THE EFFECTS OF VICARIOUS REINFORCEMENT, NON-REINFORCEMENT, AND ENHANCEMENT ON AFFECT WORDS, AFFECTIVE STYLE, AND AFFECTIVE DISTANCE

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CHAPTER I

THE PROBLEM

Changes in affective behaviors, both verbal and nonverbal, have been frequently used as criteria for evaluating psychotherapy. For example, the emission of emotional words (Ullmann, Krasner, and Collins, 1961; Ullmann and McFarland, 1957), responses to threatening stimuli (Ullman, Weiss, and Krasner, 1963), group discussion data (Dicken and Fordham, 1967), and paper and pencil task scores (Truax and Carkhuff, 1965) have been utilized as measures of effectiveness of therapy. The present study inspected three transfer measurements of affective behaviors in a quasi-therapy setting: (1) the number of affect word emissions; (2) affective style scores; and (3) affective distance scores. The purpose of the study was to investigate which combination of experimental psychotherapy research strategies would effect greater transfer of affective behaviors.

Both the verbal operant conditioning paradigm (VOC) and observational learning techniques (OL) have shown utility for investigating critical factors in psychotherapy. Past studies have indicated that the therapist has reliable and well tested techniques for modifying verbal and nonverbal affective behaviors; that the systematic verbal behavior of the therapist influences both the verbal and nonverbal affective behaviors of the client; that the systematic nonverbal behavior of the therapist influences both the verbal and nonverbal

affective behaviors of the client; and that a client whose affective behaviors had been modified in psychotherapy might be expected to change his behavior in a similar setting (Bandura, 1969; Krasner, 1965; Merbaum, 1963; Miller and Dollard, 1941; Salzinger, Portnoy, and Feldman, 1964; Spiritas and Holmes, 1971; Truax and Carkhuff, 1965; Truax et al., 1966; Whalen, 1969).

The VOC paridigm is applied as a laboratory analogue to psychotherapy, and measures the effect of the experimenter's (E's) verbal intervention on the subject's (S's) verbal behavior (Greenspoon, 1965). In general, VOC studies have demonstrated that modifications of S's simple and complex responses are possible with the application of E's systematic interventions. A number of studies have isolated and manipulated critical behaviors which seemed to approximate therapy behaviors (Craine, 1969; Hekmat, 1971; Merbaum, 1963; Salzinger and Pisoni, 1958).

Observational learning procedures have also been used for effecting changes in psychotherapy. Observational learning is said to occur when an observer (O) views a model (M), and when observation of M's behavior affects O, so that O's behavior tends to approximate the observed M (Flanders, 1968). Recently, studies have shown that changes in verbal and nonverbal affective behaviors have occurred with the application of systematic OL techniques (Bandura, 1969; Schwartz and Hawkins, 1965; Spiritas and Holmes, 1971; Truax and Carkhuff, 1965; Whalen, 1969; Wilder, 1967). For example, language usage, racial stereotypes, sex-role behaviors, and altruistic behaviors are acquired in this way (Bandura, 1969). It appears that OL techniques and the VOC

strategy are well suited for effecting changes in psychological functioning.

A crucial question then appears to be, "Can VOC and OL strategies be systematically combined and arranged to effect changes in the frequency of affect word emission, in affective style scores, and in affective distance scores?". It was the aim of the present research to investigate the foregoing question.

CHAPTER II

REVIEW OF THE LITERATURE

The review of the literature investigated the conditioning of affect words, and the transfer of affect words, affective style, and affective distance.

The Conditioning and Transfer of Affect Words

The VOC paradigm has stimulated more interest among clinicians, than the many other human learning procedures used in the experimental laboratory. Since its inception, the relevance of the VOC paradigm to the analysis of the psychotherapy process has been emphasized (Greenspoon, 1955; Krasner, 1965; Ullmann, Krasner, and Colling, 1961). Greenspoon's (1955) pioneering demonstration showed that simple verbal responses were systematically manipulated by verbal environmental consequences. Using the VOC paradigm, Greenspoon (1955) found that S's rate of emission of plural vs. nonplural nouns was effected by E's verbal intervention of "Um-hmm". Subsequent research has shown that affect words (AW) could be conditioned in a similar manner (Salzinger and Pisoni, 1958).

Laboratory analogues of psychotherapy which isolated client and therapist behaviors have been attempted. These behaviors have been systematically controlled and manipulated, and Krasner (1965) maintained that the experimental laboratory represented an effective

therapeutic approach. Clinically, Waskow (1962) theorized that the expression of AW in psychotherapy was essential for new learning to occur. Ullmann and McFarland (1957) suggested that AW appeared to be the class of verbal behavior that was of particular importance during the clinical interview. Therefore, the possibility exists that an increase in the emission rate of AW in psychotherapy may have therapeutic value. Huffnung (1969) further maintained that transfer effects were manditory if the VOC paradigm was to demonstrate utility. Perhaps the practice of AW during psychotherapy may lead to an increased emission rate on a similar transfer task. With this in mind, the following two inferences are inspected in this section of the review of the literature: (1) that E's systematic interventions effect S's emission rate of AW; and (2) that this influence has a facilitating effect on a similar transfer task.

Salzinger and Pisoni (1958) examined the effect of a verbal reinforcer on the output of AW in a simulated psychotherapy interview. Thirty-six inpatients served as Ss and answered typical interview questions. E was established as a source of reinforcement and as a cue to encourage verbalizations. During the conditioning trials that followed, E questioned the experimental group and immediately reinforced each AW or group of AW through the use of such interventions as "Um-hmm", "I see", "Yeah", and "Sure". The control Ss received no verbal interventions of any kind. Experimental Ss showed an increase in the emission rate of AW during a subsequent interview. The results supported the inference that E's systematic verbal behavior could influence S's verbal behavior in psychotherapy.

Salzinger and Pisoni (1960) attempted to extend the above findings

by conditioning AW in normal Ss during a clinical interview. The results showed that E's verbal reinforcement increased the frequency of emission of AW. A comparison of the results of both studies (Salzinger and Pisoni, 1958; 1960) suggested that normals gained more therapeutic value from the verbal reinforcement of AW than did inpatients in a controlled therapeutic interview.

Subsequently, Salzinger, Portnoy, and Feldman (1964) attempted to manipulate affective behavior in the continuous speech of an inpatient sample. Ss were instructed to respond in a continuous manner with a light flash serving as a potential reinforcer for AW. The results showed that AW could be conditioned by other than a verbal reinforcer. This finding suggested that nonverbal therapist interventions could be facilitating in the conditioning of AW.

Craine (1969) inspected the verbal conditioning of AW in psychopaths, based on the notion that affective references played a critical role in the differential conditioning of psychopaths and normals. The purpose of the investigation was to compare a psychopathic and nonpsychopathic prison sample on a verbal conditioning task involving three types of affective references. Positive, negative, and neutral AW were the critical responses classes. It was found that psychopaths were differentially conditioned for the negative AW. The nonpsychopathic sample conditioned across all three treatments with a marked effect for positive AW.

In a study concerned with early learning in psychotherapy, Waskow (1962) selectively reinforced AW in a therapy-like situation. E paraphrased emotional aspects of S's communications. The results showed that selective E responding did not result in a significant increase

of AW. It appears as if the response-reinforcement contingency in the Waskow (1962) study was not sufficiently clear to S for the conditioning and transfer of AW. The failure ofAW to be conditioned presumably occurred because of the complex variables existing in the therapy-like situation. Apparently, the ambiguity of E's reflection of affective content, and the lack of consistency and immediacy of reinforcement inherent in the design of the study, interfered with E's intervention and S's conditioning.

Merbaum (1963) suggested that the conditioning of AW would be influenced by the class of generalized reinforcer applied in the interview. Merbaum (1963) delineated three different classes of generalized reinforcers: (1) a noncommittal expression by E; (2) a mild positive expression by E; and (3) a paraphrase expression by E. One purpose of the study was to explore the effects of the three different types of generalized reinforcers on the acquisition of AW in a situation resembling psychotherapy. AW of Ss in the noncommittal group were reinforced with "Un-huh" or Mmm-hmm"; AW of Ss in the mild positive group were inforced with "Good", "Yes", "I see", "I understand", "I'm sure", and "Fine"; and AW of Ss in the paraphrase group were reinforced with a direct restatement of affective content. The results showed that the paraphrase condition was the most powerful in conditioning AW. The data again showed that AW could be manipulated by the use of a systematic verbal reinforcer.

Merbaum and Southwell (1965) explored the effects of complex E interventions on the conditioning of AW. The authors predicted that E's intervention of a paraphrased reinforcer would enhance S's emission of AW more than an echoic (repetitive) intervention during a simulated

interview. The results showed that the paraphrase treatment enhanced the emission of AW. However, in the echoic condition, a moderate increase in AW was also noted. The results of this study supported the previous finding that systematic positive interventions by E enhanced the emission rate of AW.

Hekmat (1971) studied the relationship among the factors of stability-neuroticism and introversion-extraversion, and operant conditionability of affective disclosures. Mild positive reward was administered to the experimental groups. The results showed that introversion facilitated the conditioning of affective disclosures. The author concluded that the VOC paradigm provided an effective media for investigating factors that effect affective productions and increase their frequency. The first inference, that E could influence S's emission of AW appears to be well established.

It seems that the VIC group of studies infrequently report significant transfer effects, although AW are apparently conditioned. The typical procedure is to present a series of pre and postconditioning test-like tasks, and then to expect changes in these task scores. Williams (1959) reinforced affect and nonaffect statements in two experimental groups. Although the emission rate of the critical responses increased during the conditioning trials for both groups, there were no statistically significant differences between groups on the pre and postconditioning tasks.

Rogers (1960) investigated the effects of E's interventions on S's self-reference statements and on a subsequent transfer task. All self-reference statements were reinforced by a mild positive reward and a nod of the head. The prediction that E's intervention would increase

the frequency of positive and negative self-references during the conditioning trials was barely confirmed. The effects of conditioning on the transfer tasks were not significant, although both experimental groups showed improved adjustment. However, Roger's (1960) study also found that areas of conflict (negative self-references), important to psychotherapy, were conditionable. The data further suggested that the experimental effects were limited to the quasi-clinical interview, and gave partial support for transfer effects.

Lanyon (1967) hypothesized that AW reinforced by social approval would transfer to a subsequent task. The findings showed that response-contingent approval had no significant conditioning or transfer effects for affect statements. Apparently, social approval failed to act as a potent reward for affect statements in Lanyon's (1967) therapy-like setting.

The following group of studies involved the use of treatment-like procedures before and after the conditioning treatments. Ullmann, Krasner, and Collins (1961) investigated the relationship between the conditioning of AW and ratings of behavior in group therapy. The study explored the hypothesis that the conditioning of AW facilitated a desirable change in a group therapy setting. Experimental Ss were rated by group therapists before and after the conditioning treatments. The conditioning task consisted of a projective measure similar to the TAT, with the usual TAT instructions. The critical response class was AW. The results supported the hypothesis that the conditioning of AW had a significant effect on group therapy ratings. Ullmann, Krasner, and Collins (1961) suggested that the most important learning occurrence seemed to be the spontaneous use of AW in an interpersonal

situation. Thus, the findings supported the second broad inference that the conditioning effects facilitated transfer to a somewhat similar task.

Since the conditioning of AW was found to have a beneficial effect on a criterion situation (Ullmann, Krasner, and Collins, 1961), Ullmann, Weiss, and Krasner (1963) investigated the relationship between the conditioning of AW and the recognition of threatening stimuli in a TAT-like setting. Conditioning effects were significant during reinforced trials, and transfer effects showed greater sensitivity to threatening stimuli. The Ullmann, Krasner, and Collins (1961) and Ullmann, Weiss, and Krasner (1963) studies have shown that greater sensitivity to threatening stimuli and desired group therapy behavior are clinically meaningful changes associated with the conditioning of AW.

