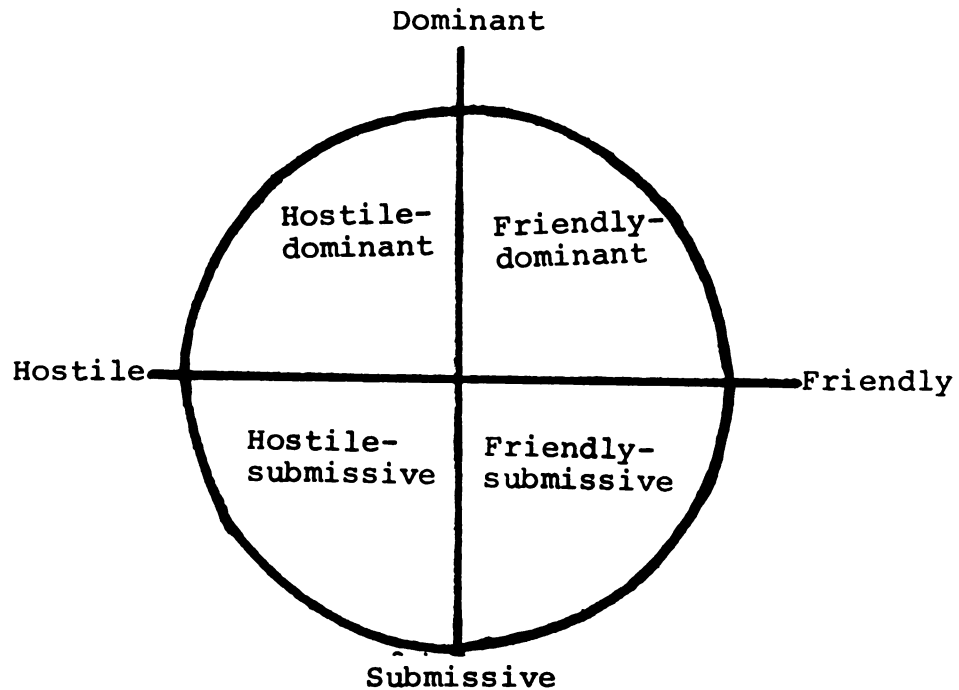


Figure 2

The Interpersonal Circle

The 120 tape segments (including a reliability sample of 39) were randomly assigned to, and rated by, two judges following an extensive training period with tapes from another source. Both judges were advanced graduate students in counseling psychology (with two years of supervised psychotherapy experience) and were well qualified to perceive and assess the subtleties of therapeutic communications.

Reliability Sample

Thirty-nine of the 120 tape segments in the total sample (32.5%) were selected to determine inter-judge reliability on the Interpersonal Scoring System.

Segments were selected to be representative of the three stages of therapy under study, i.e., early, middle, and later stages (N = 13 for each stage). Aside from this consideration both the selection of tapes and the timing sequence for rating them were random across the entire sample.

Independent ratings of the sequential client-therapist behaviors were made by the raters as they listened simultaneously to the tape(s). The only interaction permitted during the rating was an infrequent check of the specific "response number" that they were rating at a given moment.

Table 2 lists the results from the reliability sample. Since both raters served as primary raters on separate samples, it was necessary to determine both the degree to which Rater 2 agreed with Rater 1, as well as the degree to which Rater 1 agreed with Rater 2.

Considering the fact that percent agreement at the chance level would be 25%, the results in Table 2 point to the very acceptable reliability of the Inter-personal Circumplex Rating procedure.

Level of Client Maladjustment

A measure for assessing the level of client maladjustment (during the early stage of therapy) was needed to test the hypothesis concerning therapist complementarity and client maladjustment. Leary (1957) and

Table 2

Inter-Judge Agreement on Interpersonal Behavioral Ratings
Reliability Sample (N=39)

A. Results for percentage agreement
of Rater 2 with Rater 1

Response	Agreed	Disagreed	Total	Percent Agreement
Friendly-Dominant	1154	139	1293	89.24
Friendly-Submissive	769	224	993	77.44
Hostile-Submissive	589	125	714	82.49
Hostile-Dominant	257	88	345	74.49
Mean Percent Agreement	2769	586	3345	82.61

Table 2 - Continued
 B. Results for percentage agreement
 of Rater 1 with Rater 2

Response	Agreed	Disagreed	Total	Percent Agreement
Friendly-Dominant	1148	153	1301	88.23
Friendly-Submissive	778	174	952	81.73
Hostile-Submissive	589	182	771	76.39
Hostile-Dominant	263	109	372	70.69
Mean Percent Agreement	2778	618	3396	82.00

Carson (1969) have proposed that the distance between the client's behavioral coordinate (the point on the interpersonal circle defined by the intersection of the dominance-submissive and love-hate scores), and the center of the circle can be considered an indicator of personal maladjustment. Behavioral coordinates which fall toward the outer rim of the circle (a large index number) reflect a relatively inflexible, rigid behavioral stance whereas behavioral coordinates occurring toward the center of the circle (a smaller index) reflect a rather broad, flexible behavioral repertoire. (Coordinates in the center of the interpersonal circle result from a fairly equal proportion of behaviors in all four quadrants.)

To obtain a behavioral coordinate for each client the following procedure was followed. Each scored client response from the 15-minute segments of the first and second sessions (early stage) were tallied into dichotomous dominant--vs--submissive and friendly--vs--hostile categories. These values were then converted to proportions with the following formulas:

$$\frac{x_{\text{dom}}}{x_{\text{dom}} + x_{\text{sub}}} = p_{\text{dom}} \quad \text{and} \quad \frac{x_{\text{love}}}{x_{\text{love}} + x_{\text{hate}}} = p_{\text{love}}$$

The p_{dom} and p_{love} values were in turn converted to standard scores and then to T-scores (mean = 50, standard deviation = 10) which were plotted on the two axes of

the interpersonal circle resulting in the client's behavioral coordinate. The distance from the center of the circle to the behavioral coordinate (in millimeters) provided a "behavioral maladjustment" index.

It was of interest to compare this "behavioral maladjustment" index to a more traditionally accepted measure of psychopathology; the Minnesota Multiphasic Personality Inventory. To accomplish this, the pre-therapy MMPI profiles for the 20 clients in the study were rank ordered for degree of manifest maladjustment by two clinically trained judges. Inter-judge reliability was very acceptable ($r = 0.927$, $df = 18$, $p < .001$). A rank correlation coefficient was then computed using the MMPI rankings and the "behavioral maladjustment" index rankings ($r = 0.172$, $df = 18$, $p > .05$). The results indicate that the two measures are not significantly related although the slight trend is in the expected direction. It should be kept in mind that the MMPI Inventories were filled out by the clients prior to entering therapy. Consequently, in most cases there was a considerable time span between their responses to the MMPI and their first and second therapy sessions when the behavioral ratings were obtained. In order to more accurately assess concurrent validity, an additional study is needed where the data from both measures are collected at the same time.

The "behavioral maladjustment" index, although inadequately validated to date, has several characteristics which suggest it as an assessment procedure. The index is derived from reliable ratings of observed, interpersonal behaviors and is therefore not susceptible to many of the problems inherent in self-report tests (where the subject is able to conceal or modify his responses in self-determined directions) or projective techniques (with their reliability and validity problems). In addition, the index assesses not only the frequency, but the range of behaviors (behavioral repertoire) emitted in a given interpersonal setting. As such, the index virtually represents an operational definition of adjustment or adaptiveness that would be acceptable in many differing theoretical circles.

Therapeutic Outcome

Client change (i.e., degree of improvement or deterioration) was assessed via clinical ratings of clients' pre- and post-therapy MMPI profiles. Three judges who had considerable experience with MMPI interpretation (two senior staff members at the Michigan State University Counseling Center and an advanced graduate student in counseling psychology) were given the following instructions for making the clinical ratings:

Objective: To determine changes in the MMPI as an indication of psychological change.

1. Compare pre-counseling and post-counseling profiled MMPI scores for each subject. Consider the nine common scales (Hs + .5K, D, Hy, Pd + .4K, Mf, Pa, Pt + 1K, Ma + 2K, Sc + 1K).
2. Score the change as follows:
 - 5 = satisfactory
 - 4 = partly satisfactory
 - 3 = no change
 - 2 = partly unsatisfactory
 - 1 = unsatisfactory
3. In order to establish intra-judge reliability please score each profile twice; one week apart.

As a result of this scoring procedure, each client received six ratings; two ratings per judge times three judges. See Appendix B for the individual and average ratings for each case.

The average ratings were used to place clients in one of two dichotomous outcome groups; successful or unsuccessful. An average rating of ≤ 3.00 represented the upper limit for the unsuccessful category with > 3.00 as the lower limit for the successful category.

The final sample ($N = 20$) included 10 successful and 10 unsuccessful cases. The mean MMPI rating for the successful group was 4.55 whereas the mean MMPI rating for the unsuccessful group was 2.43. A t-test for the difference between group means yielded a $t = 7.783$, significant beyond the .005 level ($df = 18$).

Reliability for MMPI Judges

Two separate reliability checks were made: (1) an intra-judge reliability check to determine the agreement

between the two ratings (a week apart) for a given judge; and (2) inter-judge reliability to determine how well the three judges' ratings agreed for a given client.

To test intra-judge reliability, Pearson product-moment correlations between the first and second ratings of each judge were computed. Table 3 lists those results.

Table 3
Intra-Judge Reliability of MMPI
Ratings (N = 20)

Judge	Pearson Correlation	t Computed From Pearson Correlation ^a
Judge 1	.93	10.60*
Judge 2	.82	6.09*
Judge 3	.95	12.59*

$$a_t = \frac{r}{\sqrt{1 - r^2}} (\sqrt{n - 2})$$

*p < .005, df = 18.

Inter-judge reliability, utilizing the average ratings for each client, was checked using the intraclass correlation formula (Ebel, 1951). Table 4 lists the results.

