AN EXPLORATORY ANALYSIS OF HOSTILITY IN PSYCHOTHERAPY

Thesis for the Degree of Ph. D.

MICHIGAN STATE UNIVERSITY
Duane L. Varble

1964

This is to certify that the

thesis entitled

AN EXPLORATORY ANALYSIS OF

HOSTILITY IN PSYCHOTHERAPY

presented by

Duane L. Varble

has been accepted towards fulfillment
of the requirements for

Ph.D. degree in Psychology

Clarence L. Winder
Major professor

Date August 12, 1954

ABSTRACT

AN EXPLORATORY ANALYSIS OF

HOSTILITY IN PSYCHOTHERAPY

by Duane L. Varble

The clients' expressions of hostility and the therapists' reactions to such expressions are significant variables in the psychotherapeutic process. This study is an attempt to analyze the changes in clients' hostility expressions as therapy progresses. A content analysis system for analyzing verbal behavior is used to determine what effect the therapist's "approach" reactions and "avoidance" reactions to hostility have on subsequent expressions of hostility by the client. Two classes of variables are studied: 1) client variables, and 2) therapist variables.

The following hypotheses, derived primarily from learning theory expectations, are stated to test the client variables.

1. The clients will continue expressing hostility significantly more after "approach" than after "avoidance" of such expressions by the therapist. As therapy progresses the reinforcement of the therapist's "approach" should lead to an increase in the client's continuance of hostility expressions after such expressions are approached.

2. There will tend to be two classes of clients, those who have higher initial hostility expression levels and those who have lower initial hostility levels. But these differences in hostility expression should be less marked in the final stages of therapy. The hypothetical learning experiences of clients during therapy predict the "high" group should decrease and the "low" group increase in hostility expression.

The following hypotheses concerning therapist variables are derived primarily from previous research:

3. The therapists' approach rate to the clients' hostility will vary in different stages of psychotherapy, i.e., the therapists will behave differently in different stages of therapy.

4. The therapists will approach hostility expressions significantly more when they are not the object of the clients' behavior.

5. Staff therapists will approach hostility significantly more than less experienced therapists (interns) in the early stage of therapy, but this difference will disappear as therapy progresses.

A content analysis is made of 80 tape recorded interviews of 16 clients seen in psychotherapy by 7 interns and 6 staff therapists in a university counseling center. An interview for each client is analyzed at five sample points approximating the 1st, 50th, 75th, and 100th percentages of the total number of interviews for each client. All sixteen clients are terminated and considered to be successful cases by their therapists. Client-therapist interactions are coded for the number of times clients initiate hostility after approach and avoidance of such expressions by the therapists. The number of times the therapists approach or avoid hostility expressions by the client are also coded. The results follow:

1. Therapists' "approach" to hostility expressions of the client elicit further such expressions, while "avoidance" elicits non-hostile material at all stages of therapy. However, there is no increase in the effectiveness of such elicitations as therapy progresses.

2. The clients did not change significantly in the predicted manner as a result of therapy, regardless of whether they were initially high or initially low in hostility expression. Their changes are apparently individually determined.

3. The therapists as a group approach the clients' hostility expressions about 50% of the time with only minor fluctuations at different stages of therapy. There is a great deal of variation among therapists in this respect.

4. Staff therapists approach hostility directed at themselves significantly less than they approach other hostility. This is not the case with the intern therapists.

5. Staff and intern therapists generally approach the clients' hostility expressions at approximately

the same rate. However, intern therapists approach hostility directed at the therapist significantly more than staff therapists. The effect of group training is suggested as an explanation for this finding.

The theoretical implications of the results are discussed. Possibly avenues for further research to answer some of the questions raised by the study are suggested.

AN EXPLORATORY ANALYSIS OF HOSTILITY IN PSYCHOTHERAPY

By

Duane L. Varble

A THESIS

Submitted to
Michigan State University
in partial fulfillment of the requirements
for the degree of

DOCTOR OF PHILOSOPHY

Department of Psychology

1964

Dedicated

to

Charle

and

Dyke

and

Valery

Acknowledgments

I wish to express my gratituded to my chairman, Dr. C. L. Winder for his proficient guidance and direction. I also wish to express my appreciation to my committee members, Dr. Charles Hanley, Dr. Lucy Rau and especially to Dr. Josephine Morse.

I wish to acknowledge the assistance provided by Dr. John Schuldt who collaborated with me in collecting the data for the study.

Finally, I wish to express my appreciation to the therapists and clients at the Michigan State University Counseling Center whose tape recorded interviews provided the data for the study.

Table of Contents

List of Tables

List of Appendices

Introduction

Psychotherapy is one of the most complex and, until recently, least studied human interactions. Long standing controversies concerning how psychotherapy works and how best to go about being a psychotherapist have raged for years. This led the authors of one recent book to cynically conclude:

> Traditional approaches to the modification of deviate behavior have largely been determined by the therapists' affiliations with particular schools, with little consideration of the type of problem presented by the client. For example, Orthodox Freudians set out to resolve oedipal conflicts, Adlerians to alter compensatory power strivings, Rankians to resolve separation anxieties, Rogerians to reduce discrepancies between the real and ideal self, and Existentionalists to achieve awareness of self-conciousness. School affiliations not only determine the range of techniques of psychotherapy that a given therapist will employ but even define the clients' central conflict or disturbance that the techniques of the school are designed to resolve. (Bandura and Walters, 1963, p. 249)

However, in terms of research, the last decade has witnessed a trend toward less concern with pitting

schools of therapy against each other and more concern with variables operative in the process of psychotherapy. Tape recorded interviews and content analysis systems for scoring the client-therapist verbal interaction have added greatly to this research. The present study uses a content analysis system to study the psychotherapeutic process over time. It is essentially an exploratory investigation of one important behavioral variable, i.e., the effects of the therapists' approach and avoidance behavior on the clients' expression of hostility during different stages of psychotherapy.

Hostility in psychotherapy:[1]

Freud was so impressed by the sadistic and masochistic events he found in neuroses and by the events of World War I, that he revised his theory of personality to include aggression as "an innate, independent instinctual disposition in man." He called

---

[1]No attempt is made to differentiate "hostility" from "aggression" as it is assumed that the underlying mechanisms involved in expression of negative feelings are the same regardless of the label these expressions are given.

this instinct the death wish (1950). Freud's new instinct theory met with considerable criticism (see Munroe, 1955). The more prevalent view is that hostility is a reaction to frustration or behavior learned because of the rewards it obtains. But our western culture is inconsistent with respect to expressions of hositility. Depending upon the time and circumstance such expressions may be rewarded, ignored or punished. Consequently, it is a rare individual who does not have some difficulties with aggression, and it is frequently a component of emotional conflicts in people.

Fromm-Reichmann (1950) cogently expressed this viewpoint when she wrote:

> . . . I am not in agreement with the teachings of classical analysis, according to which people are born to be hostile and aggressive, i.e., Freud's teachings of the death instinct. In this hostile world of ours, however, every person--certainly every mental patient--has sufficient reason for learning to develop reactions of hostility. Mental patients react with hostility to the hostile behavior and the shortcomings of the significant adults in their environment, including the failures of their therapist, and they transfer to him the anger and resentment engendered by their previous experience. Furthermore, they interpret the therapist's behavior and communications along

> the lines of their unfavorable past experience with other people. Hence, it follows that every mental patient will have to express a marked degree of hostility in the course of his interpersonal dealings with the therapist. This being so, psychotherapy can be successful only if the psychiatrist is secure enough himself so that he will be able to deal adequately with the hostile reactions of his patients. (p. 22)

Other psychotherapists generally agree that hostility, in one form or another, is one of the issues that must be dealt with in order for psychotherapy to be successful. The nature of the hostility differs with each client just as techniques for handling it in therapy also vary among therapists depending on theoretical orientation and individual personalities.

Many clients appear to be overly inhibited in their expressions of hostility. In such cases the more traditional schools of therapy usually assume that past experiences have resulted in repression of angry feelings, and the anxiety about experiencing these feelings causes the individual to avoid expressing his aggression even in "appropriate" situations. The therapist's task, then, becomes one of helping the client become aware of his repressed feelings through permissiveness

and/or interpretation. Once this is accomplished, the client is presumed to have considerably more freedom. He is expected to be aware of his feelings and to be able to express them appropriately (Rogers, 1951).

Learning theory accounts for the beneficial effects of conventional psychotherapy in a somewhat different manner. Bandura (1961) summarizes this point of view.

> Most of the conventional forms of psychotherapy rely heavily on extinction effects although the therapist may not label these as such. For example, many therapists consider permissiveness to be a necessary condition of therapeutic change (Alexander 1956; Dollard and Miller, 1950; Rogers, 1951). It is expected that when a patient expresses thoughts or feelings that provoke anxiety or guilt and the therapist does not disapprove, criticize, or withdraw interest, the fear or guilt will be gradually weakened or extinguished. The extinction effects are believed to generalize to thoughts concerning related topics that were originally inhibited, and to verbal and physical forms of behavior as well. (p. 147)

Regardless of the methods used, one of the major goals in the treatment of overinhibited clients is to help them achieve more freedom in their expression of hostility. Thus, in successful psychotherapy

with such cases, the client's hostility should increase to a peak then level off to a more moderate value as therapy progresses.

Clients who are undercontrolled in their expressions of hostility also typically have problems with it, i.e., their hostility causes conflicts in interpersonal situations. The traditional way of handling these clients' difficulties usually involves permitting free expression of affect. This is most clearly demonstrated in play therapy when hyperagressive children are encouraged to participate in aggressive games and competitive activities to ventilate their hostile impulses and thus reduce the internal aggression level (Baruch 1949). In adult psychotherapy the same idea is frequently carried out, with the restriction that the hostility must be expressed verbally.

The assumption that aggressive behavior, even in structured form, reduces the internal aggressive drive or urge is known as the catharsis hypothesis. Dollard et al (1939) state it this way: "The occurrence of any act of aggression is assumed to reduce the instigation to aggression." (p. 50)

There is some research evidence that, at least with children, direct or vicarious participation in aggressive activities within a permissive setting maintains the behavior at its original level and may actually increase it. (Kenny, 1952; Feshbach, 1956; Bandura, Ross and Ross, 1961, 1963a, 1963b; Lövaas, 1961a; Mussen and Rutherford, 1961; Walters, Leat and Mezei, 1963; DeRath, 1963).

The findings in adult studies are less clear cut. Feshbach (1955, 1961) found that adults who were initially angered and then permitted to express aggression through fantasy or were exposed to aggressive models showed a subsequent decrease in aggression. In contrast, Kahn (1960) reported an increase in aggression in angered subjects, following a display of anger in a social situation in which hostile remarks were permitted and accepted. In other studies direct or vicarious participation in aggressive behavior seemed to increase the incidence of subsequent aggression (Buss, 1961; Walters and Llewelyn Thomas, 1963).

One limitation of all the controlled research investigations concerning the catharsis hypothesis for reducing hostility is that they are restricted in time. That is, the experimental subjects are typically given only one or two brief opportunities to participate, either directly or vicariously, in aggressive behavior before they are tested for reduction in aggression. Thus, the effects of many opportunities to participate in hostile behavior over a long period of time, such as in psychotherapy, can not be determined from the above mentioned studies.

Another important variable affecting the hostility expressed in psychotherapy is reinforcement for such behavior. Studies of learning have established that positive reinforcement of a response increases the probability of future occurrence of that and similar responses. The effects of negative reinforcement or non-reinforcement are more complicated, but the response in question usually occurs less frequently either because of extinction or inhibition effects.