In a series of experimental manipulations presented by Ullmann, Krasner, and Gelfand (1963), the following data concerning AW was obtained: AW emitted furing reinforced trials were more pleasant than those emitted during nonreinforced trials; pleasantness of AW seemed to be a sensitive measure of the experimental arrangement; and pleasantness of AW emitted during nonreinforced trials appeared significantly associated with personality measures. The empirical findings in the Ullmann, Krasner, and Gelfand (1963) paper suggested that clinically meaningful behavior change could be reflected in affective content. The foregoing treatment-like studies tend to confirm the conditioning and transfer effects inferences.

Dicken and Fordham (1967) investigated the conditioning of AW and the subsequent transfer effect on meaningful therapeutic behavior change. It was predicted that the conditioning effect would influence

personality transfer scores and subsequent discussion group data. The results tended to confirm the predictions that a conditioning effect enhanced personality scores, and increased desired discussion group data. Dicken and Fordham (1967) have shown that conditioning effects transferred to treatment-like criterion situations.

Hoffnung (1969) studied the conditioning and transfer of affective behavior in a role-playing situation. The author theorized that transfer effects from treatment to life situations were a highly desirable occurrence. The purpose of the research was to investigate the differential effects of therapeutic intervention, on the conditioning of affective self-references and on the immediate transfer to a TAT setting. Conditioning effects were found for all experimental groups, and significant transfer effects to TAT stimuli were also noted. Additionally, the results confirmed a minor prediction that transfer effects appeared significantly related to continuity between cues in the conditioning and transfer situations. Hoffnung's (1969) findings showed maximal continuity between conditioning and transfer, and optimal VOC utility.

Transfer effects of AW have been shown in the following clinically meaningful behaviors: greater sensitivity to threatening stimuli; improved group therapy behavior; enhanced personality scores; desired discussion group data; and TAT settings. Apparently, the cues in these criterion situations tend to be significantly related to cues during operant conditioning trials. These findings support the inference that the conditioning effects of AW facilitate transfer on a similar task.

The Effects of Instructions and Elicitations on Affective Behaviors

Bandura (1969) has proposed that the VOC paradigm may be studied as a problem-solving task in which E's intervention gradually guides the S in the selection of the critical response. With respect to this line of thinking, Bandura (1969) suggested that a simple request for a critical response class would have increased efficiency in shaping response emission. Bandura's suggestion assumed that the appropriate response had already been acquired and that its temporal performance was critical.

Merbaum and Lukens, Jr. (1968) inspected the effects of instructions, elicitations, and an ambiguous reinforcement procedure on the emission of AW. The authors predicted that instructions, and elicitations (direct questions) would effect higher response rates on TAT-like cards, than would the paraphrase response-reinforcement contingency model. The results of this study confirmed the hypothesis. However, it should be noted that the paraphrase reinforcement group also showed a positive conditioning effect. The findings of the Merbaum and Lukens, Jr. (1968) study supported Bandura's (1969) notion that AW could be efficiently manipulated by procedures other than the usual reinforcement techniques.

Observational Learning: Vicarious Reinforcement, Nonreinforcement, and Enhancement

Contingent reinforcement procedures have been widely acclaimed as the foundation of the VOC paradigm. However, neither vicarious reinforcement, nonreinforcement, nor enhancement, as used in the present

study, neatly fall within the usual response-reinforcement contingency paradigm. The research findings of Bandura (1969) and Merbaum and Lukens, Jr. (1968) made it seem unnecessary to conceptualize the influence of observational learning in contemporary reinforcement terminology. Observational learning processes can be understood within the framework of social-learning theory (Flanders, 1968).

Flanders (1968) presented the following definition of observational learning:

> An observer (O) is said to imitate a model (M) when observation of the behavior of M, or of expressions attributing certain behavior to M, affects O, so that O's subsequent behavior becomes more similar to the observed, or alleged behavior of M, (Flanders, 1968; p. 316).

Within this formulation, it seems that the study of observational learning concerns itself with causal relationships between M's behavior and O's response. The scope of the review encompasses the general design of relevant observational learning research, and the training conditions of vicarious reinforcement, nonreinforcement, and enhancement, as they relate to the present research.

Two basic experimental designs have evolved in the study of observational learning as it relates to training and testing conditions. Observational learning has typically been obtained by using the pretest-posttest control group, and the posttest-only control group designs (Campbell and Stanley, 1963; Flanders, 1968). An example of the pretest-posttest control group design is one that employs pretest and posttest measures on all experimental and control groups. Os are initially measured for responses on a criterion testing situation. Then experimental Os are trained in a treatment group while observing M. However, control Ss are never exposed to M in the training

condition. Observational learning is measured on an immediate posttest criterion. An example of the posttest-only control group design is one that employs only posttest measures of criterion testing on all experimental and control groups. Experimental Os are subjected to M in a training setting, while control Ss are exposed to no M at all. Observational learning is measured on an immediate posttraining criterion. The dependent measure has usually been indicated by the increased frequency of the critical response class (Flanders, 1968).

A review of the relevant literature indicates that there are three major training conditions effecting observational learning. These are as follows: (1) vicarious reinforcement (VR); (2) nonreinforcement (NR); and (3) enhancement (EN).

Flanders (1968) has defined VR as, "the operation of exposing O to the procedure of presenting a reinforcing stimulus to M...after and contingent upon a certain response by M" (p. 319), without any type of direct reinforcement to O. It should be clear that VR (reinforcement to M; no direct reinforcement to O) is never contingent upon a response by O. Davis (1969) pointed out that VR occurred when new responses sere acquired, or when existing responses were modified, as a function of having observed the behavior of M, and its reinforcing consequences, without ever having the critical response performed by O. VR studies are concerned with changes in O's responses, after O observes M's response-reinforcement contingency.

More recently, VR has assumed a particular importance in the observational learning studies of Bandura and his associates (Bandura, 1969). Bandura (1969) assumed that VR added reward value to information value, concerning the appropriateness of the critical stimuli.

In Bandura's (1969) terms, the vicarious instigation of behavior probably occurred when the critical behavior of M served as a cue for O's already acquired behavior. Apparently, M symbolizes to O specific behavior that is appropriate in a particular situation. Therefore, relevant information about the appropriateness of the critical response is not conveyed by the usual reinforcement technique. Thus, the effects of VR may be explained in terms of reward and information value to O.

VR has been treated as a legitimate training condition. Kanfer and Marston (1963) and Marston (1966) found that VR training, with a mild positive reinforcer, effected increased verbal behavior in experimental Os. Also, Kanfer and Marston (1963), Marston (1966), and Phillips, Bentson, and Blaney (1969) found that VR training was significantly more effective in reproducing the critical response than was NR training (no reinforcement to M; no reinforcement to O). These findings appeared significant to the present study and were investigated further.

Kanfer and Marston (1963) explored the effects of VR training on the acquisition of human nouns. The authors sought to ascertain whether the observation of contingencies between M's human nouns and a mild positive reinforcer, would serve as an effective reinforcing event for O. A tape recorded M was used in the study. Tape content varied as to the presence or absence of a mild positive reinforcer, and as to the high or low frequency of human nouns. The experimental groups consisted of VR Os (presence of a mild positive reinforcer to M; high frequency of human nouns), NR Os (absence of a mild positive reinforcer to M; high frequency of human nouns), and EN Os (absence of a mild

positive reinforcer to M; low frequency of human nouns). It was expected that the VR Os would show a significantly greater increase in the emission of human nouns than either the NR or EN Os. The results showed that VR training significantly increased the emission of human nouns beyond the .05 level. Although neither the NR Os nor the EN Os showed significant increases in the emission of human nouns, both groups did yield a greater frequency of human nouns. To determine the effect of tape content on both groups, the analysis indicated that exposure to a tape containing a high frequency of human nouns (NR) resulted in a significantly greater emission of human nouns than did exposure to a tape with a low frequency of human nouns (EN) ($p<.001$).

Marston (1966) also investigated the effects of VR training on a simple critical response class. Experimental Os alternately responded with a tape recorded M. M's critical responses were reinforced for VR Os only. The prediction that critical responses would significantly increase in VR Os was supported by the results ($P<.05$). In addition, the NR Os also acquired a significant increase in the number of critical responses ($p<.01$) by observation of M alone. Thus the results clarified the earlier finding (Kanfer and Marston, 1963) of borderline acquisition in a similar group.

Phillips, Bentson, and Blaney (1969), using a tape recorded procedure similar to the Kanfer and Marston (1963) and Marston (1966) studies, predicted that VR training would result in significantly greater learning of a critical response class that would NR training. The findings confirmed that VR training resulted in a greater significant increase in critical responses than did NR training ($p<.05$).

The notion that NR training is sufficient for transmitting a

conditioning effect has been studied by comparing NR training Os to controls exposed to no M (Flanders, 1968). Bandura (1969) and Kanfer and Marston (1963) have found that NR Os showed a greater increase in critical responses than no-treatment controls, who did not observe M. Therefore, it may be concluded that NR training enhances the subsequent emission of critical responses.

The term NR training (no reinforcement to M; no reinforcement to O) has been used when O's behavior occurs only as a function of observing M, in the absence of a reinforcer to either M or O. However, observation of M's behavior includes two components; the observation of M's emission of a particular critical response class, and the observation of M behaving, as an environmental event. Perhaps, the observation of a behaving M, could increase the general rate of O's responding. In effect, the observation of a behaving M, could enhance the probability of O's responding, with respect to the critical response class. Appropriately, if the probability of the critical response increased, then an enhancement effect (EN) (Parton and Dubanoski, 1969) would be apparent. The need to determine (EN) has been indicated by Bandura (1969), Kanfer and Marston (1963), and Parton and Dubanoski (1969).

Parton and Dubanoski (1969) have proposed that without a control for EN, it is not possible to attribute O's critical behavior to O's observation of M's critical responses. The authors investigated the components of M's behavior by hypothesizing that NR could be obtained after deleting EN. NR Os were exposed to M's manipulation of stimulus materials, and were subsequently given an opportunity to play with them. EN Os played with the same materials, after being exposed to M's manipulation of similar, but different stimulus objects. No-treatment

controls were exposed to no M. NR was assessed by the difference between the number of critical responses of the NR and EN Os. EN was assessed by the difference between the number of critical responses of the EN Os and the no-treatment controls. The hypotheses were supported. The NR Os showed significantly greater increases in the number of critical responses than either the EN Os or the no-treatment controls ($p<.05$). The EN Os showed a significantly greater increase in the number of critical responses than the no-treatment controls ($p<.05$). Parton and Dubanoski (1969) suggested that more pronounced EN effects would occur in studies dealing with anxiety-provoking stimuli. Apparently, O's exposure to a slightly more relaxed M could considerably increase the EN effect. These results also seemed to be in agreement with Kanfer and Marston (1963) who found the NR Os showed a greater conditioning effect than Os exposed to Ms whose behavior was somewhat random and unpatterned.

Another factor which has emerged as a significant variable in the study of observational learning is model-observer (M-O) similarity. Rickard and Lattal (1967) investigated the effects of M-O similarity in college students using a verbal conditioning procedure similar to that used by Kanfer and Marston (1963). It was hypothesized that critical response emission would significantly increase under conditions that maximized M-O similarity. The results confirmed the hypothesis. It can be concluded that maximized M-O similarity enhances the emission of critical responses.