Table 4
Inter-Judge (Three Judges) Reliability
of MMPI Ratings (N = 20)

Source	df	SS	MS	Reliability of Average Ratings ^a
Clients	19	87.42	4.60	.91*
Judges	2	6.16	3.08	
Error	38	15.17	0.40	
Total	59	108.75		

$$a_r = \frac{MS_{clients} - MS_{error}}{MS_{clients}}$$

*p < .005, df = 18

It is apparent from Tables 3 and 4 that both intra-judge and inter-judge reliabilities were significantly higher than chance expectations, thus supporting the MMPI ratings as reliable indicators of client change.

Concurrent Validity

Meltzoff and Kornreich (1970) argue that outcome in therapy is multi-dimensional and, consequently, should be assessed with more than one instrument or measure. However, attempts to relate the process dimension, under study, to more than one outcome indicator would drastically complicate the study design. As a compromise, the author attempted to select a single outcome measure which would correlate

significantly with several other recognized and empirically validated outcome measures which were available in the research library. In addition to the MMPI ratings, four other measures were investigated: (1) Barron's (1953) Ego Strength Scale, purported to be a measure of the individual's general level of psychological functioning; (2) Fitt's (1965) Self-Esteem Scale, which assesses the person's phenomenological self-concept and related self-evaluations; (3) the MMPI F-scale, which Dahlstromm and Welsh (1960) propose as the best single indicator of personal adjustment on the MMPI; and (4) therapist's ratings of client change, which Meltzoff and Kornreich (1970) question as biased and partially invalid.

Table 5 lists the Pearson product-moment correlation coefficients which were obtained among these five outcome measures.

As Table 5 points out, the MMPI ratings were significantly related, in the expected directions, to Post Ego Strength ($r = .68$), Post Self-Esteem ($r = .59$), and Post MMPI F-scale scores ($r = -.66$). Therapist ratings were unrelated to any of the other four outcome measures; a finding in accord with Meltzoff and Kornreich's (1970) views.

The above results provided considerable support for the selection of the MMPI ratings as a relatively valid measure of client change during therapy.

Table 5
Pearson Correlations for Five Outcome Measures

Outcome Measure	(1)	(2)	(3)	(4)	(5)
1 Clinical MMPI Ratings	1.00	.68 ^c	.59 ^b	-.66 ^c	-.03 ^a
2 Post Ego Strength Scores		1.00	.74 ^c	-.87 ^c	.39 ^a
3 Post Self- Esteem Scores			1.00	-.82 ^c	.36 ^a
4 MMPI F-Scale Scores				1.00	-.33 ^a
5 Therapist Outcome Ratings					1.00

^aNot significant

^b $p < .01$, $df = 14$

^c $p < .005$, $df = 14$

RESULTS

Complementarity Index

The Complementarity index (C1), which provided the quantitative values for the process variable under study (client- and therapist-complementarity levels), was derived by summing the weighted proportions of interactions in each of the 16 cells of the interaction matrix (see Figure 3).

Respondent Behaviors

(weighted) proportions	H-D	F-D	F-S	H-S
Hostile-dominant (H-D)	(2)p	(1)p	(2)p	(3)p
Friendly-dominant (F-D)	(1)p	(2)p	(3)p	(2)p
Friendly-submissive (F-S)	(2)p	(3)p	(2)p	(1)p
Hostile-submissive (H-S)	(3)p	(2)p	(1)p	(2)p

$$\text{Complementarity Index} = \Sigma \text{Column} + \Sigma \text{Column} + \Sigma \text{Column} + \Sigma \text{Column}$$

Figure 3

Complementarity Matrix

The cell weightings (3, 2, and 1) were chosen to reflect the relative degree (or level) of complementarity in that given interaction. Interpersonal theory and previous research (discussed in Chapter 1) suggested that interactions which involve behaviors that are reciprocal on the dominance-submissive axis (i.e., dominance followed by submissiveness; submissiveness followed by dominance) and correspondent on the friendly-hostile axis (i.e., friendliness followed by friendliness; hostility followed by hostility) have the highest probability of occurrence and therefore represent the highest level of complementarity (i.e., have the highest reward value for both participants in the interaction). These interactions: (1) FD→FS, (2) FS→FD, (3) HD→HS, (4) HS→HD were therefore weighted by a factor 3.

Secondly, interactions which involve behaviors that are neither reciprocal on the dominance-submissive axis (i.e., dominance followed by dominance; submissiveness followed by submissiveness) nor correspondent on the friendly-hostile axis (i.e., friendliness followed by hostility; hostility followed by friendliness) have the lowest probability of occurrence and therefore represent the lowest level of complementarity (i.e., have the lowest reward value for both interaction participants). These interactions: (1) FD→HD, (2) HD→FD, (3) FS→HS, (4) HS→FS were weighted the lowest with a factor 1.

Thirdly, interactions involving behaviors which are complementary on either (but not both) of the axes occupy an intermediate position in terms of probability of occurrence (and level of complementarity) and were therefore given a weighting of factor 2. This category included the remaining cells in the matrix: (1) FD→FD, (2) FD→HS, (3) FS→FS, (4) FS→HD, (5) HS→FD, (6) HS→HS, (7) HD→FS, and (8) HD→HD.

Inserting the proportions of interactions during a given stage of therapy into the appropriate cells of the matrix, multiplying by the appropriate weightings, and summing across the 16 cells, results in a single Complementarity Index which reflects the particular pattern or profile of interactions within the rated session(s).

Since the interaction matrix and assigned weightings originated with the present study, it was of interest to look at the validity of the assigned weightings and the shape of the distribution of the resultant CI scores.

One method for assessing the validity of the assigned cell weightings would be to compare the observed frequencies in the three weighting categories with the expected frequencies derived from the weighting values (3, 2, and 1). Table 6 lists those results.

As the results indicate, there is a significant difference between the observed and expected cell frequencies, given the weightings of 3, 2, and 1. In order to

Table 6
A Goodness of Fit Test^a for the
Three Cell Categories

Categories	Expected Proportions Per Cell	Expected Cumulative Proportion	Expected Frequency	Observed Frequency
"3" Cells	.0937	.375	3198	3654
"2" Cells	.0625	.500	4264	3854
"1" Cells	.0312	.125	1066	1020
		Total	8528	8528

53

Chi Square = 107.53, df = 2, $p < .001$.

^aHays, 1963, pp. 580-581.

ascertain which weighting values are suggested by the collected data, an additional Goodness of Fit Test was calculated using the observed frequencies in each of the established cell categories to determine the expected frequencies and proportions for the respective categories. As Table 7 indicates, assigned cell weightings of 3, 7, 2, and 1 would result in the best approximation to the obtained data.

Although the absolute weighting values used in the study do not exactly "fit" the obtained data, the relative size of the weightings do correspond to the proportions of scores falling in each category. As the figures in Table 8 point out, the interaction cells considered to be the most complementary (and therefore weighted the highest) also were most frequently used in the therapeutic sessions. In addition, the interaction cells deemed least complementary (and least weighted) revealed the lowest frequency. The remaining interaction cells defined as intermediate for complementarity (and weighted intermediately), received intermediate use in the therapy sessions.

It was also of interest to assess whether the C1 values were normally distributed in order to determine whether various parametric statistical procedures could be used to test the experimental hypotheses. To accomplish this, a Goodness of Fit Test was used to compare the

Table 7
A "Best Fit" Test to Determine the Cell Weightings
Suggested by the Data

Category Assignments	Expected Proportions Per Cell	Expected Cumulative Proportion	Obtained Frequency	Obtained Frequency
"3.7" Cells	.105	.420	3654	3654
"2" Cells	.057	.460	3854	3854
"1" Cells	.028	.114	1020	1020
		Total	8528	8528

Chi Square = 0.000

Table 8

The Mean Proportion of Responses for Each of
the Three Cell Categories

Category	Mean Proportion of Responses in That Category
"3" Cells	.550
"2" Cells	.290
"1" Cells	.160

obtained distribution of scores to the expected distribution of scores in the normal distribution.

As Table 9 points out, the observed distribution of C1 scores does not differ significantly (Chi Square = 3.93) from the expected distribution of scores in a normal distribution. The assumption that the C1 scores are normally distributed is therefore tenable.

The Experimental Hypotheses and Supporting Data

Hypothesis I: There will be significant differences in the client-therapist complementarity between the successful and unsuccessful psychotherapy groups.

Since the present design required a separate analysis of client and therapist complementarity, the above prediction is tested as two separate hypotheses:

1a: There will be significant differences in the level of therapist complementarity between the successful and unsuccessful psychotherapy groups.

Table 9
A Goodness of Fit Test for the
C1 Distribution

Interval limits (z)	∞ to -2.00	-2.00 to -1.00	-1.00 to 0.00	0.00 to 1.00	1.00 to 2.00	2.00 to ∞
p*	.023	.1357	.3413	.3413	.1357	.023
Expected frequency	4	15.6	40.4	40.4	15.6	4
Observed frequency	6	15	36	39	17	7

Chi Square = 3.93, df = 5, p = .50, not significant

*p = proportion of expected values within a given interval.

Since Hypotheses 1a and 1b are a re-examination of the opposing Swensen and Carson predictions (discussed on pages 17-22), two-sided tests of significance were used.

As Table 10 indicates, there was no significant difference in level of therapist complementarity between the successful and unsuccessful groups. Hypothesis 1a was therefore not supported by the data. Note, however, the tendency for successful therapists to function at a somewhat lower level of complementarity (to the client's eliciting behaviors) than unsuccessful therapists.

1b: There will be significant differences in level of client complementarity between the successful and unsuccessful psychotherapy groups.