The influence of positive reinforcement on the development of aggressive behavior has been demonstrated in a number of controlled studies with children (Cowan and Walters, 1963; Patterson, Ludwig and Sonoda, 1961; and Lövaas, 1961b).

More relevant to the present investigation are studies of the effects of positive reinforcement of hostile verbal behavior. A number of these have used operant conditioning methods to increase the frequency with which subjects emit hostile statements or expressions (Binder, McConnell and Sjoholm, 1957; Buss and Durkee, 1958; Simkins, 1961; Zadek, 1959).

Also, analysis of response-reinforcement contingencies as they occur naturally in psychotherapeutic interactions reveals that positive reinforcement by the therapists of clients' hostile verbal responses significantly increases the probability of occurrence of responses of this class, whereas negative reinforcement substantially decreases the incidence of verbal aggression (Bandura, Lipsher and Miller, 1960; Barnes, 1963; Lerman, 1963; and Kopplin, 1963). These studies will

be discussed in more detail later, but they have one limitation in common, i.e., they cover one or two interviews of a particular client, usually early in therapy, and thus do not assess the reinforcement effects on the patient over a very long time period.

Learning and Psychotherapy

There are numerous ways of conceptualizing the process of psychotherapy. Each method chooses somewhat different aspects of the psychotherapeutic process to emphasize. However, broadly speaking, all systems of psychotherapy assume that learning occurs in this complex human interaction. Several writers have attempted to use principles of learning theories to explain the process of "talking" psychotherapy (Shoben, 1948; Dollard and Miller, 1950; Bandura, 1961). But it has been difficult to test these formulations for several reasons. The most difficult obstacles being, 1) lack of experimenter control of the therapeutic process, and 2) a way of simplifying and objectifying the interactions between client and therapist for measurement.

The first of these difficulties seemed to be lessened with the demonstration of verbal conditioning by operant methods (Greenspoon, 1950). This resulted in a phenomenal increase in interest in verbal learning, and clinicians and experimentalists alike were quick to seize the verbal conditioning paradigm as a possible method of investigating psychotherapy. But, comprehensive reviews of verbal conditioning by Krasner (1958), Salzinger (1959) and Greenspoon (1962) reveal relatively few studies with direct relevance to psychotherapy.

Salzinger and Pisoni (1958) and Hagen (1959) obtained evidence that the verbal stimulus "mmm-humm" was effective in increasing the frequency of affect responses in schizophrenic patients. Quay (1959) found the contingent stimulus "uh-huh" was effective in increasing the frequency of family memories. Rogers (1960) was able to increase the frequency of positive self reference or negative self reference by selective reinforcement in a quasi-therapy situation with college students. But he found no reduction in anxiety level

of the subjects over the six sessions and no generalization of increased self references outside of the therapy setting.

Waskow (1962) was able to condition statements of verbal content in a "therapy-like" situation using a reflection technique. But statements of feelings and attitudes and statements combining feelings and content did not increase as a result of the therapist's reflection of them.

The above mentioned studies led the reviewer Greenspoon (1962) to conclude: "the research on verbal conditioning in both the therapy and quasi-therapy settings generally suggest that the verbal behavior of the patient and/or subject can be modified." (p. 544) However, he cautioned that psychotherapy is a complex process and that there are many variables yet to be studied in verbal conditioning before psychotherapy can be explained via the verbal conditioning paradigm.

The second obstacle to the study of the natural history of psychotherapy via learning methods began to weaken with Murray's (1956) development of a content

analysis method for scoring client-therapist verbal interaction. This method provided a more objective and non-inferential system of scoring. Clients' statements were designated as expressing a need, expressing anxiety about a need or frustration of a need. Therapists' responses were categorized as mildly approving or disapproving.

Bandura, Lipsher and Miller (1960) revised Murray's scoring system so that the clients' statements were scored as expressing "hostility," "dependency" or "other," and the therapists' reactions to them were classified as "approach" or avoidance." Using the assumption that "approach" by the therapist constituted positive reinforcement of the client's previous statement, Bandura hypothesized that clients would continue expression of hostility significantly more after approach by the therapist than they would continue after avoidance on the therapist's part. The results of an analysis of tape recordings of actual therapeutic interviews of parents in treatment at a parent-child guidance clinic supported this hypothesis.

Winder et al (1962), using essentially the same scoring system and a similar population, replicated Bandura's results concerning the reinforcing effect of approach while investigating dependency rather than hostility. Since then a number of people using college student populations have confirmed the finding that clients continue discussion of the topic in question significantly more after approach by the therapist than after avoidance (Caracena, 1963 for dependency; Kopplin, 1963 for hostility; Barnes, 1963; and Lerman, 1963 for both dependency and hostility).

All the above studies suggest the verbal behavior of the client in therapy is modified by the therapist's approach or avoidance reactions to what the client says. This is similar to the findings of verbal conditioning studies and suggests learning is occurring in this way. However, it should be noted that all of the studies using Bandura's scoring model dealt with only one or two interviews of any particular client. And that, with the exception of Bandura's (1960) work in which tapes taken randomly from several

clients presumably in different stages of psychotherapy were used, all subsequent investigations have been concerned only with initial or early interviews in therapy. Thus, one of the purposes of the present investigation is to find out if the results obtained in early interviews hold true for all stages of psychotherapy.

The scoring procedure used in this study:

This investigation is concerned with the changes in verbal content that occur over time in psychotherapy. This means an objective molecular method of coding client-therapist verbal interactions is necessary. The method used was mentioned previously, i.e., the content analysis procedure developed by Murray (1956) and subsequently modified and used by Bandura, Lipsher and Miller (1960) and Winder, Ahmad, Bandura and Rau (1962). Essentially, this model consists of scoring each of the client's "speeches" as "dependency," "hostility" or "other." Each of the therapist's "speech" reactions are then scored as "approach" or "avoidance." This constitutes

an interaction unit. Each unit has three parts: 1) the client's statement, 2) the therapist's response and 3) the client's subsequent statement, each of which is scored separately. The final client statement of one unit is also the initial statement of the next unit so that interaction units overlap and result in a continual record of the client-therapist interaction. The specific components of each part of the unit are explained in the scoring manual used by Kopplin (1963) and in Appendix A.

The only significant modification of this scoring system for the present study is the addition of a category called client-initiated-hostility, (CIH). This is important because it is a measure of hostility independent of the therapist's approach or avoidance behavior with respect to hostility. Caracena (1963) has shown the analog of CIH, client-initiated-dependency, to be useful. The procedure with minor modifications, has been used successfully by Barnes (1963); Caracena (1963); Kopplin (1963); and Lerman (1963).

The advantages of this procedure are that it is a rather simple, objective, molecular method of analyzing

the moment to moment verbal behavior of both client and therapist. This makes it possible to discuss the behavior of the client and the therapist separately as well as the effect of the verbal behavior of each upon the other.

The limitations of the procedure are that it deals only with manifest verbal content, consequently missing such phenomena as facial expressions, posture, voice intonations, etc. that are typically believed to be important in the communication of affect. Such limitations necessarily mean some of the more complex facets of the interactions may be lost.

Hypotheses of this study:

Insofar as it is possible, the hypotheses are stated in terms of learning theory expectations because the basic assumptions of the procedure are derived from reinforcement theory. However, because this is an exploratory investigation there are times when this does not seem feasible or desirable. In such cases the hypotheses are stated as "empirical questions."

Hypothesis I:

> The client will continue discussing hostile content significantly more after "approach" of such content by the therapist than after "avoidance" on the therapist's part.

This has been demonstrated in a number of studies in early interviews, (Bandura et al, 1960; Kopplin, 1963; Barnes, 1963; and Lerman, 1963). The interesting empirical question is whether this relationship will be maintained as therapy progresses and terminates. The reinforcement principle of learning theory would lead us to expect an increase in continuance after approach as therapy progresses.

Hypothesis II:

> The therapist's approach rate to the client's hostility will vary in different stages of psychotherapy.

This is an exploratory hypothesis since we have no good way of predicting what effect time will have on the therapist's approach rate. Kopplin (1963) found therapists showed greater proportions of approach to

hostility in the second interview, as compared to the first interview with the same client. This suggests a trend toward more approach behavior on the part of therapists as they get to know the client.

Hypothesis III:

> Staff psychotherapists will approach hostility significantly more than the less experienced therapists (interns) in the early stage of therapy, but this difference will disappear as therapy progresses.

This hypothesis is suggested from Kopplin's (1963) results. He found more experienced therapists approached hostility more than less experienced therapists in initial interviews. But less experienced therapists approached hostility significantly more in the second interview than they had in the first. This suggests their approach rate to hostility will become more similar to the more experienced therapists' approach rate over time.

Hypothesis IV:

> The psychotherapists will approach hostility significantly more when they are not the object of the client's behavior.

Bandura et al (1960) found student therapists approached hostility significantly more when it was not directed at themselves. Kopplin (1963) replicated this finding for therapists just beginning their psychotherapy training (practicum students) and therapists who had completed their training (staff psychotherapists) but not for therapists in the process of training (interns).

Lerman (1963) who studied therapists in training did not find any significant difference between approach to hostility directed at the therapist and approach to hostility directed at others. The therapists' tendency to approach hostility directed at "others" more than they approach hostility directed at the "therapist" is probably not a universal one. The experience levels of the therapists also seem to be influential in this respect.

Thus, this hypothesis is stated as an attempt to replicate the finding of Bandura et al (1960), but differences in experience level of the therapist will be considered as part of the exploration of this question.

Hypothesis V:

There will be significantly more variance between clients, in terms of expressing hostility, at the beginning of therapy than at the end. That is, there will tend to be two classes of clients, those who are over-inhibited in their expressions of hostility and those who are under-inhibited in their hostility. But these differences in hostility expression should be less marked during the final stages of therapy.

A. "Client-Initiated-Hostility" will increase, reach a peak, then decline to a medium value and level off above the initial level as therapy progresses for those clients initially low in hostility expression.

B. "Client-Initiated-Hostility" will start high, peak early in therapy, then gradually decline to a medium value as therapy progresses for those clients who are uninhibited in their expression of hostility initially.

This hypothesis is based primarily upon clinical observations. Individual differences in hostility expression are commonly found in psychotherapy clients, and these differences tend to cluster at either end of a continuum of inhibition of hostility expression. Suggestive evidence of the hypothesized variance in hostility expression has been found in a previous study using this model. Kopplin (1963) studied first and

second interviews of student clients. A small proportion of these interviews contained no hostility statements by the client and many interviews had relatively few hostility statements. At the other extreme, in several cases hostility expression dominated the client-therapist interaction. This evidence has to remain at the suggestive level, however, because of the contaminating effect of the therapist's tendency to approach hostility when it occurred.

The sub-hypotheses A and B are in part a result of clinical observations. But these predictions would also be expected from learning theory. For the inhibited client learning theory would predict the permissiveness, and the acceptance of the therapist would result in a loosening of inhibitions as the fear and guilt feeling attached to the client's hostility expressions were gradually extinguished (Bandura, 1961). At the same time, the therapists would reinforce hostility statements by approaching them. Thus, the client's hostility expressions should reach a relatively high level within the middle stages of therapy.

However, as therapy progresses, it seems unlikely that the therapist will continue to indiscriminately approach the client's hostility when it is emitted at a high level. The therapist's approach behavior may take the form of selective reinforcement, e.g., he may tend to avoid persistent and direct attacks on himself but approach and thus reinforce such "appropriate" expressions of hostility as anger at one's parents. The overall effect of such behavior by the therapist would be to reduce the client's hostility expression from a high level to a more moderate level.