Finally, another variable related to observational learning appears to be the perceived similarity between M's task, and O's task (Flanders, 1968). With respect to the transfer of critical responses,

Miller and Dollard (1941) stated:

> The effects of learning in one situation tranfer to other situations; the less similar the situation the less transfer occurs. Stated more exactly, reward for making a specific response to a given pattern of cues strengthens not only the tendency for the pattern of cues to elicit that response, but also the tendency for other similar patterns of cues to elicit the same response. (p. 44).

Thus, Miller and Dollard (1941) have maintained that the critical response class has been shown to transfer to a slightly different stimulus setting. In addition, Lanvon (1967) suggested that specific conditions be used to maximize the occurrence of transfer in verbal learning studies. It was proposed that the transfer task be administered immediately after the verbal learning procedure. Also, the author proposed that the transfer task maintain continuity with the verbal conditioning procedure. Finally, it was suggested that the transfer task be an oral one to increase the liklihood of transfer.

Observational Learning, and the Conditioning and Transfer of Affective Behavior

It has been shown that, VR, NR, and EN training have been effective in the conditioning of simple verbal responses. Clinically meaningful behavior changes have also been studied. For example, Stillwell (1960) attempted to reinstate simple verbal behavior in autistic children by using a combination of NR and direct reinforcement procedures. Results showed that NR was instrumental in helping the mute children to reduce isolated and withdrawn behavior. Hingten, Coulter, and Churchill (1967) also used NR and direct reinforcement procedures in trying to initiate speech in autistic children. The findings indicated that NR Os showed more critical vocalizations. The

authors suggested that NR training formed a substantial foundation upon which more traditional clinical techniques could build. Lovass, Berberich, Perloff, and Schaeffer (1966) initiated speech patterns in schizophrenic children by using VR training. Also, Olson (1971) studied the effects of VR and NR training on adult chronic schizophrenics. The author suggested that therapeutic outcome depended on their consistent clinical application.

Experimental investigations have also found that complex clinically meaningful behaviors are enhanced by observational learning. Krumboltz and Thoresen (1964) studied information-seeking behavior in a quasi-counseling setting. Experimental Os witnessed a tape recorded M engaged in the critical behavior. It was found that NR and direct reinforcement Os produced considerably more information-seeking behavior than controls on actual information-seeking tasks. Also, Krumboltz, Varenhorst, and Thorensen (1967) found evidence that viewing a video taped M during a counseling session enhanced the frequency of the critical response class in the experimental Os. Thus, clinically meaningful, simple and complex, verbal behaviors have been shown to be considerably effected by systematic observational learning procedures.

Recent demonstrations have shown that complex affective behaviors, a critical class of therapeutic information to traditional psychotherapists, were significantly modified by observational learning procedures. Schwartz and Hawkins (1965) investigated the use of patient Ms in group therapy. The authors assumed that verbal affect was an essential, critical, and facilitating behavior in group therapy. The purpose of the investigation was to determine if affect statements could be effectively elicited and increased in group therapy by VR

training. In the experimental group, two patient Ms, whose group therapy behavior was most frequently described as affective behavior, were consistently reinforced for the use of affect statements. In the control group the therapist gave mild positive reward for random affect statements among the group members. It was predicted that experimental group members would show a significantly greater increase in affect statements than the no-M controls during group therapy. The findings supported the predictions. The analysis showed that the groups differed significantly in the number of affect statements during group therapy ($p<.01$). Also, the experimental group showed a significant increase in the number of affect statements during group therapy ($p<.001$). Apparently, when VR procedures were used with direct reinforcement in group therapy, a significant increase in the critical response class resulted. The authors concluded that the combined VR-direct reinforcement paradigm formed a clinical methodology for eliciting affect statements in group therapy in an efficient and reliable way.

Wilder (1967) studied the effects of an observational learning procedure and direct reinforcement on the emission of affect statements. NR Os and direct reinforcement Ss were interviewed in a quasi-counseling setting about college adjustment. NO Os individually witnessed a live M verbalize affect statements. Direct reinforcement Ss were immediately reinforced for affect statements on an intermittent and irregular basis. The results showed that NR Os displayed a significant increase in affect statements during acquisition. Direct reinforcement Ss showed a slight increase in affect statements. The author concluded that the frequency of affect statement emission varied

as a function of M for the NR Os.

Traux and Carkhuff (1965) have described the use of observational learning procedures in facilitating the learning of critical responses important to group psychotherapy. The authors used a tape recorded M of group therapy as a method of introducing patients to the affective processes in group therapy. In a vicarious therapy pretraining (VTP) condition patients were presented with a tape recording of excerpts of "good" therapy, before their introduction to therapy groups. The taped M illustrated how patients explored themselves and their emotions. Thus, patients were introduced to a vicarious group therapy experience, before actual group experience. It was hypothesized that the VTP group would show a significant increase in constructive personality change than a group therapy-only control, without VTP. Personality change was measured by the MMPI. The results showed a uniform tendency for greater constructive personality change in the VTP group. With the predictions supported, the authors suggested that the data modestly confirmed the clinical value of VTP in psychotherapy. The results generally indicated that VR training effected the transfer of clinically meaningful responses.

Truax et al. (1966) explored the changes in self concepts in group therapy using a VTP procedure. The results showed that group members who observed "good" patient behavior manifested greater gains in group psychotherapy. Perhaps patients in the VTP group learned to respond more meaningfully, and were thus able to relax and benefit from group therapy.

Spiritas and Holmes (1971) investigated the effects of Ms on revealing psychotherapy behavior. The authors assumed that if VR Os

were exposed to Ms who were rewarded for unrestrained interview behavior, then Os might be relaxed in a subsequent similar setting. It was hypothesized that VR training Os would reveal personal material about themselves on a subsequent transfer task. The results supported the hypothesis. Perhaps when VR Os witness M performing a revealing personal response, there is a reduction in restraint in O's subsequent behavior.

Whalen (1969) also attempted a study to condition complex affective behaviors by observational learning procedures. The general purpose of the research was to investigate the effects of NR and instruction on critical affective responses. The critical response class, interpersonal openness, appeared to be a major therapeutic objective (Rogers, 1961; Whalen, 1969). According to Whalen (1969), interpersonal openness strengthened the therapeutic interaction to the extent that personal information about an individual's life, feelings, and impression of others were facilitated. Two factors were manipulated in this study, filmed models (FM) of interpersonal openness, either present or absent, and instructions, detailed or minimal (DI or MI). Whalen (1969) predicted that the FM-DI group would show a significant transfer effect of interpersonal openness to a subsequent group discussion. The results of the analysis indicated that exposure to Ms of interpersonal openness and detailed instructions facilitated the elicitation of interpersonal openness in FM-DI Os. The results also showed that the FM-MI group engaged in more interpersonal processes than did the no-film controls. It is apparent that observational learning procedures effected changes in complex affective responses.

These studies indicate that observational learning procedures can

significantly effect the performance of a variety of clinically meaningful affective verbal behaviors, such as affect statements (Schwartz and Hawkins, 1965; Wilder, 1967), self-exploration behavior (Truax and Carkhuff, 1965), self concept formation (Truax et al., 1966), personal restraint reduction (Spiritas and Holmes, 1971), and interpersonal openness (Whalen, 1969). The subgoals of psychotherapy often focus on the manipulation of complex classes of affective verbal behavior. It seems that verbal affect is a crucial dependent variable in psychotherapy. Perhaps, it may be meaningfully associated to therapeutic outcome through the use of observational learning procedures.

Transfer Tasks and Affective Behaviors

The literature has shown that the TAT has served as a useful set of stimuli for psychotherapy, diagnosis, and experimental psychotherapy research (Ullmann, 1957; Ullmann and McFarland, 1957). In psychotherapy research, it has become increasingly clear that the TAT stimuli have face validity under specific circumstances for particular tasks. In a study using productivity as a variable in TAT protocols, Ullmann and McFarland (1957) used the number of AW per protocol as an operational level of productivity. Theoretically and empirically, AW was among the most easily quantified units of response made to the TAT card. Ullmann and McFarland (1957) suggested that if the ability to communicate was associated with clinically meaningful therapy, then the productivity of AW on TAT protocols may be considered a useful indication of interpersonal adequacy. It seems reasonable to suggest that the TAT cards are useful in transfer tasks, when the number of AW is the critical response class.

In another study, Ullmann (1957) investigated the clinical use of the TAT cards as related to the productivity of AW. It was reported that some TAT cards were capable of eliciting more AW than others. In operational terms, Ullmann (1957) found that there were significant differences in the median number of AW per story for different TAT cards. Specifically, the study found that the TAT cards could be ranked as to the expected median number of AW they elicited, and showed that the TAT cards significantly differed with respect to the median number of AW they elicited. Thus, when the number of AW was used as a criterion, cards 4, 7BM, 8BM, 12M, and 13MF were found to elicit the most AW. Additionally, Ullmann (1957) suggested that client verbalization of AW was the sort of data that was important to psychotherapy. Perhaps, AW productivity may help to determine the role of affect in psychotherapy.

Kanfer and Marston (1961) suggested that experimental psychotherapy procedures are ones which closely resemble the clinical interview. Subject variability, motivational variables, and personality characteristics have led the authors to infer that verbal paradigms are composed of many concurrent processes which have not been exposed to rigorous empirical test. Therefore, comparisons were drawn between parallel factors in the clinical interview. Evidently, the lack of control over organismic variables accentuates their importance.

With this in mind, Ehrlich, and Lipsey (1969) have isolated and quantified a new interpersonal response style. The concept of style in the social-learning literature generally refers to a consistent mode of response, independent of the specific stimulus situation. The authors defined affective style as "an individual's characterisitc

mode of affective response to people in first encounters" (p. 522). It was assumed that the factor of affective style(AS) was of probable importance to psychotherapy.

The Affective Style Scale (Ehrlich and Lipsey, 1969) consists of 11 statements that measure how individuals affectively react to other people in first encounters. The authors designed the critical statement on the basis of how "strong" and "weak" affective reacters would respond to them.

The Affective Style Scale was first introduced to 96 Ss as part of an ill-times questionnaire, of which 12 items presumably measured affective style. The scoring consisted of 9 alternatives. Each alternative described to what extent the critical items were characteristic of S's response style. The mean scores of Ss above and below the median were significant for the final 11 critical items ($p<.002$). Item-test correlations were all significant at $p<.01$. The scores on the critical items ranged from 79, strong reactor, to 25, weak reactor. The mean score was 53.6, with a median of 52.5, and a standard deviation of 10.4.

A further attempt at scale development reduced the scale to the 11 critical items, in order to replicate the previous results. Responses of 86 Ss were scored above and below the median, and all critical items were discriminating at $p<.001$. Item-test correlations were significant at $p<.05$. As scores ranged from 97-27 with a mean of 55.6, a median of 56.0, and a standard deviation of 13.6. Corrected split-half reliabilities were .79 for the initial administration and .86 for the replication. The findings seem to indicate that an individual's affective response style in first meetings can be quantified.

The Affective Style Scale appears to be a discriminating, internally consistent, and reliable instrument.

Ehrlich and Lipsey (1969) have theorized that a strong affective response represents the individuals commitment to the development of an interpersonal relationship. Therefore, it seems reasonable to suggest that clients who are strong reactors would also make a commitment to the relationship in psychotherapy. The authors also discussed the possibility that strong reactors either develop personal relationships more rapidly, or that strong reactors more rapidly try to initiate personal relationships. The present study sought to explore the effects of an experimental psychotherapy model on AS.