Table 10
Level of Therapist Complementarity and Therapeutic
Outcome (N = 20)

Group	N	Mean	SD	t	df
Successful	10	47.17	10.23	1.309*	18
Unsuccessful	10	52.90	8.18		

*p = .20, not significant

As Table 11 indicates, there was no significant difference in the level of client complementarity between the successful and unsuccessful psychotherapy groups. Hypothesis 1b was therefore not supported by the data. The results did indicate a marked tendency for successful clients to interact at a lower level of complementarity (to the therapist's elicitations) than unsuccessful clients. The trend would have been significant if a 1-tailed test of significance had been utilized.

Table 11
Level of Client Complementarity and Therapeutic
Outcome (N = 20)

Group	N	Mean	SD	t*	df
Successful	10	46.39	8.79	1.812	18
Unsuccessful	10	53.72	8.38		

*p < .10, (not significant with 2-tailed test.)

Hypotheses Concerning Stages of Psychotherapy

Hypothesis II: During the early stage of psychotherapy the level of therapist complementarity will be directly related, at a significant level, to the degree of manifest client maladjustment.

As Table 12 reveals, there is a significant direct relationship ($r = .51$, $p < .02$) between the level of therapist complementarity and degree of manifest client maladjustment during the initial phase of psychotherapeutic relationship.

This finding points to a significant trend for therapists to function at a higher level of complementarity (to the client's eliciting behaviors) with clients who are more severely maladjusted and at a lower complementarity level with less maladjusted clients. Hypothesis II was therefore confirmed, at a significant level, by the data.

Hypothesis IIIa: During the early stage of psychotherapy, there will be no significant differences in the level of therapist complementarity between the successful and unsuccessful psychotherapy groups.

As the results in Table 13 indicate, there were no significant differences in level of therapist complementarity between successful and unsuccessful cases during the early stage of therapy. Hypothesis IIIa is therefore tenable.

Hypothesis IIIb: During the early stage of psychotherapy, there will be no significant differences in the level of client complementarity between the successful and unsuccessful psychotherapy groups.

Table 12

The Relationship Between Therapist Complementarity
and Manifest Client Maladjustment (N = 20)

Client No.	Rank One ^a	Rank Two ^b	(D)	(D ²)
818	10	9	1	1
026	5	10	5	25
024	11	15	4	16
011	8	12	4	16
037	4	19	15	225
845	6	7	1	1
044	19	13	6	36
050	12	11	1	1
848	3	6	3	9
847	17	14	3	9
031	20	17	3	9
043	13	16	3	9
016	14	18	4	16
042	15	3	12	144
843	2	5	3	9
817	16	8	8	64
039	9	2	7	49
823	7	4	3	9
831	18	20	2	4
830	1	1	0	0
			$\Sigma D^2 = 652$	

$$r = 1 - \frac{6 \Sigma D^2}{n^3 - n}$$

$$df = 18$$

$$= 1 - \frac{3912}{7980}$$

$$= 1 - .4902$$

$$r = .5098, \quad p < .02$$

^aRank One = Ranks of Therapist's C1 scores from high to low.

^bRank Two = Ranks of client's "Behavioral Maladjustment" Indices from high to low.

Table 13

Level of Therapist Complementarity and Therapeutic Outcome (Early Stage)

Group	N	Mean	SD	t	df
Successful	10	52.83	10.91	0.716*	18
Unsuccessful	10	47.87	17.67		

*p > .25, not significant.

As Table 14 indicates there were no significant differences in level of client complementarity between successful and unsuccessful cases, during the early stage of therapy. Hypothesis IIIb is therefore supported by the data.

Hypothesis .Va: During the middle stage of psychotherapy, the level of therapist complementarity will be significantly lower in the successful, as opposed to unsuccessful, therapy group.

As Table 15 indicates, the successful therapists are functioning at a very significantly lower level of complementarity to the client's behaviors than the unsuccessful therapists during the middle stage of therapy. Hypothesis IVa is therefore supported at a very high level of significance.

Hypothesis IVb: During the middle stage of psychotherapy, the level of client complementarity will be significantly lower in the successful, as opposed to unsuccessful, psychotherapy group.

Table 14

Level of Client Complementarity and Therapeutic Outcome (Early Stage)

Group	N	Mean	SD	t	df
Successful	10	53.32	9.35	0.171*	18
Unsuccessful	10	52.38	15.80		

* $p > .25$, not significant.

Table 15

Level of Therapist Complementarity and Therapeutic Outcome (Middle Stage)

Group	N	Mean	SD	t	df
Successful	10	42.00	11.03	3.026*	18
Unsuccessful	10	56.78	9.63		

* $p < .005$.

As Table 16 points out, the level of client complementarity is significantly lower in the successful, as opposed to unsuccessful, outcome group during the middle stage of therapy. Hypothesis IVb is therefore supported at a high level of significance, by the data.

Hypothesis Va: During the later stage of psychotherapy the level of therapist complementarity will be significantly higher in the successful, as opposed to unsuccessful, psychotherapy group.

Table 16

Level of Client Complementarity and Therapeutic Outcome (Middle Stage)

Group	N	Mean	SD	t	df
Successful	10	39.76	9.56	2.815*	18
Unsuccessful	10	54.28	12.18		

*p < .010.

As Table 17 reveals, there were no significant differences in the level of therapist complementarity between the two outcome groups during the later stage of therapy.

The slight trend toward lower therapist complementarity in the successful group was in the opposite direction from the hypothesis. Hypothesis Va was not supported by the data.

Table 17

Level of Therapist Complementarity and Therapeutic Outcome (Later Stage)

Group	N	Mean	SD	t	df
Successful	10	48.25	11.77	1.189*	18
Unsuccessful	10	53.39	5.48		

*p < .10, not significant.

Hypothesis Vb: During the later stage of psychotherapy, the level of client complementarity will be significantly higher in the successful, as opposed to unsuccessful, psychotherapy group.

As Table 18 indicates, there were no significant differences in level of client complementarity between the two outcome groups during the later stage of therapy. Hypothesis Vb was therefore not supported.

Table 18
Level of Client Complementarity and Therapeutic Outcome (Later Stage)

Group	N	Mean	SD	t	df
Successful	10	45.96	12.29	1.203 [*]	18
Unsuccessful	10	52.66	5.93		

^{*} $p < .10$, not significant.

Exploratory Questions

Although no experimental hypotheses were formulated, it was suggested earlier that the successful and unsuccessful client-therapist interaction patterns would differ over the three stages of therapy. It was suggested that in the potentially successful client-therapist relationships, the level of complementarity would drop significantly from the early to middle stages and then increase again significantly from the middle to later stages of therapy. To evaluate these assumptions, it was

necessary to assess changes within the two outcome groups over the three stages of therapy. To accomplish this a "related t-test" of stage means was used. The results for the successful outcome group appear in Table 19.

As Table 19 reveals, there is a significant decrease in the level of therapist complementarity (for the successful group) between the early and middle sessions followed by a significant increase from the middle to later sessions.

Table 19
Changes in Level of Therapist Complementarity
Over the Three Stages of Therapy for the
Successful Outcome Group

N	Early Stage Mean	Middle Stage Mean	t	df
10	52.83	42.00	2.410*	9

N	Middle Stage Mean	Later Stage Mean	t	df
10	42.00	48.25	2.737*	9

* $p < .025$ (t-test for related measures).

For the unsuccessful group, it was assumed that therapist complementarity level would begin at a relatively high level (early stage) and remain unchanged throughout therapy. Table 20 lists the results for the unsuccessful therapists.

Although the changes in therapist complementarity levels, for the unsuccessful group, do not differ significantly over the three periods of therapy, there is a noticeable trend toward increased levels from early to middle sessions followed by a sustained high from middle to later sessions.

Table 20

Changes in the Level of Therapist Complementarity
Over the Three Stages of Therapy for the
Unsuccessful Outcome Group

N	Early Stage Mean	Middle Stage Mean	t	df
10	47.87	56.78	1.470*	9

N	Middle Stage Mean	Later Stage Mean	t	df
10	56.78	53.39	1.222**	9

* $p < .10$ (t-test for related measures).

** $p > .10$ (t-test for related measures).

Figure 4 depicts the differing patterns of complementarity over the various therapy stages for the "successful" and "unsuccessful" therapists.

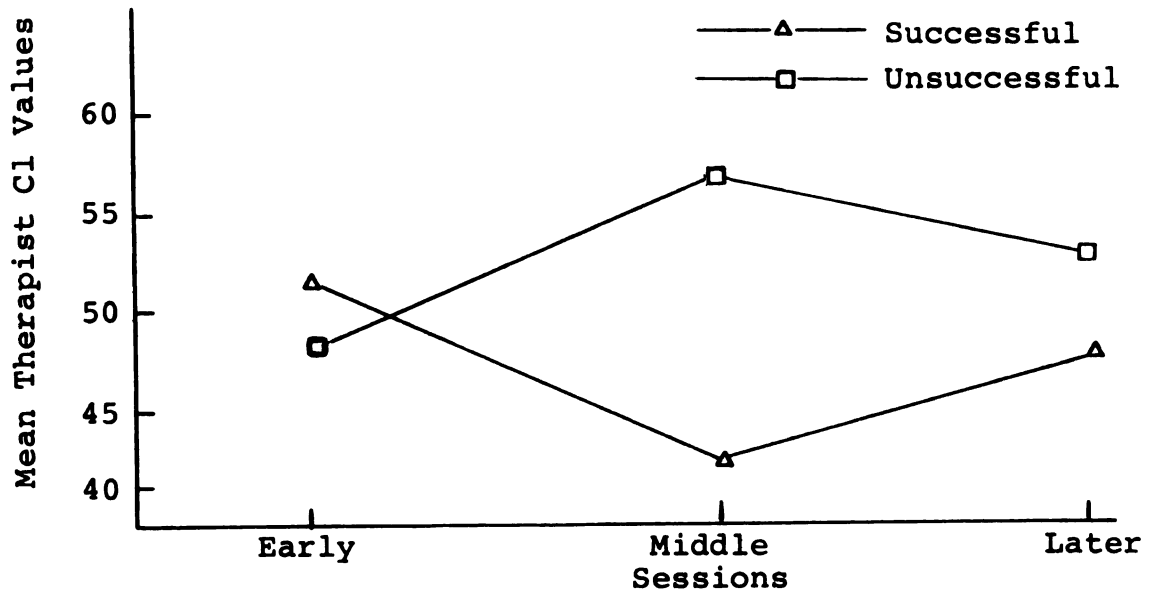


Figure 4

Changes in Therapist Complementarity Levels
Over the Three Stages of Therapy for
Successful and Unsuccessful
Outcome Groups

For client complementarity patterns, the expectation was that successful clients would decrease from early to middle sessions and then increase from middle to later sessions, whereas, unsuccessful clients were expected to begin therapy at higher complementarity levels and remain unchanged throughout therapy. Tables 21 and 22, and Figure 5, contain the results for successful and unsuccessful client response patterns.