Other reasons for expecting the initially overly inhibited client's hostility level to decrease after reaching a peak during the middle stage of therapy are: 1) that the client's "need" or drive to express aggressive feelings should decrease after repeated ventilation and 2) that the therapist's behavior during the interview serves as a model for the client to imitate. Bandura, Ross and Ross (1961, 1963a, and 1963b) have demonstrated the importance of imitative learning of aggression in children. Also Bandura et al (1960) found that

therapists who were more open and direct in their expression of hostility obtained more hostility from their patients than therapists who were more defensive and indirect in their hostility expression. This finding was explained primarily in terms of the therapists' being threatened or anxious about hostility, but the model the therapists represented would seem to be just as important. Since the majority of therapists are not inclined to be overtly and consistently hostile during the interview, the client is likely to follow this behavioral model of "moderate" hostility expression.

Learning theory would also predict that clients who are undercontrolled in hostility expression should increase in rate of hostility because of the reinforcement of having the therapist approach such statements. But because the hostility expression rate is at a high level, both the catharsis hypothesis (drive reduction) and discrimination learning would predict a decrease to a moderate level. The principle of competing responses would also predict a decrease in hostility rate, e.g.,

the client may have a strong drive for dependency which is also reinforced by the therapist and it would be difficult for the client to be overtly hostile and dependent at the same time.

Method

Sources of data:

The tape recordings used in this study were obtained from the tape library of the Counseling Center at Michigan State University. This library consists of the recorded interviews of 42 undergraduate university students chosen for the study in a random way from the population of non-referred students who approached the Counseling Center seeking help with personal-social problems. In an initial intake interview only those students who were judged to be appropriate cases for the Counseling Center and who had no previous psychotherapy were asked to participate in the study.

Provided the client agreed to the research conditions (which included taking some tests as well as having all his interviews recorded), he was assigned by the intake interviewer to one of the 10 full time

staff members or 14 interns participating, to be seen on a once a week basis. Final assignment was contingent on the counselor's agreement to work with the client. This decision was based on the counselor's knowledge of the way the client presented himself in the intake interview.

Clients:

The present investigation used tape-recorded interviews of 16 clients (10 females and 6 males) selected from the 42 clients mentioned above. These 16 clients were selected according to the following criteria: 1) all clients had been terminated, and 2) the therapists had judged the clients' treatment to be successful. A descriptive summary of the clients and therapists is provided in Table 1.

Therapists:

The two groups of therapists who participated in this study were 6 staff members and 7 interns at the

Michigan State University Counseling Center. The staff psychotherapists are doctoral level counseling and clinical psychologists with 3-11 years of psychotherapy experience. The intern psychotherapists are advanced graduate students enrolled in counseling or clinical psychology Ph.D. programs at Michigan State University. They work at least 20 hours a week at the Counseling Center and have had an average of 2 years of intensive supervision in psychotherapy.

Table 1.--Descriptive summary of the sample

Therapists	Number	Sex		Mean years experience
		female	male	
Staff	6	2	4	7.5
Interns	7	2	5	2.0
Clients				
Clients seen by staff	8	5	3	14
Clients seen by interns	8	5	3	14

Stages of psychotherapy sampled:

Five interviews were selected from each of the 16 clients included in this study. Since one of the purposes of the study was to assess the changes that occur over time in psychotherapy, spaced sampling was required. Those interviews which fell at approximately the 1st, 25th, 50th, 75th, and 100th "percentiles" of the total number of interviews for each client were used. Thus, for a client who terminated with the 17th therapy session, only interviews 1, 4, 8, 12, and 16 would be included as data in our study.

The intake interview and the final termination interview were not included because it was felt these could not properly be called therapy interviews.

Coding procedure:

The coding procedure was that utilized by Caracena (1963) and Kopplin (1963). This procedure is a modification of the content analysis system used by Bandura et al (1960) and Winder et al (1962) mentioned

previously. The coding manual used in this research is contained in Appendix A.

The client categories that were coded are: hostility, dependency, other, client-initiated-hostility and client-initiated-dependency. The therapist variables that were coded are: approach, avoidance, therapist-initiated-hostility and therapist-initiated-dependency.

Scoring reliability:

Two raters participated in the coding of the tape recorded interviews. Both raters mutually coded several tapes to familiarize themselves with the scoring system. These interviews were assessed for inter-rater agreement but were not used as data in the study.

A total of 80 tape recorded interviews were used in the study. Each rater coded 40 tapes. To measure inter-rater agreement each rater independently coded 10 tapes scored by the other rater. This resulted in a reliability pool of 20 mutually coded tapes. These tapes were arbitrarily chosen from all stages of therapy.

The coding of reliability tapes was an on-going process over the entire period in which the raters scored tapes.

Inter-rater agreement was determined for each of the response categories critical for the evaluation of the stated hypotheses. These categories are: hostility, object of hostility, approach, avoidance, and client-initiated-hostility. The measures of inter-rater reliability were Pearson Product Moment Coefficients using ratios for each of the twenty interviews.

Results

The critical scores used to evaluate the hypotheses in this study are described in Table 2.

Table 2.--Description of critical scores used in evaluation of hypotheses

Therapist variables	
HAp%	The sum of the therapist's approach following hostility/the sum of hostility expressions by the client.
HoAp%	The sum of the therapist's approaches following hostility directed at "other" (someone other than the therapist)/the sum of the client's hostility expressions directed at "other."
HtAp%	The sum of the therapist's approaches following hostility directed at the therapist/the sum of the client's expressions of hostility directed at the therapist.
Client Variables	
HApC%	The sum of the client's hostility expression following the therapist's approach to preceding hostility/the sum of hostility expressions followed by approach.

Table 2.--Continued

Client Variables

CIH%	The sum of the client's hostility expressions not in immediate response to the therapist's approach or avoidance to hostility or TIH/the sum of dependency and other units which do not immediately follow therapist HAp, HAv, or TIH.*
Ht%	The sum of hostility directed toward the therapist/the sum of hostility expressions.

*Therapist-initiated-hostility is hostility introduced by the therapist simultaneously with approach or avoidance to dependency or other.

Reliability of raters:

Coding agreement between judges was evaluated by computing product-moment coefficients for the critical scores taken from each interview in the reliability sample. These coefficients are presented in Table 3.

Table 3.--Inter-judge reliability coefficients of scores used to evaluate hypotheses

Critical Scores	N	r
Therapist variables		
HAp%	19	.874
HoAp%	18*	.828
HtAp%	10*	.692
Client variables		
HApC%	18*	.948
HAvC%	15*	.913
ClH%	16*	.938
Ht%	19	.914

Note: One of the reliability interviews contained no hostility statements by the client. Thus, the N is reduced by 1.

*These categories did not occur in all interviews.

Hypothesis I:

Clients should continue expressions of hostility after approach to such expressions (as measured by the ratio HApC%) significantly more than after avoidance

(as measured by the ratio HAvC%) by the therapist. The mean percentages of times the clients continued expressing hostility after approach and avoidance for each of the five stages of therapy are shown in Table 4.

Table 4.--Mean continuance rates after approach and after avoidance at the five sample points in therapy

	1%	25%	50%	75%	100%
Continuance after Approach:	.61	.37	.52	.52	.46
Avoidance:	.09	.13	.06	.10	.08
Sign test (two tailed)	p .002	p .038	p .001	p .001	p .001

The sign tests at each of the stages of therapy are highly significant, indicating consistently more continuance of hostility after approach by the therapist. In the eighty interviews coded only three had continuance rates after avoidance which exceeded the continuance rates after approach in the same interview. Thus, Hypothesis I is clearly supported at all stages of therapy.

Since clients' continuance rates had previously been studied only in the early phase of therapy, this hypothesis was also concerned with possible changes that might occur as therapy progressed. It can be noted from Table 4 that fluctuations in the continuance rates after both approach and avoidance do occur. Wilcoxon signed-rank tests were used to assess the statistical significance of these changes. Only the change in continuance after approach between the 1st and 25th percentile points is significant ($p<.05$ two-tailed). That is, 12 of the 16 clients continued expressing hostility after approach by the therapist less a quarter of the way through therapy as compared with their initial interviews.

It may also be worthy of note that, in contrast to continuance after approach, continuance after avoidance reaches its maximum at the 25th percentile point. This is not a statistically significant change from the 1st interview (Wilcoxon matched pairs signed-ranks test $p > .05$), but is a further suggestion that the 25th percentile point may be a special point in therapy as far as expressing hostility is concerned.

Hypothesis II:

The therapist approach rate (as measured by the ratio HAp%) will vary in different stages of therapy.

This hypothesis was intended to provide one answer to the general question of whether or not therapists behave differently in different phases of therapy. The mean approach rates for staff members and for interns are presented in Table 5.

Table 5.--Mean approach ratios at the five sample points

Group	1%	25%	50%	75%	100%	P
Staff:	.46	.51	.55	.45	.62	NS
Interns:	.54	.45	.60	.44	.40	NS
Combined:	.50	.48	.57	.45	.51	NS

Separate Friedman analysis of variance by ranks tests were used to assess changes over time for the staff therapists, interns, and the combined groups.

It can be seen from Table 5 that fluctuations in approach rate do occur in the different stages of

therapy but no radical changes are evident. Friedman two-way analysis of variance by ranks tests were computed to assess the significance of changes over time. These were non-significant, at the .05 level, indicating the fluctuations may be due to chance.

Generally, it can be said that the therapists consistently approach hostility about 50% of the time regardless of the stage of therapy.

Hypothesis III:

Staff psychotherapists should approach hostility (as measured by the ratio HAp%) significantly more than less experienced therapists (interns) in the early stages of therapy, but this difference will disappear as therapy progresses.

To test these expectations separate Mann-Whitney U-tests were computed at each of the five sample points. The results are presented in Table 6.

Table 6.--Comparison of the approach rates of staff therapists and interns at each of the five sample points.

	1%	25%	50%	75%	100%
Mann-Whitney U-test	u 18	u 17	u 20	u 20	u 18
P (two-tailed)	.730	.534	.946	.946	.730

It can be seen from Table 6 that staff psychotherapists do not approach hostility significantly more than interns or vice versa. Furthermore, no trend over time is evident as reference to Table 5 indicates; the interns have higher approach rates at the 1% and 50% sample points, while the staff members approach more than the interns at the 25% and 100% sample points, and there is virtually no difference at the 75% sample point.

Thus, hypothesis III is not supported.

Hypothesis IV:

The psychotherapists will approach hostility significantly more (as measured by the ratios HoAp%

and HtAp%) when they are not the object of the client's behavior.

To test this hypothesis, each of the clients' expressions of hostility needed to be scored for object, i.e., who the hostility is directed at--therapist or other. A difficulty arose when one of the coders scored one scoring category--"hostility agreement" with the therapist always being the object. In this case the therapist was always the object of the client's agreement but frequently not the object of the client's hostility. Therefore, the category, "hostility agreement" had to be eliminated from the data used to analyze this hypothesis. This may have changed the nature of the data in an unknown fashion.

Since there were a number of interviews in which the client expressed no hostility toward the therapist and a few interviews in which the client expressed no hostility at all, mean approach rates of hostility directed at the therapist and hostility directed at other were computed. For example, if hostility was directed at the therapist in only 3 of the five interviews coded

for each client, the total percentage of approach to such hostility was divided by 3 to obtain a mean for that client and therapist.

Using these means as the basic data, Wilcoxon matched--pairs signed--ranks tests were used to test the hypothesis that therapists approach hostility more when it is directed at someone other than themselves. The results are shown in Table 7.

Table 7.--Approach to hostility when other is object compared with approach when therapist is object

	N	p
Staff	8	.05 (two-tailed)
Interns	8	NS
Combined	16	NS

Thus, staff members approach hostility significantly more when it is directed at an object other than themselves, but interns do not. Hypothesis IV is partially supported but apparently another factor such as training must be taken into consideration.

