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EFFECTS OF CLIENTS' COMMITMENT TO CHANGE, PREFERENCE
FOR TREATMENT, AND EXPECTATION OF SUCCESS
ON GROUP PSYCHOTHERAPEUTIC OUTCOME

by

DONALD A. DEVINE

M.A., University of New Hampshire, 1971

A THESIS

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In Partial Fulfillment of
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ABSTRACT

EFFECTS OF CLIENTS' COMMITMENT TO CHANGE, PREFERENCE FOR TREATMENT, AND EXPECTATION OF SUCCESS ON GROUP PSYCHOTHERAPEUTIC OUTCOME

by

DONALD A. DEVINE

The purpose of this study was to examine the effects of three variables — commitment to change, treatment preference, and expectation of success — upon group treatment outcome. Prior to treatment, client ratings of commitment to change and treatment preference were obtained, and expectation of success was manipulated by the experimenter. The effects these factors had upon the treatment of public speaking anxiety, as assessed by raters and through self-report, were determined.

Client commitment to change produced significant decreases on both measures of public speaking anxiety. Expectation of success significantly reduced self-reported anxiety, but a significant expectation X treatment preference interaction made this main effect interpretable only within the context of the interaction. The data indicated expectation of success was a significant factor for subjects in the preferred condition but not for subjects in the non-preferred condition. The relevance and limitations of the findings were discussed.

CHAPTER I - INTRODUCTION

Most psychotherapists seem to agree on only one aspect of their profession - that the therapist and patient meet with the intention of assisting the latter. What evolves from these meetings is both debated and unpredictable. The patient may improve, get worse, or remain unchanged, and as yet it is not clear what factors produce the various outcomes (Luborsky, Chandler, Auerbach, Cohen, and Bachrach, 1971).

Nonetheless, research concerning psychotherapy abounds and every year there are numerous studies conducted on a wide variety of variables which appear to be making a contribution to therapy effectiveness. Generally speaking, the variables fall into three broad categories: client, therapist, and technique. Research dealing with the client has included such variables as client expectation (Frank, 1961), choice of treatment (Devine and Fernald, 1973), locus of control (Rotter, 1966), and the like. Many of these organismic variables represent some preconceived notion or set which the client brings with him to the therapy setting.

Variables relating to the therapist, such as his self-disclosure (Dies, 1973), expectation (Goldstein, 1962), power (Strupp, 1973), A-B orientation (Betz, 1967), and empathy (Truax and Carkhuff, 1967) also have been investigated. Research, in general, has dealt with the effectiveness of these factors using a variety of client complaints as dependent variables.

Particularly within the last decade, a variety of empirically oriented therapists have quantified various outcome measures and compared the effectiveness of different therapeutic techniques (Litvak, 1969; Meichenbaum, Gilmore, and Ferdoravicius, 1971; Paul, 1966). Research in this area has tended to emphasize differences among therapeutic approaches.

Upon reviewing studies of psychotherapy an additional point becomes clear; i. e., that there are two general approaches to the study of psychotherapy. The first of these, which might be called a "situational" approach, is specific in orientation in that the research focuses on particular treatment procedures used for certain clearly defined disorders. For example, some studies have shown which techniques are most effective for treating snake phobias (Bandura, Blanchard, and Ritter, 1969), and others demonstrate simply that a particular treatment, such as aversive conditioning, removes an idiosyncratic sexual fetish (Raymond, 1956). Experimenters and practitioners reporting such studies apparently are not interested in treatment variables which may generalize across a wide range of situations.

A second approach has been to study general factors, such as client or therapist commitment, A-B therapist type, or client/therapist expectations, which may be present in most, if not all, therapeutic interactions (Frank, 1961; Garfield, 1973; Strupp, 1973). Investigators using this approach select client, therapist, or technique variables for incorporation into a design which they believe will give some indication of the significance of these variables across a wide range of therapeutic

situations.

The present study addresses itself to three client factors -- commitment to change, treatment preference, and expectation of success -- which may be general in nature in that they may represent conditions relating to the client which could effect outcome across many, if not all, treatment conditions. However, the study is also specific in nature in that no attempt was made to measure the effects of these variables across a wide range of technique, therapist, or client complaint conditions.

COMMITMENT TO CHANGE

According to one writer (Swenson, 1971), many therapists are aware of the importance of their commitment and how it can affect treatment outcome. They also are cognizant of the value of a patient's desire to change (Kir-Stimon, 1970). The fact that most therapists wish to deal only with patients who actively seek treatment reflects their belief that effective treatment demands a serious commitment. Although therapists have always considered commitment an important factor in treatment outcome, there is limited empirical research that supports this view. Findings from studies of patients' financial investment in treatment and their ratings of pre-treatment discomfort or desire to change, however, shed some light on the importance of commitment.

Since it is reasonable to expect that a patient who pays for his treatment is more highly committed to its success than someone who does not pay, financial investment in treatment is

one measure of a patient's commitment. At least two studies comparing patients paying fees, in proportion to their income, with control patients paying no fee indicate the former receive significantly higher outcome evaluations (Goodman, 1960; Rosenbaum, Friedlander, and Kaplan, 1956).

Research pertaining to patient discomfort or desire to change indicates that, for some dependent variables, the more uncomfortable the patient feels about his pre-treatment condition, the greater the probability of a favorable outcome. One early study, for example, found a positive association between therapists' perceptions of their patients' need to change and treatment outcome (Conrad, 1952) while another study, in which patient discomfort was defined as the discrepancy between the patient's self-description of what he would like to be, yielded a significant positive relationship between discomfort and the four component improvement criteria of patient integration, defensive organization, present life adjustment, and therapist rating of final outcome (Cartwright and Lerner, 1964). Other studies, too, have supported the above relationship between patients' estimates of their need to change and the therapists' evaluation of their improvement (Garfield and Affleck, 1961; Kirtner and Cartwright, 1958; Stone, Frank, Nash, and Imber, 1961; Strupp, Wallach, Wogan, and Jenkins, 1963; Truax, Wargo, Frank, Imber, Battle, Hoen-Saric, Nash, and Stone, 1966).

TREATMENT PREFERENCE

Many contemporary magazines devote space to articles about psychotherapy, and it is becoming increasingly common for

some to describe the various techniques in great detail (Devine and Fernald, 1973). With the increased awareness of many people concerning the variety of psychotherapeutic treatments available, it can be expected that the traditional method of referring patients to therapists via the family physician will no longer be accepted. Alternatives to this approach are already being presented, and some writers have gone so far as to suggest that prospective patients "shop around" for the treatment they feel can be most effective for them (Wilner, 1968).

It appears that the pairing of a patient with a particular therapist and/or therapy technique is an important factor which can significantly effect outcome. For example, outcome as defined by patient ratings of satisfaction with treatment, appears to be favorably effected by pairing patient and therapist using therapy relevant variables (Howard, Orlinsky, and Hill, 1970; Schonfield, Stone, Hoen-Saric, Imber, and Pande, 1969). Similarly, pairing therapist and patient along a pre-treatment compatability dimension using the Fundamental Interpersonal Relations Orientations Behavior Scale indicates that pre-treatment compatibility is positively related to patient improvement (Sapolsky, 1965).

Since matching of the therapist with the patient appears to favorably effect outcome, it is of interest to note whether patients, when permitted to select their therapist, will do so using therapy variables which they believe will increase the effectiveness of their treatment. One study in which patients were allowed to select their own counselors by looking at slides of their faces found that patients made choices on what they felt

were therapy relevant variables. Further, the act of selecting appeared to reflect patient expectations concerning therapist effectiveness (Boulware and Holmes, 1970). It was anticipated that this information then would be appropriate for use in determining patient-therapist fit.

The notion that a patient's progress in therapy can be influenced by his initial orientation toward treatment or therapist is not new (Lipkin, 1954; Stoler, 1963). In fact, first session compatibility between patient and therapist appears to be capable of making an important contribution to treatment outcome (Landfield and Nawas, 1964).

EXPECTATION OF TREATMENT SUCCESS

Therapists since the time of Mesmer have capitalized on patient expectancies. Freud, for example, recognized the importance of this factor in psychotherapy when he said many of his patients were "...of the great number of those seeking authority, who want to be dazzled, intimidated" (Freud, 1920, p. 212).

Patients presumably bring different expectations about therapy to the initial interview, and during this interview their expectations may be enhanced or diminished. The titles on the therapist's bookshelf, diplomas on the wall, easy chairs, and in some instances a couch serve to maintain and establish various treatment expectations. Discussions during the initial interview of the goals of treatment and the techniques to be used also generate patient expectations that influence treatment effectiveness (Schaffer and Myers, 1954).

A number of studies dealing with time-limited therapy have helped shed light on the importance of patient expectation. Although there have been some exceptions (Henry and Schlien, 1958), a number of investigators have found time-limited therapy to be about as effective as unlimited therapy (Gendlin and Schlien, 1961; Lipkin, 1966; Muench and Schumacher, 1968), and in some cases time-limited treatment groups improved more than long term groups (Muench, 1965). It would appear that patients who expect to be cured in a shorter time span may, in fact, be cured in less time.

The importance of patient expectation in determining treatment outcome also has been demonstrated in studies of self-reported and experimentally induced expectation. For example, two studies have found that patients who indicated on rating scales that they expected positive results changed more during treatment than those who did not expect favorable results (Lipkin, 1954; Uhlenhuth and Duncan, 1968). In two other studies in which expectation was manipulated by telling some subjects the treatment was highly effective and other subjects that nothing was known of the treatment's effectiveness, the former showed the greatest amount of improvement (Agras, Leitenberg, and Barlow, 1968; Oliveau, Agras, Leitenberg, Moore, and Wright, 1969).