Table 21

Changes in Level of Client Complementarity
Over the Three Stages of Psychotherapy
for the Successful Outcome Group

N	Early Stage Mean	Middle Stage Mean	t	df
10	53.42	39.75	2.950*	9

N	Middle Stage Mean	Later Stage Mean	t	df
10	39.75	45.96	2.180**	9

*p < .01 (t-test for related measures).

**p < .05 (t-test for related measures).

Table 22

Changes in Level of Client Complementarity
Over the Three Stages of Therapy for
the Unsuccessful Outcome Group

N	Early Stages Mean	Middle Stage Mean	t	df
10	52.37	54.28	0.642*	9

N	Middle Stage Mean	Later Stage Mean	t	df
10	54.28	52.66	0.422*	9

*p > .25, not significant, (t-test for related measures).

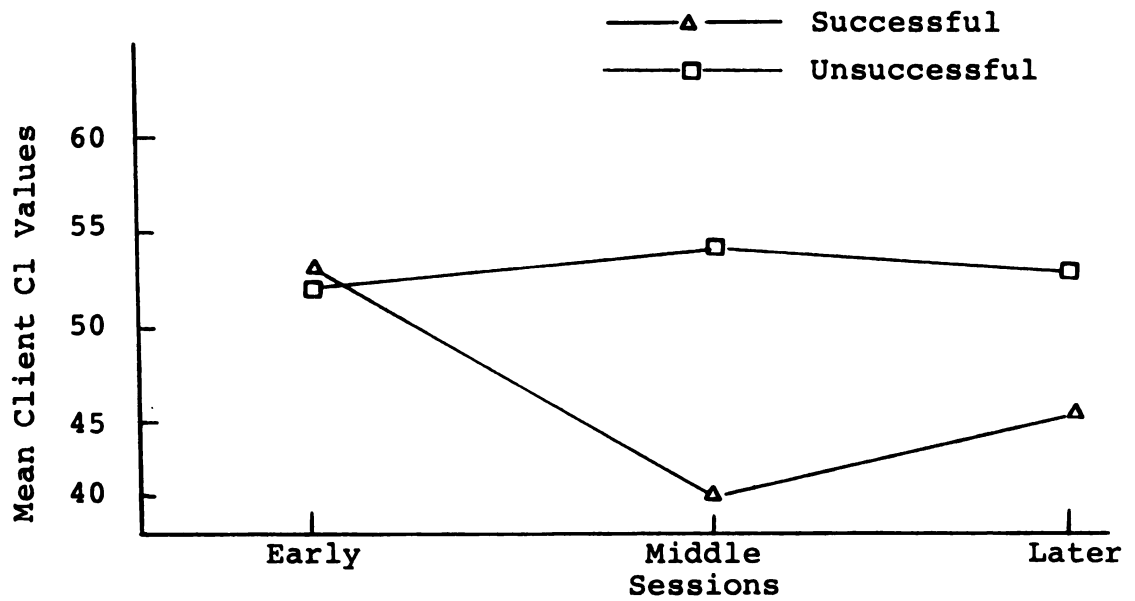


Figure 5

Changes in the Level of Client Complementarity
Over the Three Stages of Therapy for the
Successful and Unsuccessful
Outcome Groups

DISCUSSION

Comments on the Complementarity Matrix

There are several observations about the Complementarity Matrix which warrant comment. Firstly, an analysis of the number and size of cell entries provides an excellent picture of the type of client-therapist interaction pattern which occurred within a given session or sessions. Secondly, comparing two or more matrices for a given client-therapist dyad provides a picture of the degree of stability or change in their interaction patterns. Comparisons can also be made across a number of dyads at one or more points in time.

Thirdly, a careful analysis of the matrices in the present study revealed that the Complementarity Index (C1) is a sensitive indicator of the levels of complementarity experienced by either client or therapist in relation to their patterns of eliciting behaviors. This sensitivity results from the fact that the matrix calculates the level of complementarity experienced in every interaction in the rated portion of the session(s).

Consider the following example of a study case where the client and therapist entered therapy functioning

primarily from hostile-submissive and friendly-dominant quadrants, respectively. Their early C1 scores were near the mean. As therapy proceeded the therapist began to respond more frequently (to the same client elicitations) from the hostile-dominant quadrant resulting in higher C1 scores. Toward the end of therapy, a greater proportion of his responses were again from the friendly-dominant stance, leading to lower C1 values. The varying C1 scores sensitively reflected the changing levels of complementarity which both interaction participants experienced in relation to their elicitations.

Fourthly, if one operationally defines the level of complementarity (interpersonal reinforcement) in a given interaction in terms of the relative frequency with which those interactions occur, then the results from the present study support the following conclusions: interactions involving behaviors which are reciprocal on the dominance-submissive axis and correspondent on the friendly-hostile axis are the most complementary or rewarding; interactions involving behaviors which are correspondent on the dominance-submissive axis and reciprocal on the friendly-hostile axis are least complementary; and interactions where the exchanged behaviors are either reciprocal on the dominance-submissive axis or correspondent on the friendly-hostile axis are of intermediate reward value. These findings are in accord with theoretical expectations

(Carson, 1969) and previous research findings (Heller, Myers, & Kline, 1963; Raush, Dittman, & Taylor, 1959; and others reviewed in Chapter I, pp. 10-12).

Finally, as was mentioned in the previous chapter, the distribution of C1 values approximate a normal distribution.

Differences in Client-Therapist Complementarity Between Successful and Unsuccessful Cases

Hypothesis 1a, which predicted significant differences in the level of therapist complementarity between the successful and unsuccessful outcome groups, was not supported by the data. Likewise, Hypothesis 1b which included the same prediction for client complementarity levels, was not confirmed by the data. Although not significant, there was a trend for successful clients and therapists to interact at a somewhat lower level of complementarity than unsuccessful dyads. This trend is in accord with Carson's (1969) assumptions and in opposition to Swensen's (1967) findings. In the subsequent discussion of therapy stages it will become apparent why a single global index (to represent the level of complementarity over the entire therapeutic relationship) failed to differentiate between the complementarity levels leading to successful and unsuccessful outcome. As will be pointed out, the pattern of complementarity indices (representing the levels of client-therapist complementarity) during the

three stages of therapy is curvilinear (for the successful group) and cannot therefore accurately be represented by a single estimate.

Early Stage of Therapy

Hypothesis II predicted that the level of therapist complementarity, during the initial phase of therapy, would be directly related to the degree of manifest client maladjustment. [The degree of maladjustment was operationally defined as the distance from the client's behavioral coordinate to the center of the Interpersonal Circumplex. The behavioral coordinate represents the intersection, on the Circumplex grid, of the client's dominance-submissive and friendly-hostile scores, derived from his/her rated behaviors during the first and second therapy sessions (early stage). Behavioral coordinates which fall toward the outer rim of the Circumplex represent a stereotypic, constricted response repertoire whereas coordinates falling toward the center typify a more flexible, varied response profile. Figure 6 includes examples of severely and moderately maladjusted clients.]

Hypothesis II was supported by a rank order correlation coefficient of 0.51 ($p < .02$). This finding suggests that, during the initial phase of treatment, therapists working with more severely maladjusted clients are responding to their (the client's) behavioral elicitations with a greater proportion of highly complementary behaviors.

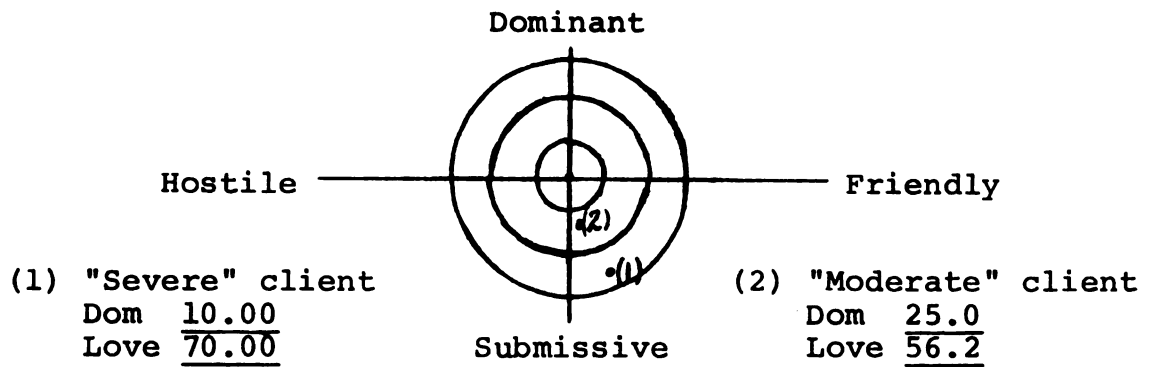


Figure 6

Behavioral Coordinates Representing Two
Levels of Client Maladjustment:
Severe and Moderate

Conversely, therapists' interactions with less severely disturbed clients are characterized by responses of a less complementary variety. These findings are in accord with Carson's (1969) theoretical views and our own expectations. Clients who enter relationships with a very restricted range of ego-syntonic behaviors are not only more "invested" in acquiring complementary responses from the other person (for the purpose of maintaining already fragile security operations) but are also better equipped with a variety of within-quadrant maneuvers for "pulling" the desired interpersonal responses. Consider the client who operates almost exclusively from the hostile-submissive quadrant. His initial attempts to elicit complementary hostile-dominant (angry, rejecting) behaviors may take the form of mild self-effacing comments. If this behavior fails to evoke the desired response, he may become increasingly

bitter, distrustful, and suspicious. If these maneuvers fail, he may become increasingly withdrawn and self-destructive. At some point he will likely succeed in moving the therapist into the complementary quadrant. A vivid example of this involved a study case who entered therapy severely restricted to the friendly-dominant quadrant. During the first and second sessions he was successful in moving the therapist out of his preferred stance in the friendly-dominant quadrant into the friendly-submissive quadrant. During the middle and later stages of therapy the therapist again returned to the friendly-dominant quadrant. The client, in turn, moved to a more submissive part of the interpersonal circle late in therapy. The point being emphasized here is that the client was able to elicit a high level of complementarity to his own restricted behavioral stance even though this meant moving the therapist out of the stance which he, and most other therapists, strongly prefer.