In further exploration of the difference between staff psychotherapists and interns, Mann-Whitney U-tests were computed for approach to hostility directed at the therapist and approach to hostility directed at others. The result was that interns approach hostility directed at the therapist significantly more than staff members ($p < .05$ two-tailed). There is no difference in approach rates between the two groups of therapists when the hostility is directed toward "other." ($p > .05$).

In assessing the significance of possible changes over time in this part of the data, Friedman's two-way analysis of variance by rank tests were computed. The results are shown in Table 8.

None of these tests are statistically significant, but there is a definite trend for the clients of staff therapists to express hostility toward the therapist early in therapy while the opposite is true for the clients of the intern therapists. This may reflect the closer similarity between the stimulus value of the staff and the clients' parents than is true for the interns who are a younger group.

Table 8.--Means for "object" of hostility and tests for significant changes as therapy progresses

		1%	25%	50%	75%	100%
Hostility expressed toward therapist	Staff	.19	.25	.13	.05	.08
	Intern	.004	.005	.25	.19	.03
	Combined	.09	.13	.20	.12	.06
Friedman Tests: Staff $p>.10$ Interns $.05>p<.10$ Combined $p>.10$						
Hostility expressed toward therapist approached	Staff	.00	.38	.19	.13	.13
	Interns	.13	.00	.56	.22	.00
	Combined	.06	.19	.37	.17	.06
Friedman Tests: Staff $p>.10$ Interns $.05>p<.10$ Combined $p>.10$						
Hostility expressed toward "other" approached	Staff	.53	.42	.46	.39	.64
	Intern	.55	.43	.51	.45	.42
	Combined	.54	.43	.48	.42	.53
Friedman Tests: Staff $p>.10$ Interns $p>.10$ Combined $p>.10$						

Hypothesis V:

There will be two classes of clients: those who are uninhibited in their expressions of hostility and those who are inhibited in this respect. When divided at the median in the first interview, those who have high initiation of hostility (as measured by the ratio CIH) should decrease as therapy progresses and those who have low initiation of hostility (as measured by the ratio CIH) should increase to a moderate value by termination time.

To evaluate this hypothesis the 16 clients were divided into two equal groups on the basis of the amount of client-initiated-hostility in the initial interview. The mean ratios of client-initiated-hostility for each of the five sample points are depicted in Table 9.

Table 9.--Mean ratios of client-initiated hostility for "highs" and "lows"

	1%	25%	50%	75%	100%
"Lows"	.029	.040	.038	.049	.038
"Highs"	.094	.059	.046	.073	.064

It can be seen from Table 9 that in no point during therapy does the mean of the high group become lower than the mean of the low group and vice versa. While there are no radical changes, the trends are in the predicted direction.

Wilcoxon matched-pairs signed-ranks tests were used to assess the significance of the changes which occur. The results are presented in Table 10.

Table 10.--Tests for significance of changes in client-initiated-hostility

	Sample-point comparisons	Changed up	Changed down	P
"Lows"	1% - 25%	4	4	NS
	1 - 50	3	3	NS
	1 - 75	5	2	NS
	1 - 100	5	2	NS
"Highs"	1% - 25%	2	5	NS
	1 - 50	2	5	.05
	1 - 75	4	4	NS
	1 - 100	2	6	NS

Thus, only the "highs" changed significantly as a group. They decreased in client-initiated-hostility from the first to the 50th sample point but then rose again during the final stages of therapy.

Discussion

The data analyzed in this study fall into two categories: 1) therapist variables and 2) client variables. Each of these categories is naturally related to and interacts with the other, but for the sake of exposition, the nuances and theoretical implications of each shall be discussed separately.

Therapist variables: (Hypotheses II, III, and IV)

Hypothesis II predicted therapists would approach hostility at different rates in different stages of psychotherapy. Kopplin (1963) found a significant increase in approach to hostility from the first to the second interview with the same client. The present investigation found a slight decrease in mean approach rates from the 1% to the 25% sample points of the total length of therapy. But the 25% sample includes

interviews ranging from the 2nd to the 6th of the series for each client. As a check on the idea that the number of the interview and not the proportion of completed therapy is the determinant of therapists' reactions to the client's hostility, the six shortest cases in the sample were checked for increase in approach rate. This meant looking at the 2nd interview in 5 cases and the 3rd interview in the remaining case. Four of these therapists decreased in their approach rates, while two therapists increased their proportions of approach to hostility. This is contrary to Kopplin's finding. For the other ten cases in the sample the approach rates decreased in 4 and increased in 6 cases. Thus, no consistent change in approach rates from the 1% to the 25% sample points are evident. Indeed, the mean approach rate remains relatively constant throughout the entire period of therapy. While there is great variation among individuals, the therapists as a group approach hostility about 50% of the time regardless of the stage of therapy. This is comparable with Kopplin's

finding that his total group of therapists approached hostility 55% of the time in the first interview.

A possible explanation for the discrepancy between Kopplin's finding of an increase in approach to hostility from first to second interview and our finding of no significant changes over time may lie in the experience differences between the two groups of therapists studied. Kopplin's sample included both experienced and inexperienced therapists, with differential approach rates between the groups (staff .69, interns .59 and practicum students .44). It was the inexperienced therapists which made the most significant increase in approach from the first to the second interview suggesting these therapists were less threatened by the client's hostility in the second interview. The present investigation found no difference between experience levels of therapists in overall approach rates to hostility. Thus, the experience differential may have been the largest contributing factor in Kopplin's finding of increased approach to hostility from 1st to 2nd interviews.

It was Kopplin's finding of significant differences in approach rates between the different levels of experience which was the basis for the prediction in Hypothesis III that intern psychotherapists would initially approach hostility less than staff psychotherapists but eventually reach the same level of approach as the staff as therapy progressed. This hypothesis was not supported in any way as there were no significant differences between the overall approach rates of staff therapists and intern therapists at any point in therapy. There may be several reasons for this failure to replicate Kopplin's results. The first of these is the small number of therapists involved (6 staff and 7 interns) in the present study which makes statistical significance difficult to obtain. Of more importance, probably, is the fact that the differences in experience are less marked in the present sample than in Kopplin's sample. Whereas Kopplin reported the interns in his study had an average of 1 year of experience doing psychotherapy and staff members 7.0 years, the interns in the present study had an average of 2 years' experience and the staff an average of 7.5

years. Therefore, the interns in the present study were further along in their training than Kopplin's group and apparently reacted more like experienced therapists in their approach behavior. In terms of years of training the staff therapists and intern therapists may be quite similar. That is, the staff therapists probably have not received much if any psychotherapy training, as such, since obtaining their Ph.D. degrees even though they have undoubtedly been learning as they have gained more experience. The finding of this study is supported by Mills (1964) who studied fifth interviews of a similar population and also found no difference between staff and intern therapists in approach to hostility. Furthermore, Schuldt (1964) using the same interviews as the present study found no difference between staff and intern therapists in approach to dependency.

Differences between staff psychotherapists and interns do become apparent when approach to hostility is broken down into approach to hostility directed at the therapist and approach to other hostility. Bandura et al (1960) and Kopplin (1963) found the therapists in

their studies approached hostility directed at "other" significantly more than hostility directed at the therapist. Hypothesis IV predicted the same finding in this study. But this hypothesis was not supported when all therapists were considered. However, when the staff and intern therapist groups were considered separately, interesting results became evident. The staff psychotherapists do approach hostility directed at themselves less than they approach other hostility. There is no difference in this regard for the interns as a group. Furthermore, when hostility directed at the therapist is considered, the interns approach such hostility significantly more than the staff therapists. This is opposite to the experience difference predicted in Hypothesis III. The present finding is partially supported by Lerman (1963) who studied only intern psychotherapists. She found no difference between approach to hostility directed at the therapist and approach to other hostility. These findings are not in accord with the results of most previous studies of therapeutic experience and suggest that other variables are affecting our results. The most obvious of these variables which may have influenced our results is training.

The staff psychotherapists have varied backgrounds and orientations as they have been influenced by their previous diverse training. The interns, on the other hand, are more homogeneous because they have received the majority of their early psychotherapy training from four staff members at the Counseling Center not included in this investigation. Moreover, the interns all participated in group supervision in which the emphasis was on using the psychotherapeutic relationship as a tool in therapy, i.e., to become aware of and deal with the client's feelings toward the therapist and vice versa. Participation in the group may have led to closer identification of the interns with each other so that the tendency to focus on behavior which might influence the client-therapist relationship was accentuated. The staff psychotherapists may be reacting more naturally to hostility directed at themselves, assuming that the natural tendency is to avoid hostility directed at oneself. Further research is needed to determine whether or not therapist "approach" to hostility directed at the therapist is beneficial to the client in psychotherapy. If

so, training can apparently be effective in attaining that end.

The present findings are in contrast to the majority of those studies of therapist experience reviewed by Strupp (1962). That is, experience has previously been found to be a more significant variable than theoretical orientation on training of the therapist. Further research will have to be conducted to determine whether or not therapists trained together in any institution tend to react to their clients in similar ways or whether this is a characteristic of the therapists studied in this investigation only.

There is another factor which may have contributed to our results. The majority of the intern group were undergoing personal therapy while they were participating in this research. None of the staff therapists were concurrently in therapy while participating in the study, although some of them had personal therapy previously. We have no way of determining accurately if this difference in current personal therapy influenced the therapist's behavior in any specific direction, but

it is plausible to argue that current personal therapy would make the therapist more aware of hostility directed toward him, particularly if this were an area of conflict for the therapist. Strupp (1958) found personal analysis to be a relevant factor in determining types of therapist behavior for psychoanalytically oriented therapists.

Client variables (Hypotheses I and V)

The hostility expressed by a client in psychotherapy is affected by two major determinants: 1) what the client brings to the psychotherapy situation --loosely classified as the internal hostility level, and 2) what happens in the psychotherapy situation-- loosely classified as the effects of the therapist's behavior toward the client's expressed hostility. Hypotheses I and V were attempts to find out what happens to the client's hostility as a result of his experiences in psychotherapy.

Hypothesis I predicted clients would continue expressing hostility significantly more after approach than after avoidance of such expressions by the therapist. This had been demonstrated in early therapy interviews by several investigators (Bandura, et al 1960, Kopplin, 1963 and Lerman, 1963). The present study found this hypothesis to be supported in all stages of therapy. Bandura, et al (1963) attributed this finding to the reinforcing properties of the therapist's approach to such behavior. This is a plausible explanation for early interviews since the finding follows the operant conditioning paradigm and is in agreement with many of the verbal conditioning studies mentioned earlier (Binder, McConnell and Sjoholm, 1957; Buss and Durkee, 1958; Simkins, 1961; and Zadek, 1959). However, our longitudinal data seem to be evidence against the idea that the client continues expressing hostility more after "approach" than after "avoidance" by the therapist because "approach" is inherently reinforcing. It is clear that "approach" elicits continuance of hostile expressions and "avoidance" elicits non-continuance

of such expressions, but the typical operant conditioning paradigm used to explain many verbal conditioning results (Greenspoon, 1955) does not appear to be sufficient. If "approach" as a reinforcement served automatically to strengthen the continuance response, we would expect an increase in the continuance of hostility expressions after "approach" as therapy progressed. The data do not support this expectation. The mean approach rate remained relatively constant throughout therapy, but the continuance rate after approach decreased significantly between the 1st and 25th sample points. The continuance rate after approach is highest in the first interview and consistently lower throughout the remainder of therapy. If "approach" by the therapist has inherent reinforcing properties such as the contingent stimuli "mmm humm" in verbal learning studies, the client would be expected to initiate the "approached" material more as therapy progressed. This is clearly not the case as there was no significant change in client-initiated-hostility over time in psychotherapy. Schuldt (1964) found a constant approach rate to dependency but a

significant decrease in client-initiated-dependency from lst to last interview, indicating the consequences of "approach" to dependency are not those expected of a reinforcer, either.