Clearly, previous research supports the view that patient expectation effects outcome and, in addition, these findings are consistent with many clinical reports such as those of Jerome Frank (1954, 1961). Nonetheless, little is known of the particular ways client expectation contributes to treatment outcome. Some studies suggest that expectation is positively related to

outcome up to a point, beyond which a negative effect occurs (Atkinson, 1958; Goldstein and Shipman, 1961). More recently, the possibility of an interaction between patient expectation and other factors has been suggested (Begley and Lieberman, 1970; Kirtner and Cartwright, 1958; Strupp, et al., 1963).

The intent of the present study was to determine to what extent, if any, the three aforementioned variables — commitment to change, receiving a preferred vs. non-preferred treatment, and expectation of treatment success — influenced treatment outcome.

CHAPTER II - METHOD

Although the three variables under study may affect the therapy process, this research was designed to measure their effects, if any, upon treatment outcome. Accordingly, the orientation of the study was outcome, not process.

THE DEPENDENT VARIABLE: SPEECH ANXIETY

In outcome research the selection of an appropriate dependent variable or criterion is a perplexing problem. In the past, various dependent variables have been employed, depending upon the kinds of therapy under study. For example, psychologists evaluating hospital treatments have used discharge from the hospital as a dependent variable (Eysenck, 1952). Investigators of the non-directive approach have dealt with changes in self-concept, increase in self-worth and/or the decrease in the difference between ideal and real self (Rogers, 1961). Psychoanalysts have observed neurotic symptoms such as anxiety, compulsiveness, and depression as well as physiological disorders including ulcers, headaches, and other symptoms to evaluate the progress of their patients (Frank, 1954).

Clearly, many types of dependent variables are available and desirable (Farnsworth, 1966; Garfield, Prager, and Begrin, 1971). To make accurate comparisons between experimental conditions, dependent variables should be easily quantifiable, while for purposes of generalization it is desirable that they be related as much as possible to client complaints being dealt with by practicing clinicians. At the same time, practical concerns such as the availability of a subject population must be

considered.

Anxiety when giving a speech is a complaint which appears to satisfy the above mentioned concerns. First, the stress producing properties of public speaking can be produced and their consequences measured in the controlled though somewhat artificial conditions of the laboratory (Droppleman, and McNair, 1971; Lang, Lazovic, and Reynolds, 1965). Second, anxiety is a primary component in most current theories of psychopathology, and the ability to deal effectively with anxiety is either the implicit or explicit goal of many psychotherapeutic approaches (Paul, 1966). While speech anxiety is a specific type of anxiety, it is interpersonal in nature and, as most practicing clinicians will testify, anxiety about interpersonal events is a most common psychological complaint. Third and last, previous research indicates that the general population typically includes a substantial number of individuals who become extremely anxious when giving a speech (Meichenbaum, et al., 1971; Paul, 1966).

Two measures of speech anxiety, behavioral ratings and self-report, were employed. Though pilot studies indicated a high degree of inter-rater agreement, this finding was checked again on the two raters in the present study. Also, test-retest reliability of the self-report questionnaire was ascertained.

THE SUBJECTS

Two subject populations were available to the experimenter. The first consisted of a university student population represented primarily by freshmen introductory psychology students who would have received most of their required experiment credit

hours by participating in this project. The second source of subjects consisted of prisoners at the U. S. Naval Disciplinary Command at Kittery, Maine.

The Prisoners. For several reasons the prisoners were selected. First, it was felt they more accurately represented the general client population that enters therapeutic treatment in that no obvious extrinsic reward, such as course credit, was available to them. Second, and perhaps more important, the prisoners viewed the public speaking treatment groups as part of the service provided to them through the Treatment Division of the prison, and as a result, they were unaware of their involvement in a research project. This factor was particularly important in helping to define the commitment variable and in controlling for any differences which might have occurred between results obtained in an "experiment" as compared to results obtained in a "real counseling" situation. Third, with the prisoner population, the experimenter was allowed the opportunity for follow-up counseling if an individual subject felt it was necessary. After participating in the experiment some subjects took advantage of this opportunity.

The prisoners, hereafter referred to as subjects, were selected according to several criteria, and one of the chief criteria naturally was susceptibility to anxiety while giving a speech.

Selection of Speech Anxious Subjects. Shortly after arriving at the prison, each subject was told a group counseling meeting would be held for those who felt they had difficulty speaking in public and wished to become more effective

speakers. The size and general nature of the group was explained, and a questionnaire (Appendix A) was given to each subject. Of the 294 subjects completing the questionnaire, 96 indicated severe problems while speaking in public (question 1, Appendix A).

The 96 subjects met individually with the experimenter who arranged for each one to give a ten minute speech in front of a video tape camera and two female raters. The topic of the speech was prison reform and the subject was allowed ten minutes to prepare his speech. During the speech the subject's anxiety was rated by two trained observers using a public speaking behavior checklist (Appendix B), and after the speech each subject completed a 26 item self-report inventory (Appendix C) designed to measure anxiety experienced while giving a speech

By dropping subjects having low scores on either the self-report questionnaire or the behavioral checklist, a sample of subjects exhibiting and reporting severe anxiety while speaking "in public" was obtained. The range of pre-treatment scores for the selected subjects was 61 to 94 on the behavioral checklist, and 121 to 178 on the self-report questionnaire. After selecting the subjects whose scores were within the above ranges, 72 subjects remained.

Due to the nature of the admission procedures at the Disciplinary Command as well as to problems involving release dates, clemency actions and the like, the speech anxious subjects had to be selected over a period of approximately three months. It is conceivable, therefore, that temporal effects resulted in differences between subjects selected early and

those selected later. However, a check on two variables, age and type of offense, suggested the subjects were consistent across the three-month period and also representative of the general prison population.

MANIPULATION OF THE INDEPENDENT VARIABLES

Commitment to change and treatment preference were manipulated through further selection of subjects, while expectation of treatment success was manipulated through instructions to the subjects prior to treatment. Details of the manipulations are described below.

Commitment to Change. The high-low commitment condition was created according to the subjects' self-reported commitment scores (question 2, Appendix A). The high and low commitment groups consisted of individuals who gave respective ratings of "very much" or "7" and "very little" or "1". Of 72 speech anxious subjects, 55 had commitment ratings of 1 or 7, and of this group 48 were allowed to watch a video tape presentation for the purpose of selecting a therapy/therapist.

To insure the reliability of the commitment measure each subject met with the experimenter after completing the anxiety-commitment scale (question 2, Appendix A). At the beginning of the meeting the experimenter held a relatively unstructured interview in an attempt to determine the subject's commitment to changing his public speaking behavior. The experimenter began the interview by indicating he was aware the subject experienced anxiety when speaking in public. During the course of the discussion the subject was asked general

questions concerning how often he had spoken before a group in the past and if he felt his work or life-style would require him to speak in public in the future. As the interview progressed, the experimenter tried to obtain a measure of the subject's commitment to changing his behavior. Caution was taken to insure that the interview was non-threatening and that no demands were placed on the subjects which might influence their pre-treatment commitment. The experimenter's and the subjects' ratings of commitment were then compared with the intention of eliminating subjects whose self-ratings differed by more than one point from the experimenter's rating. However, no subjects were lost due to lack of agreement between the two commitment measures.

Treatment Preference. Subjects selected for treatment were scheduled to view a twenty-minute video tape presentation designed to allow each subject to observe and understand the rationale behind the two therapy groups which they believed were available to them. Ten minutes of the tape was devoted to an explanation and demonstration of treatment as performed by the first therapist. This presentation was somewhat eclectic in orientation, though it emphasized the importance of self-disclosure, the need to have a relatively non-threatening group environment, and the uses of role play and paradoxical intention. The other ten minutes consisted of a presentation by the second therapist, who described the rationale and some examples of what was primarily a rational-emotive approach (Ellis, 1962). To control for sequence effects, the order of presentation was counter-balanced. After viewing the tape

the subjects indicated their liking/disliking of the two treatments on a seven point rating scale (Appendix D).

In actuality only one treatment group was available, and hence, all subjects were assigned to and received the same treatment. However, each eight member group consisted of four members who had a "strong liking," or rating of 7, for the treatment and four members who indicated a "strong dislike," or rating of 1, of the treatment. In this way a preferred versus a non-preferred treatment condition was created. Subjects in the dislike or non-preferred condition were told the treatment group they requested was full.

Expectation of Success. Unlike the independent variables just described, expectation of treatment success was manipulated through instructions by the experimenter. During a pre-treatment meeting with the experimenter, the latter appeared to use a score derived from the Public Speaking Inventory (Appendix E) to predict the success of treatment for each subject.

The experimenter met with each subject individually and at these meetings he told half the subjects the therapy they were about to receive was extremely successful in treating subjects with Public Speaking Inventory scores such as theirs. This procedure was used to insure that the expectation manipulation would appear credible should the subjects communicate the different treatment expectations among one another. Specifically, the procedure was as follows:

Experimenter: What therapy group are you in?

Subject: Therapy group A.

Experimenter: Mmmmmm---let me check your scores on the Public Speaking Inventory. This is interesting. Most of the people with a profile like yours tend to do very well in therapy group A. As a matter of fact, I would say that with someone like you this type of therapy is about 90% effective.