Although both members of the therapeutic dyad possess the ability to influence the behavior of the other (via complementarity pressures), the above findings would seem to suggest that at least during the initial stage of therapy, the client may have the greater influence on the therapist's behavior; particularly within a group of "relationship oriented" therapists. It may be, although this is speculative, that during this early phase of the

relationship the therapist is more willing to follow the elicitations of the client to prevent undue anxiety while the relationship is being formed and strengthened. If this is true, then with more severely maladjusted clients who present more anxiety and relationship-building difficulties, the therapist would have a tendency to respond at even higher levels of complementarity. The results seem to support these views.

Hypothesis IIIa predicted that there would be no significant differences in the level of therapist complementarity between the two outcome groups during this early stage of therapy. Hypothesis IIIb involved the same prediction for client complementarity levels. Both hypotheses were supported by the data. The basis for the first hypothesis included the assumption that, on the average, all therapists would function at a moderately high level of complementarity during the initial phase of therapy to facilitate the relationship-building tasks; tasks supposedly undertaken by all therapists regardless of where the relationship later moves to (i.e., type of outcome). It was assumed, as Carson (1969) has suggested, that moderately high levels of therapist complementarity will facilitate the relationship-building tasks by providing a sufficient level of gratification for existing behavior patterns thereby preventing a premature drop in security operations.

In addition, it was assumed that the level of client complementarity would also be moderately high during this phase of therapy when the client is exhibiting a higher proportion of "reality-oriented" behaviors (Crowder, 1970). It also seemed reasonable to assume that the client has some interest in seeing the relationship-building tasks accomplished, and would respond more complementarily to facilitate such.

The results indicated that clients, regardless of outcome group behaved at the expected moderately high level of complementarity during this stage of the relationship.

Although not significantly different, there was a trend for therapists of successful cases to be more complementary than the "unsuccessful" therapists. One explanation for the slight difference might be that "successful" therapists worked with more severely maladjusted clients (this would follow from the findings with Hypothesis II). A check of the data revealed however that, on the average, the clients in the successful outcome group were somewhat less maladjusted than the clients in the unsuccessful group although the differences were small.

Another possible explanation might be that successful therapists worked with a greater proportion of clients who entered therapy functioning in the friendly-submissive quadrant. However, a check of client behavioral coordinates

revealed an equal number of successful and unsuccessful clients in this highly complementary position.

One way to explain the differences in therapist complementarity levels at this stage in therapy is to assume that the "successful" therapists, as a result of either conscious planning or beautiful intuition, are providing more rewarding, complementary responses for the client with the goal of promoting a more solid, enduring relationship capable of withstanding the subsequent period of stress and anxiety which accompanies change. The "unsuccessful" therapists, on the other hand, have paid less attention to the relationship-building tasks and have moved ahead, maybe prematurely, into the "therapy work." (A check of Figure 7 revealed that the level of complementarity for the "unsuccessful" therapists during the early stage of therapy was quite similar to the level of complementarity exhibited by "successful" therapists during the middle stage of therapy.) If this interpretation is accurate, then the therapeutic error for the "unsuccessful" therapists results not so much from a misconception of "what ought to be done" but from a miscalculation of "when it is to be done"; a timing error. In summary, the data points to the following conclusions about the successful and unsuccessful interpersonal processes during this stage of therapy. Successful clients and therapists are mutually supplying behavior of a

moderately high complementary variety to the elicitations of the other. In reinforcement terms, each participant is positively reinforcing the behaviors of the other. Such interactions should enhance the security operations of both individuals and contribute to the development of a vital working relationship.

Unsuccessful relationships are characterized by an unequal distribution of rewards. Clients are providing behaviors of a highly complementary sort to the therapist's elicitations but therapists are relatively non-complementary to the client's elicitations.

It would follow that the unsuccessful clients are experiencing a reduction in security operations and an increase in anxiety at this early stage of therapy. The unsuccessful interactions, during this early phase, are also likely more disruptive and tenuous.

Middle Stage of Therapy

Hypotheses IVa and IVb predicted that during the middle stage of therapy the levels of therapist and client complementarity would be significantly lower in the successful, as opposed to unsuccessful, therapeutic relationships. Both hypotheses were supported at a very significant level, by the data (see Figure 7).

Not only was there a significant difference in complementarity levels between groups, but as Tables 19 and 21 reveal, there was a significant decrease in

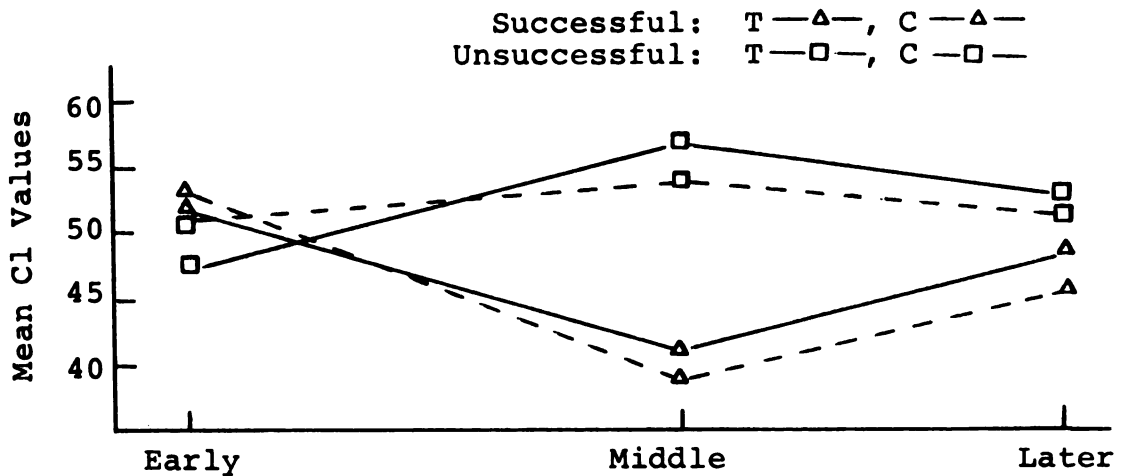


Figure 7

Changes in Client-Therapist Complementarity Levels
Over the Three Stages of Therapy for
the Two Outcome Groups

complementarity levels between early and middle stages within the successful group. Whereas early interactions were marked by moderately high levels of complementarity, the results in line with our expectations indicate that during this stage both therapeutic participants are interacting at a relatively low level of complementarity. In reinforcement terms, neither participant is positively reinforcing the behaviors of the other. As a result of reduced complementarity, it is likely that security operations are lower, anxiety is more intense, and the relationship has become more disruptive and chaotic.

Complementarity levels in the unsuccessful client-therapist interactions are significantly higher than in the successful group. In addition as Tables 20 and 22 indicate "unsuccessful" therapists have become more

complementary from early to middle stages while "unsuccessful" clients have remained at a moderately high complementary level. Interactions are mutually reinforcing and, in Sullivanian terms, the unsuccessful dyads have moved toward a state of interpersonal integration.

How was such a highly complementary pattern negotiated by the supposedly unsuccessful clients and therapists? An analysis of individual matrices indicated two major patterns. In one, the therapist moved to a more complementary quadrant relative to the client's unchanged stance. An example of this is a study case in which the client entered therapy in the hostile-submissive quadrant. A high proportion of the therapist's responses during the initial stage were from the friendly-dominant and friendly-submissive stances. Unfortunately by middle stage, the therapist had moved more into the highly complementary hostile-dominant position and the client remained unchanged in the hostile-submissive portion of the Circumplex.

The second pattern involved cases where the client moved but to a more extreme position in the same quadrant. An example of this involved a client who entered therapy in the friendly-submissive quadrant (close to the center of the Circumplex). The therapist, early in the relationship responded quite frequently (76.5%) from the highly complementary friendly-dominant quadrant. By middle stage,

both client and therapist were responding more frequently from their respective complementary quadrants.

Thus, in the unsuccessful group, the more highly complementary interactions are achieved either as a result of the therapist getting "caught up" by the client's early-therapy behavioral elicitations or as a result of the client's move toward a more restricted, rigid (but complementary) range of behaviors. The interpersonal integration which has developed will likely make the therapy relationship more harmonious and mutually rewarding, but it is unlikely that it will lead to constructive client change.

Later Stage of Therapy

Hypotheses Va and Vb predicted that the levels of therapist and client complementarity would be significantly higher in the successful, as opposed to unsuccessful, cases. Neither hypothesis was supported by the data. There was in fact a trend in the opposite direction, approaching significance.

Although the between group differences were not significant, as Tables 19 and 21 point out, the expected significant increase in successful client-therapist complementarity levels from the middle to later stages of therapy was supported by the data.

