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An Interactional/Social Psychological Approach to Defiance and Therapeutic Paradox

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An Interactional/Social Psychological Approach to Defiance and Therapeutic Paradox

A dissertation submitted in partial fulfillment of the requirements for the degree of Doctor of Philosophy at Virginia Commonwealth University

by

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Abstract

This study tested the general hypothesis that a client's compliance or defiance of a therapeutic directive could be accurately predicted by manipulating the variables of incongruence and dependency within the client-counselor relationship. An attempt to control the relationship variables was made by using a no-choice, paradoxical directive to increase levels of relationship incongruence. The manipulation of the client's perception of their counselor's level of experience and expertness was aimed at controlling the dependency variables. The hypothesis that clients would report improvement of their symptom, following the delivery of a paradoxical directive, was also investigated.

The subjects of the study were 30 undergraduate students at Virginia Commonwealth University. All of the subjects reported to experiencing problems with Procrastination and wished to change this behavior. Subjects were randomly assigned to two treatment groups and a no-treatment control condition. In the treatment conditions, students received two interviews with counselors who were reported as being either expert or inexperienced. Each subject was given exactly the same paradoxical directive regardless of the experience level of the counselor. During the second interview, subjects were asked by their counselors and a confederate peer if they had completed the paradoxical assignment. Subjects responses were recorded and coded. All 30 subjects completed a weekly procrastination measure. In addition, treatment group subjects completed questionnaires regarding their perception of their

counselors. All subjects completed inventories measuring their orientation to the change process. Subjects of all three conditions reported to significantly decreasing ($p < .001$) their levels of procrastination over time. There was no significant difference reported between the three groups.

Statistical analysis revealed that subjects' response types could not be accurately predicted at the $p < .05$ level. An analysis of the available data suggests that the subjects did not differentially perceive the counselors as expert or inexperienced, therefore, one of the experimental variables may not have been successfully manipulated. Further, the data indicates that the current primary hypotheses need to be revised and reevaluated.

Introduction

In the last decade, counseling theory has undergone several major transitions. Among these is the movement towards a more explicitly directive role for the counselor. This change has resulted in an apparent interest in the assignment of homework and in-session directives to the client for the purpose of more rapid behavior change. The most controversial aspect of this trend is the increased usage of Paradoxical Directives. Paradoxical Directives consist of communications from the counselor to the client which instruct the client to change his/her behavior by trying to remain the same. A number of studies have investigated the relative level of effectiveness of paradoxical treatment (Wright & Strong, 1982; Lopez & Wambach, 1982; Beck & Strong, 1982), but none have aimed at exploring how the paradoxical directive works.

During the spring and summer of 1982, Stanley R. Strong proposed to a class of doctoral students, and later in a paper (Strong, Bradford & Zodun, Note 1; Strong, Note 2), that a client's compliance or defiance of a directive could not only be predicted, but also how a client would choose to comply or defy could be predicted. Strong's theory proposed that in all interpersonal relationships, levels of interdependence and congruence exist, and that the relative levels of these two factors determine compliance or defiance to a directive.

It seems clear that if counselors communicate either self-control or paradoxical directives to their clients, they should be aware of the interactional dynamics which will determine whether or not the directive is carried out.

This study tested one segment of Strong's interactional theory of defiance and compliance.

REVIEW OF THE LITERATURE

Therapeutic Directives

Watzlawick, Beavin and Jackson (1967) contend that there are two ways of influencing the behavior of another: to directly persuade people to change their behavior, or to encourage people to remain the same. In either case, the persuader makes use of an implied or explicit directive. A directive is a "communication that guides the behavior of another and is effective partially because of the social power of the authority of the source of the communication: (Strong & Claiborn, 1982, pg. 67).