The same procedure was used for subjects in the moderate expectation condition, although the claimed success rate was described as "moderate," that is, 50% effective. To determine if the expectation manipulation appeared credible, the subjects were asked in a post-experimental interview to recall their expectations concerning success in treatment.

TREATMENT AND OUTCOME

Each subject participated in one of four treatment groups consisting of eight members. To insure independence of scores, one subject from each level of each condition was assigned to each group. The groups met for three two-hour sessions and although each subject had a choice of two different treatments, only one treatment was, in fact, used. The therapist employed had recently completed his Certificate of Advanced Graduate Study and had received a Master of Arts degree in counseling. He also appeared to have the background and experience which made him particularly suitable for working with groups of individuals with this particular complaint. The therapy technique employed was basically eclectic (Appendix F).

Post-treatment Measures. Within one week after completion of treatment each subject again presented a ten-minute speech on a second topic, The Criminal Justice System. This topic was rated during pilot work as being comparable in dif-

ficulty to the first topic, Prison Reform, and like the latter it was assigned 10 minutes before giving the speech. The two raters, who evaluated the subjects' first speeches, evaluated this post-treatment speech. Both were unaware of the experimental treatment each subject had received but were aware that control and experimental subjects were intermixed. Within one hour after completion of this speech, the self-report questionnaire again was administered.

Pre- and post-treatment scores were derived in each case by obtaining the mean of the two raters' scores. Treatment outcome (difference) scores were obtained for both anxiety measures by subtracting post-treatment scores from pre-treatment scores.

A post-experimental interview was conducted in an attempt to obtain information concerning the subject's perception of the experiment as well as to allow him to ask questions (Orne, 1970). Information from this interview appears in the discussion section to explain the nature of the therapeutic and experimental process.

Control Group. To be certain that treatment outcome scores were largely the product of treatment and not other factors, a control group that received no treatment was included. The group consisted of 16 subjects selected randomly from 24 subjects who exhibited and reported high anxiety during pre-treatment testing.

Through a process of random selection a commitment rating similar to the bimodal distribution of the original pre-treatment population was established. The control subjects'

scores on the commitment scale were as follows: very little-3;
little-3; low moderate-1; high moderate-1; much-2; and very
much-4.

CHAPTER III - RESULTS

The inter-rater reliability coefficient for the behavioral ratings was .96 and the test-retest reliability coefficient was .87. The correlation between scores on the two dependent variables was .61.

TREATMENT OUTCOME SCORES

Table 1 contains the raw treatment outcome scores and mean outcome scores for each experimental condition. The figures not in parentheses are behavioral rating scores; the figures in parentheses are self-report scores.

Table 1

Outcome Scores as Determined by Behavioral Ratings and Self-Report Questionnaires

	Preferred Treatment		Non-Preferred Treatment	
	High Commitment	Low Commitment	High Commitment	Low Commitment
High Expectation	40 (103)	40 (43)	52 (75)	17 (49)
	62 (69)	13 (35)	49 (88)	26 (10)
	49 (84)	23 (45)	42 (75)	19 (26)
	36 (74)	1 (27)	34 (39)	10 (18)
	\bar{x} 46.57 (82.50)	\bar{x} 19.25 (37.50)	\bar{x} 44.25 (69.25)	\bar{x} 18.00 (25.75)
Moderate Expectation	36 (25)	27 (26)	34 (61)	28 (6)
	61 (21)	22 (10)	45 (73)	13 (17)
	28 (47)	9 (18)	47 (41)	6 (23)
	20 (50)	22 (21)	41 (89)	19 (14)
	\bar{x} 36.25 (35.75)	\bar{x} 20.00 (18.75)	\bar{x} 41.75 (66.00)	\bar{x} 16.50 (28.50)

Note: Self-report scores are in parentheses. Behavioral rating scores are not in parentheses.

Because the analysis of variance indicated no significant differences between outcome scores for the four treatment groups

(Appendix G), the groups were combined for subsequent statistical analysis. With regard to general treatment effects, the outcome scores for control and experimental subjects differed significantly ($p < .001$) in the expected direction. Mean improvement scores for experimental subjects on the behavioral and self-report measures were respectively +30.0 and +44.0, both of which were significantly different from a no improvement mean of zero. Mean improvement scores for the control subjects were +4.0 on the behavioral ratings and -0.5 on self-reports, and neither differed significantly from a no change mean of zero.

With regard to the manipulation of the three variables under study, results of the analyses of variance are shown in Table 2 and reported below.

Table 2
Results of Analyses of Variance of Outcome Scores
Based on Behavioral Ratings and Self-Report

		Behavioral Ratings		
	Source	df	MS	F
Mean		1	28800.000	190.73***
	Expectation (E)	1	128.000	.84
	Commitment (C)	1	4753.125	31.33***
	Preference (P)	1	.125	.00
	E X C	1	45.000	.30
	E X P	1	36.125	.24
	C X P	1	12.500	.08
	E X C X P	1	55.250	.36
	Error	24	151.710	
		Self-Report Scores		
	Source	df	MS	F
Mean		1	61425.125	281.76***
	Expectation (E)	1	3092.437	14.14**
	Commitment (C)	1	12246.125	56.12***
	Preference (P)	1	1.125	.01
	E X C	1	277.810	1.27
	E X P	1	1393.810	6.38*
	C X P	1	528.125	2.42
	E X C X P	1	562.443	2.58
	Error	24	218.208	

* $p < .05$
 ** $p < .01$
 *** $p < .001$

Commitment to Change. The effect of the commitment variable was significant on both the behavioral rating and self-report measures. A statistically significant F for the mean existed for the low commitment subjects (Appendix H) on both behavioral rating and self-report measures, indicating a significant difference between this group and a no change mean of zero.

Treatment Preferences. No significant main effect was obtained for treatment preference variable on the behavioral rating or the self-report measures. However, a significant treatment preference X expectation interaction, which is described below, was noted.

Expectation of Success. No significant effect for expectation was obtained on the behavioral rating scores, though a significant main effect was found for the self-report measure. A significant expectation X treatment preference interaction also was found for self-report (Figure 1). Subjects in all four

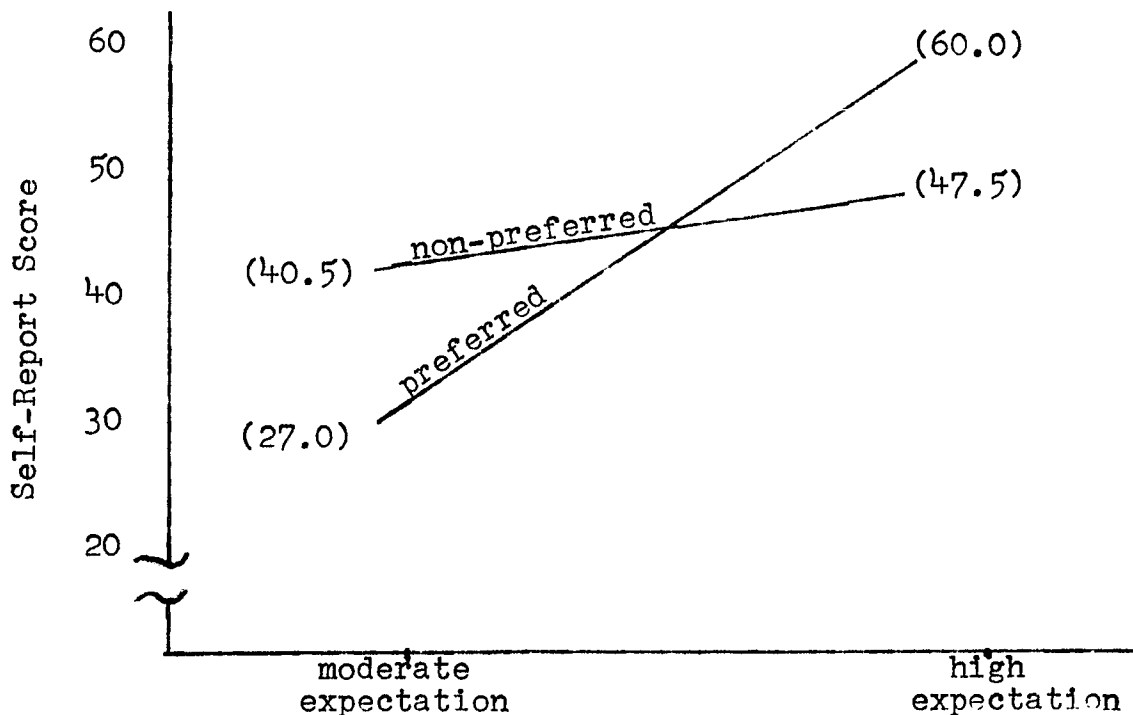


Figure 1. Expectation X treatment preference interaction for self-report scores.

expectation/treatment preference conditions improved significantly beyond the no change mean of zero, and expectation influenced self-reported outcome only for subjects in the preferred treatment condition (Appendix I).

POST-EXPERIMENTAL INTERVIEWS

Information from the post-experimental interviews indicated that no subject was aware of any of the three independent variables being manipulated and that all subjects recalled the instructions concerning the degree to which they could expect their treatment to be successful. Although the exact percent given in the pre-treatment group instructions was forgotten, all subjects recalled having been given information which indicated that they could expect to do either very well or moderately well in their group.