In the successful dyads, interactions were characterized by increased levels of mutual complementarity. In addition, an analysis of the changes in early to later

client behavioral coordinates revealed that in 7 of the 10 successful cases, the increased levels of therapist complementarity occurred in response to a more balanced, flexible range of client behaviors. The slightly lower level of complementarity exhibited by successful clients resulted in part from the fact that they were responding with a broader range of responses to a narrower range of therapist elicitations.

Unsuccessful client-therapist interactions continued, during the later stage of therapy, to be highly complementary. As Tables 20 and 22 indicate, complementarity levels did not change significantly between middle and later stages. In 9 of the 10 unsuccessful cases, there was either minimal behavioral change from early to later stages (as evidenced by the early to later behavioral coordinates) or there was movement toward a more extreme stance on the Circumplex. Five of the 9 unsuccessful clients fit this latter category and represent most clearly client deterioration.

Probably the single most important reason why Hypotheses Va and Vb did not fit the data derives from our failure to foresee the possibility that the unsuccessful relationships would achieve such a relatively high level of complementarity. In retrospect, it should have been more obvious that the unproductive relationships would be more mutually reinforcing. From almost any theoretical

perspective, those relationships which have stabilized and are not undergoing change will be smoother and more rewarding.

As the results from the present study suggest, those relationships in which constructive changes occur are characterized by periods in which the behaviors of both participants are integrated, disintegrated, and reintegrated.

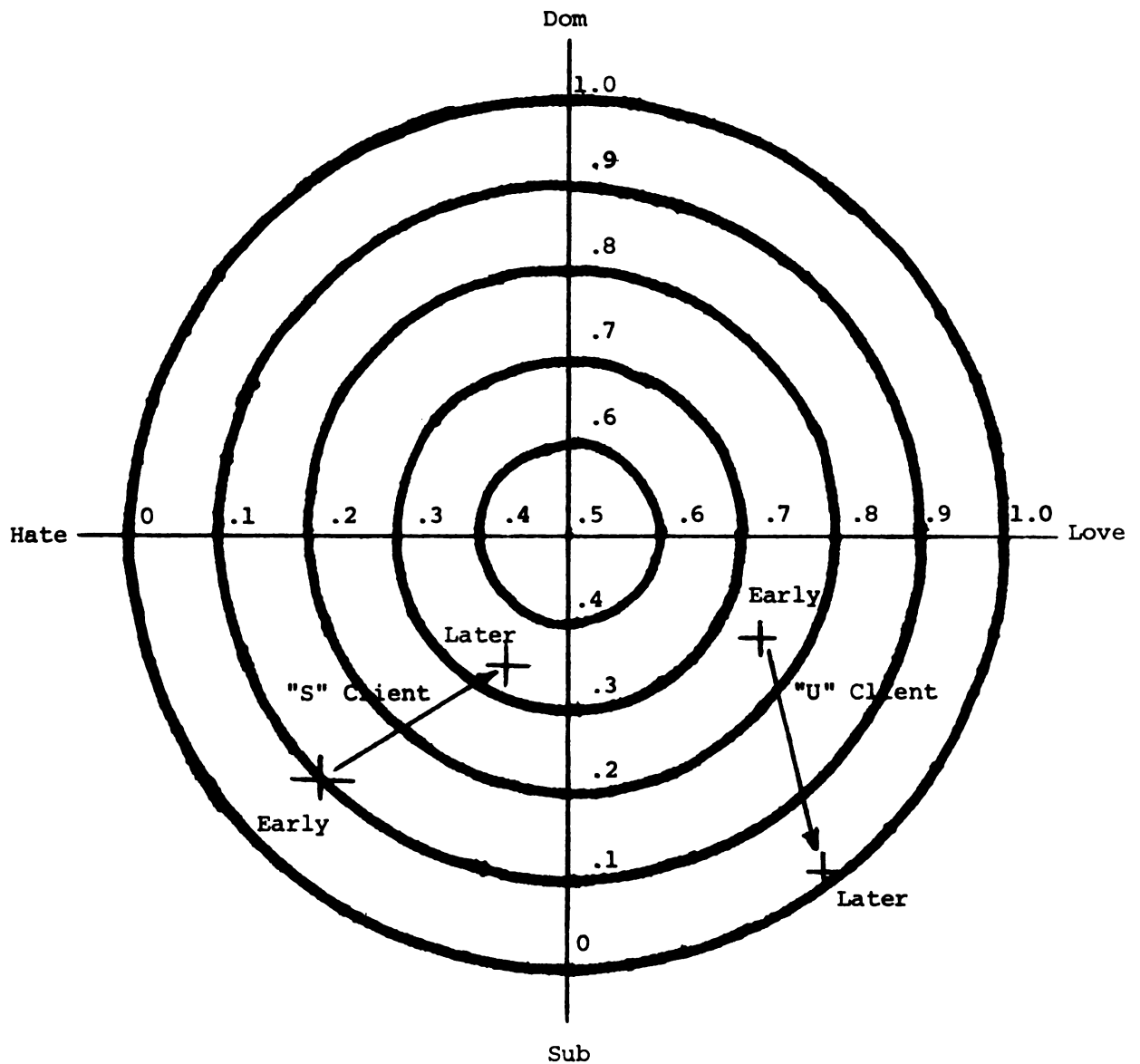
Exploratory Questions

In addition to the findings already discussed, it was of interest to determine how well the Pre-Post MMPI outcome ratings (successful and unsuccessful) compared to outcome ratings derived from changes in the clients' behavioral coordinates; changes from early to later stage of therapy. As discussed on pages 39 and 73, the behavioral coordinate is the intersection point on the Circumplex grid of the client's dominance-submissive and friendly-hostile scores derived from the ratings of his/her actual behaviors during a given stage of therapy. Two behavioral coordinates for each client were calculated: (1) the first reflected the client's repertoire of behaviors during the early stage of therapy (first and second sessions), and (2) the second reflected the range of client behaviors during the later stage of therapy (second last and last sessions). Both behavioral coordinates for each client were then plotted on the

Circumplex. It was then possible to visually inspect the direction and distance of client movement during therapy.

Using these two client behavioral coordinates, clients were placed into one of two outcome groups (successful and unsuccessful) on the basis of two criteria: (1) The direction of movement: For successful, movement was toward the center of the grid; for the unsuccessful, movement was toward the outer rim of the grid. (2) The distance traveled: Successful cases had to travel through more than one "zone" (the Circumplex--see Figure 8--was marked off into zones by concentric circles which intersected the two major axes at five equally spaced intervals between the center and outer rim); movement through less than one zone (unless it was toward the outer rim) was considered unsuccessful.

Given these criteria, 8 cases were defined as successful; 12 as unsuccessful. Seven of the 8 successful and 9 of 12 unsuccessful cases were accurately predicted by the MMPI measure. As Table 23 indicates there is a significant relationship between the two outcome measures. It seems possible then to tentatively conclude that the differing patterns of client-therapist complementarity, discussed previously, are leading not only to the changes that were evident on Pre- to Post-Therapy MMPI profiles, but also to changes in interpersonal behavioral patterns.



Successful Client

Early Stage

Dom .21

Love .19

Later Stage

Dom .34

Love .42

Unsuccessful Client

Early Stage

Dom .37

Love .74

Later Stage

Dom .10

Love .80

Figure 8

Illustrations of Successful and Unsuccessful Client
Behavioral Coordinate Changes from Early
to Later Stage of Therapy

Table 23

The Relationship Between Two Outcome Measures:
Pre- to Post-Therapy MMPI Changes vs. Changes
in Client Behavioral Coordinates (N = 20)

		Behavioral Index		
		Unsuccessful	Successful	
MMPI Index	Successful	3	7	10
	Unsuccessful	9	1	10
		12	8	20

$$r_{\phi} = \frac{63 - 3}{\sqrt{(12)(8)(10)(10)}}$$

$$r_{\phi} = .612^a$$

*p < .01.

One of the most stringent tests of the complementarity principle would include an analysis of the relationship between changes in the frequency of a specific behavior over time, and the complementarity contingencies associated with that behavior. Theoretically, it would be expected that eliciting behaviors which have been responded to at a high level of complementarity over an extended period of time would increase in frequency whereas behaviors which are followed by responses of a non-complementary variety would decrease in frequency.

To appease curiosity, a sample of five successful and five unsuccessful cases were selected for analysis.

The base rate (frequency) for each behavior (FD, FS, HS, HD) was equal to the proportion of times it occurred in the first and second sessions (early stage). Change scores (positive or negative) were obtained by subtracting the base rate from the frequency of the same behavior during the last two sessions (later stage). Change scores ranged from a +43.0 to a -33.8. In order to work with positive values, an additive transformation ($K = 50$) was made resulting in a range of scores from 16.2 to 93.0.

Complementarity Indices, relative to a particular behavior, were obtained by the usual procedures; the number of responses in the four response categories were converted to proportions by dividing the number of responses in each category by the total number of responses to that particular stimulus behavior (for a given therapy stage). The four proportions were then multiplied by the respective cell weighting (3, 2, or 1) representing the levels of complementarity in the various interactions. The four weighted proportions were then added, providing the C1 value which indicated the level of behavioral complementarity expressed in response to the specific stimulus behavior.

This procedure was followed with each of the four stimulus behaviors for the 10 clients at the three stages of therapy. In order to use a single estimate of the degree of complementarity, the mean C1 score for the three "stage" C1's was calculated.

This entire procedure was applied first to the clients' behavior with therapist as respondent (reinforcer). A product-moment correlation of .542 was obtained between the behavioral change scores and the therapist C1 values. The positive relationship suggests that eliciting behaviors which experience higher levels of complementarity during the therapeutic relationship tend to increase in frequency whereas eliciting behaviors followed by low complementary therapist responses tend to decrease in frequency.