Marston (1966) has speculated that VR training affects patterns of covert self rewards. It was further suggested that, within the combined VOC and observational learning model, subsequent affective behavior may be investigated in some other overt form, independent of the critical verbal response class. For example, the distance and closeness between therapist and client may be an important dimension of the therapeutic relationship. The distance-closeness dimension apparently refers to the degree that the therapist and client feel close in their relationship with one another, while maintaining their own separateness and individuality. With this in mind, Gerber and Kaswan (1971) have shown that distance and closeness refer to a complex pattern of affective behaviors. The authors demonstrated that affective behaviors can be expressed by the ways in which the therapist and client spatially position themselves with respect to one another.

Several investigators have used the quantifiable measure of object distance as an indicator of interpersonal, social, or affective

distance (Fisher, 1967; Gerber and Kaswan, 1971; Patterson and Sechrest, 1970). In these studies, stimulus objects are assumed to represent a therapist and a client in an object placement task. The quantitative distance between objects is an index of the amount of psychological distance which is perceived to exist between the representative objects. Psychological distance is a direct function of the physical distance.

Kaswan and Gerber (1971) have assumed that "the closer people feel toward each other, the less physical distance they are likely to put between each other" (p. 370). They hypothesized that people who feel positively about each other react with less physical distance (greater physical closeness), than people who feel negatively about each other. Emotional expression (affective behavior) was shown by the degree of physical distance or closeness using a doll placement technique. Psychological distance was measured by linear distance between dolls. The results confirmed the prediction. Positive affective themes were represented by closer doll placements than negative themes. It is evident that the induced affective state is shown to affect change in object placement.

Fisher (1967) investigated affective distance as a concept of social interaction in emotionally disturbed boys of elementary school age. Distances set by the subjects between human forms, and the hostility characteristics of S's mothers were measured. It was predicted that anger and aggressiveness in mothers was a direct function of physical distance in S's object placements. Assaultiveness and irritability socres were positively correlated with physical distance between adult figures. It appears as if the angry, aggressive mother is perceived as affectively distant and unfriendly by S. The affective

relationship between mother and child has been objectively quantified using an object placement technique.

Patterson and Sechrest (1970) studied impression formation as a function of interpersonal distance using live Ss. Measures of physical distance were obtained in an interview situation. The experiment was structured so that Ss rated another same-sex individual on a series of social and affective behaviors during an interview. The authors hypothesized that as the distance (closeness) between S and the same-sex individual decreased (increased), the social activity increased (decreased). The findings confirmed the hypothesis. It was shown that physical distance was an inverse function of friendliness. Apparently, affective behaviors can be measured during a quasi-counseling interview, using physical distance as an index of affective behavior.

With this in mind, it seems reasonable to quantify the affective relationship that exists in psychotherapy by the use of object placements. Physical distance (closeness) appears to be a sensitive, functional, and reliable measure of affective distance in psychotherapy. The present study examined physical distances in ice cream stick placement as a function of induced affective state.

Summary and Purpose

The review of the literature has shown the following:

1. Verbal operant conditioning procedures are effective in the conditioning and transfer of affect words and affective behaviors in a quasi-clinical setting.

2. Instructions and elicitations effect change in affective verbal behaviors.

3. Observational learning procedures are effective in the conditioning of verbal behaviors.

4. Combined verbal operant conditioning and observational learning strategies are effective in the conditioning and transfer of affective behaviors.

5. TAT stimuli, the Affective Style Scele, and Affective Distance are sensitive, functional, and reliable instruments for the measurement of transfer effects important to psychotherapy.

The questions that the present investigation attempted to answer concerned the differences in the performance of affective behaviors among the vicarious reinforcement (VR), nonreinforcement (NR), enhancement plus vicarious reinforcement (EN & VR), enhancement (EN), and no-model control (C) treatment groups.

The general purposes of the study were to determine the relative effectiveness of four observational learning treatments and a no-model control on the transfer of affective behaviors during a series of quasi-clinical tasks.

It was specifically hypothesized that:

1. VR>NR>EN & VR>EN>C for emitting a significantly greater number of affect words (AW) to selected TAT stimuli.

2. VR>NR>EN & VR>EN>C for emitting a significantly greater number of total words (TW) to selected TAT stimuli.

3. VR>NR>EN & VR>EN>C for effecting a significantly greater affect word percent (AW%).

4. VR>NR>EN & VR>EN>C for effecting significantly stronger reactions (higher scores) to the Affective Style Scale.

5. VR<NR<EN & VR<EN<C for effecting significantly closer (lower scores) Affective Distance placements.

CHAPTER III

METHOD

The method is presented in six sections: (1) subjects; (2) apparatus and materials; (3) experimental procedure; (4) transfer tasks; (5) dependent variables; and (6) research design.

Subjects

The Ss consisted of 75 male undergraduate students, between the ages of 18-21, who were members of fraternities at Adelphi University, Garden City, New York. All Ss volunteered for inclusion in the study and all Ss were naive with respect to the experimental task. Ss were randomly assigned to five treatment groups of 15 Ss each, four experimental groups and one control group.

Apparatus and Materials

The experimental room replicated a clinical setting and was generally quiet and free from interfering stimuli. Ss were seated at a table in a well lit room. A Wollensak tape recorder served to amplify the experimental treatments to all experimental Ss. The tapes were produced by two clinical psychologists who reenacted a quasi-psychotherapy session, similar to that described by Rogers (1961). Responses from parts of actual psychotherapy were read by each person. Four similar tapes were used in the study.

Tape recorded Ms were used in preference to live and filmed Ms so that all Ss could be exposed to an identical manipulation to enhance M-O similarity (Rickard and Lattal, 1967). Data from previous research indicated that tape recorded Ms were potent in effecting transfer of "good" therapy behavior (Traux and Carkhuff, 1965; Truax et al., 1966).

Five similar TAT cards were randomized to Ss within groups, and were used to elicit AW. All responses were recorded on another Wollensak tape recorder. The Affective Style Scale was used to measure strong or weak reactors. Two ice cream sticks and a yard stick were used to measure affective distance.

Experimental Procedure

Subjects were told that the research was a sociological study in communication. Each S was seen individually for the presentation of the experimental treatments. The experimental session lasted about 20 minutes. When S arrived for the experimental session he was ushered into the experimental room by E, and given the following instructions (adapted and modified from Merbaum, 1963):

> I am interested in young peoples' ability to speak freely about themselves. I'm sure that you realize that college students like yourself have differing attitudes about their personal characteristics and traits. Frequently, when college students start rapping, they find that it becomes stimulating to share thoughts and feelings about themselves.

The foregoing instructions were given to all groups. In addition, the four experimental groups received the following instructions:

> The tape recording you will hear consits of a college student, much like yourself, rapping freely to another man. One class of words will occur more often than any other. It will be your task to listen carefully to the conversation. Please pay careful attention. Do you have any questions?

If there were questions E repeated the instructions. E then started the tape recorded treatment and left the experimental room so that no additional reinforcements were administered.

The no-model control group was given the following instructions:

> The transcript you will read consists of a college student, much like yourself, rapping freely to another man. One class of words will occur more often than any other. It will be your task to read the transcript carefully. Please pay careful attention. Do you have any questions?

If there were questions E repeated the instructions. E then handed S the transcript and left the experimental room so that no additional reinforcements were administered.

The tape content determined the presence or absence of vicarious reinforcement, and the frequency of AW. Similar tapes, varying in the presence or absence of VR and in frequency of AW, were used for the four experimental groups (VR, NR, EN & VR, and EN).

The VR Ss listened to a tape recorded psychotherapy interview adapted and modified from Rogers (1961). All affect phrases by the "college student" were immediately followed by the "other man's" mild positive reinforcement. Affect phrases are phrases that contain one or more AW as defined by Barrington (1963). For example, if the college student remarked, "I am enjoying these feelings", then the other man might comment, "Good", immediately after the word "feelings". The VR treatment contained 127 AW and 77 mild positive reinforcements.

NR Ss received a similar tape recorded psychotherapy interview adapted and modified from Rogers (1961). For the NR treatment, the college student responded identically as he had in the VR treatment but the tape contained no reinforcing stimuli of any kind. For example, if the college student remarked, "I am enjoying these feelings" no

intervention of any kind was made by the other man, who in effect was absent. The NR treatment contained 127 AW and reinforcement was absent.

EN & VR Ss were administered a similar tape recorded psychotherapy interview, adapted and modified from Rogers (1961). For the EN & VR treatment, the tape contained fewer AW by the college student, than the previous VR and NR treatments. The EN & VR tape contained 77 identical mild positive rewards administered by the other man which were in the same order as in the VR treatment. Moreover, the other man randomly administered the mild positive reinforcements throughout the entire taped treatment. Thus, both affect and nonaffect phrases were reinforced. The EN & VR tape contained 22 AW and 77 mild positive reinforcements.

EN Ss were administered a similar tape recorded psychotherapy interview adapted and modified from Rogers (1961). However, for the EN treatment, the tape contained fewer AW emitted by the college student, than the previous VR and NR treatments, identical to the EN & VR treatment. Also, the EN treatment contained no mild positive reinforcements by the other man, who was in effect absent. The EN treatment contained 22 AW and reinforcement was absent.

C Ss were administered a similar transcript of a psychotherapy interview adapted and revised from Rogers (1961). The transcript contained the same number of AW as the EN & VR and EN treatments. The C transcript contained no mild positive reinforcements by the other man, who in effect was absent. The C transcript was identical to the EN treatment, except that the observational learning process was absent. The C transcript contained 22 AW and reinforcement was absent.

E immediately introduced the transfer tasks to all Ss at the conclusion of either the tape recorded treatments or the no-model transcripts.

Transfer Tasks

The transfer tasks were given continuity to the experimental treatments by Es following introduction: "You were very attentive, and now let's go on to the next part of the study".

Immediately following the introduction to the first transfer task, S was asked to tell a story pertaining to a TAT card serving as a transfer stimulus. Five TAT cards were equated for their ability to elicit AW, and were randomized to all Ss within groups.

The instructions for the presentation of the TAT stimulus were as follows:

> You will be presented with a picture. It will be your task to tell an emotional story concerning the people you see. The tape recorder will record your emotional story, and of course, anything you say here is strictly between us. I will signal the end of your task. Are there any questions?

If there were questions E repeated the instructions. Ss were asked to talk into the microphone, and E then presented the appropriate TAT card. E left the room to minimize the probability of accidental differential reinforcement during the transfer talk.

E reentered the experimental room after 3 minutes had elapsed, and instructed S as follows: "You gave very good responses; let's go on to the next interesting part of the research".

Immediately after the introduction to the second transfer task, E handed S a "questionnaire" with instructions (Affective Style Scale), and read the following aloud to S, as S followed along:

> Whenever we meet a person for the first time, we usually develop some feelings about him. These statements are designed to find out how you feel about meeting new people. Please rate the following statements in terms of how well the item characterizes you, right now. Please write the number, corresponding to the characteristic way you feel about meeting new people, in the space provided at the left of the item. Please answer all items. Thank you. (Adapted and revised from Ehrlich and Lipsey, 1969.)

If there were questions E repeated the instructions. E then left the experimental room to minimize the effects of interfering stimuli.

E reentered the experimental room after 5 minutes had elapsed, and instructed S as follows: "You did quite well during that session; let's go on to the final part of the study".

Immediately after the introduction to the final transfer task, E placed an ice cream stick on a predetermined mark 36 inches from the end of the experimental table. E then instructed S in the following way:

> Let's suppose that the ice cream stick on the table represents the other man, and let's suppose that this ice cream stick in my hand is the college student. Further, let's assume that right now, you are that college student. Show me how close you feel in your relationship toward the other man. Are there any questions?