Information was also obtained which helped shed some light on the interpretation of the numerical findings. In particular, subjects provided important information concerning the process by which they made their treatment preference ratings. This information provided for much of the speculation and interpretation of the data which follows.

CHAPTER IV - DISCUSSION

Since there are many differences between the experimental setting described here and the usual treatment situation, any attempt to apply or generalize the present findings to clinical work must be qualified. At least five such qualifying considerations should be mentioned.

FIVE LIMITATIONS

Although it probably is safe to assume at least a slight relationship between speech anxiety and client complaints concerning problems of interpersonal communication and anxiety, the exact nature and extent of this relationship remains uncertain. Hence, any attempt to apply or generalize the present results should first consider the closeness of fit between the new situation and the public speaking situation described here. Even generalization from one dependent variable to another within a single study may be unwarranted, as was the case, for example, in the present study for the expectation factor which influenced self-report but not behavior.

A second concern pertains to the subject population, as it is conceivable the type of individual confined in a military prison may be a relatively unique person who may represent a limited portion of the client population. For example, since the prisoners had all met the mental and emotional fitness requirements necessary for joining the military, it is possible that the proportions of various neurotic and psychotic disorders were probably less than in most client popu-

lations. A related concern pertains to the effects of confinement. For example, some potential subjects may have been reluctant to become involved in the groups due to the usual inmate fear of counseling, and this may have resulted in an unrepresentative sample of the inmate population.

A third consideration is that only one therapist was employed in this study. No attempt was made to select a group of therapists representing a cross section of the therapist population, and therefore, caution must be taken in generalizing to treatment conducted by other therapists.

Fourth, the treatment consisted essentially of a non-threatening environment in which individuals disclosed and explored their feelings of anxiety, although various dynamic, modeling, and behavioral rehearsal techniques also were used. Whether or not it is reasonable to assume this particular eclectic approach is similar to more classic or even other eclectic approaches is not clear.

Fifth, and finally, it may be that the present significant findings might disappear when an unlimited number of sessions are employed. It is reasonable to predict, for example, that through continued contact with a therapist, differences between the two levels of commitment, treatment preference and expectation may be greatly reduced. If this were to occur, these variables would have little effect upon treatment outcome.

TREATMENT OUTCOME

One conclusion of obvious importance concerns the im-

provement of the experimental subjects. That the improvement may be attributed to the subjects' participation in treatment is supported by the lack of significant change in the control group.

It is possible that treatment was more effective for self-reported than for behavioral anxiety, since outcome scores for the former were greater. However, this inference may not be appropriate, as the measurement intervals probably are not the same for both variables. Also, one of the measures may be more sensitive to change than the other. In this connection, it is interesting to note the correlation, or lack of it, between the two measures of anxiety is similar to that of previous research (Miechenbaum, et al., 1971; Paul, 1966).

There was also the possibility of demand characteristics which, for obvious reasons, would be greater on self-reports than on behavioral ratings. However, post-experimental interviews did not support this view, as subjects reported that they did not try to complete their self-report questionnaires in a favorable manner. On this basis, it would appear that reported anxiety was not influenced by demand factors. However, the problem in drawing this conclusion from post-experimental interview data is that this feedback may itself be subject to interviewer demand, and the extent of this demand cannot be determined.

COMMITMENT TO CHANGE

To determine if demand via the therapist contributed to the significant differences between commitment conditions,

feedback was obtained from the therapist. This feedback indicated the therapist was unaware of the independent variables in the study. He also indicated that some subjects in his groups appeared to invest little energy and were generally uninvolved in the groups, and the five particular individuals he mentioned were all in the low commitment condition.

Although the process of selecting subjects was designed to prevent them from becoming aware of the commitment factor, it was necessary to determine if, in fact, they were unaware of this variable. Reports of the subjects during the post-experiment interviews indicated none was aware of the commitment factor. Unless it is assumed the subjects were deceiving the experimenter, it seems reasonable to assume the commitment effect was not the result of demand characteristics.

Ruling Out Negative Change. Although high and low commitment groups differed significantly from each other, the possibility existed that the difference was due to a negative shift, that is, to the low commitment group getting worse. For this reason, analyses of variance were performed for the low commitment group against the baseline of zero change rather than against the control group, as the latter might have experienced a significant negative shift, too. Results of the analyses indicated a significant positive shift or improvement on both self-report and behavioral measures for the low commitment group, and hence, for the high commitment group as well (Appendix H). This finding indicates that high commitment subjects improved more than low commitment subjects.

Comparison with Previous Research. The results of the

present study concerning commitment appear to be consistent with previous research (Garfield and Affleck, 1961; Kirtner and Cartwright, 1958; Stone, et al., 1961; Strupp, et al., 1963; Truax, et al., 1966). However, there are two important design differences between this study and previous research. First, in the present study both self-reports and judges' ratings were used, while earlier studies used either one measure or the other. Second, the time-limited group procedures in the present study were unlike the one-to-one approaches used in the previous studies. This latter distinction suggests the present findings concerning commitment may generalize to individual treatment.

TREATMENT PREFERENCE

The lack of a significant effect for treatment preference across both measures of anxiety made the experimenter particularly sensitive to interview feedback related to this factor, and it was found that some subjects indicated their preferences using variables unrelated to treatment. The implications of selecting a treatment in this manner are presented in Appendix J.

Comparisons with Previous Research. As mentioned earlier, previous research indicated that receiving a preferred treatment had a significant effect upon outcome (Devine and Fernald, 1973). Thus, it was unexpected that no preference effect occurred in the present study. A comparison of the two studies, however, suggests several possible explanations for the different outcomes.

Possibly there was less difference between the two treatment preference conditions in the present study than in the earlier work. In view of the fact that subjects in the previous study indicated preferences for four treatment groups, as compared to only two treatment groups in the present study, the possibility appears likely.

In the earlier study the treatment preference effect occurred when the rational-emotive and encounter approaches were employed, but not when systematic desensitization and modeling-behavior rehearsal techniques were used. Possibly the synergistic eclectic approach used in this study incorporated a number of qualities similar to the systematic desensitization and modeling-behavior approaches. The report of the therapist (Appendix F) indicates such was the case. On this basis, if similarity existed, no preference effect would be expected in the present study.

Another difference between the two studies pertains to the subjects' stated reasons for preferring one treatment over another. The earlier research was conducted on introductory psychology students who indicated in post-experimental interviews that their treatment preferences were based on a rational evaluation of the therapy techniques. Their preference, they said, depended upon their perception of how effectively each treatment would eliminate their fear. On the other hand, post-treatment interviews with subjects in the present study indicated they based their preferences on how "cool" or "hip" the therapist appeared. While it is not clear how the two rationales for indicating preferences effect treatment outcomes, that

different rationales were employed makes the different outcomes less surprising.

The obtained results might also be accounted for by comparing other differences between the two studies, such as the use of different therapists and dependent variables, but again, just how these variables might explain the different outcomes is not clear.

EXPECTATION OF SUCCESS

In the post-experimental interviews, all subjects reported they were not aware that expectation of treatment success had been manipulated. While most of the subjects could not recall the exact percents for expected success, all subjects reported that they expected to have their anxiety about public speaking either "greatly" or "moderately" reduced, depending upon their experimental condition. Finally, and perhaps of primary importance, all subjects reported they tended to believe that the information they received was credible. This observation suggests the desired manipulation was produced.

There are at least two reasons why the treatment influenced self-reported but not behavioral anxiety. It is possible the behavioral rating was less sensitive to change than was the self-report, or it may be that in the present treatment situation the different expectations of success do, in fact, influence feelings but not behavior.

Expectation X Treatment Preference Interaction. The significant main effect for expectation on the self-reports is not directly interpretable, since a significant expectation

X treatment preference interaction also was found. This interaction indicates the expectation manipulation was effective for subjects in the preferred condition but not for those in the non-preferred condition. Although all subjects improved significantly in all conditions, those in the high expectation, preferred condition improved significantly more than those in the high expectation, non-preferred condition. This was expected. However, subjects in the moderate expectation, non-preferred condition improved more than those in the moderate expectation preferred condition. This was not expected.

This unexpected finding may relate to different interpretations of the success rate, "moderate" or "50 percent effective." Subjects in the preferred condition may have had high expectations of success. Upon being told the success rate was only moderate, however, they may have experienced a subsequent "letdown" or negative set. For subjects in the non-preferred condition, the moderate success rate may have been higher than they expected. If this were the case, subjects in the non-preferred, moderate expectation condition may have entered treatment with a more facilitative pre-treatment expectation than subjects in the non-preferred, moderate expectation condition.

Comparison to Previous Research. The results concerning the relationship of expectation and preference for the subjects in the non-preferred condition indicate the relationship may be complex. Previous expectation research does not readily shed light on this interaction, since there was no attempt to make the preference variable explicit. It appears that subjects in-

volved in these studies were either randomly assigned to treatment by the experimenter (Agras, et al., 1968; Schlien, 1957; Muench and Schumacher, 1968) or were in what might loosely be considered a preferred treatment condition in that subjects who objected to the assigned treatment could, it is assumed, remove themselves from the studies (Lipkin, 1954; Schaffer and Myers, 1954; Uhlenhuth and Duncan, 1968). Assuming the above, it is possible that studies finding significant expectation effects may hold only for preferred or randomly assigned treatment conditions. This would fit with the findings of the present study. Although the above tentative explanations may be relevant, there seems to be no clear or obvious interpretation of these findings at present.