The product moment correlations for the successful and unsuccessful clients were +.43 and +.60 respectively. These results seem to point to the tentative conclusion that particular responses are more reinforcing than others (in line with the complementarity principle) and that client behavior is responsive to the differential interpersonal rewards.

It was also of interest to determine if the therapist's behaviors were susceptible to the clients' reinforcing efforts. The same mathematic calculations cited above, were used to obtain therapist behavior change scores and client C1 values.

A product moment correlation of -0.018 was obtained for the entire sample. This result suggests that changes in therapist behaviors are unrelated to the level of client reinforcement. An interesting trend developed however when "successful" and "unsuccessful" therapists

were investigated separately. The correlation for the successful therapists was $-.19$ representing a mild trend in the opposite direction indicated by the complementarity principle. The correlation for the unsuccessful therapists was $+.29$. This result suggests a moderate, although not significant, trend for "unsuccessful" therapists' behaviors to change in accord with the level of client complementarity. Although a separate analysis is needed, this finding that "unsuccessful" therapists are more influenced by client behaviors than "successful" therapists, may help to explain the shift toward more complementary quadrants (relative to the client's stance) which a number of "unsuccessful" therapists displayed between the early and middle stages.

Sex Differences

Various studies have examined the interaction between the sex of client and therapist and various process dimensions, including "verbalized feelings" (Fuller, 1963), therapist empathy (Cartwright & Lerner, 1963), and verbal dependency expressions (Alexander & Abeles, 1969). The majority of findings have indicated non-significant differences for like- and opposite-sex dyads.

It was of interest to determine what effect, if any, the sex of therapist and client had on complementarity levels. In thinking about the differing role expectancies for males and females (i.e., assertiveness and

submissiveness) it became apparent that part of the variance in complementarity indices might be attributable to the sex of therapist and client.

To examine this, complementarity scores from the middle stage of therapy were utilized. Two analyses were conducted. The first compared complementarity levels for male-male and male-female (therapist-client) dyads. Tables 24 and 25 list the results for therapist and client complementarity levels, respectively.

Table 24

Therapist Complementarity in Male-Male and
and Male-Female Dyads ($N = 14$)

Sex of Therapist-Client	N	Mean	SD	t	df
Male-Male	8	46.77	9.22	0.164*	12
Male-Female	6	47.73	11.20		

*Not significant (two-tailed test).

The second analysis compared complementarity levels for like-sex (male-male; female-female) dyads and opposite-sex (male-female; female-male) dyads. Tables 26 and 27 include the results for therapist and client complementarity, respectively.

As Tables 24-27 indicate, no significant sex differences were found. These findings lend further support

Table 25
Client Complementarity in Male-Male and
Male-Female Dyads (N = 14)

Sex of Therapist-Client	N	Mean	SD	t	df
Male-Male	8	48.70	10.72	0.871*	12
Male-Female	6	43.62	8.97		

*Not significant (two-tailed test).

Table 26
Therapist Complementarity in Like-Sex and
Opposite-Sex Dyads (N = 20)

Sex of Therapist-Client	N	Mean	SD	t	df
Male-Male (N = 8)					
Female-Female (N = 5)	13	50.16	10.22	1.019*	18
Male-Female (N = 6)					
Female-Male (N = 1)	7	44.48	13.07		

*Not significant (two-tailed test).

to our assumptions that the levels of complementarity in the client-therapist interactions are occurring in relation to the actual behaviors that are being exchanged.

Table 27
Client Complementarity in Like-Sex and
Opposite-Sex Dyads (N = 20)

Sex of Therapist-Client	N	Mean	SD	t	df
Male-Male (N = 8)					
Female-Female (N = 5)	13	50.21	11.95	1.714*	18
Male-Female (N = 6)					
Female-Male (N = 1)	7	40.09	11.98		

*Not significant (two-tailed test).

SUMMARY

This study investigated the varying levels of client and therapist behavioral complementarity during the three stages of psychotherapy for successful and unsuccessful outcome groups. Behavioral complementarity, as defined by Leary (1957) and Carson (1969), refers to the degree of reward (i.e., interpersonal reinforcement) experienced by both interaction participants as a result of the particular behaviors exchanged. In terms of the Leary Interpersonal Circumplex (1957), which was used to rate the interpersonal behaviors of client and therapist, complementarity occurs on the basis of reciprocity on the dominance-submissive axis [dominance complements (elicits and reinforces) submissiveness; submissiveness complements dominance] and on the basis of correspondence on the friendly-hostile axis (friendly behaviors complement friendliness; hostility complements hostility).

Complementarity Indices (CI), for each therapeutic dyad at three periods (early, middle, and later) in the therapeutic relationship, were obtained by summing the weighted proportions (the weightings--3, 2, and 1--reflected

the relative level of complementarity in the respective interactions) of interactions in the 16 cells of the Complementarity Matrix. (The 4 x 4 matrix contained an outcome cell for all possible interactions, given four possible eliciting behaviors X for possible respondent behaviors: (1) friendly-dominant, (2) friendly-submissive, (3) hostile-submissive, (4) hostile-dominant.)

Therapeutic outcome was assessed via clinical ratings of pre- to post-therapy MMPI profile changes; a measure which was found to have relatively good reliability and validity. Ten successful and 10 unsuccessful outcome cases were investigated.

The first two hypotheses represented a re-examination of the opposing predictions of Swensen (1967) and Carson (1969). Swensen has reported findings of a direct relationship between the level of client-therapist complementarity and degree of therapeutic success, whereas Carson, while failing to report empirical evidence, has presented a thorough theoretical treatise for an inverse relationship between the process and outcome variables.

Hypothesis Ia: There will be significant differences in the level of therapist complementarity between the successful and unsuccessful psychotherapy groups.

Hypothesis Ib: There will be significant differences in the level of client complementarity between the successful and unsuccessful psychotherapy groups.

A global index of complementarity (the mean C1 score representing the C1 scores from the three stages of therapy)

was used to test Hypotheses Ia and Ib. Neither hypothesis was supported at a significant level by the data, although there was a moderate trend for successful clients and therapists to interact at a somewhat lower level of complementarity than unsuccessful dyads. This trend was in the direction predicted by Carson (1969) and in opposition to Swensen's (1967) findings.

Hypotheses II through V investigated client-therapist complementarity patterns for successful and unsuccessful cases during the three stages of psychotherapy.

Early Stage of Psychotherapy

Hypothesis II: During the early stage of psychotherapy, the level of therapist complementarity will be directly related at a significant level, to the degree of manifest client maladjustment.

Hypothesis II was based on the assumption that clients who enter therapy exhibiting a more restricted, narrow range of interpersonal behaviors will be more invested in, and capable of, eliciting highly complementary responses from therapists. This assumption was supported by a rank order correlation coefficient of .51 ($p < .02$).

Hypothesis IIIa: During the early stage of psychotherapy, there will be no significant differences in the level of therapist complementarity between the successful and unsuccessful psychotherapy groups.

Hypothesis IIIb: During the early stage of psychotherapy, there will be no significant differences in the level of client complementarity between the successful and unsuccessful psychotherapy groups.

It was assumed that during the early stage of the therapeutic relationship, the levels of client-therapist complementarity would not differ significantly relative to outcome but would be moderately high in all dyads to promote the relationship-building tasks that characterize this stage of therapy. Both hypotheses were supported by the data. The findings indicated that successful clients and therapists, during this initial phase of therapy, were mutually interacting at a moderately high level of complementarity to the other's elicitations. It was suggested that such complementarity levels were contributory to maintenance of security operations, minimal anxiety, and the development of a vital working relationship. The interactions of unsuccessful dyads, on the other hand, were marked by differing levels of complementarity. Unsuccessful clients responded at a moderately high level of complementarity to the therapist's elicitations but "unsuccessful" therapists responded to the client's elicitations at a moderately lower level of complementarity. It was suggested that such differing complementary levels would contribute to a premature reduction in client security operations, increased levels of anxiety, and more tenuous relationships.

Middle Stage of Therapy

Hypothesis IVa: During the middle stage of psychotherapy, the level of therapist complementarity will be significantly lower in the successful, as opposed to unsuccessful, psychotherapy group.

Hypothesis IVb: During the middle stage of psychotherapy, the level of client complementarity will be significantly lower in the successful, as opposed to unsuccessful, psychotherapy group.

Hypotheses IVa and IVb tested the following theoretical assumptions: Client-therapist interaction patterns, leading to constructive client change, will reflect lower levels of complementarity during this middle, or "working," phase of therapy. The non-complementary, disconfirming behavioral exchanges are prerequisite for behavior change. Interaction patterns, leading to no change or deterioration (unsuccessful), will be characterized by significantly higher levels of client and therapist complementarity. Both hypotheses were confirmed, at high levels of significance, by the data. These findings lend considerable support to the Interpersonalists' position regarding the reciprocal impact which client and therapist have on each other. In addition, these findings clearly support Carson's (1969) views concerning the differing complementarity patterns leading to successful and unsuccessful behavior change.

Later Stage of Therapy

Hypothesis Va: During the later stage of therapy, the level of therapist complementarity will be significantly higher in the successful, as opposed to unsuccessful, psychotherapy group.

Hypothesis Vb: During the later stage of psychotherapy, the level of client complementarity will be significantly higher in the successful, as opposed to unsuccessful, psychotherapy group.

These predictions were based on the assumption that the interaction patterns for the "successful" dyads during this later phase of therapy would be marked by high levels of mutual complementarity resulting from the broadened range of newly-acquired behaviors available to the client. Both hypotheses were not supported by the data. There was, in fact, a moderate trend in the opposite direction. Several explanations were suggested. One, the emphasis on "short-term therapy" in the present population results in an extension of the "therapy work" right up to the time of termination. Consequently, complementarity levels remain lower where such is occurring. Secondly, early theoretical formulations failed to consider the possibility that complementarity levels in the "unsuccessful" dyads would go so high.