If there were questions, E repeated the instructions. E then handed S the ice cream stick and waited for S's response. E measured the distance between the predetermined ice cream stick and S's placement.

When the transfer tasks were completed, E instructed S as follows: "Thank you for participating in this study. Please do not discuss this study with anyone. I appreciate your cooperation".

Dependent Variables

Words descriptive of affective reactions as defined by Barrington (1963) comprised the critical verbal response class. A list of 434

words was developed which directly related to affective reactions. An additional list of 64 words was developed which directly related to the elicitation of, or implied presence of, specific emotional responses. Therefore, AW as used in the present study can be objectively isolated and counted.

Research has shown support for the use of AW as a clinically meaningful response class. Ullmann (1957) has shown that the expression of AW is related to improved group therapy behavior. Ullmann and McFarland (1957) have found that the ability to express emotion in a projective setting was related to group interpersonal adequacy, and they have also shown that the number of AW used in response to TAT cards was also associated with interpersonal adequacy. Apparently, AW represents a critical response class that is important to psychotherapy.

The Affective Style Scale was developed by Ehrlich and Lipsey (1969) to measure a person's characteristic way of affective response to people in first meetings with them. It was felt that the variable of affective style was important to psychotherapy and the therapy relationship. Eleven items were administered to Ss who were instructed to rate them. There were 9 choices which included the following:

9 Always characteristic of me
8 Almost always characteristic of me
7 Very frequently characteristic of me
6 Frequently characteristic of me
5 Fairly often characteristic of me
4 Occassionally characteristic of me
3 Rarely characteristic of me
2 Almost never characteristic of me
1 Never characteristic of me

The possible range of scores was 99 to 11. Preliminary validation studies have shown that the Affective Style Scale has a corrected split-half reliability of .86, and that strong reactions represent

meaningful commitments to interpersonal relationships. The Affective Style Scale is a quantified, self-report instrument. It seems reasonable that affective style represents a response class that is important to psychotherapy.

The present study examined physical distance in ice cream stick placement (affective distance) as a function of induced affective state. The object was to quantify the expression of emotion through physical distance.

Research studies have shown the concept of physical distance to be related to clinically meaningful behaviors. Gerber and Kaswan (1971) found that physical closeness was influenced by an induced positive emotional state. Fisher (1967) investigated emotionally disturbed children and found that object distance was related to negative feelings about mothers. Patterson and Sechrest (1970) found that more friendly Ss perceived themselves closer in social interactions. Therefore, affective distance is shown to be easily quantifiable and related to psychotherapy.

Research Design

The general research design utilized in the present study was a posttest-only control group design (Campbell and Stanley, 1963). Campbell and Stanley (1963) have built a case for the use of the posttest-only design in psychological research. The authors maintained that the pretest-posttest control group design was nonessential. Awkwardness and the problem of continuity appeared to be the main interfering factors. The posttest-only control group design seems to be an all purpose design that has utility in the case when random

assignment of subjects is possible, and when the sample is homongeneous. The lack of bias reflected in the design occurs when the randomization assumption is met. The authors further reported that the posttest-only design was greatly underused in psychological research.

More specifically, five multifactor analyses of variance were used in the present study. These were fixed effects designs consisting of 4 levels of observational learning treatments and a control condition, and 5 levels of stimulus cards. The design permitted 25 treatment combinations to which 3 subjects were randomly assigned. The significance level of .01 was chosen.

CHAPTER IV

RESULTS

Results were analyzed in terms of the effects of observational learning treatments (VR, NR, EN & VR, EN, and C) and TAT stimuli (4, 7BM, 8BM, 12M, and 13MF), on affect words (AW), total words (TW), affect word percent (AW%), affective style (AS), and affective distance (AD).

Affect Words

A multifactor analysis of variance design, fixed effects model, in the form of a "p x q" factorial experiment having "n" observations per cell (Winner, 1962) was applied to the affect word data. Specifically, a two-way 5 x 5 analysis of variance having 3 observations per cell was used to determine the presence of a treatment effect. The summary of the analysis of variance is presented in Table I.

TABLE I

SUMMARY OF ANALYSIS OF VARIANCE FOR AFFECT WORD DATA

Source	df	MS	F
A (Treatments)	4	293.1133	53.3583**
B (TAT Stimuli)	4	64.2133	11.6893**
AB	16	6.9633	1.2675
Experimental Error	50	5.4933	

** $p<.01$

As predicted, the main effect of A, observational learning treatments, was significant beyond the .01 level. To determine which treatment conditions significantly demonstrated successful transfer, tests on the differences between all possible pairs of means were computed by using the Newman-Keuls (Winer, 1962) multiple range test. The summary of the Newman-Keuls multiple range test on Affect word means is presented in Table II.

TABLE II

NEWMAN-KEULS MULTIPLE RANGE TEST ON AFFECT WORD MEANS FOR OBSERVATIONAL LEARNING TREATMENTS

OBSERVATIONAL LEARNING TREATMENTS	C	EN	EN & VR	NR	VR
Affect Word Means	1 2.33	2 4.33	3 6.46	4 9.06	5 13.73
1 2.33		2.00	4.13**	6.73**	11.40**
2 4.33			2.13	4.73**	9.40**
3 6.46				2.60**	7.27**
4 9.06					4.67**
$S\bar{B}$ .6050 r		2	3	4	5
q.99 (r, 2345)		3.82	4.37	4.70	4.93
$S\bar{B}$ q.99 (r, 2345)		2.31	2.64	2.84	2.98

** $p<.01$

The results of the analysis showed that the mean performance in the VR treatment group was statistically different from the mean performance in treatment groups NR, EN & VR, En, and C ($p<.01$). The mean performance in treatment group NR was also significantly different from the mean performance in treatment groups EN & VR, EN, and C ($p<.01$). In addition, the mean performance in treatment group EN & VR was statistically different from the mean performance in treatment group C ($p<.01$). No other differences were significant. The results confirmed the first hypothesis that the facilitating effects of the VR treatment were demonstrated on the AW transfer task.

The treatment effect of B, TAT stimuli, was also found to be statistically significant at beyond the .01 level (see Table I). The Newman-Keuls multiple range test was applied to the data, in order to discover the pairs of means which were significantly different. The summary of the multiple comparison is presented in Table III.

The results indicated that, for affect word means, TAT stimulus 13MF was statistically different than TAT stimulus 8BM, 4, and 12M. Mean AW performance on card 7BM was significantly different from card 8BM. The effects of stimulus card 13MF enhanced the performance of AW in this task.

TABLE III

NEWMAN-KEULS MULTIPLE RANGE TEST ON AFFECT WORD MEANS FOR TAT STIMULI

TAT STIMULI		8BM	4	12M	7BM	13MF
Affect Word Means		1 4.60	2 6.40	3 6.53	4 8.40	5 10.00
1	4.60		1.80	1.93	3.80**	5.40**
2	6.40			0.13	2.00	3.60**
3	6.53				1.87	3.47**
4	8.40					1.60
$S\bar{B}$ .605 r			2	3	4	5
q.99 (r, 2345)			3.82	4.37	4.70	4.93
$S\bar{B}$ q.99 (r, 2345			2.31	2.64	2.84	2.98

** $p<.01$

Total Words

A two-way, 5 x 5, analysis of variance having three observations per cell was applied to the TW data to determine the presence of a treatment effect. The summary ofthe analysis of variance is presented in Table IV.

The analysis showed that the treatment effect of A was significant as hypothesized ($p<.01$). No further significant effects were found at $p<.01$. Tests of differences between the treatment combination means were conducted at the .01 level of significance according to the Newman-Keuls procedure. The data is included in Table V.

TABLE IV

SUMMARY OF ANALYSIS OF VARIANCE FOR TOTAL WORD DATA

Source	df	MS	F
A (Treatment)	4	37216.07	6.7093**
B (TAT Stimuli)	4	11931.15	2.1509
AB	16	9134.74	1.6468
Experimental Error	50	5546.86	

** $p<.01$

TABLE V

NEWMAN-KEULS MULTIPLE RANGE TEST
ON TOTAL WORD MEANS

OBSERVATIONAL LEARNING TREATMENTS	C	NR	EN	EN & VR	VR
Total Word Means	1 136.66	2 207.06	3 229.33	4 245.73	5 265.93
1 136.66		70.40	92.67**	109.07**	129.27**
2 207.06			22.27	38.67	58.87
3 229.33				16.40	36.60
4 245.73					20.20
$S\bar{B}$ 19.2 r		2	3	4	5
q.99 (r, 2345)		3.82	4.37	4.70	4.93
$S\bar{B}$ q.99 (r, 2345)		73.34	83.90	90.24	94.65

**$p<.01$

The VR group showed significantly greater transfer of TW than group C ($p<.01$). TW mean transfer of the EN & VR group was statistically different from the C group ($p<.01$). The EN treatment also resulted in significantly greater TW mean performance than group C ($p<.01$). The analysis showed that further effects were not indicated. The TW hypothesis was supported. Thus, VR demonstrated that observation of reinforcement in Ms was an effective reinforcing event in Os.

Affect Word Percent

AW% was computed by dividing AW by TW (AW/TW). The AW% data was analyzed by a 5 x 5 factorial design. The summary of the analysis of variance is presented in Table VI.

TABLE VI

SUMMARY OF ANALYSIS OF VARIANCE FOR AFFECT WORD PERCENT DATA

Source	df	MS	F
A (Treatments)	4	0.00415	34.5833**
B (TAT Stimuli)	4	0.00087	7.2500**
AB	16	0.00026	2.1666
Experimental Error	50	0.00012	

** $p<.01$

The results of the analysis indicated that a significant treatment effect existed ($p<.01$). The general prediction was supported.

The Newman-Keuls procedure was used to detect critical differences in AW% between all pairs of observational learning treatment means. The results are shown in Table VII.

TABLE VII

NEWMAN-KEULS MULTIPLE RANGE TEST ON AW% MEANS FOR OBSERVATIONAL LEARNING TREATMENTS

OBSERVATIONAL LEARNING TREATMENTS		C	EN	EN & VR	NR	VR
		1	2	3	4	5
AW% Means		0.0158	0.0205	0.0303	0.0469	0.0545
1	0.0158		0.0047	0.0145**	0.0311**	0.0387**
2	0.0205			0.0098	0.0264**	0.0340**
3	0.0303				0.0166**	0.0242**
4	0.0469					0.0076
$S\bar{B}$ 0.0028 r			2	3	4	5
q.99 (r, 2345)			3.82	4.37	4.70	4.93
$S\bar{B}$ q.99 (r, 2345)			0.0106	0.0122	0.0131	0.0138

** $p<.01$

The Newman-Keuls procedure showed that mean AW% performance in the VR group was statistically different from mean performance in the C, EN and EN & VR groups ($p<.01$). Also, the NR group showed significant differences from the C, EN, and EN & VR groups ($p<.01$). Additionally, critical differences between the EN & VR and C AW% means were found ($p<.01$). No other comparisons were significant. The results supported the prediction. The VR treatment demonstrated significant transfer.

The main effect of B, TAT stimuli, was also statistically significant beyond the .01 level (see Table VI). Tests on all ordered pairs of AW% means were carried out using the Newman-Keuls procedure. The results are presented in Table VIII.