RECOMMENDATIONS FOR FUTURE RESEARCH AND PRACTICE

The relation between clinical practice and research has frequently been a tenuous one. For example, most clinicians do not systematically evaluate the effects of their therapeutic intervention while, at the same time, many attempts at treatment seem to have little relevance in the clinic. As a result, there often is an unintended separation between practicing and laboratory psychologists. This situation is unfortunate, as clinical practice and research endeavors have much to gain from one another. Research findings may help the clinician decide upon the most effective technique for treating a particular problem, or they may provide information as to how he may employ his present technique more efficiently. And, as is well known, the clinician's observations and insights during treatment have

heuristic value for the researcher. With these thoughts in mind, the writer wishes to speculate about possible contributions of the present findings for future practice and research.

Some Implications for Clinical Practice. The factor which very clearly influenced outcome was commitment. There appear to be at least two possible clinical applications of this finding. First, in the many instances where demand for treatment exceeds available services, preference might be given to highly committed clients, as they will most likely benefit from treatment. Second, during the course of treatment, therapists might attempt to foster client commitment, perhaps by pointing out the advantages of realistically facing and dealing with personal problems.

However, for the therapist interested in client commitment, two other points should be kept in mind. First, practitioners should be sensitive to the possibility that "by pointing the finger at the client, we are more inclined to place blame there than on the weakness and ineffectiveness of our therapy. This is therapy in search of a client instead of our facing up to the need to devise procedures to help the wide variety of clients with psychological difficulties" (Garfield, 1973, p. 11). Second, client commitment may change during the course of treatment. For example, a client may discontinue treatment to which he was previously committed in an attempt to avoid uncomfortable feelings that emerge in the course of treatment.

Since the preference X expectation interaction has not been clearly interpreted, and because findings related to treat-

ment preferences in the present study and a previous one are inconsistent, future research should be conducted before significant gains can be made with regularity via direct manipulation of this factor in the clinic. With the above caution in mind, however, application of the preference X expectation interaction might be attempted on an experimental basis in the clinic. Tentative consideration might be given to the possibility of providing clients receiving the treatment of their choice information indicating a high treatment success rate, since this manipulation appears to facilitate outcome in the type of short term group defined in this study.

Some Suggestions for Future Research. As outlined in the introduction, outcome research has tended to deal with client, therapist, or technique variables. The present study has dealt with three variables, two organismic and one manipulated. Future research must address itself not only to client variables which may be facilitating, but also to technique and therapist variables, since in the final analysis it is probable that information concerning these variables may be of more lasting significance.

Results of the present study indicate the importance of multiple dependent variables in outcome research, since what applies for one variable (or client complaint) may not apply for another. Clearly, the use of multiple dependent variables should be given consideration by the investigator interested in assessing the many possible effects of his manipulations.

Concerning expectation, future research might address itself to possible differences between expectation as a manip-

ulated variable and as an organismic variable. Previous research indicates non-manipulated expectation may be facilitative, while the present study suggests manipulated expectation may not facilitate outcome.

The information, or perhaps lack of it, obtained during the post-experimental interviews is of particular interest in that it demonstrates the importance of integrating process and outcome data. For example, a number of variables seem to influence the relationship between receiving a preferred/non-preferred treatment and outcome. In retrospect, it appears that valuable information could have been obtained from the subjects at the time they indicated their treatment preferences. Similarly, process data from both therapist and subjects might have helped explain why the commitment factor affected outcome while the treatment preference variable did not, and it might also have shed light on the treatment preference by expectation interaction.

The fact that the therapy groups met only three times limits the range of the commitment findings, as it is possible that various therapist/technique factors either enhance or reduce subject commitment during long term treatment. Here again, information collected at regular intervals over the course of treatment might provide valuable insight.

In summary, the importance of client variables as they influence outcome must be recognized. However, both therapist and technique factors must also be addressed experimentally if future knowledge concerning treatment effectiveness is to be obtained. Similarly, the manner in which

this body of knowledge is obtained must also be examined. Outcome studies provide a pragmatic approach to treatment effectiveness. However, outcome information alone does not adequately define the nature of the therapeutic process or provide the researcher with process data which may have both explanatory and heuristic value.

REFERENCES

- Agras, S., Leitenberg, H., and Barlow, D. Social reinforcement in the modification of agoraphobias. Journal of Psychotherapy Research, 1968, 19, 423-427.
- Atkinson, J. W. Toward experimental analysis of human motivation in terms of motives, expectancies, and incentives. From J. W. Atkinson (ed.) Motives in Fantasy and Action. New York: D. Van Nostrand, 1958.
- Bandura, A., Blanchard, E. B., and Ritter, B. The relative efficacy of desensitization and modeling approaches for inducing behavioral, affective, and attitudinal changes. Journal of Personality and Social Psychology, 1969, 13, 173-179.
- Begley, C. E., and Lieberman, L. R. Patients' expectations of therapists' techniques. Journal of Clinical Psychology, 1970, 26, 112-116.
- Betz, B. J. Studies of the therapist's role in the treatment of the schizophrenic patient. American Journal of Psychiatry, 1967, 123, 963-971.
- Boulware, D. W., and Holmes, D. S. Preferences for therapists and related expectancies. Journal of Consulting and Clinical Psychology, 1970, 35, 269-277.
- Cartwright, R. D., and Lerner, B. Empathy, need to change and improvement with psychotherapy. Journal of Consulting and Clinical Psychology, 1970, 35, 269-277.
- Conrad, D. An empirical study of the concept of psychotherapeutic success. Journal of Consulting Psychology, 1952, 16, 92-97.
- Devine, D. A., and Fernald, P. S. Outcome effects of receiving preferred, randomly assigned, or non-preferred therapy. Journal of Consulting and Clinical Psychology, 1973, 41, 1, 104-107.
- Dies, R. R. Group therapist self-disclosure: Development and validation of a scale. Journal of Consulting and Clinical Psychology, 1973, 41, 97-104.
- Droppleman, L. F., and McNair, D. M. An experimental analogue of public speaking. Journal of Consulting and Clinical Psychology, 1971, 36, 1, 91-96.

- Ellis, A. Reason and Emotion in Psychotherapy. New York: Lyle Stuart, 1962.
- Eysenck, H. J. The effects of psychotherapy: An evaluation. Journal of Consulting Psychology, 1952, 16, 319-324.
- Farnsworth, K. E. Application of scaling techniques to the evaluation of counseling outcomes. Psychological Bulletin, 1966, 2, 81-93.
- Frank, J. D. The dynamics of the psychotherapeutic relationship. Psychological Bulletin, 1954.
- Frank, J. D. Persuasion and Healing: A Comparative Study of Psychotherapy. Baltimore: Johns Hopkins Press, 1961.
- Freud, S. A General Introduction to Psychoanalysis. New York: Liveright, 1920.
- Garfield, S. L. Basic ingredients or common factors in psychotherapy. Journal of Consulting and Clinical Psychology, 1973, 41, 9-12.
- Garfield, S. L., and Affleck, D. C. Therapists' judgements concerning patients considered for psychotherapy. Journal of Consulting Psychology, 1961, 25, 505-509.
- Garfield, S. L., Prager, R. A., and Begrin, A. E. Evaluation of outcome in psychotherapy. Journal of Consulting and Clinical Psychology, 1971, 37, 307-313.
- Gendlin, E. T., and Schlien, J. M. Immediacy in time attitudes before and after time-limited psychotherapy. Journal of Clinical Psychology, 1961, 17, 69-72.
- Goldstein, A. P. Therapist-Patient Expectancies in Psychotherapy. New York: Pergamon Press, 1962.
- Goldstein, A. P., and Shipman, W. G. Patient expectancies, symptom reduction and aspects of the initial psychotherapeutic interview. Journal of Clinical Psychology, 1961, 17, 129-133.
- Goodman, N. Are there differences between fee and non-fee cases? Social Work, 1960, 5, 46-52.
- Henry, W. E., and Schlien, J. M. Affective complexity and psychotherapy; some comparisons of time-limited and unlimited treatment. Journal of Projective Techniques, 1958, 22, 153-162.
- Howard, K. I., Orlinsky, D. E., and Hill, J. A. Patient satisfaction in psychotherapy as a function of patient-therapist pairing. Psychotherapy: Theory, Research, and Practice, 1970, 7, 130-134.

- Kir-Stimon, W. Counseling with the severely handicapped: encounter and commitment. Psychotherapy: Theory, Research and Practice, 1970, 2, 70-74.
- Kirtner, W. L., and Cartwright, D. S. Success and failure in client-centered therapy as a function of initial interview behavior. Journal of Consulting Psychology, 1958, 22, 329-333.
- Landfield, A. W. and Nawas, M. M. Psychotherapeutic improvement as a function of communication and adoption of therapists' values. Journal of Counseling Psychology, 1964, 11, 336-341.
- Lang, P. J., Lazovic, A. D., and Reynolds, D. J. Desensitization, suggestibility, and pseudo-therapy. Journal of Abnormal Psychology, 1965, 70, 395-402.
- Lipkin, S. Clients' feelings and attitudes in relation to the outcome of client-centered therapy. Psychological Monographs, 1954, 68, whole no. 372.
- Lipkin, S. Round robin time-limited therapy. American Academy of Psychotherapists Newsletter, 1966, 2, 37-42.
- Litvak, S. B. A comparison of two brief behavior therapy techniques on the reduction of avoidance behavior, Psychological Record, 1969, 19, 329-334.
- Luborsky, L., Chandler, M., Auerbach, A. H., Cohen, J., and Bachrach, H. M. Factors influencing the outcome of psychotherapy. Psychological Bulletin, 1971, 75, 145-185.
- Meichenbaum, D. H., Gilmore, J. B., and Ferdoravicius, A. Group insight vs. group desensitization in treating speech anxiety. Journal of Consulting and Clinical Psychology, 1971, 36, 410-422.
- Muench, G. A. An investigation of the efficacy of time-limited psychotherapy. Journal of Counseling Psychology, 1965, 12, 294-298.
- Oliveau, D. C., Agras, W. S., Leitenberg, H., Moore, R. C., and Wright, D. E. Systematic desensitization, therapeutically oriented instructions and selective positive reinforcement. Behavioral Research and Therapy, 1969, 7, 27-33.
- Orne, M. T. From the subjects's point of view, when is behavior private and when is it public? Journal of Consulting and Clinical Psychology, 1970, 35, 143-147.