Throughout the past thirty years, the chronicles of counseling theory have been filled with debates of whether the role of the therapist should be a directive or non-directive one. Rogers (1951) contended that the therapist must assume a non-directive, non-judgemental role in order to create an atmosphere of trust and unconditional positive regard. Therapeutic change was described by Rogers as a function of this atmosphere produced by the therapist-client relationship.

Within the psychoanalytically oriented therapies, the focus of change remains on the patient's intrapsychic process. "The efforts of the analyst are devoted to eliminating obstacles that prevent a more direct expression of the unconscious conflict." (Fenichel, 1945, pg. 32). While the analyst clearly suggests that the patient engage in certain therapeutic activities (e.g. "say everything that enters your mind, without selection") it is the patient's ability to overcome resistance and resolve the transference phenomenon which initiates therapeutic change. In both the analytic and client centered systems, the responsibility for change rests primarily on the shoulders of the client.

More recently, Gestalt (Perls, 1964) behavioral (Krasner, 1967); and some systems oriented (Haley, 1973; Minuchin, 1974) therapists have placed much of the responsibility for the process of the client's behavior change on the careful planning and direction of the therapy session by the counselor. Haley (1963) described this approach to counseling as "strategic".

Much research has compared the effects and outcomes of directive and non-directive therapy styles. The results of this research has often been both confusing and contradictory. Morrison et al. (1978) found that clients preferred a non-directive leader in a group counseling setting. Further, they appeared to display more positive problem resolution in the non-directive situation. Baker (1960) found no significant differences between the two styles. Ashby et al. (1957) and Frank (1964) found that clients usually responded to a directive therapist with initial hesitancy, but eventually produced more direct responses about his or her problem. In another study, Slaney (1977) compared client ratings of their counselors and found that clients may perceive the directiveness of the counselor to be a sign of expertness and effectiveness. Abramowitz et al. (1974) attempted to demonstrate a correlational relationship between client's internal/external orientation with their preference for directive or non-directive therapy experiences. His data suggested that those subjects who responded externally reacted to a directive therapist in a more positive fashion. Subjects whose locus of control was internal responded more positively to non-directive therapists.

Most recently, research has been focused not on the differences between directive vs. non-directive therapy, but rather on the question, "Is there such a thing as non-directive therapy?" Friel (1977) administered questionnaires to one group of therapists who described

themselves as non-directive, and to another group who described themselves as directive. He did not find significant differences between the two groups along the dimension of directiveness: both groups showed evidence of significant directive behaviors in their counseling practice.

In a linguistic analysis, Troemel-Ploetz (1980) found that the reflective statements of non-directive therapists consistently contained powerful but indirect directives. In the same vein, Schmitt (1980) discussed the highly paradoxical nature of the Rogerian's unconditional positive regard. Schmitt argued if an individual's behavior is causally related to external events, then the counselor cannot both show unconditional positive regard for the client and respond conditionally to the client's behavior without posing a powerful paradox to the client. It may be "double-bind" communications of this sort (Bateson, Jackson, Haley, & Weakland, 1956) that are responsible for therapeutic change.

Both Haley (1963, 1976) and Strong (1978, 1982) contend that it is impossible <u>not</u> to communicate directives to the client. Directives can be given directly or they can be communicated implicitly by the counselor's vocal intonations, body movements or even well timed silences. Even when a "non-directive" therapist says "Tell me more about that" or selectively reflects on a particular segment of the client's story, the counselor is giving a directive to the client about what direction he/she wishes to explore. Further, "the client's response to each counselor communication is partially a function of how it is stated..." (Strong & Claiborn, 1982, pg. 167). It is therefore important that counselors be aware of both the content and method of expression of each implicit or explicit directive communicated to the client.

Within the counseling framework, therapists may choose to time their directives so that the instructions are to be followed (or defied) during the course of the counseling session or between sessions. Techniques such as the "empty chair" exercise (Perls, 1969), the changing of seating arrangements and communication patterns (Minuchin, 1974) or stimulus desensitization with progressive deep muscle relaxation (Wolpe, 1968) can be used within the context of the session. Other directions such as behavioral counts (Kanfer, 1974), participation in family activities (Haley, 1973) or the practicing of symptomatic behavior (Erikson, 1965; Haley, 1976) can be carried out as homework assignments to be completed between sessions.