TABLE VIII

NEWMAN-KEULS MULTIPLE RANGE TEST ON AW% MEANS FOR TAT STIMULI

TAT STIMULI		8BM	4	7BM	12M	13MF
		1	2	3	4	5
AW% Means		0.0219	0.0305	0.0365	0.0371	0.0417
1	0.0219		0.0086	0.0146**	0.0152**	0.0198**
2	0.0305			0.0060	0.0066	0.0112
3	0.0365				0.0006	0.0052
4	0.0371					0.0046
$S\bar{B}$ 0.0028 r			2	3	4	5
q.99 (r, 2345)			3.82	4.37	4.70	4.93
$S\bar{B}$ q.99 (r, 2345)			0.0106	0.0122	0.0131	0.0138

** $p<.01$

The findings showed that the mean performance on TAT stimuli 13MF, 12M, and 7BM statistically differed from stimulus card 8BM ($p<.01$). No other significant differences were indicated. The effects of TAT stimuli 13MF, 12M, and 7BM facilitated the transfer of AW% in this task.

Affective Style

A 5 x 5 factorial analysis was carried out for the effect of observational learning treatments and TAT stimuli on the transfer of AS. A summary of the factorial analysis is presented in Table IX.

TABLE IX

SUMMARY OF ANALYSIS OF VARIANCE
FOR AFFECTIVE STYLE DATA

Source	df	MS	F
A (Treatments)	4	23.0650	0.1346
B (TAT Stimuli)	4	312.6650	1.8259
AB	16	262.1756	1.5311
Experimental Error	50	171.2334	

The main effect of treatment A was not significant ($p<.01$). Also, the B effect did not reach statistical significance beyond the .01 level. The hypothesis was not confirmed. Contrary to prediction, the effects of VR, NR, EN & VR, EN, and C, and the TAT stimuli as defined in the present study, had little influence on the transfer of AS.

Affective Distance

To examine the AD data, physical-object distance scores were used as the dependent variable. A two-way analysis of variance was applied

to the AD scores to determine critical differences among the treatment groups. The summary of the analysis of variance is presented in Table X.

TABLE X

SUMMARY OF ANALYSIS OF VARIANCE
FOR AFFECTIVE DISTANCE DATA

Source	df	MS	F
A (Treatments)	4	419.34	7.86**
B (TAT Stimuli)	4	14.27	0.26
AB	16	57.06	1.07
Experimental Error	50	53.32	

** $p<.01$

Examination of the results showed that the A treatment was significant at beyond the .01 level. The analysis indicated that no other treatment effects reached significance. The hypothesis was generally confirmed. A Newman-Keuls multiple range test was applied to the different A treatment means to inspect critical differences in AD scores. The results of the multiple range procedure may be observed in Table XI.

The results of the Newman-Keuls procedure showed that the mean AD scores of the VR group were significantly closer than the mean AD scores of the no-M controls ($p<.01$). Mean AD scores for the NR group were also found to be significantly closer than the C group at beyond

the .01 level. Statistical significance was not reached for the remaining treatments. The results of the Newman-Keuls procedure supported the prediction, thus showing the facilitating effects of the VR treatment on AD.

TABLE XI

NEWMAN-KEULS MULTIPLE RANGE TEST
ON AFFECTIVE DISTANCE MEANS

OBSERVATIONAL LEARNING TREATMENTS	VR	NR	EN & VR	EN	C
	1	2	3	4	5
AD Means	2.78	3.22	10.23	10.57	15.19
1 2.78		0.44	7.45	7.79	12.41**
2 3.22			7.01	7.35	11.97**
3 10.23				0.34	4.96
4 10.57					4.62
$S\bar{B}$ 1.885 r		2	3	4	5
q.99 (r, 2345)		3.82	4.37	4.70	4.93
$S\bar{B}$ q.99 (r, 2345		7.20	8.23	8.85	9.29

** $p<.01$

CHAPTER V

DISCUSSION

The results supported the hypotheses. All four experimental treatment conditions--vicarious reinforcement, nonreinforcement, enhancement plus vicarious reinforcement, and enhancement, facilitated the transfer of affect words, total words, affect word percent, and affective distance when compared to the no-model controls. The VR treatment showed a significant effect on the transfer of affective behaviors as predicted ($p<.01$).

The VR treatment successfully combined the VOC and OL research strategies. It appears that the combination may account for the potency of VR in the present study. A number of considerations that follow, may be offered to explain the data.

Marston (1966) formulated a model of observational learning in which instructed-mediated transfer, M's critical responses, and VR play interdependent roles in determining the effect on O. The effects of cognitive responses, particularly the effects of information by instruction and tape content, are of special interest. Apparently, in the absence of direct reinforcement to O for overt behavior, O may learn the critical response by self reward or by observation of the response-reinforcement contingency in Ms, or by a combination of both.

Since information may be conveyed by self reward and VR, the cognitive responses of Os exposed to different Ms showed differential

transfer. If VR is administered, then O benefits from the instructions, an overview of M's critical responses, and the reinforcement. Certainly, this is an advantage that neither NR, EN & VR, nor EN Os have. With instructions constant, NR Os suffer from the lack of reinforcement, EN & VR Os suffer from observing a decreased frequency of critical responses, and EN Os are disadvantaged to the extent that reinforcement is absent and that critical response frequency is severely reduced. It may be concluded that the presentation of instructions, a high frequency of critical responses, and VR may be the most effective combination in terms of influencing subsequent affective verbal behavior.

A central question arises concerning the results of the present study. Does VR contribute to transfer because of its informational value, rather than its reward value? The systematic variations in taped treatments may yield some explanations. There is the possibility that VR does not involve reward value but is a function of information from the tape recording. However, the finding that observation of NR resulted in significantly less transfer than observation of VR, gave weight to the notion that VR had actual reward value. But, when VR is compared with EN & VR, it is observed that the increased information value of the VR condition subsequently yields to a significant difference in the frequency of critical responses to a transfer task.

For the NR group, it appears that informational input alone contributes to an increase of critical responses when compared to EN. When compared to EN & VR, it is also observed that the added information to the NR group served as a more potent treatment than reward to effect the increased transfer of AW. The findings provide support for the position that NR Os are apt to experience similar but reduced

affective responses to emotional Ms. It appears as if a cognitive approach can be sensibly applied. Perhaps, the instructions and the global impression can provide information to NR Os about orienting toward relevant responses. The possibility exists that a broad tactic of adjustment is acquired, and then reasonably used on a subsequent similar transfer situation.

The results of the analyses of the AD data also confirmed that OL procedures are useful in encouraging the reemergence of previously learned but inhibited responses. Clark (1965) has assumed that where social restraint is concerned OL techniques appear mediated by restraint reduction. The inhibiting effect of risk and social embarrassment is apparently overcome in VR Os through observing positive reinforcement of M's affective responses. Thus, VR Os perceived themselves as significantly closer to the other man in the AD transfer task. In VR Os, the affective behavior of M was perceived as highly desirable, allowable, and expected. In effect, VR Os received positive feedback for affective responses. In EN & VR Os, the general behavior of M was perceived as desirable and permissible. However, due to decreased response frequency, affective behaviors were not expected. In effect, positive feedback for general verbal behavior was observed. Perhaps NR, EN, and C Os, in the absence of any overt reward, provided their own standards for acceptable behavior. Apparently, physical closeness, in terms of affective closeness, remained risky to the NR, EN, and C Os.

The results of the analysis on the variable of affective style do not support the hypothesis of a significant transfer effect. Any attempt to explain the results are speculative and should be subject to

further empirical test. It seems valid to suggest that the Affective Style Scale be further researched. It is suggested that reliability studies and behavioral validation criteria appear to be a viable approach. The Affective Style Scale consisted of nine response alternatives which apparently added to intrasubject variability. Perhaps a forced-choice two response alternative would be functional in this regard.

The results of the analyses of the various TAT cards indicated that stimulus 13MF was potent in eliciting AW and other affective behaviors. Perhaps the findings can answer Ullmann's (1957) question concerning the relationship between the clinical use of TAT stimuli and the amount of affect material that is likely to be produced. Apparently, for male college students, between 18-21 years, a TAT stimulus with a probable sexual theme seems to elicit more emotional material. Therefore, if a clinician wishes to elicit affective content from an 18-21 year old male college student, then presumably TAT stimulus 13MF is a reasonable choice.

The data from the present research appear to be relevant to psychotherapy. It seems as if the immediate influence of the therapist is instrumental in determining the nature of the client's verbal and nonverbal responses. Changes in affective behaviors are characteristically assumed to be an index of personality change through psychotherapy. The present study suggests that the influence of observing mild positive reward in others affects changes in both intratherapy and extratherapy behaviors.

The results also seem to indicate that psychotherapy sessions should be similar to settings which usually elicit "good" therapy

behavior. For example, if affective behavior is a critical psychotherapy response, then psychotherapy should attampt to simulate a therapeutic environment that is conducive to affect expression. It is further suggested that the psychotherapist serve as a model, who functions as a demonstrator of "good" therapy behavior. Perhaps client's can learn "good" psychotherapy behavior through observation. In this case, the effects of the therapist model are mediated by restraint reduction. Presumably, clients could learn to disinhibit themselves at as faster rate, thus speeding up total interview time, and freeing the therapist to see other clients. It is concluded that OL techniques can be systematically applied to effect "good" psychotherapy behavior, with regard to the elicitation of AW and affective closeness to the therapist. The present study confirmed the importance of VR in such a research strategy and demonstrated that it is possible to quantify affective behaviors occurring in psychotherapy-like settings.

Future studies might well utilize a more controlled "in vivo" treatment setting which would have greater direct clinical application. The systematic application of observational learning techniques to psychotherapeutic situations seems to be a fruitful area of investigation at the present time.

CHAPTER VI

SUMMARY

The study investigated the effects of a combined verbal operant conditioning and observational learning research strategy on affective behaviors important to psychotherapy. Affect words, total words, affect word percent, affective style, and affective distance were studied as a function of vicarious reinforcement, nonreinforcement, enhancement plus vicarious reinforcement, enhancement, and a no-model control treatment. It was generally hypothesized that the vicarious reinforcement treatment would significantly facilitate transfer of affective behaviors to a somewhat similar task.

To test the hypotheses, 75 male undergraduates were randomly assigned to the five treatment groups. The vicarious reinforcement subjects observed a quasi-therapy tape recorded interview containing a high frequency of affect words, with mild positive reward present for affect phrases. The nonreinforcement subjects observed a somewhat similar quasi-therapy interview containing a high frequency of affect words, with reinforcement absent. The enhancement plus vicarious reinforcement subjects observed a quasi-therapy interview containing a low frequency of affect words, with random reinforcement present. The enhancement subjects observed a somewhat similar interview containing a low frequency of affect words, with reinforcement absent. The no-model controls read a transcript of a quasi-therapy interview

containing a low frequency of affect words, with reinforcement absent. All subjects were administered three transfer tasks after the treatments were concluded. It was predicted that vicarious reinforcement observers would show significantly greater affect word frequencies, total word frequencies, affect word percentages, significantly higher affective style scores, and significantly closer affective distance scores than the nonreinforcement, enhancement plus vicarious reinforcement, and enhancement observers, and the no-model controls.

The hypotheses were supported by the results ($p<.01$). Vicarious reinforcement training showed a significant facilitating effect with respect to affect words, total words, affect word percent, and affective distance. TAT stimulus 13MF was also found to significantly enhance affect word emission. The results were discussed in terms of the informational and reward values of vicarious reinforcement. Implications for psychotherapy and clinical applications of TAT stimuli were also noted. The failure of affective style scores to transfer to similar tasks appeared to be due to problems of scale construction and behavioral validation criteria.

It was concluded that vicarious reinforcement training enhanced the transfer of affective behaviors in a quasi-therapy setting. Implications for future research were also discussed.

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APPENDIX A

Transcript of the Tape Recording for the VR Treatment

College Student (CS): I'm amazed and astonished.

Other Man (OM): Uhhuh.