- Paul, G. L. Insight vs. Desensitization in Psychotherapy, Stanford: Stanford University Press, 1966.
- Raymond, M. J. Case of fetishism treated by aversion therapy. British Medical Journal, 1956, 2, 854-857.
- Rogers, C. R. On Becoming a Person. Boston: Houghton Mifflin, 1961.
- Rosenbaum, M., Friedlander, J., and Kaplan, S. M. Evaluation of results of psychotherapy. Psychosomatic Medicine, 1956, 18, 2, 126-132.
- Rotter, J. Generalized expectancies for internal versus external control of reinforcement Psychological Monographs, 1966, 80, whole no. 609.
- Sapolsky, A. Relationship between patient-doctor compatibility, mutual perception, and outcome of treatment. Journal of Abnormal Psychology, 1965, 70, 70-76.
- Schaffer, L., and Myers, J. K. Psychotherapy and social stratification. Psychiatry, 1954, 17, 83-93.
- Schonfield, J., Stone, A. R., Hoen-Saric, R., Imber, S. D., and Pande, S. K. Patient therapist convergence and measures of improvement in short term psychotherapy. Psychotherapy: Theory, Research and Practice, 1969, 6, 267-271.
- Schlien, J. M. Research notes from here and there. Journal of Counseling Psychology, 1957, 4, 318-322.
- Stoler, N. Client likability: A variable in the study of psychotherapy. Journal of Consulting Psychology, 1963, 27, 175-178.
- Stone, A., Frank, J., Nash, E., and Imber, F. An intensive five-year follow-up study of treated psychiatric outpatients. Journal of Nervous and Mental Disease, 1961, 133, 410-422.
- Strupp, H. H. On the basic ingredients of psychotherapy. Journal of Consulting and Clinical Psychology, 1973, 41, 1-8.
- Strupp, H. H., Wallach, M. S., Wogan, M., and Jenkins, J. W. Psychotherapists' assessments of former patients. Journal of Nervous and Mental Disease, 1963, 137, 222-230.
- Swenson, C. H. Commitment and the personality of the successful therapist. Psychotherapy: Theory, Research and Practice, 1971, 8, 31-36.

- Truax, C. B., and Carkhuff, R. R. Toward Effective Counseling and Psychotherapy, Chicago: Aldine, 1967.
- Truax, C. B., Wargo, D. G., Frank, J. B., Imber, S. D., Battle, C. C., Hoen-Saric, R., Nash, E. H., and Stone, A. R. Therapist empathy, genuineness, and warmth and patient therapeutic outcome. Journal of Consulting Psychology, 1966, 30, 5, 359-401.
- Uhlenhuth, E. H., and Duncan, D. B. Subjective change with medical student therapists: Some determinants of change in psychoneurotic outpatients. Archives of General Psychiatry, 1968, 18, 532-540.
- Wilner, D. N. A Practical Guide to Psychotherapy. New York: Harper and Row, 1968.

LIST OF APPENDICES

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APPENDIX A

Initial Questionnaire: Public Speaking
Anxiety and Commitment to Change

Name _____

Release Date _____

We are trying to find if there are a number of people here who would be interested in participating in some group counseling meetings to help them get over their fear of speaking in public.

This questionnaire is to provide us with information about the possibility of making these groups available.

1. How nervous do you feel when you have to make a speech in front of a group of people?

1	2	3	4	5	6	7

extremely nervous	highly nervous	quite nervous	moderately nervous	slightly nervous	comfortable	very comfortable

2. What point on the scale below describes how much you want to change your present public speaking behavior?

1	2	3	4	5	6	7

very little	little	low moderate	moderately	high moderate	much	very much

Behavioral Anxiety Checklist

Rater _____

Subject _____

Date _____

Speech No. _____

Behavior Observed	1	2	3	4	5	6	7	8	9	10
1. Paces										
2. Sways 3 or 4 times										
3. Shuffles feet, frozen feet										
4. Knees tremble										
5. Extraneous arm, hand, body movements (swings, scratches, toys, etc.)										
6. Arms rigid at side										
7. Hands restrained (in pockets, behind back, clasped)										
8. Hand tremors										
9. Obvious lack of eye contact										
10. Face muscles tense, drawn, tics, grimaces										
11. Face deadpan										
12. Nervous smiles										
13. Face flushed (blushes) or pale										
14. Moistens lips										
15. Swallows										
16. Clears throat										
17. Breathes heavily										
18. Perspires (face, hands, armpits)										
19. Voice quivers										
20. Speech blocks or stammers										

Comments:

APPENDIX C

Self-Reported Public Speaking Anxiety Inventory

Name _____

This instrument is composed of 26 items that reflect your feelings of confidence as a speaker. After each question there is a seven point rating scale. Rate each item on this scale by circling the number which best reflects your feeling about your present speech. Remember that this information is completely confidential and will not be known to your instructor. Please give the most accurate answer possible. Now go ahead, work quickly, and remember to answer every question.

1) I look forward to an opportunity to speak in public again.

very little 1 2 3 4 5 6 7 very much

2) My hands trembled during my speech.

very little 1 2 3 4 5 6 7 very much

3) I was in constant fear of forgetting my speech.

very little 1 2 3 4 5 6 7 very much

4) While preparing this speech, I was in a constant state of anxiety.

very little 1 2 3 4 5 6 7 very much

5) At the conclusion of this speech I felt I had had a pleasant experience.

very little 1 2 3 4 5 6 7 very much

6) I disliked using my body and voice expressively.

very little 1 2 3 4 5 6 7 very much

7) My thoughts became confused and jumbled during my speech.

very little 1 2 3 4 5 6 7 very much

8) I feared facing the audience and camera.

very little 1 2 3 4 5 6 7 very much

APPENDIX C (Cont'd)

- 9) I faced the prospect of making this speech with confidence.
very little 1 2 3 4 5 6 7 very much
- 10) I felt that I was in possession of myself while speaking.
very little 1 2 3 4 5 6 7 very much
- 11) I liked to observe the reactions of the audience to my speech.
very little 1 2 3 4 5 6 7 very much
- 12) Although I talk fluently with my friends, I was at a loss for words during the speech.
very little 1 2 3 4 5 6 7 very much
- 13) I felt relaxed and comfortable while speaking.
very little 1 2 3 4 5 6 7 very much
- 14) I would avoid speaking in public again if possible.
very little 1 2 3 4 5 6 7 very much
- 15) The faces of the audience were blurred when I looked at them.
very little 1 2 3 4 5 6 7 very much
- 16) I feel disgusted with myself after trying to address this group of people.
very little 1 2 3 4 5 6 7 very much
- 17) I enjoyed preparing this talk.
very little 1 2 3 4 5 6 7 very much
- 18) My mind was clear when I faced this audience and camera.
very little 1 2 3 4 5 6 7 very much
- 19) I spoke fluently.
very little 1 2 3 4 5 6 7 very much

APPENDIX C (Cont'd)

- 20) I perspired and trembled just before getting up to face the audience.

very little 1 2 3 4 5 6 7 very much

- 21) My posture felt strained and unnatural.

very little 1 2 3 4 5 6 7 very much

- 22) I was continually fearful and tense while speaking before this group.

very little 1 2 3 4 5 6 7 very much

- 23) I found the prospect of speaking before this group pleasant.

very little 1 2 3 4 5 6 7 very much

- 24) It was difficult for me to find the right words to express my thoughts.

very little 1 2 3 4 5 6 7 very much

- 25) I was terrified at the thought of speaking before the audience.

very little 1 2 3 4 5 6 7 very much

- 26) I had a feeling of alertness in facing the audience.

very little 1 2 3 4 5 6 7 very much

APPENDIX D

Treatment Preference Rating Scale

Name _____

Date _____

No. 1

Title _____

1	2	3	4	5	6	7
strong dislike						strong like

No. 2

Title _____

1	2	3	4	5	6	7
strong dislike						strong like

APPENDIX E

Public Speaking Inventory

1. Have you ever spoken in public? _____
2. If so, how long has it been since you last spoke? _____
3. How large is the largest audience you have ever spoken before?

Circle one: A. 3-5 people
 B. 6-15 people
 C. 16-25 people
 D. more than 25 people

4. Have you ever had a speaking part in a production such as a play? _____
5. If so, how much speaking was required?

Circle one: A. very little speaking required
 B. a part of moderate size
 C. a major speaking part
 D. the longest part in the production

6. How many oral reports have you given in the class-room? _____
7. What point on the scale below best describes your commitment to improving your present public speaking behavior?