According to Haley (1976), the purpose of assigning in-session or homework directives is threefold. First, the directive is given with the purpose of getting the client to behave differently, and therefore to have different subjective experiences. Secondly, directives (particularly homework assignments) are used to intensify the client's relationship with the therapist. If the directive is to be completed during the week, then the therapist's influence is more directly experienced by the client for the entire week. Finally, directives can be used to gather information about the client and the client's style of compliance or defiance.

There appears to be two ways of giving a directive to a client. The first approach is a straightforward request for the client to behave differently by either trying new self-control behaviors (e.g. "I want you to try and study more often during the coming week.") or for the client to voluntarily stop exercising the problematic behavior (e.g. "I want you to stop procrastinating during the coming week."). Haley (1976) describes this type of directive as "advice giving" and proposes that it

rarely works. Watzlawick et al. (1967) contend that this approach often fails to influence clients troubled by symptoms over which they have little control because this type of directive carries the implication that they can control their behavior and voluntarily extinguish their symptoms. This approach directly contradicts their experiences and beliefs about the nature of their symptoms and is likely to arouse reactance (Brehm, 1966), resistance (Strong, 1978) and helplessness (Seligman, 1972).

A second way to communicate a directive is to instruct the client to remain the same. This type of request seems paradoxical to clients because the therapist has agreed to help the client to change, yet at the same time is asking the client not to change. This approach is based upon the idea that when clients are in a stable but not necessarily healthy state, they are resistant to change (Erickson, 1973; Haley, 1973). A paradoxical directive can often unstabilize or break up current problematic behavior patterns so that new, more desirable behaviors can be experienced by the client.

The Nature of Paradox

A paradoxical directive is one that encourages the client to continue or exaggerate the problem behavior. Implied in such a directive is the notion that, by engaging in the problem behavior, the client will be able to eliminate it. The paradox exists in the incompatibility of the two messages that jointly assert that the client can change by trying to remain the same.

The paradoxical approach has been given a variety of names. Dunlap (1928, 1932) described paradoxical treatment as negative suggestions and negative practice. The concept of negative practice of the symptomatic behavior demonstrated that the response which is practiced in not always

the response which is learned. He found that voluntary practice of involuntary symptoms brought the involuntary behavior under voluntary control. Wright (Note 3) noted that Dunlop's method emphasized:

> The subjective change in the person practicing the symptom: practicing the symptom with a different feeling (affective component) and under instructions (ideational component) facilitates voluntary control by the client, and results in symptom remission. (pg. 13).

The concept of negative practice has also been described by Wolpe & Lazarus (1966) as a procedure for eliminating "nervous tics". Stampfl & Levis (1967) used "implosive therapy". Using the client's imagery to overpractice an anxiety producing situation, Malleson (1959) reported a technique of "behavioral flooding" in which a client is repeatedly exposed to the anxiety arousing stimulus until its anxiety evoking power is eliminated. Raskin and Klein (1976) suggested that the success of negative practice is attributable to an altered stimulus-response contingency. They asserted that instructions to engage voluntarily in problem behavior changes the stimuli that elicit the behavior so that the client is less likely to engage in the problematic behavior in the original setting.

Another major approach to paradoxical treatment is offered by Frankl's (1946, 1960) logotherapeutic approach to "paradoxical intention". According to this cognitively oriented approach, anticipatory anxiety (the fear of the symptom occurring involuntarily) often produces the situation which the client fears most. Frankl suggests that paradoxical intention disrupts the anticipatory anxiety and negative expectations that precipitate and maintain the problem, enabling the client to view problem behaviors more realistically and to perform more adaptive behaviors. Thus, the paradoxical directive enables the client to view

the problem behavior as voluntary and changeable rather than involuntary and spontaneous.