CS: It all comes pretty vague. But you know I keep, keep, having the feeling occur to me...

OM: Yes.

CS: ...that this whole talking process for me is kind of like examining pieces of a jigsaw puzzle.

OM: Yes.

CS: I feel disorganized.

OM: Yes.

CS: It seems to me I, I'm in the process of examining the bewildering pieces...

OM: Uhhuh.

CS: ...which really don't have too much meaning. Probably touching them, not even beginning to feel a pattern.

OM: Mhmm.

CS: And it's bothered me...

OM: Yes.

CS: ...because I, I don't really like jigsaw puzzles.

OM: I see.

CS: I dislike them.

OM: Yes.

CS: They have always irritated and confused me.

OM: Yes.

CS: That's my feeling.

OM: Uhhuh.

CS: And I mean I pick up little pieces in dismay and I am baffled...

OM: I see.

CS: ...because there is absolutely no meaning except from the feeling that I get from admiring them.

OM: I understand.

CS: I don't see them as an important pattern,...

OM: Mhmm.

CS: but just from the touch, I probably feel that it is going to fit somewhere.

OM: Uhhuh.

CS: It makes me feel glad and worthwhile.

OM: Good.

CS: There's almost something beautiful about it.

OM: Uhhuh.

CS: I can't quite describe it without using my hands. I feel better.

OM: Yes.

CS: I feel a real, almost a sensuous craving about it.

OM: I understand.

CS: I feel happy and pleased.

OM: Uhuh.

CS: It is a feeling of being very alive and eager,...

OM: Yes.

CS: ...and yet I've never been quite so sensitive to myself.

OM: Mhmm.

CS: For the first time in many anxious months I am not confused thinking about my frustrations and dissatisfactions.

OM: I see.

CS: I suppose what I actually mean is that I'm not sitting here anticipating putting this disorganized and uncertain puzzle together,...

OM: Yes.

CS: ...to see the important picture.

OM: Uhhuh.

CS: It may be that I prefer this feeling process.

OM: Uhhuh.

CS: But I'm actually enjoying it.

OM: Yes.

CS: I'm certainly learning something good and worthwhile.

OM: I see.

CS: There is a satisfying feeling of really getting value from each part of the puzzle that I am concerned about.

OM: Uhhuh.

CS: Well, I made a very astonishing discovery.

OM: Yes.

CS: I know it's a good feeling.

OM: Uhhuh.

CS: I found out that you actually care how good this conversation is going.

OM: That's right.

CS: It gave me the feeling that you really care what happens to me.

OM: Yes.

CS: And it was a revelation.

OM: Yes.

CS: I feel relaxed.

OM: Good.

CS: It is a kind of relaxation, a being at ease.

OM: Mhmm.

CS: It was a happy experience of really finding that I do care...

OM: Yes.

CS: ...and that there was a willingness on your part to let me care.

OM: That's right.

CS: I appreciate it and I'm happy about it.

OM: Good.

CS: I respect that.

OM: Yes.

CS: Being concerned might be expressed better in saying that I really care what happens.

OM: I see.

CS: But the caring is a form of loving.

OM: That's right.

CS: There is a kind of respect between us.

OM: Mhmm.

CS: I've sort of grown to be confident in our relationship.

OM: That's right.

CS: I feel that this caring and respect is like the feeling of loving humanity...

OM: Yes.

CS: ...loving people, and respecting them.

OM: Uhhuh.

CS: What I feel is discomforting to those who want to hurt people.

OM: Yes.

CS: I care enough to want to understand and to comfort...

OM: Yes.

CS: ...and to help others...

OM: Yes.

CS: and yet, I want to avoid contributing to anything that would harm anyone's life.

OM: I see.

CS: I feel that I'm afraid and anxious about caring for others...

OM: Yes.

CS: ...and about their caring for me.

OM: Mhmm.

CS: But somehow I ought to be able to care for other people.

OM: Yes.

CS: There have been countless times when I would have accepted personal warmth and kindness from others.

OM: Mhmm.

CS: I get the feeling that I was just afraid that I would be hurt.

OM: Yes.

CS: This is an experience that is awfully hard to put down accurately into words,...

OM: I see.

CS: ...and yet I get a sense of real meaning here in our relationship.

OM: Right.

CS: I am learning to become concerned about people.

OM: Uhhuh.

CS: I'm experienceing a new type, probably the only worthwhile kind of learning.

OM: That's right.

CS: In other words, the kind of important learning that has gone on here has been something of quite a different sort...

OM: Yes.

CS: ...and quite a different depth,...

OM: Yes.

CS: ...very unsure...

OM: I understand.

CS: ...but very pleasing anyway.

OM: Uhhuh.

CS: The learning experience was quite worthwhile to me,...

OM: Good.

CS: ...and the question I'm asking you is, will I ever have a valuable picture of what has gone on at this nice level of experience?

OM: Uhhuh.

CS: I'm not afraid to learn,...

OM: Good.

CS: ...and I'm not panicking.

OM: Yes.

CS: Something else occurs to me.

OM: Yes.

CS: It's a very comfortable feeling that I feel very proud of myself.

OM: Great.

CS: A feeling of being quite well pleased with myself.

OM: Yes.

CS: I'm a pretty good person.

OM: I understand.

CS: That's exactly how I feel.

OM: Good.

CS: I'm really a pretty respected and happy person.

OM: Right.

CS: And I feel awfully glad that I found myself and wanted to talk about myself.

OM: Uhhuh.

CS: I mean, it's a very personal, private kind of thing that ordinarily one doesn't talk about.

OM: That's right.

CS: I mean, I can understand my feelings.

OM: Great.

Transcript of the Tape Recording of the NR Treatment

College Student (CS): I'm amazed and astonished. It all comes pretty vague. But you know I keep, keep having the feeling occur to me that this whole talking process for me is kind of like examining pieces of a jigsaw puzzle. I feel disorganized. It seems to me I, I'm in the process of examining the bewildering pieces which really don't have too much meaning. Probably touching them, not even beginning to feel a pattern. And it's bothered me because I, I really don't like jigsaw puzzles. I dislike them. They have always irritated and confused me. That's my feeling. And I mean I pick up little pieces in dismay and I am baffled because there is absolutely no meaning except from the feeling I get from admiring them. I don't see them as an important pattern, but just from the touch, I probably feel that it is going to fit somewhere. It makes me feel glad and worthwhile. There's almost something beautiful about it. I can't quite describe it without using my hands. I feel better. I feel a real, almost a sensuous craving about it.

CS: I feel happy and pleased. It is a feeling of being very alive and eager, and yet I've never been quite so sensitive to myself. For the first time in many anxious months I am not confused thinking about my frustrations and dissatisfactions.

CS: I suppose what I actually mean is that I'm not sitting here anticipating putting this disorganized and uncertain together, to see the important picture. It may be that I prefer this feeling process. But I'm actually enjoying it. I'm certainly learning something good and worthwhile. There is a satisfying feeling of really getting value from each part of the puzzle that I'm concerned about.

CS: Well, I made a very astonishing discovery. I know it's a good feeling. I found out that you actually care how good this conversation is going. It gave me the feeling that you really care what happens to me. And it was a revelation. I feel relaxed. It's a kind of relaxation, a being at ease. It was a happy experience of really finding that I do care, and that there was a willingness on your part to let me care. I appreciate it and I'm happy about it. I respect that. Being concerned might be better expressed in saying that I really care what happens. But the caring is a form of loving. There is a kind of respect between us. I've sort of grown to be confident in our relationship.

CS: I feel that this caring and respect is like the feeling of loving humanity, loving people, and respecting them. What I feel is discomforting to those who want to hurt people. I care enough to want to understand and to comfort and to help others and yet, I want to avoid contributing to anything that would harm anyone's life.

CS: I feel that I'm afraid and anxious about caring for others and about their caring for me. But somehow I ought to be able to care about other people. There have been countless time when I might have accepted personal warmth and kindness from others. I get the feeling that I was just afraid that I would be hurt.

CS: This is an experience that is awfully hard to put down accurately into words, and yet I get a sense of real meaning here in our relationship. I am learning to become concerned about people. I'm experiencing a new type, probably the only worthwhile kind of learning. In other words, the kind of important learning that has gone on here has been something of quite a different sort and quite a different depth, very unsure but very pleasing anyway. The learning experience was quite worthwhile to me and the question I'm asking is, Will I ever have a valuable picture of what has gone on at this nice level of experience? I'm not afraid to learn, and I'm not panicking.

CS: Something else occurs to me. It's a comfortable feeling that I feel very proud of myself. A feeling of being quite well pleased with myself. I'm a pretty good person. That's exactly how I feel. I'm really a pretty respected and happy person.

CS: And I feel that I'm awfully glad that I found myself and wanted to talk about myself. I mean, it's a very personal, private kind of thing that ordinarily one doesn't talk about. I mean, I can understand my feelings.

Transcript of the Tape Recording of the EN & VR Treatment

College Student (CS): I'm ready to begin.

Other Man (OM): Uhhuh.

CS: It's all pretty vague. But you know I keep having the thought occur to me...

OM: Yes.

CS: ...that this whole process for me is kind of like examining pieces of a puzzle.

OM: Yes.

CS: It seems to me that I,...

OM: Yes.

CS: ...I'm in the process of examining the complex pieces...

OM: Uhhuh.

CS: ...which really don't have very much meaning. The pieces of life's puzzle don't even begin to form a pattern.

OM: Mhmm.

CS: I don't really like puzzles,...

OM: Yes.

CS: ...because their meaning is never clear to me.

OM: I see.

CS: They make little sense to me.

OM: Yes.

CS: That's the way I think about all puzzles.

OM: Yes.

CS: I just don't understand all the pieces.

OM: Uhhuh.

CS: I don't see the pattern of pieces at all,...

OM: I see.

CS: ...and I know that thepieces may fit somewhere.

OM: I understand.

CS: I can't make much more out of it.

OM: Mhmm.

CS: I can make more sense out of life's puzzles.

OM: Uhhuh.

CS: I can read more into other kinds of things.

OM: Good.

CS: I mean relationships and people...

OM: Uhhuh.

CS: ...that's about all I know.

OM: Yes.

CS: Most of my relationships are with people such as you, older than myself.

OM: I understand.

CS: I'm not always aware of the things around me. I'm reacting to the external pressure.

OM: Uhhuh.

CS: I've never been so sensitive in this way before.

OM: Yes.

CS: For the first time in many months, I am not thinking about all my problems.

OM: Mhmm.

CS: I'm thinking about my psychic environment.

OM: I see.

CS: I suppose what I actually mean is that I'm not sitting here putting this puzzle of life together...

OM: Yes.

CS: ...to see the end result.

OM: Uhhuh.

CS: It may be that I'm actually in a process of forming meaningful relationships.

OM: Uhhuh.

CS: I am certainly learning about my past relationships about my close friends.

OM: Yes.

CS: I think I'm really getting something from the pieces of life's puzzle...

OM: I see.

CS: ...if I relate them to myself.

OM: Uhhuh.

CS: Well, I finally made a discovery...

OM: Yes.

CS: ...which I guess I really knew for a long time.

OM: Uhhuh.

CS: I found out that you actually care how this conversation is going.

OM: That's right.

CS: I thought that you really wanted to know what happens to me.

OM: Yes.

CS: Nothing seems to be bothering me now.

OM: Yes.

CS: I'm having an experience that I've never had before,...

OM: Yes.

CS: ...concerning other people,...

OM: Mhmm.

CS: ...although I've had relationships with other people before.

OM: Yes.

CS: I think that there is a type of paternal relationship between us,...

OM: That's right.