1	2	3	4	5	6	7
very low	low	low moderate	moderate	high moderate	high	very high

8. Rate yourself on the following introversion-extraversion scale.

1	2	3	4	5	6	7
highly extroverted	moderately	slightly	neither	slightly	moderately	highly introverted

9. Estimate your self esteem as you see it relative to others.

1	2	3	4	5	6	7
very low	low	low moderate	moderate	high moderate	high	very high

APPENDIX E (Cont'd)

Please answer the following questions by circling either a true, question mark, or false.

1. T ? F I tend to have a few close friends rather than many acquaintances.
2. T ? F I feel uncomfortable if others disagree with me.
3. T ? F Generally I am articulate when talking to strangers.
4. T ? F I think that public speaking is an important social skill.
5. T ? F I like to have people notice me.
6. T ? F I seldom fear someone else criticizing me.
7. T ? F The best way to overcome speaking anxiety is to pay little attention to your nervousness.
8. T ? F I would like to have a lot of influence on others.
9. T ? F The kind of work I would like to do would require me to work primarily alone.
10. T ? F I am most articulate when I am a little nervous.
11. T ? F When in front of a group I would like to be thought of as quite important.
12. T ? F I really don't like to take the lead in making group decisions.
13. T ? F Speaking is difficult for me unless I think the people are really on my side.
14. T ? F My closest friends probably think I should speak up more.
15. T ? F Often I fear saying the wrong thing.
16. T ? F Neither of my parents is a competent speaker.
17. T ? F I would like to be in a position of authority.
18. T ? F I believe I am able to meet any realistic goals I set for myself.
19. T ? F I usually try to avoid any speaking in public whenever possible.
20. T ? F In some instances while speaking in front of a group I have a definite shortness of breath.

APPENDIX F

Therapist's Description of Treatment

The following report consists of excerpts taken from a paper written by Mr. Theodore Rice describing the conceptual model used by him in the public speaking therapy groups that he conducted as part of this study. For the sake of brevity, Mr. Rice has consented to substantial editing of his work.

A SYNERGISTIC ECLECTIC MODEL FOR REDUCTION
OF SPECIFIED ANTICIPATORY ANXIETIES

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In the summer of 1973, I participated as therapist in an experimental design conducted by Donald Devine, Director of Treatment, at the United States Naval Prison, Portsmouth, New Hampshire. The research was done under supervision of a faculty doctoral dissertation committee from the University of New Hampshire.

As part of the experiment I was not informed of the variables under study since, if known to me, I might inadvertently bias the data and consequently diminish the objectivity of the research. My instructions were in essence: "You will be given 4 groups of prisoners, each group to be 8 in number. Each session is to last 2 hours duration. Hence, each person is to be exposed to 8 hours of group therapy. All

APPENDIX F (Cont'd)

of the clients are volunteers who have expressed severe anxiety reactions in speaking in groups and wish to make themselves more effective in group interaction and public speaking situations. You may operate from any theoretical orientation or conceptual model that you feel will best serve to eliminate or reduce this debilitating anxiety in the public speaking situation."

Prior to assuming the role of therapist in this situation, I did much reading and note taking. I concluded that these clients suffered from a rather common condition generically described in therapeutic literature as "anticipatory anxiety." Many modes of approach seemed to have merit and I sensed that it would be possible, in a time-limited therapy, to incorporate the best elements of each orientation into an internally consistent and theoretically sound model. Since I was dealing with clients in groups whose true motivation, intellectual and educational level, and degree of anxiety proneness were unknown to me, I felt it essential that this eclectic model be flexible enough to adapt to the real needs of the group members as these needs became evident during the actual on-going counseling process.

The model deals with specified (public speaking) anticipatory anxieties within a time-limited group therapy framework. It borrows elements from systematic desensitization and reciprocal inhibitions (Wolpe, 1958; Wolpe and

APPENDIX F (Cont'd)

Lazarus, 1966; Wolpe, 1969); the logotherapeutic technique of paradoxical intentions (Frankl, 1962, 1967); Gestalt self-awareness processes (Perls, Hefferline and Goodman, 1951) and client-centered self-concepts (Rogers, 1951, 1961, 1970).

The prisoners readily agreed to discuss what they felt while attempting to give the 10-minute speech on military justice, and most felt they were perceived by the raters as persons of low character and little worth. Also, the prisoners reported a sense of reproach, worthlessness and low self-esteem, which served to exacerbate existing anxiety levels. Accordingly, the attitude of the therapist was one of "unconditional positive regard" with the intent to convey that, although prisoners, they had not exhausted their potential for being valuable and worthy human beings.

In the pre-counseling videotaping the prisoners also reported that they could speak only for a few moments on the subject of military justice because they did not know that much about it! Many had less than a high school education and felt they could not speak authoritatively on any subject. I pointed out that they were creating an image of what the "ideal" public speaker should and ought to say about military justice. They were approaching the subject from the frame of reference of "authority," i. e., what the formal and correct viewpoint, as outlined in the Uniform Code of Military Justice, should and ought to be. Thus, when they tried to speak on military justice they felt they had to give a

APPENDIX F (Cont'd)

semi-legal presentation. I told them they should speak about military justice (or injustice) from their own frame of reference, drawing upon their own experience as prisoners. It was emphasized that what they as persons had to say, what they felt, experienced, perceived, lived through, was real and true and valid. Indeed, their experientially gained knowledge was worth a great deal and by narrating their own view and experiences they were in fact presenting a very "authoritative" picture. When convinced that their personal experience as persons was "legitimate" most men had little difficulty in finding sufficient content about the subject matter. Indeed, they discovered they knew more than enough about military justice to talk for hours!

Also employed were the principles of reciprocal inhibitions (Wolpe, 1958) and Frankl's (1962, 1967) technique of paradoxical intentions. Operating here was the behavioral therapist's credo that the quickest and most reliable way to extinguish undersirable behavior (anxiety) is to reinforce an alternative incompatible behavior (laughter). Frankl's (1967) technique is ideally suited to group therapy of time-limited duration dealing with public speaking anxiety. He states: "Paradoxical intention lends itself particularly to short-term therapy, especially in cases with underlying anticipatory anxiety mechanism." (p. 163) Anticipation of the anxiety-producing situation engenders the very response which the person seeks to eliminate (rapid heart beat, butterflies

APPENDIX F (Cont'd)

in the stomach, trembling, shaky voice, weak knees, sweating). The individual pays excessive attention to not responding in this undesirable way and observes himself to see if such inappropriate reactions will occur. However, his excessive attention to the anxiety symptoms produces the undesirable response. The more effort expended to eliminate the anxiety symptoms, the more acute the symptoms become, and a vicious circle is formed. Frankl's approach to the reduction or elimination of these anxieties is to encourage clients to consciously intend and wish for exactly those reactions which they fear most.

Prior to the introduction of paradoxical intention, data were collected from the group using the following format. Each group member was given a sheet of paper and it was suggested that they complete the following statement: "When speaking in groups or asked to speak in public I feel....." The completed papers (unsigned) were then tossed into the center of the group, shuffled and redistributed to members who then read aloud the completed anonymous statement in their possession. Each statement was characterized by the frequent appearance of such words and phrases as "nervous," "shaky," "trembly," "butterflies in stomach," "rapid heart beat," "sweaty," "choking feeling," "loss of words," "can't think of anything," "think I'll die," etc. As group members read the unsigned papers they realized they were not alone in experiencing these anxieties and concurrent physical

APPENDIX F (Cont'd)

symptoms of discomfort and distress. I then explained: It was not the audience, the situation, or the setting that produces these undesirable reactions but rather we, ourselves, are responsible (not to blame!) for these responses. What we, in fact, are doing to ourselves is internally rehearsing and preparing to play the accustomed social role of the ideal public speaker that we believe society has defined as proper and correct. The experience of stage fright simply represents our fear that we will not conduct our roles well and will displease our audience and ourselves.

After the discussion of how we create anxiety and unsuccessfully attempt to deal with it, I introduced paradoxical intention. A volunteer was asked to stand up and concentrate on producing "barrels of sweat" or "show us what a good trembler you are," or "let us see if you can faint for us." When someone attempted this, both the individual volunteer and the group responded with great humor and laughter. All members in the group seemed willing to try this suggestion, and accentuated and willfully produced the very symptoms they heretofore had attempted to suppress.

The group was instructed in still another technique to reduce anxiety, deep breathing and exhalation. Perls, et al. (1951) define anxiety:

Anxiety is the experience of breathing difficulty during any blocked excitement. It is the experience of trying to get more air into lungs immobilized by muscular constriction of the thoracic cage. We use the term excitement to cover the heightened energy mobilization which occurs whenever there is

APPENDIX F (Cont'd)

strong concern and strong contact, whether erotic, aggressive, creative or whatever. In excitement there is always an upsurge in the metabolic process of oxidizing stored up food substances---and hence an imperious need for more air. (p. 128)

To expedite the release of blocked excitement, group members were encouraged to physically move about and breathe deeply prior to speaking. Physical movement during speaking was also encouraged as a means of physically discharging blocked energies.

The model presented here includes several theoretical positions and methods (Gestalt, paradoxical intentions, reciprocal inhibitions, behavioral modification, self-concept) and was implemented with "non-directive activism." I believe the different approaches are mutually complementary and that they served in a truly synergistic fashion to eliminate or reduce anticipatory anxiety related to public speaking.