A third perspective on paradoxical directives emphasizes the role of the maintenance of social control in the therapeutic relationship (Haley, 1963, 1978; Strong & Claiborn, 1982). Haley believes that:

> Some families who come for help are resistant...the members are very good at getting a therapist to try and fail. The therapist is then pulling at the family members to improve, while they are resisting and provoking him to go on pulling. (Haley, 1978, p.68).

In order to avoid a power struggle with the client, Haley often directs the symptom to occur. By doing this, he sides with the resistance and removes the power of the symptom to control the therapist. Haley (1973) further contends that when a person claims to have no voluntary power over the symptom, they are maintaining powerful control within the relationship. By prescribing the symptom, the therapist diffuses the possibility of being drawn into a "one down" position. This paradoxical directive causes the behavior to be redefined as "cooperative" with the therapist's efforts. The client can then either comply with the therapist by voluntarily performing the symptom, or can resist the therapist by spontaneously eliminating the behavior. In either case, change has occurred.

Strong (1979, 1982) and others (Haley, 1963; Jackson, 1968; Watzlawick, Beavin & Jackson, 1967) contend that symptomatic behaviors can be understood as relationship control strategies. Symptoms exert control in a relationship by their spontaneous nature and by their power to limit response alternatives for the individual who is interacting with the client. If the client emits a symptomatic behavior set

which has the functional properties of controlling the other's behavior, and at the same time communicates that the behavior is involuntary, then the recipient of this dual communication is unable to counter the communication, and is left powerless. It is this powerful relationship control feature which makes symptoms so resistant to change. Strong & Claiborn (Note 4) find it necessary to emphasize that:

> The client (or anyone else) need not be consciously or intentionally manipulating others. The client is merely meeting needs by placing certain behaviors in a context of uncontrollability and defining a relationship that is difficult for an interactant to counter. (pg. 6).

According to the Strong-Claiborn approach (1982), the change process in counseling revolves around paradoxical communications.

> The affirmation of the client is itself paradoxical as the counselor presents to the client the relationship definitions and strategies he or she desires the client to adopt and, at the same time, insists that the new behaviors are already a part of the client and will emerge spontaneously as the client grows... (Strong & Claiborn, Note 4, pg. 13).

Therapeutic change is described as occurring through the processes of the affirmation and negation paradoxes. In the affirmation paradox, the therapist presents to the client a set of desirable behaviors which the client is expected to adopt. Simultaneously, the counselor is communicating to the client that these new behaviors will emerge from within the client spontaneously. Consequently, the client changes in the direction of the counselors influence, but the responsibility for the change is seen as the client's alone. The affirmation communications are directed towards the client's "self". According to

Strong & Claiborn (1982), the affirmation paradox is made up of three elements:

1. The therapist presents desired behavior and insists that the behavior be adopted as part of the definition of the relationship.
2. The therapist communicates that change is a result of processes internal to the client and is not compliance with the therapist.
3. The therapist identifies an agent responsible for the change that acts beyond the client's volitional control. (pg. 145).

The affirmation paradox can be communicated to the client by using statements of positive regard, interpretations and by positively reframing the motivations behind the client's behaviors.

The negation paradox is aimed at the client's performance of the symptom. Since the counselor has requested that the client perform the behavior, the interpersonal context of the symptom is changed. Rather than responding to the problematic behavior in the way the client has grown to expect other interactants to respond, the therapist labels, interprets, reframes, or meta communicates on the behavior. The counselors "atypical" reaction to the behavior defines the client-therapist relationship as different from others. The counselor simultaneously permits the performance of the client's symptomatic behavior and deprives it of its powerful relationship defining impact. If the client complies with the paradoxical communication to perform the behavior, the client finds that the context and consequences of the behavior are altered so that it is now a powerless control strategy. This, then, encourages the client to formulate a more adaptive (and powerful) set of relationship defining behaviors. The counselor may now attribute this change to the client's "growth".