It might be argued that the client continues after "approach" in proportion to the approach rate, i.e., the client's response is in direct proportion to the emitted behavior of the therapist. Since the therapist approaches hostility approximately 50% of the time, the client should continue accordingly. However, when the mean approach rate and the mean continuance rate after "approach" are plotted over time, they do not appear to be closely related. The two curves cross each other three times over the entire period of therapy. Thus, the theory that "approach" serves as reinforcement which automatically strengthens the continuance response is considerably weakened by the longitudinal data of this study.

In attributing reinforcing properties to "approach" by the therapist, the error seems to have been in the assumption that all the categories of "approach" have

the same properties. It seems that "approval," for example, has more inherent reward value than "interpretation;" and that "exploration" has more eliciting qualities than "reflection." Consequently, while all these categories can rightfully be considered "approach," their unique qualities may well be perceived by the client. The same is true of the "avoidance" categories. And while these categories may or may not have reinforcing value for the client, the therapist's responses do have definite "cue" value. The "avoidance" responses are better cues than most "approach" responses. Since the client's continuance rates after "avoidance" are significantly lower than after "approach" and the level of hostility is more nearly minimal after "avoidance" than it is maximal after "approach," the cues to "not to talk about that subject" are clearer than the cues to "continue talking about that." However, neither the "approach" or "avoidance" categories are perfectly efficient cues. Naturally, cues other than those verbal ones scored may also be influential.

Of course, this does not deny that the psychotherapy process is a learning process, but does argue against explanations in terms of simple reinforcement principles. Rather some sort of mediation model of learning which utilizes cues would seem more appropriate. Along this same line, Berkowitz (1964) reports evidence that hostile or aggressive behavior is largely determined by the cue evoking stimuli of the situation. His contention is that hostility is expressed only when stimuli associated with the anger instigator are present, either objectively or in the individual's thoughts. In the psychotherapy situation, the therapist could help provide these cues by what he says and does. This might permit the client to displace his hostility to the therapist or express his anger toward someone else or simply discuss the feeling. On the other hand, the therapist may not provide the appropriate cues for the client to express hostility and consequently, the client does not bring up the topic very often, let alone discuss it. The low rate of client-initiated-hostility and the

relatively low approach rates to hostility suggest this was more nearly true of the cases studied in this investigation.

Since verbal conditioning is typically explained in terms of automatic strengthening of reinforced responses (Greenspoon 1950), our longitudinal results would appear to differentiate the process of psychotherapy from verbal conditioning studies. However, Dulany (1961) and Spielberger and Levin (1962) report evidence which suggests verbal conditioning is better explained as a form of cognitive learning. Spielberger and Levin (1962) conducted verbal learning experiments using various contingent stimuli, "mmm humm," "good," etc., followed by intensive post-experimental interviews. They found conditioning occurred only when the subject was aware of the contingent (reinforcing) stimuli. They conclude that "awareness" of the response-reinforcement contingencies is what is learned in verbal conditioning studies. They argue that a mediation type cognitive learning theory is the most parsimonious explanation of their results and that all verbal conditioning studies might have similar findings if intensive

post experimental interviewing procedures were utilized by the investigators. A mediation type theory of learning which utilizes cues would also account for the results of the present study.

Another theoretical learning formulation which could explain the longitudinal data of this hypothesis is elicitation theory as delineated by Denny and Abelman (1955). The basic principle of this theory is explained as follows:

> (a) The stimulus complex (S) which closely precedes in time any response <u>elicited</u> by any stimulus (Se) acquires the property to elicit this response. (b) With each elicitation there results an increment to the tendency of the stimulus complex (S) to elicit this response. (c) The S-R association will not ordinarily be evident in behavior unless the response is consistently elicited in the given stimulus situation (S+Se). Thus, for all practical purposes, learning occurs only when a response is prepotent over a series of trials or over an extended period of time. (p. 290)

Thus, "approach" by the therapist should serve as elicitation of further expressions of hostility and "avoidance" by the therapist serves as an elicitor of material, other than hostility. If the therapists approached hostility consistently, the continuance

rate of the client would be expected to increase as therapy progressed. But, since the therapists neither approach or avoid the client's hostility in a highly consistent manner, the elicitation of continuance and non-continuance presumably interfere with each other and conditioning never reaches a high level but remains relatively constant. In this sense, consistent learning does not occur in psychotherapy as it was measured in this study. But the clients do at least partially respond to the cues provided by the therapist and discuss material which these cues dictate. This seems to be evidence for Krasner's (1962) contention that the therapist acts as a "social reinforcement machine." However, it should be pointed out that the therapists also respond to the cues of the client, i.e., the therapists follow the leads of the client in their approach-avoidance behavior. Thus, the therapeutic process is an interaction process in which both parties influence and are influenced by the other. And while this investigation has concentrated on the influence of the therapist on the client's behavior, future research could

appropriately study the effects of the client on the therapist's behavior.

It is possible that "approach" by the therapist serves primarily to dissipate anxiety about expressing hostility on the client's part. The finding that the client continues expressing hostility significantly more after approach than after avoidance follows logically. According to the drive reduction concept of reinforcement (Dollard and Miller 1950) such reductions in anxiety should serve as reinforcements. Thus, hostility expressions by the client should increase as the therapist approaches hostility and the client becomes less inhibited about expressing his hostile feelings. This is conceivably what happened in the early stages of the therapy of the clients studied in this investigation. The finding of lower client continuance of hostility expressions after approach by the therapist in earlier stages of therapy reflects not only a reduction in anxiety but also a reduction in the learned hostility drive. Future research utilizing a measure of anxiety in conjunction with hostility expression

could determine if this is actually what happens in psychotherapy.

Hypothesis V was concerned with both the client's initial level of hostility expression and the changes in this hostility as therapy progressed. Based on the assumption that client-initiated-hostility was a measure of the "push" of the internal level of the client's hostility, the clients were divided into two groups at the onset of therapy--those with the higher hostility levels and those with the lower hostility levels. It was then predicted that the "high" group would decrease significantly and the "low" group increase significantly over the course of therapy. The changes were in the expected direction but were not statistically significant.

However, since the statistical phenomena "regression to the mean" would have predicted the same type of change, two other approaches to the problem were attempted. The first of these uses client-initiated-hostility as the relevant variable but is concerned with the intersubject variance of client-initiated-hostility at the beginning of therapy and at the end. If learning

of a consistent nature occurs in psychotherapy, one might expect the group of clients as a whole to have significantly more variance at the beginning of therapy than at the end. To perform this analysis the proportional data were transformed into angles to normalize the distribution using the method reported in Walker and Lev (1953, pp. 423-424). The test used was that suggested in Walker and Lev (1953, pp. 190-191) for comparing two variances based on related scores. Contrary to the prediction, there was actually greater variance at the end of therapy compared with the beginning for the group, but the test was nonsignificant ($p>10$). Incidental to this analysis a Pearson γ was computed between the client-initiated-hostility scores at the beginning and at the end of therapy. This was $\gamma = .02$, indicating changes in client-initated-hostility are occurring from the beginning to the end of therapy but these changes are not consistent.

The second additional attempt to assess changes in the client's hostility level as therapy progressed used a measure more gross than client-initiated-hostility.

This measure is the proportion of the total number of client "speeches" during an interview which were concerned with hostility. This measure was utilized with the realization that such variables as therapist approach-avoidance rates were also involved in determining the amount of hostility expressed in any given hour. In spite of this, one could expect a client to spend more time discussing content of a hostile nature, once approached by the therapist, if the internal hostility level of the client "pushed" him toward such expressions. The "catharsis" hypothesis as delineated by Dollard et al (1939) would predict a decrease later in therapy in the proportion of time spent discussing hostility once the client had opportunity to repeatedly ventilate his hostile feelings in the early and middle phases of therapy.

The proportion of client speeches in an interview devoted to hostility were computed for each of the 5 stages of therapy sampled. There is great variation between stages and between clients, but no consistent trends are evident. The mean proportion of

client speeches concerned with hostility are presented in Table 11.

Table 11.--Mean and range of proportions of client speeches concerned with hostility out of the total number of speeches in an hour

	1%	25%	50%	75%	100%
Mean proportion of hostile speeches	.117	.112	.121	.103	.082
Range of proportions of hostile speeches	.03-.35	.02-.27	.00-.35	.04-.22	.00-.28

It can be seen that the changes in means are in the direction predicted but are small.

The final conclusion is that while changes occurred in the client's hostility level as therapy progressed, these changes did not emerge as consistent trends. The learning experiences of the clients were apparently unique to each individual and did not lend themselves to predictions based on knowledge of the group at the beginning of therapy. This finding is in contrast to

the results reported by Schuldt (1964) using the same interviews. Schuldt found a consistent, significant decrease in client-initiated-dependency from beginning to end of therapy. Schuldt's finding indicates the clients did change as a result of psychotherapy. The inconsistent findings with respect to hostility may have several meanings.

First, it should be noted that hostility expressions occur much less frequently and much more sporadically than either "dependency" or "other." (see Appendix B) Generally, other investigators using the same scoring method and similar populations have had similar findings for early interviews (Kopplin, 1963; Lerman, 1963; and Barnes, 1963). These findings suggest that for the population sampled, hostility is not consistently dealt with in psychotherapy and is discussed only infrequently. The ups and downs of both the therapists' approach to hostility and the clients' continuance rates are further evidence of this inconsistency. Whereas dependency is conceivably an essential part of the psychotherapeutic relationship, hostility is not for the sample of cases studied.

Since the present sample is composed of college students whose pathology for the most part is not severe, it is quite possible that they represent only the lower portion of the total possible range of people with varying levels of hostility. That is, the hostility levels of this group of clients are probably low compared with other client populations, e.g., a prison population. If our sample represents a restricted range of hostility levels, consistent changes in these levels are naturally more difficult to detect. We did not have the independent measure of hostility needed to compare our sample with other samples, but this could be done in future research.

It may well be that to find consistency of changes in hostility, one would have to measure the hostility every interview for each client rather than sample only a few interviews. There is also the possibility that changes in hostility require more time to stabilize because of the sporadic nature of the hostile expressions. Further research comparing long term

cases, say, 30 interviews or more, with short term cases, 15 interviews or less, could illuminate this point.

It may also be true that our scoring system results in measures that are not refined enough to ascertain the subtleties of the changes in hostility. For example, most therapists would contend they are primarily concerned with the appropriateness of hostility expressed and less concerned with the amount. With the scoring system used in the present study we have no accurate measure of the appropriateness of the hostility expressed and thus cannot say whether or not changes of this type occurred over time in therapy. Appendix C shows the types and proportions of the forms of hostility which were expressed by the clients studied in the present sample. Judgments of the appropriateness of the various expressions of hostility could be developed. Further research is necessary to measure possible changes in appropriateness as well as the amount of hostility which occurs as a result of psychotherapy.

Since psychotherapists are primarily interested in helping clients resolve emotional conflicts, a more meaningful approach to this research problem might be in terms of assessing changes in client's aggression conflicts as a result of psychotherapy. Mueller and Grater (1964) have developed a promising method of measuring aggression conflicts utilizing the Semantic Differential. This method could conceivably be used before, during, and after clients undergo psychotherapy in conjunction with a content analysis scoring system to discover if and how aggressive conflicts are resolved.