REFERENCES

- Frankl, V. E., Man's Search for Meaning. Boston: Beacon Press, 1962.
- Frankl, V. E., Psychotherapy and Existentialism. New York: Simon and Schuster, 1967.
- Perls, F., Hefferline, R. F., Goodman, P., Gestalt Therapy: Excitement and Growth in the Human Personality. New York: Bell Publishing Co., 1951.
- Rogers, C. R., Client-Centered Therapy: Its Current Practice, Implications, and Theory. Boston: Houghton Mifflin, 1951.
- Rogers, C. R., On Becoming a Person: A Therapist's View of Psychotherapy. Boston: Houghton Mifflin, 1961.

APPENDIX F (Cont'd)

- Rogers, C. R., Carl Rogers on Encounter Groups. New York: Harper and Row, 1970.
- Wolpe, J., Psychotherapy by Reciprocal Inhibition. Stanford: Stanford University Press, 1958.
- Wolpe, J., and Lazarus, A. A., Behavior Therapy Techniques, Elmsford, New York: Permagon, 1966.
- Wolpe, J., The Practice of Behavior Therapy. Elmsford, New York: Permagon, 1969.

APPENDIX G

Table 3

Behavioral Ratings for the Four Treatment Groups

	Group 1	Group 2	Group 3	Group 4
	40	62	49	36
	40	13	23	1
	36	61	28	20
	17	22	9	22
	51	49	42	34
	17	26	19	10
	34	45	47	41
	28	13	6	19
Totals	263	291	223	183

Table 4

ANOVA of the Behavioral Ratings
for the Four Treatment Groups

<u>Source</u>	<u>df</u>	<u>MS</u>	<u>F</u>
Mean	1	28800.0	113.35***
Groups	3	277.83	1.09
Error	28	254.09	

***p < .001

APPENDIX G (Cont'd)

Table 5

Self-Report Scores for the Four Treatment Groups

	Group 1	Group 2	Group 3	Group 4
	103	69	84	74
	25	21	47	50
	43	35	45	27
	26	10	18	21
	75	88	75	39
	61	73	41	89
	49	10	26	18
	6	17	23	14
Totals	388	323	359	332

Table 6

ANOVA of Self-Report Scores for
the Four Treatment Groups

<u>Source</u>	<u>df</u>	<u>MS</u>	<u>F</u>
Mean	1	61425.10	65.44***
Groups	3	107.38	.11
Error	28	938.71	

***p < .001

APPENDIX H

Table 7

ANOVA of Behavioral Rating Scores
of Low Commitment Subjects

<u>Source</u>	<u>df</u>	<u>MS</u>	<u>F</u>
Mean	1	2538.28	9.79**
Error	15	259.25	

**p < .01

Table 8

ANOVA of Self-Report Scores of
Low Commitment Subjects

<u>Source</u>	<u>df</u>	<u>MS</u>	<u>F</u>
Mean	1	9340.00	58.86***
Error	15	158.67	

***p < .01

APPENDIX I

ANOVAs of Self-Report Scores Pertaining to the
Expectation X Treatment Preference Interaction

ANOVA of Self-Report Scores Obtained under the Moderate Expectation Preferred Condition				
<u>Source</u>	<u>df</u>	<u>MS</u>	<u>F</u>	
Mean	1	5940.5	30.2**	
Error	7	196.5		
ANOVA of Non-Preferred, Moderate Expectation versus Non-Preferred, High Expectation Self-Report Scores				
<u>Source</u>	<u>df</u>	<u>MS</u>	<u>F</u>	
Mean	1	30976.0	34.56**	
Conditions	1	196.0	.22	
Error	14	896.1		
ANOVA of Preferred, Moderate Expectation versus Preferred, High Expectation Self-Report Scores				
<u>Source</u>	<u>df</u>	<u>MS</u>	<u>F</u>	
Mean	1	30450.3	67.6**	
Conditions	1	4290.3	9.5**	
Error	14	450.4		

** $p < .01$

APPENDIX J

Analysis of Possible Contamination of Treatment Preference in Groups 1, 3 and 4

Since previous research indicated that receiving a preferred treatment positively effects outcome (Devine and Fernald, 1973), it was expected that a statistically significant treatment preference effect would occur in the present study. Possible explanations concerning why no effect occurred are discussed within the text proper. However, in the process of interviewing subjects after the completion of the study, information was obtained which indicated that further consideration of the data may be warranted.

During the post-experimental interview a number of subjects indicated that their treatment preferences were determined by their peers rather than by considerations of what treatment would be most effective for them. This was possibly due to an unintended difference between the earlier research and the present study. In the earlier study the experimenter remained in the room during the video tape presentation and until all subjects indicated their treatment preferences. As a result, no inter-subject communication occurred.

In the present study some subjects were permitted to watch the video tape in groups without the experimenter present. Several of the subjects in some of the groups watching the video tape lived in the same housing dorm. As a result, social pressure was applied by one or more dorm members for all of them to be in the same therapy group. In.

APPENDIX J (Cont'd)

formation during the post-experimental interviews appears to support the fact that subjects applied two strategies in trying to remain with their peers. First, individual subjects tried to encourage their peers to select the treatment they, the individual, preferred. Second, subjects who could not entice peers to choose the treatment group they wanted, selected the alternative group, since this was the treatment the rest of the dorm members felt they wanted.

Although the definition of treatment preference as defined in this study is simply that of selecting a therapy group, it was assumed that the selection would be determined by therapy relevant variables. The above feedback indicated that for some subjects this was not the case. Some subjects indicated their treatment preferences without feeling any group pressure while others did so under feelings of peer pressure.

To further investigate the effects peer pressure may have had upon outcome, the records of each subject were reviewed to determine if peer pressure was or could have been applied while the subject was making his choice. The following was found:

Therapy Group 1: The experimenter was present while all subjects in this group viewed the video tape and indicated their treatment preferences. Therefore, no contamination via peer pressure occurred.

Therapy Group 2: Five subjects in this group viewed the video tape with the experimenter present. The three re-

APPENDIX J (Cont'd)

maining subjects indicated that they had agreed to try to get into the same therapy group. Thus, data from this group was contaminated.

Therapy Group 3: Three subjects in this third group watched the video tape with the experimenter present. One watched the tape alone. Four subjects were in a group of seven who watched the video tape without the experimenter present. However, 1 of the subjects indicated a high preference for the treatment later employed while 3 subjects indicated a low preference for the treatment. This fact, combined with feedback from one subject in this group, indicated that no peer pressure was involved when they indicated their treatment preference.

Therapy Group 4: Of the subjects in the last group, five watched the video tape in groups in which the experimenter was present. One watched the tape alone, and two watched the tape with the experimenter absent. The latter two subjects indicated they did not discuss their treatment preferences and, in addition, their ratings indicated they had dissimilar preference ratings.

From the above information it was concluded that treatment groups 1, 3 and 4 remained uncontaminated. Accordingly, it seemed worthwhile to conduct a second statistical analysis with data from group 2 removed (Tables 3 and 4).

APPENDIX J (Cont'd)

Table 10

Outcome Scores for Therapy Groups 1, 3 and 4

	Preferred Treatment		Non-preferred Treatment	
	High Commitment	Low Commitment	High Commitment	Low Commitment
High Expectation	40 (103) 49 (84) 36 (74)	40 (43) 23 (45) 1 (27)	52 (75) 42 (75) 34 (39)	17 (49) 19 (26) 10 (18)
Moderate Expectation	36 (25) 28 (47) 20 (50)	27 (26) 9 (18) 22 (21)	34 (61) 47 (41) 41 (89)	28 (6) 6 (23) 19 (14)

Note: Self-report scores in parentheses; behavioral rating scores not in parentheses.

APPENDIX J (Cont'd)

Table 11

Results of Analyses of Variance of Behavioral
Rating Scores for Groups 1, 3 and 4

<u>Source</u>	<u>df</u>	<u>MS</u>	<u>F</u>
Mean	1		
Expectation (E)	1	126.04	1.27
Commitment (C)	1	2542.04	25.65**
Preference (P)	1	30.38	0.31
E X C	1	57.04	0.58
E X P	1	145.04	1.46
C X P	1	117.04	1.18
E X C X P	1	7.04	0.07
Error	16	99.12	

**p < .01

Table 12

Results of Analyses of Variance of Self-
Report Scores for Groups 1, 3 and 4

<u>Source</u>	<u>df</u>	<u>MS</u>	<u>F</u>
Mean	1		
Expectation (E)	1	2136.98	9.04**
Commitment (C)	1	8089.04	34.24**
Preference (P)	1	92.04	.39
E X C	1	606.24	2.56
E X P	1	1135.32	4.80*
C X P	1	411.38	1.74
E X C X P	1	.58	.00
Error	16	236.52	

*p < .05
**p < .01

APPENDIX J (Cont'd)

The analysis of the behavioral ratings revealed a significant commitment effect ($p < .01$), and no other effects or interactions were noted. The analysis of the self-report data indicated a significant ($p < .01$) main effect for expectation and commitment and a significant ($p < .05$) expectation X choice interaction. These results, which are identical to those found for the four treatment groups, indicate that possible contamination of group 2 did not influence the results of the study. Also, the previously mentioned analysis (Appendix H), which indicated no significant differences between the four treatment groups, suggests the same conclusion.

This conclusion in turn suggests the possibility that even subjects who remained uninfluenced by peer pressure may have based their preference on non-therapy relevant factors. However, no information to this effect was obtained directly from subjects during the post-experimental interviews.