CS: ...that doesn't interfere with the way we communicate.

OM: Mhmm.

CS: Our relationship...

OM: Yes.

CS: ...appears to be a healthy interaction between two human beings...

OM: Yes.

CS: ...who understand one another.

OM: I see.

CS: This is an experience that is hard to put down accurately into words,...

OM: That's right.

CS: ...in that I get a sense of a different kind of relationship.

OM: Mhmm.

CS: I'm experiencing a new type, probably the only worthwhile kind of learning.

OM: That's right.

CS: I've often said what I know doesn't help me here.

OM: Yes.

CS: What I meant is, that my acquired knowledge doesn't help me.

OM: Uhhuh.

CS: But it seems to me that the learning process here has been so dyanmic,...

OM: Yes.

CS: ...I mean, so much a part of everything, including me.

OM: Yes.

CS: I wonder if I'll ever be to straighten out.

OM: Yes.

CS: I wonder if I'll ever sort out what I experienced here.

OM: I see.

CS: In other words, the kind of learning that has gone on here has been something of quite a different sort...

OM: Yes.

CS: ...and quite a different depth, very real.

OM: Mhmm.

CS: I wonder will I ever have a clear intellectual picture of what has gone on at this level of learning.

OM: Yes.

CS: As I dig more and more deeply into myself,...

OM: Uhhuh.

CS: ...and as I think about the kind of things that I discover and learn...

OM: Yes.

CS: ...and so on, I'm beginning to know myself.

OM: Yes.

CS: I'm a very different person.

OM: Right.

CS: It seems to me that I can listen more accurately to others.

OM: Uhhuh.

CS: If they complain,...

OM: Yes.

CS: ...I listen to them and believe them,...

OM: Mhmm.

CS: ...instead of criticizing them.

OM: Uhhuh.

CS: It doesn't seem to me that it would be possible for somebody to relate all that one knows.

OM: I understand.

CS: But I have recently felt that I have more respect for others...

OM: Uhhuh.

CS: ...and more objectivity toward others.

OM: Good.

CS: I mean, I don't expect too much of them.

OM: Uhhuh.

CS: This is how it works out, it seems to me that in the past I used to fight with others...

OM: Good.

CS: ...well, now I feel pretty sure that I can really get along with others.

OM: Yes.

CS: I think, I don't know,...

OM: Yes.

CS: ...but I think that I am going to begin to do...

OM: Yes.

CS: ...more things that I know that I should do.

OM: Yes.

CS: There are so many things that I need to do.

OM: I understand.

CS: It seems that...

OM: Good.

CS: ...I have to work out new ways of behaving with others,...

OM: Yes.

CS: ...but maybe,...

OM: That's right.

CS: ...I can see myself doing better in some ways.

OM: Good.

Transcript of the Tape Recording for the EN Treatment

College Student (CS): I'm ready to begin. It's all pretty vague. But you know I keep having the thought occur to me, that this whole process for me is a kind of examining pieces of a puzzle. It seems to me that I, I'm in the process of examining the complex pieces which really don't have very much meaning. The pieces of life's puzzle don't even begin to form a pattern. I don't really like puzzles, because their meaning is never clear to me. They make little sense to me. That's the way I think about all puzzles. I just don't understand all the pieces. I don't see the pattern of pieces at all, and I know that the pieces may fit somewhere. I can't make much more out of it. I can make more sense out of life's puzzles. I can read more into other kinds of things. I mean relationships and people, that's about all I know. Most of my relationships are with people much as you, older than myself.

CS: I'm not always aware of the things around me. I'm reacting to the external pressures. I've never been quite so sensitive in this way before. For the first time in many months, I am not thinking about all my problems. I'm thinking about my psychic environment.

CS: I suppose what I actually mean is that I'm not sitting here putting this puzzle of life together to see the end results. It may be that I am actually in a process of forming meaningful relationships. I'm certainly learning about my past relationships with close friends. I think I'm really getting something from the pieces of life's puzzle if I relate them to myself.

CS: Well, I finally made a new discovery which I guess I really knew for a long time. I found out that you actually care about how this conversation is going. I thought that you really wanted to know about what happens to me. Nothing seems to be bothering me now. I'm having an experience that I've never had before, concerning other people, although I've had relationships with other people before. I think that there is a type of paternal relationship between us, that doesn't interfere with the way we communicate. Our relationship appears to be a healthy interaction between two human beings who understand one another.

CS: This is an experience that is hard to put down accurately into words, in that I get a sense of different kind of relationship. I'm experiencing a new type, probably the only worthwhile kind of learning. I've often said what I know here doesn't help me here. What I meant is, my acquired knowledge doesn't help me. But it seems to me that the learning process here has been so synamic, I mean, so much a part of everything, including me. I'm wondering if I'll ever be able to straighten out. I wonder if I'll ever sort out what I experienced here. In other words, the kind of learning that has gone on here has been something of quite a different sort and quite a different depth; very real. I wonder will I ever have a clear intellectual picture of what has gone on at this level of learning.

CS: As I dig more and more deeply into myself, and as I think about the kind of things that I discover and learn and so on, I'm beginning to know myself. I'm a very different person.

CS: It seems to me that I can listen more accurately to others. If they complain, I listen to them and believe them, instead of critizing them. It doesn't seem to me that it would be possible for somebody to relate all that one knows. But I have recently felt that I have more respect for others and more objectivity toward others. I mean, I don't expect too much of them. This is how it works out, it seems to me that in the past I used to fight with others. Well, now I feel pretty sure that I really can get along with others.

CS: I think, I don't know, but I think that I am going to begin to do more things that I know I should do. There are so many things that I need to do. It seems that I have to work out new ways of behaving with others but-maybe-I can see myself doing better in some ways.

Transcript of the C Treatment

College Student (CS): I'm ready to begin. It's all pretty vague. But you know I keep having the thought occur to me, that this whole process for me is a kind of examining pieces of a puzzle. It seems to me that I, I'm in the process of examining the complex pieces which really don't have bery much meaning. The pieces of life's puzzle don't even begin to form a pattern. I don't really like puzzles, because their meaning is never clear to me. They make little sense to me. That's the way I think about all puzzles. I just don't understand all the pieces. I don't see the pattern of pieces at all, and I know that the pieces may fit somewhere. I dan't make much more out of it. I can make more sense out of life's puzzles. I can read more into other kinds of things. I mean relationships and people, that's about all I know. Most of my relationships are with people much as you, older than myself.

CS: I'm not always aware of the things around me. I'm reacting to the external pressures. I've never been quite so sensitive in this way before. For the first time in many months, I am not thinking about all my problems. I'm thinking about my psychic environment.

CS: I suppose what I actually mean is that I'm not sitting here putting this puzzle of life together to see the end results. It may be that I am actually in a porcess of forming meaningful relationships. I'm certainly learning about my past relationships with close friends. I think I'm really getting something from the pieces of life's puzzle if I relate them to myself.

CS: Well, I finally made a new discovery which I guess I really knew for a long time. I found out that you actually care about how this conversation is going. I thought that you really wanted to know about what happens to me. Nothing seems to be bothering me now. I'm having an experience that I've never had before, concerning other people, although I've had relationships with other people before. I think that there is a type of paternal relationship between us, that doesn't interfere with the way we communicate. Our relationship appears to be a healthy interaction between two human beings who understand one another.

CS: This an experience that is hard to put down accurately into words, in that I get a sense of different kind of relationship. I'm experiencing a new type, probably the only worthwhile kind of learning. I've often said what I know here doesn't help me here. What I meant is, my acquired knowledge doesn't help me. But it seems to me that the learning process here has been so dynamic, I mean, so much a part of everything, including me. I'm wondering if I'll ever be able to straighten out. I wonder if I'll ever sort out what I experienced here. In other words, the kind of learning that has gone on here has been something of quite a different sort and quite a different depth; very real. I wonder will I ever have a clear intellectual picture of what has gone on at this level of learning.

CS: As I dig more and more deeply into myself, and as I think about the kind of things that I discover and learn and so on, I'm beginning to know myself. I'm a very different person.

CS: It seems to me that I can listen more accurately to others. If they complain, I listen to them and believe them, instead of criticizing them. It doesn't seem to me that it would be possible for somebody to relate all that one knows. But I have recently felt that I have more respect for others and more objectivity toward others. I mean, I don't expect too much of them. This is how it works out, it seems to me that in the past I used to fight with others. Well, now I feel pretty sure that I really can get along with others.

CS: I think, I don't know, but I think that I am going to begin to do more things that I know I should do. There are so many things that I need to do. It seems that I have to work out new ways of behaving with others but-maybe-I can see myself doing better in some ways.

APPENDIX B

Affective Style Scale Number

QUESTIONNAIRE

"Whenever we meet a person for the first time, we usually develop some feelings about him. These statements are designed to find out how you feel about meeting new people. Please rate the following statements in terms of how well the item characterizes you right now. Please write the number corresponding to the characteristic way you feel about meeting new people, in the space provided at the left of the item. Please answer all items. Thank you."

CHARACTERISTICS

9 Always characteristic of me.
8 Almost always characteristic of me.
7 Very frequently characteristic of me.
6 Frequently characteristic of me.
5 Fairly often characteristic of me.
4 Occasionally characteristic of me.
3 Rarely characteristic of me.
2 Almost never characteristic of me.
1 Never characteristic of me.

ITEMS

_____ When I meet people for the first time, I immediately have a strong reaction to them.

_____ I do not make judgments of people until I am sure of the facts.

_____ I find that certain new people turn me on - almost immediately.

_____ It takes me quite a while to make up my mind about how I feel about a person.

_____ My reactions to new people are very neutral.

_____ Even when I talk to a person for just a few minutes, I am likely to have a strong reaction to him.

_____ I find that certain new people turn me off - almost immediately.

_____ It takes more than one meeting for me to decide if I like or dislike a person.

_____ I feel that one needs to know a person for a long time before he has a good idea of what a person is really like.

_____ I don't have strong feelings about people when I first meet them.

_____ When I meet people for the first time, I know immediately if I like or dislike them.

VITA

Howard Raymond Bernstein

Candidate for the Degree of

Doctor of Philosophy

Thesis: THE EFFECTS OF VICARIOUS REINFORCEMENT, NONREINFORCEMENT, AND ENHANCEMENT ON AFFECT WORDS, AFFECTIVE STYLE, AND AFFECTIVE DISTANCE

Major Field: Psychology

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Education: Graduated from William Howard Taft High School, Bronx, New York, in June, 1962. Entered The City College of The City University of New York in September, 1962, and graduated in June, 1966, with a major in Psychology. A Bachelor of Arts degree was received. Entered the Department of Psychology at Oklahoma State University in September, 1966, and completed requirements for the Master of Science degree in July, 1968. Completed requirements for the Doctor of Philosophy degree in Psychology at Oklahoma State University in May, 1972.

Professional Experience: Graduate teaching assistant, Department of Psychology, Oklahoma State University, from September, 1967, to June, 1970. Psychologist, Bronx State Hospital, Bronx, New York, from June, 1968, to August, 1968. Psychological Associate, Payne County Guidance Center, Stillwater, Oklahoma, from September, 1969, to August, 1970. Psychological Associate, Bi-State Mental Health Foundation, Stillwater, Oklahoma, from September, 1969, to August, 1970. Recipient of a National Science Foundation Summer Traineeship for Graduate Teaching Assistants in June, 1970. Psychology Intern, Creedmoor State Hospital, Queens Village, New York, from September, 1970, to September, 1971. Staff Psychologist, Youth Guidance Services, Brevard County Mental Health Center, Rockledge, Flordia, since September, 1971.