Conclusions

At this point it seems appropriate to discuss the overall significance of this study. The content analysis scoring method used to help simplify the client-therapist interaction has its roots in learning theory. Because of this fact, this investigation has been primarily an attempt to understand psychotherapy as a learning process. This was done with the knowledge

that none of the therapists studied consider themselves to be "behaviorists" and would not consciously be trying to use learning theory principles in their psychotherapeutic work. In spite of this, the behavior of the therapists studied do have effects on the behavior of the clients which can generally be explained by one or more learning theory models. The most significant of these is that "approach" behavior on the part of the therapist elicits continuance and "avoidance" elicits non-continuance of the topic under discussion on the part of the client at all stages of the therapy. This does not mean other theories of behavior are wrong, as they also generate expectations concerning the effect of the therapist's behavior upon the client. However, our results may help to understand the process of psychotherapy without depending exclusively on such therapist variables as "transference" and "counter-transference" (psychoanalytic theory) and "unconditional positive regard" (Rogerian Theory).

On the other hand, one of the major expectations of this study was not supported, i.e., the

expectation that the clients would change in terms of hostility expression in a consistent manner. Since only cases judged successful by the relevant therapist were studied, all theories of behavior would have predicted significant changes in the clients as a result of psychotherapy. Indeed, the clients did change in terms of significant decrease in dependency (Schuldt, 1964) but not in a consistent manner in terms of hostility. There are numerous possible reasons why this expected change was not found, e.g., small sample size, sampling method, uniqueness of the sample, gross measuring instruments, etc. Thus, more accurate measures can be made by correcting for such factors in future research and the expected change may be obtained.

However, we should not discount the individuality of each client in therapy. Many theories of personality emphasize the uniqueness of the individual, e.g., Allport (1961), Rogers (1961), and May (1958). Such theories would contend that the emotionally healthy individual should be free to be flexible, to change, to develop and grow. Thus, successful psychotherapy

should help the maladjusted individual to change in his own unique way. This is a possible explanation for our finding of inconsistent changes in hostility expression as therapy progressed. However, even with the uniqueness of each individual, lawfulness of behavior exists. The present investigation was but a small part of the many attempts to discover this lawfulness using one behavioral variable--hostility--in one human interaction situation--psychotherapy. The scoring model used is naive and incomplete in many respects, but it can be reliably used. With modifications to help measure such things as affect, conflect relevance, cue value, etc., the present scoring method could help provide significant knowledge about the process of psychotherapy.

Summary

The clients' expressions of hostility and the therapists' reactions to such expressions are significant variables in the psychotherapeutic process. This study is an attempt to analyze the changes in clients' hostility expressions as therapy progresses. A content analysis system for analyzing verbal behavior is used to determine what effect the therapist's "approach" reactions and "avoidance" reactions to hostility have on subsequent expressions of hostility by the client. Two classes of variables are studied: 1) client variables, and 2) therapist variables.

The following hypotheses, derived primarily from learning theory expectations, are stated to test the client variables:

1. The clients will continue expressing hostility significantly more after "approach" than after "avoidance" of such expressions by the therapist. As therapy

progresses the reinforcement of the therapist's "approach" should lead to an increase in the client's continuance of hostility expressions after such expressions are approached.

2. There will tend to be two classes of clients, those who have higher initial hostility expression levels and those who have lower initial hostility levels. But these differences in hostility expression should be less marked in the final stages of therapy. The hypothetical learning experiences of clients during therapy predict the "high" group should decrease and the "low" group increase in hostility expression.

The following hypotheses concerning therapist variables are derived primarily from previous research:

3. The therapists' approach rate to the clients' hostility will vary in different stages of psychotherapy, i.e., the therapists will behave differently in different stages of therapy.

4. The therapists will approach hostility expressions significantly more when they are not the object of the clients' behavior.

5. Staff therapists will approach hostility significantly more than less experienced therapists (interns) in the early stage of therapy, but this difference will disappear as therapy progresses.

A content analysis is made of 80 tape recorded interviews of 16 clients seen in psychotherapy by 7 interns and 6 staff therapists in a university counseling center. An interview for each client is analyzed at five sample points approximating the 1st, 50th, 75th, and 100th percentages of the total number of interviews for each client. All sixteen clients are terminated and considered to be successful cases by their therapists. Client-therapist interactions are coded for the number of times clients initiate hostility after approach and avoidance of such expressions by the therapists. The number of times the therapists approach or avoid hostility expressions by the client are also coded. The results follow:

1. Therapists' "approach" to hostility expressions of the client elicits further such expressions, while "avoidance" elicits non-hostile material at all stages

of therapy. However, there is no increase in the effectiveness of such elicitations as therapy progresses.

2. The clients did not change significantly in the predicted manner as a result of therapy, regardless of whether they were initially high or initially low in hostility expression. Their changes are apparently individually determined.

3. The therapists as a group approach the clients' hostility expressions about 50% of the time with only minor fluctuations at different stages of therapy. There is a great deal of variation among therapists in this respect.

4. Staff therapists approach hostility directed at themselves significantly less than they approach other hostility. This is not the case with the intern therapists.

5. Staff and intern therapists generally approach the clients' hostility expressions at approximately the same rate. However, intern therapists approach hostility directed at the therapist significantly more

than staff therapists. The effect of group training is suggested as an explanation for this finding.

The theoretical implications of the results are discussed. Possibly avenues for further research to answer some of the questions raised by the study are suggested.

References

Allinsmith, Beverly B. Expressive styles: II. Directness with which anger is expressed. In D. R. Miller and G. E. Swanson (Eds.) Inner conflict and defense. New York: Holt, 1960, 315-336.

Allport, G. W. Pattern and growth in personality. New York: Holt, Rinehart and Winston, 1961.

Auld, F. Jr. and Murray, E. J. Content-analysis studies of psychotherapy. Psychol. Bull., 1955, 52, 377-395.

Bandura, A. Psychotherapy as a learning process. Psychol. Bull. 1961, 58, 143-159.

Bandura, A. Behavioristic psychotherapy. New York: Holt, 1964, in press.

Bandura, A., Lipsher, D., and Miller, Paula E. Psychotherapists' approach-avoidance reactions to patients' expressions of hostility. J. consult. Psychol., 1960, 24, 1-8.

Bandura, A., Ross, Dorothea and Ross, Shiela A. Transmission of aggression through imitation of aggressive models. J. abnorm. soc. Psychol., 1961, 63, 575-582.

Bandura, A., Ross, Dorothea and Ross, Shiela A. Imitation of film-mediated aggressive models. J. abnorm. soc. Psychol., 1963, 66, 3-11. (a).

Bandura, A., Ross, Dorothea and Ross, Shiela A. Vicarious reinforcement and imitation. J. abnorm. soc. Psychol., 1963, 67, 601-608. (b).

Bandura, A. and Walters, R. H. Social learning and personality development. New York: Holt, Rinehart and Winston Inc., 1963.

Barnes, E. J. Psychotherapists' conflicts, defense preferences, and verbal reactions to certain classes of client expressions. Unpublished doctoral dissertation, Michigan State Univ., 1963.

Baruch, Dorothy W. New ways in discipline. New York: McGraw-Hill, 1949.

Berkowitz, L. The expressions and reduction of hostility. Psychol. Bull. 1958, 55, 257-283.

Berkowitz, L. Aggression: a social psychological analysis. New York: McGraw-Hill, 1962.

Berkowitz, L. Aggressive cues in aggressive behavior and hostility catharsis. Psychol. rev., 1964, 71, 104-122.

Berkowitz, L., Green, J. A., and Macaulay, Jacqueline R. Hostility catharsis as the reduction of emotional tension. Psychiatry, 1962, 25, 23-31.

Berkowitz, L. and Green, J. A. The stimulus qualities of the scapegoat. J. abnorm. soc. Psychol., 1962, 64, 293-301.

Binder, A., McConnell, D. and Sjoholm, Nancy A. Verbal conditioning as a function of experimenter characteristics. J. abnorm. soc. Psychol., 1957, 55, 309-314.

Buss, A. H. The Psychology of aggression. New York: Wiley, 1961.

Buss, A. H. and Durkee, Ann. Conditioning of hostile verablizations in a situation resembling a clinical interview. J. consult. Psychol., 1958, 22, 415-418.

Caracena, P. Verbal reinforcement of client dependency in the initial stage of psychotherapy. Unpublished doctoral dissertation, Michigan State Univ., 1963.

Cowan, P. A. and Walters, R. H. Studies of reinforcement of aggression: I. effects of scheduling. Child develpm. 1963, 543-551.

Denny, M. R. and Adelman, H. M. Elicitation theory: an analysis of two typical learning situational. Psychol. rev., 1955, 62, 290-296.

DeRath, G. W. The effects of verbal instructions on limitative aggression. Unpublished doctoral dissertation, Michigan State Univ., 1963.

Dollard, J., Doob, L. W., Miller, N. E., Mowrer, O. H. and Sears, R. R. Frustration and aggression. New Haven: Yale University Press, 1939.

Dollard, J., and Miller, N. E. Personality and psychotherapy. New York: McGraw-Hill, 1950.

Dulany, D. E. Hypotheses and habits in verbal "operant conditioning." J. aborn. soc. Psychol. 1961, 63, 251-263.

Eriksen, C. W. Discrimination and learning without awareness: A methodological survey and evaluation. Psychol. rev. 1960, 67, 279-300.

Eysenck, H. J. Behavior therapy and the neuroses. New York: Pergamon, 1960.

Ferster, C. B. and Skinner, B. F. Schedules of reinforcement. New York: Appleton-Century-Crofts, 1957.

Feshbach, S. The drive reducing function of fantasy behavior. J. abnorm. soc. Psychol., 1955, 50, 3-11.

Feshbach, S. The catharsis hypothesis and some consequences of interaction with aggressive and neutral play objects. J. pers., 1956, 24, 449-462.

Feshbach, S. The stimulating versus cathartic effects of a vicarious aggressive activity. J. abnorm. soc. Psychol., 1961, 63, 381-385.

Frank, G. H. On the history of the objective investigation of the process of psychotherapy. J. Psychol., 1961, 51, 89-95.

Freud, S. Beyond the pleasure principle. In Jones, E. (Ed.) Collected papers, vol 2. London: Hogarth Press and Institute of Psychoanalysis, 1950.

Fromm-Reichmann, Frieda. Principles of intensive psychotherapy. Chicago: The University of Chicago Press, 1950.

Greenspoon, J. The effect of a verbal stimulus as a reinforcement. Proc. ind. acad. sci., 1950, 59, 287. (abstract).

Greenspoon, J. The reinforcing effect of two spoken sounds on the frequency of two responses. Amer. j. Psychol., 1955, 68, 409-416.

Greenspoon, J. Verbal conditioning and clinical psychology. In A. J. Bachrach (Ed.), Experimental foundations of clinical psychology, New York: Basic Books, 1962, 510-553.

Hagen, J. M. The conditioning of verbal affect responses in two hospitalized schizophrenics diagnostic groups during the clinical interview. Unpublished doctoral dissertation, Univ. of Washington, 1959.

Hartmann, H., Kris, E., and Lowenstein, R. M. Notes on the theory of aggression. In Psychoanalytic study of the child, Vol. 3-4, New York: International Universities Press, 1949.

Hops, H. and Walters, R. H. Studies of reinforcement of aggression: II. Effects of emotionally arousing antecedent conditions. Child develpm., 1963, 34, 553-562.

Kahn, M. A polygraph study of the catharsis of aggression. Unpublished doctoral dissertation, Harvard Univ., 1960.