An analysis of client behavioral coordinates revealed the following results: In the successful group, seven of the 10 clients exhibited movement (from early to later stages of therapy) toward a more flexible, varied range of interpersonal behaviors. Nine of the 10 unsuccessful clients manifested no change or movement toward a more rigid, restricted behavioral repertoire. Five of the nine unsuccessful clients fit the latter category and most clearly represent client deterioration.

Exploratory Questions

In addition to the experimental hypotheses, several exploratory questions were examined. The first, investigated the patterns of complementarity over the three stages of therapy within each outcome group. For the successful outcome group, levels of client and therapist complementarity decreased significantly from early to middle stages, and then increased again significantly from middle to later stages. For the unsuccessful group, there were no significant changes in levels of complementarity over the three stages of therapy, although there was a noticeable trend for "unsuccessful" therapists to increase in complementarity from early to middle stages and to remain unchanged from middle to later stages of therapy.

Secondly, the pre- to post-therapy MMPI outcome measure was compared with an outcome measure derived from changes in clients' behavioral coordinates from early to later stages of therapy. A Phi coefficient of .61 ($p < .01$) suggested a significant relationship between the two outcome measures.

Thirdly, the relationship between changes in the frequency (from early to later therapy stages) of specific eliciting behaviors and the complementarity contingencies associated with those behaviors, was examined. The results indicated that client behaviors which have experienced high levels of therapist complementarity tend to increase

in frequency whereas behaviors followed by low complementary therapist responses tend to decrease in frequency. These results were interpreted as supporting the complementarity principle.

Changes in therapist behaviors were unrelated to the level of client complementarity although there was a moderate trend ($r = .29$) for "unsuccessful" therapists' behaviors to increase or decrease (in frequency) in direct relationship to the level of client complementarity.

Fourthly, complementarity levels in like-sex opposite-sex dyads were examined. No sex differences were obtained.

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APPENDICES

APPENDIX A

STUDY CASES

APPENDIX A

STUDY CASES

Client No.	Therapist Sex	Client Sex	Number Sessions	Therapist Experience Level ^a	MMPI Outcome Ratings ^b
011 ✓	M	F	18	3	S
016	M	F	22	2	U
024 ✓	F	M	12	1	S
026	F	F	18	2	S
031 ✓	M	M	19	3	U
037 ✓	M	M	17	3	S
039 ✓	M	M	9	3	U
042 ✓	M	F	18	1	U
043 ✓	M	M	16	1	U
044 ✓	M	M	14	1	S
050 ✓	M	F	13	4	S
817 ✓	F	F	20	1	U
818 ✓	M	F	16	3	S
823 ✓	M	F	21	2	U
830	F	F	9	3	U
831 ✓	M	M	24	1	U
843	M	M	16	1	U
845 ✓	F	F	15	3	S
847	M	M	15	3	S
848 ✓	F	F	12	2	S

^a1 = Senior Staff; 2 = 2nd yr. intern; 3 = 1st yr. intern; 4 = practicum student.

^bS = successful; U = unsuccessful

APPENDIX B

MMPI RATINGS

APPENDIX B
MMPI RATINGS

Client No.	Judge 1 Ratings		Judge 2 Ratings		Judge 3 Ratings		Average Ratings of Judges
	1st	2nd	1st	2nd	1st	2nd	
011	5	5	5	5	5	5	5.00
016	4	3	2	2	2	2	2.50
024	5	5	5	5	5	5	5.00
026	5	5	5	5	5	5	5.00
031	4	4	1	2	3	3	2.83
037	4	4	1	2	4	4	3.17
039	4	4	1	2	3	3	2.83
042	3	3	4	1	2	2	2.50
043	2	3	4	2	3	3	2.83
044	5	5	3	4	4	5	4.33
050	5	5	4	4	5	5	4.67
817	1	2	3	3	2	2	2.17
818	5	5	5	5	5	5	5.00
823	2	2	1	1	2	2	1.67
830	3	3	3	2	4	3	3.00
831	2	1	1	1	2	3	1.67
843	3	3	1	1	3	3	2.33
845	5	5	5	5	5	5	5.00
847	4	4	3	3	3	3	3.33
848	5	5	5	5	5	5	5.00

5 = satisfactory; 4 = partly satisfactory; 3 = no change; 2 = partly unsatisfactory; 1 = unsatisfactory.

APPENDIX C

SCORING MANUAL FOR THE INTERPERSONAL BEHAVIOR RATING SYSTEM

APPENDIX C

SCORING MANUAL FOR THE INTERPERSONAL BEHAVIOR RATING SYSTEM¹

General Considerations

The interpersonal circumplex, as it will be used in the present study, consists of four categories or quadrants into which all interpersonal behaviors may be rated. The four quadrants are defined by two orthogonal axes; a vertical axis representing the dimension of cominance-submission, and a horizontal axis for the affiliative-disaffiliative (friendly-hostile) dimension.

A behavior is judged into a specific category by making dichotomous decisions on both axes. In addition, descriptive terms and example statements, to be listed subsequently, are available for each category.

In rating the responses, several problems arise. One; affect and content (i.e., words) may, or may not be congruent. For example, consider the client statement "I like you." If this statement is genuine it would be rated friendly-submissive (love). If it were stated

¹Freedman, M. B., Leary, T. F., Ossorio, A. G., and Coffey, H. S. The interpersonal dimensions of personality, Journal of Personality, 1951, 20, 143-162.

in a sarcastic tone of voice it would be rated hostile-dominant (punish). If it came after an interpretation which the client did not want to deal with it would be rated hostile-submissive (complain).

To minimize the above problems, the following rule was established: affect takes precedence over content.

Secondly; within a given unit(uninterrupted speech) one or more shifts in feelings (emotional tone) are possible. For example, the client may begin his/her speech with an openly hostile statement (hostile-dominant) and then shift during the same speech to a self-condemning statement (hostile-submissive). Where this occurs, multiple scorings are required. For the above example, the scoring would be as follows:

C : H-D H-S

Where there are more than two shifts in the same unit, only the initial and terminal behaviors will be rated. The advantage of this procedure is that it permits a separate analysis of client (or therapist) as (1) respondent to the preceding elicitations of the other party (here, the initial response in the sequency is used), and (2) elicitor (stimulus) of subsequent response in the other (here the terminal behavior is considered).

Thirdly; in various cases, raters may use different levels of interpretation. To avoid this, interpretations should not go beyond the immediate context.

Descriptive terms and example statements for each category.²

The following abbreviations will be used:

therapist = T
client = C

Friendly-dominant (F-D) Category.

To dominate, teach, give, support.

(1) Dominate (direct, command, diagnostic probe, independent behavior).

T or C changes subject, begins new topic, asks information-gathering questions, is dominating, bossy.

(2) Teach (advise, give opinion, inform).

T or C gives opinion, acts as authority on subject, instructs.

(3) Give (help, interpret beyond conscious feelings).

Example: T: "If you feel uptight next week we could meet twice." or "Your relationship with your girlfriend appears to be similar to the one you had with your Mother."

(4) Support (sympathize, reflect feelings, reassure, generalize conscious feelings, approve, nurture, therapeutic probe).

²Many of the example statements were obtained from J. Crowder, 1970, Appendix C, pp. 110-123.

As a general rule, reflecting feelings, generalizing feelings, therapeutic probes (when rated here) must come after a statement which contained that data that is reflected, generalized, etc. Support and reassurance does not have this limitation.

Friendly-Submissive (F-S) Category.

To love, cooperate, trust, admire.

(1) Love (affiliate, identify with).

Examples: "I really like you."

"I feel close to you."

(2) Cooperate (confide, agree, collaborate).

C cooperates with T, works on problem, answers questions, elaborates on reflective statements, agrees with.

(3) Trust (depend, ask for help).

Example: C: "This problem arose which I hope you will help me with ----."

(4) Admire (ask opinion, praise).

Example: C: "What should I do?"

C: "You're the best therapist in the Counseling Center."

Hostile-Submissive (H-S) Category.

To submit, condemn self, distrust, complain.

(1) Submit (defer, obey).

- (a) Submission is more to avoid confrontation than to accept validity of statement (sometimes follows an argument).
- (b) Also, when client expresses extreme helplessness without belief that therapist can help.
- (c) A mere "Yeah" or "I guess so" response when the therapist is attempting to elicit an elaboration or after the therapist has made a statement about something.

(2) Condemn self (depressed, withdrawn).

C: "I feel worthless."

C: "I'm no good."

T: "If I were a good therapist, you wouldn't have those feelings."

(3) Distrust (suspicious, skeptical).

- (a) T or C expresses skepticism about other person or his statements. A "What?" following a very clear statement.
"Maybe."

- (b) Suspicious about feelings, motives, etc., of other party.

Example: "I don't know if you feel that way about me or not."

- (4) Complain (rebel, nag, sulk, passively resist).

- (a) Includes defensive maneuvers, angry withdrawals into silence, resistance expressed in passive ways.

- (b) Silences of 15 seconds or more where the previous response would suggest that the person is feeling hurt or angry.

Hostile-Dominant (H-D) Category.

To hate, punish, reject, boast.

- (1) Hate (attack, disaffiliate).

C: "Go to hell."

- (2) Punish (be sarcastic, threatening).

C: "People are going to keep bugging me until I kill myself."

- (3) Reject (withholding, competing, accusing).

- (a) C or T rejects (in hostile tone) the previous statement of the other.

Example: "No, that's not so."

- (b) C and T are arguing, competing, accusing openly.

- (c) C or T refuses a previous directive.

(4) Boast (narcisistic, self-stimulating, intellectualizing).

(a) Boastful statements.

Example: "I got the highest grade on that last exam."

(b) Wandering, free-associating, conversation in which the speaker provides his own stimulation. Usually includes "lists" of events from the past week, rambling statements, etc.

(c) C or T intellectualizes.

Examples: C: "I haven't worked out my Oedipal conflict yet."

T: "What is it that's troubling you?"

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