Kanfer, F. H. The effect of partial reinforcement on acquisition and extinction of a class of verbal responses. J. exper. psychol. 48, no. 6, 1954, 424-432.

Kanfer, F. H. Verbal conditioning: reinforcement schedules and experimenter influence. Psychol. reports. 1958, 4, 443-452.

Kanfer, F. H. Verbal rate, content, and adjustment ratings in experimentally structured interviews. J. abnorm. soc. Psychol., 1959, 58, 305-311.

Kenny, D. T. An experimental test of the catharsis theory of aggression. Unpublished doctoral dissertation, Univ. of Washington, 1952.

Kopplin, D. A. Hostility of patients and psychotherapists' approach-avoidance responses in the initial stage of psychotherapy. Unpublished master's thesis, Michigan State Univ., 1963.

Krasner, L. Studies of the conditioning of verbal behavior. Psychol. bull., 1958, 55, 148-170.

Krasner, L. The psychotherapist as a social reinforcement machine. In Strupp, H. H. and Luborsky, L. (Eds.), Research in psychotherapy. Vol II. Washington, D. C.: American psychological Association, 1962, 61-94.

Lerman, Hannah. A study of some effects of the therapist's personality and behavior and of the client's reactions in psychotherapy. Unpublished doctoral dissertation, Michigan State Univ., 1963.

Lövaas, O. I. Effect of exposure to symbolic aggression on aggressive behavior. Child develpm., 1961, 32, 37-44. (a).

Lövaas, O. I. Interaction between verbal and nonverbal behavior. Child develpm., 1961, 32, 329-336. (b).

May, R. R., Angel, E. and Ellenberger, H. F. Existence: a new dimension in psychiatry and psychology. New York: Basic Books, 1958.

Miller, N. E. Liberalization of basic S-R concepts: Extension to conflict behavior, motivation, and social learning. In S. Koch (Ed.) Psychology: a study of a science. Vol. 2. New York: McGraw-Hill, 1959, 196-292.

Mills, D. Liking as a therapist variable in the psychotherapeutic interaction. Unpublished doctoral dissertation, Michigan State Univ., 1964.

Mowrer, O. H. Changes in verbal behavior during psychotherapy. In O. H. Mowrer (Ed.), Psychotherapy theory and research. New York: Ronald Press Co., 1953.

Mowrer, O. H. Learning theory and behavior. New York: Wiley, 1960.

Mueller, W. and Grater, H. Aggression conflict, anxiety and ego strength. J. consult, Psychol. in press., 1964.

Munroe, R. L. Schools of psychoanalytic thought. New York: The Dryden Press, 1955.

Murray, E. J. A content-analysis method for studying psychotherapy. Psychol. Monogr., 1956, 70, no. 13, (whole no. 420).

Mussen, P. and Rutherford, E. Effects of aggressive cartoons on children's aggressive play. J. abnorm. soc. Psychol., 1961, 62, 461-464.

Patterson, G. R., Ludwig, M., and Sonoda, Beverly. Reinforcement of aggression in children. Unpublished manuscript, University of Oregon, 1961.

Quay, H. The effect of verbal reinforcement on the recall of early memories. J. abnorm. soc. Psychol., 1959, 59, 254-257.

Rogers, C. R. Client-centered therapy. Boston: Houghton Mifflin Company, 1951.

Rogers, C. R. On becoming a person. Boston: Houghton Mifflin Company, 1961.

Rogers, J. M. Operant conditioning in a quasi-therapy setting. J. abnorm. soc. Psychol., 1960, 60, 247-252.

Rosenbaum, M. E. and de Charms, R. Direct and vicarious reduction of hostility. J. abnorm. soc. Psychol., 1960, 60, 105-111.

Rubinstein, E. A. and Parloff, M. B. (Eds.) Research in Psychotherapy. Washington, D. C.: Amer. Psychol. Assoc., 1959.

Ruesch, J. The therapeutic process: IV. The therapeutic process from the point of view of communication theory. Amer. J. orthopsychia., 1952, 22, 690-700.

Salzinger, K. and Pisoni, S. Reinforcement of affect responses of schizophrenics during the clinical interview. J. abnorm. soc. Psychol. 1958, 57, 84-90.

Salzinger, K. Experimental manipulation of verbal behavior: a review. J. general psychol. 1959, 61, 65-94.

Schuldt, W. J. Psychotherapists' approach avoidance reactions and clients' expressions of dependency: A longitudinal analysis. Unpublished doctoral dissertation, Michigan State Univ., 1964.

Shoben, E. J. Jr. Psychotherapy as a problem in learning theory. Psychol. bull., 46, 366-392.

Siegel, S. Nonparametric statistics. New York: McGraw-Hill, 1956.

Simkins, L. Effects of examiner attitudes and type of reinforcement on the conditioning of hostile verbs., J. pers., 1961, 380-395.

Skinner, B. F. Some issues concerning the control of human behavior. Sci. , 1956, 124, 1057-1060, 1064-1066.

Skinner, B. F. Verbal behavior. New York: Appleton-Century-Crofts, 1957.

Snyder, W. U. The psychotherapy relationship. New York: Macmillan, 1961.

Spielberger, C. D. and Levin, S. M. What is learned in verbal conditioning? J. verb. learn. verb. behav., 1962, 1, 125-132.

Strupp, H. H. The psychotherapist's contribution to the treatment process. Behav. sci., 1958, 3, 34-67.

Strupp, H. H. Patient-doctor relationships: psychotherapist in the psychotherapeutic process. In A. J. Bachrach (Ed.) Experimental foundations of clinical psychology. New York: Basic Books, 1962, 576-615.

Thibaut, J. W. and Coules, J. The role of communication in the reduction of interpersonal hostility. J. abnorm. soc. Psychol., 1952, 47, 770-777.

Walker, Helen M. and Lev, J. Statistical inference. New York: Henry Holt and Company, 1953.

Walters, R. H. and Brown, M. Studies of reinforcement of aggression: III Transfer to an interpersonal situation: Child Develpm., 1963, 34, 563-571.

Walters, R. H., Leat, Marion and Mezei, L. Response inhibition and disinhibition through emphatic learning. Canad. J. Psychol., 1963, 16, 235-243.

Walters, R. H. and Llewellyn Thomas, E. Enhancement of punitiveness by visual and audiovisual displays. Canad. J. Psychol., 1963, 16, 244-255.

Waskow, Irene. Reinforcement in a therapy-like situation through selective responding to feelings of content. J. consult. Psychol. 1962, 26, 11-19.

Winder, C. L., Ahmad, Farrukh A., Bandura, A., and Rau, Lucy C. Dependency of patients, psychotherapists' responses, and aspects of psychotherapy. J. consult. Psychol., 1962, 26, 129-134.

Winder, C. L. Psychotherapy. Annu. rev. Psychol., 1957, 8, 309-330.

Williams, R. I. Verbal conditioning in psychotherapy. Amer. Psychologist, 1959, 14, 388 (abstract).

Wolberg, L. R. The technique of psychotherapy. New York: Grune and Stratton, 1954.

Zadek, Meira E. The conditioning of verbal behavior with negative cultural connotations. J. pers., 1959, 27, 477-486.

APPENDICES

APPENDIX A

The scoring manual used in the coding of the tape recorded interviews

(This manual is a modification of manuals used in the following studies: Winder, C. L., Ahmad, F. Z., Bandura, A., & Rau, L. C. Dependency of patients, psychotherapists' responses, and aspects of psychotherapy. J. consult. Psychol., 1962, 26, 129-134; Bandura, A., Lipsher, D. H., & Miller, P. E. Psychotherapists' approach-avoidance reactions to patients' expressions of hostility. J. consult. Psychol., 1960, 24, 1-8; Caracena, P. Verbal reinforcement of client dependency in the initial stage of psychotherapy. Unpublished doctoral dissertation, Michigan State University, 1963; Kopplin, D. A. Hostility of patients and psychotherapists' approach--avoidance responses in the initial stage of psychotherapy. Unpublished master's thesis, Michigan State University, 1963.)

A. Scoring Unit and Interaction Sequence

1. Definition. A unit is the total verbalization of one speaker bounded by the preceding and succeeding speeches of the other speaker with the exception of interruptions.

   There are three types of scoring units: the "patient statement" (P St), the "therapist response" (T R), and the "patient response" (P R). A sequence of these three units composes an "interaction sequence." The patient response not only completes the first interaction sequence but also initiates the next sequence and thereby becomes a new patient statement.

Example:

P. I can't understand how you can stand me. (P St)

T. You seem to be very aware of my feelings. (T R)

P. I am always sensitive to your feelings. (P R)

2. Pauses. Pauses are not scored as separate units. The verbalization before and after the pause is considered one unit. Therapist silences are scored as prescribed under Part D2e of this manual. There are no patient silences in this system.

3. Interruptions. Statements of either therapist or patient which interrupt the other speaker will be scored only if the content and temporal continuity of the other speaker is altered by the interruption. Then, the interrupting verbalization becomes another unit and is scored. A non-scored interruption is never taken into account in the continuation of the other speaker.

Interruption scored as one unit:

P. I asked him to help me and--

T. Why was that?

P. --he refused to even try.

Non-interruption scored as 3 units, one interaction sequence:

P. I asked him to help me and--

T. Why was that?

P. I don't know.

Verbalizations such as "Um hmm" or "I see" are ignored in scoring unless they are so strongly stated as to convey more than a listening or receptive attitude.

Patients' requests for the therapist to repeat his response are considered interruptions and are not scored. However, therapists' requests of this sort are scored as units (as approach or avoidance of the patient statement).

B. Categories of Patient Statements and Patient Responses

There are three categories: Dependency, Hostility, and Other. They are scored as exhaustive categories. All discriminations are made on the basis of what is explicitly verbalized by the speaker in the unit under consideration. One statement may be scored for several categories.

When dependency and/or hostility units occur, the object of the patient's behavior is also scored as either psychotherapist or other.

A coding of self (S) is given if the patient refers to his own behavior and a coding of other (O) is given if the client refers to someone else's behavior.

1. Hostility category. The subcategories of hostility are listed below.
   a. Hostility. Hostility statements include description or expression of unfavorable, critical, sarcastic, depreciatory remarks; oppositional attitudes; antagonism, argument, expression of dislike, disagreement, resentment, resistance, irritation, annoyance, anger; expression of aggression and punitive behavior, and aggressive domination.
   b. The subcategories listed below are scored exhaustively.

      1. Anger:

         P. I'm just plain mad!

P. I just couldn't think--I was so angry.

P. My uncle was furious at my aunt.

2. Dislike: expresses dislike or describes actions which would usually indicate dislike
   P. I just don't get interested in them and would rather be somewhere else.

   P. I've never ever felt I liked them and I don't suspect I ever will.

   P. He hates editorials.

3. Resentment: expresses or describes a persistent negative attitude which does or might change to anger on a specific occasion
   P. They are so smug; I go cold whenever I think about having to listen to their 'our dog' and 'our son.' Boy!

   P. They don't ever do a thing for me so why should I ask them over?

   P. Dad resents her questions.

4. Antagonism: expresses or describes antipathy or enmity
   P. It's really nothing definite, but we always seem at odds somehow.

   P. There is always this feeling of being enemies.

5. Opposition: expresses or describes oppositional feelings or behavior
   P. If he wants to do one thing, I want to do another.

   P. It always seems she is against things. She is even against things she wants.

   P. No, I don't feel that way (in response to T's assertion).

6. Critical attitudes: expresses negative evaluations or describes actions which usually imply negative evaluations
   P. If I don't think the actors are doing very well, I just get up and walk out.

   P. There is something to be critical about in almost everything anyone says or does.

7. Aggressive actions: acts so as to hurt another person or persons, either physically or psychologically
   P. He deserves to suffer and I'm making it that way every way I can.

   P. I can remember Mother saying: 'We slap those little hands to make it hurt.'

b. <u>Hostility anxiety</u>. A statement including expression of fear, anxiety, guilt about hostility or reflecting difficulty expressing hostility
   P. I just felt so sad about our argument.

P. I was afraid to hit her.

P. After I hit her I felt lousy.

c. Hostility acknowledgment or agreement: A statement agreeing with or acknowledging the therapist's approach toward hostility is scored as further hostility. May give example. May convey some conviction or may simply agree with therapist's response.

T. You were angry.

P. Yes!

2. Dependency categories.

a. Definition: Any explicit expression or description of help-seeking, approval-seeking, company-seeking, information-seeking, agreement with others, concern about disapproval, or request that another initiate discussion or activity.

b. Scoreable categories: The subcategories listed below are scored exhaustively.

1. Problem Description: States problem in coming to therapy, gives reason for seeking help, expresses a dependent status or a general concern about dependency.

P. I wanted to be more sure of myself.

P. I wanted to talk over with you my reasons for dropping out of school next quarter.

P. Part of the reason I'm here is that everything's all fouled up at home.

P. I depend on her, am tied to her.

P. I want to be babied and comforted.

2. Help-seeking: Asks for help, reports asking for help, describes help-seeking behavior
   P. I asked him to help me out in this situation.

   P. What can you do for him?

   P. I try to do it when he can see it's too hard for me.

3. Approval seeking: Requests approval or acceptance, asks if something has the approval of another, reports having done so with others, tries to please another, asks for support or security. Includes talk about prestige. Expresses or describes some activity geared to meet his need
   P. I hope you will tell me if that is what you want.

   P. If there was any homework, I did it so Dad would know I was studying like a good girl.

   P. Is it alright if I talk about my girl's problem?

   P. That's the way I see it, is that wrong?

   P. I asked him if I were doing the right thing.

4. Company-seeking: Describes or expresses a wish to be with people, describes making arrangements to do so, describes efforts to be with others, talks about being with others.

P. It looks as if it'll be another lonely weekend.

P. Instead of studying, I go talk with the guys.

P. I only joined so I could be in a group.

P. We try to see if other kids we know are there, before we go in.

5. Information-seeking: Asks for cognitive, factual or evaluative information, expresses a desire for information from others, arranges to be the recipient of information

P. I asked him why he thought a girl might do something like that.

P. I came over here to see about tests you have to offer. I want to know what they say.

P. I'm planning to change my major. I'd like to know how to do it.

6. Agreement with another: Responds with ready agreement with others, readily accepts the therapist's reflection. Often illustrates therapist's remarks with examples, draws a parallel example to indicate agreement. May accept preceding statement on authority or if preceding statement was a therapist approach to Dependency, may simply agree with it.

P. Oh, yes! You're absolutely right about that.

P. Immediately I felt he was right and I had never thought about it that way.

T. Then you wanted to get some help?

P. Yes.

7. Concern about disapproval: Expresses fear, concern, or unusual sensitivity about disapproval of others, describes unusual distress about an instance of disapproval, insecurity, or lack of support. Little or no action is taken to do something about the concern
   P. She didn't ever say a thing but I kept on wondering what she doesn't like about me.

   P. My parents will be so upset about my grades, I don't even want to go home.

   P. It seems like I always expect I won't be liked.

   P. I can't understand how you can stand me when I smoke.

   P. I'm sorry I got angry at you.

8. Initiative-seeking: Asks the therapist or others to initiate action, take the responsibility for starting something (to start discussion, determine the topic). Arranges to be a recipient of T's initiative. May solicit suggestions
   P. Why don't you say what we should talk about now?

P. If you think I should keep on a more definite track, you should tell me.

P. I got my advisor to pick my courses for next term.

P. Tell him what to do in these circumstances.

3. Other category. Includes all content of patient's verbalizations not classified above

C. Categories of Therapist Responses

Therapist responses to each scored patient statement are divided first into two mutually exclusive classes, approach and avoidance responses. When both approach and avoidance are present, score only the portion which is designed to elicit a response from the patient.

1. Approach responses. The following subcategories are exhaustive. An approach response is any verbalization by the therapist which seems designed to elicit from the patient further expression or elaboration of the Dependent or Hostile (or Other) feelings, attitudes, or actions described or expressed in the patient's immediately preceding statement, i.e., the part of the preceding statement which determined its placement under Dependency, Hostility or Other. Approach is to the major category, not specific subcategories.
   a. Approval: Expresses approval of or agreement with the patient's feelings, attitudes, or behavior. Includes especially strong "Mm-hmm!", "Yes"

P. May I just be quiet for a moment?

T. Certainly.

P. I have my girlfriend's problems on my mind. Could we talk about them?

T. Why don't we talk about that?

b. Exploration (probing): Includes remarks or questions that encourage the patient to describe or express his feelings, attitudes, or actions further, asks for further clarificiation, elaboration, descriptive information, calls for details or examples. Should demand more than a yes or no answer; if not, may be a "label"

P. How do I feel? I feel idiotic.
T. What do you mean, you feel idiotic?

P. I can't understand his behavior.
T. What is it about his behavior you can't understand?

c. Reflection: Repeats or restates a portion of the patient's verbalization of feeling, attitude, or action. May use phrases of synonymous meaning. Therapist may sometimes agree with his own previous response; if the client had agreed or accepted the first therapist statement, the second therapist statement is scored as a reflection of the client statement.

P. I wanted to spend the entire day with him.

T. You wanted to be together.

P. His doing that stupid doodling upsets me.

T. It really gets under your skin.

d. Labeling: The therapist gives a name to the feeling, attitude, or action contained in the patient's verbalization. May be a tentative and broad statement not clearly aimed at exploration. Includes "bare" interpretation, i.e., those not explained to the patient. May be a question easily answered by yes or no

P. I just don't want to talk about that any more.

T. What I said annoyed you.

P. She told me never to come back and I really did have a strong reaction.

T. You had some strong feelings about that--maybe disappointment or anger.

e. Interpretation: Points out and explains patterns or relationships in the patient's feelings, attitudes, and behavior: explains the antecedents of them, shows the similarities in the patient's feelings and reactions in diverse situations or at separate times

P. I had to know if Barb thought what I said was right.

T. This is what you said earlier about your mother . . .

f. Generalization: Points out that patient's feelings are natural or common

P. I want to know how I did on those tests.
T. Most students are anxious to know as soon as possible.

P. Won't you give me the scores ?
T. Many students are upset when we can't.

g. Support: Expresses sympathy, reassurance, or understanding of patient's feelings

P. It's hard for me to just start talking.
T. I think I know what you mean.

P. I hate to ask favors from people.
T. I can understand that would be difficult for you.

h. Factual Information: Gives information to direct or implied questions. Includes general remarks about the conseling procedure

P. Shall I take tests?
T. I feel in this instance tests are not needed.

P. What's counseling all about?
T. It's a chance for a person to say just what's on his mind.

2. Avoidance responses. The following subcategories are exhaustive. An avoidance response is any verbalization by the therapist which seems designed to inhibit, discourage, or divert further expression of the Dependent, Hostile, or Other patient categories. The therapist attempts to inhibit the feelings, attitudes, or behavior described or expressed in the immediately preceding patient statement, i.e., the part of the preceding statement which determined its placement under Dependency, Hostility, or Other. Avoidance is avoidance of the major category, not specific subcategories.

a. Disapproval: Therapist is critical, sarcastic, or antagonistic toward the patient or his statements, feelings, or attitudes, expressing rejection in some way. May point out contradictions or challenge statements

P. Why don't you make statements? Make a statement. Don't ask another question.

T. It seems that you came here for a reason.

P. Well, I wonder what I do now?

T. What do you think are the possibilities? You seem to have raised a number of logical possibilities in our discussion.

P. I'm mad at him: that's how I feel.

T. You aren't thinking of how she may feel.

b. Topic Transition: Therapist changes or introduces a new topic of discussion not in the immediately preceding patient verbalization. Usually fails to acknowledge even a minor portion of the statement

P. Those kids were asking too much. It would have taken too much of my time.

T. We seem to have gotten away from what we were talking about earlier.

P. My mother never seemed interested in me.

T. And what does your father do for a living?

c. Ignoring: Therapist responds only to a minor part of the patient response or responds to content, ignoring affect. May under- or over-estimate affect. May approach the general topic but blatently ignore the affect verbalized

P. You've been through this with other people so help me out, will you.

T. You are a little uneasy.

P. You can see I don't know what to do and I want you to give me advice.

T. Just say whatever you feel is important about that.

P. My older sister gets me so mad I could scream.

T. Mm-hmm. How old did you say she was?

d. Mislabeling: Therapist names attitudes, feelings, or actions which are not present in the actual verbalization preceding the response

P. I just felt crushed when she said that.

T. Really burned you up, huh?

P. I don't know how I felt--confused, lost--

T. I wonder if what you felt was resentment.

e. Silence: Scored when it is apparent that the patient expects a response from the therapist but none is forthcoming within 5 seconds after the patient stops talking. If the therapist approaches after 5 seconds have elapsed, silence cannot be scored and the therapist's response is merely "delayed"

P. If you think I should keep on a more definite track, tell me because I'm just rambling.

T. (5 second silence)

P. It is very confusing to know what to do.

3. Dependency and Hostility initiated by therapist: Scored whenever the therapist introduces the topic of Dependency or Hostility, i.e., when the patient statement was not scored as the category which the therapist attempts to introduce

P. Last week I talked about Jane.
T. You've mentioned a number of things you have done to please her.

P. (Enters office)
T. Now, how may I help you?

P. I was late for class this morning.
T. I wonder if you dislike the teacher or the class?

P. I like to run around in blue jeans.
T. You hate your mother.

APPENDIX B

Proportions of the client's speeches devoted to "hostility," "dependency" and "other" at each of the five sample points in therapy.

	1%	25%	50%	75%	100%
"Hostility"	.117	.112	.121	.103	.082
"Dependency"	.250	.186	.204	.188	.162
"Other"	.633	.702	.675	.709	.756

APPENDIX C

The proportions of the types of hostility discussed at each of the five sample points in therapy.

	1%	25%	50%	75%	100%
Anger	.26	.28	.40	.38	.28
Dislike	.15	.07	.04	.05	.04
Resentment	.04	.01	.04	.04	.04
Antagonism	.006	.02	.00	.01	.01
Opposition	.07	.10	.10	.18	.09
Critical Attitudes	.06	.07	.09	.06	.09
Aggressive Actions	.29	.18	.07	.11	.23
Hostility Anxiety	.00	.00	.02	.01	.00
Hostility Agreement	.17	.24	.23	.16	.23

APPENDIX D

Proportions of the types of "approach" to hostility and types of "avoidance" to hostility at each of the five sample points in therapy.

	1%	25%	50%	75%	100%
APPROACH					
Approval	.02	.04	.03	.03	.03
Exploration	.45	.36	.34	.33	.29
Reflection	.15	.14	.08	.11	.14
Labeling	.09	.06	.18	.10	.14
Interpretation	.27	.33	.27	.32	.35
Generalization	.00	.01	.00	.01	.00
Support	.01	.06	.07	.10	.06
Information giving	.00	.00	.01	.00	.00
AVOIDANCE					
Disapproval	.02	.01	.16	.05	.02
Topic transition	.17	.25	.13	.18	.08
Ignoring	.81	.72	.70	.75	.90
Mislabeling	.00	.00	.02	.02	.00
Silence	.00	.01	.00	.02	.00