If the client defies the paradox, then the client is said to have experienced spontaneous change which can only be attributed to their own decision for personal change.

> ...When people find that they have acted in unexpected ways...and turn down nice rewards, and have no obvious means of accounting for their actions, they account for the action by recourse to their own personal characteristics (Beck & Strong, Note 5, pg. 14).

Paradoxical Prescriptions of Symptoms

One form of paradoxical strategy involves the overt prescription to practice the behavior which has been presented by the client as the involuntary symptom. In this situation, the underlying message is that in order to lose the symptom, the client must first gain understanding, mastery or voluntary control over the behavior. Mastery, of course, comes only with practice. The client is, therefore, directed to carefully plan a time, place or strategy for practicing the symptom.

Zeig (1980) contends that there exists several components which are always associated with symptomatic behavior. These components are the cognitive, affective, behavioral, contextual, relational, attitudinal, and symbolic elements. Since the symptomatic behavior is thought to be an interpersonal communication (Zeig, 1980) which is comprised of these specific elements, a directive which can alter any one of these components will alter the client's experience of the symptomatic behavior.

The author of the present study recently worked with a young woman and her parents. The presenting complaint was one of uncontrollable temper tantrums by the daughter. It was found that these outbursts were

most likely to occur in the context of the family home and in the midst of a parental argument. The daughter was told by the therapist to keep 3 x 5 index cards with her so that she could record certain aspects of her behavior as it occurred. She was told that in order to stop these outbursts, she really needed to understand the important components. She was directed to anticipate the onset of an episode and to physically remove herself from the room where it was going to occur. Next, she was to write down on the card when and where the situation was occurring, and finally, what it was she felt like doing. She was then instructed to return to the original room and feel free to act on her impulses, taking a careful mental note of what was happening.

If she no longer felt the urge to have the tantrum, she was told to pretend to be uncontrollably angry and act out the symptom. Her parents were asked, later, to guess how many of the outbursts were genuine and how many were pretended. This series of directives altered several components of the original behavioral and relationship sequence. Consequently, the client's rate of outbursts decreased dramatically.

The use of symptom prescription, voluntary intensification of the symptom (Watzlawick et al., 1974), using a pretend symptom (Madanes, 1980), and symptom scheduling (Newton, 1968), have been described anecdotally. A fine review of symptom prescription techniques is presented by Weeks and L' Abate (1982).

Thusfar, studies which compare a symptom prescription technique to other forms of paradoxical directives have not yet been published. DeShazer (1978) contends that symptom prescription techniques may work best when the client's relationships are basically congruent.

Effectiveness of Paradoxical Interventions

In the past decade, the effectiveness of paradoxical interventions have been described in many anecdotal accounts. (Marks, 1972; Smith, 1971; Erickson, 1973; Haley, 1973, 1976) In one of the few experimental studies of paradox, Beck & Strong (1982), compared the effects of paradoxical vs non-paradoxical interpretations in the treatment of 30 undergraduates who expressed significant depression. Beck & Strong found that, while both treatments were associated with symptom remission following treatment; students in the paradoxical treatment condition remain stable and improved while students in the traditional interpretation condition experience significant symptom relapse. Feldman, Strong and Danser, (1982) found that treating depressed college students with consistent paradoxical intervention was associated with greater symptom remission than the treatment of students with non-paradoxical methods.

Wright and Strong (1982) found that paradoxical interventions were effective when counseling students who experienced problems with procrastination. Compared to a control group, the paradoxically directed experimental groups showed significant improvement in decreasing their procrastination behaviors. In a similar study, Lopez and Wambach (1982) compared the effectiveness of paradoxical and self control directives in counseling 32 college student procrastinators. Students in both treatment groups displayed significant reduction in their procrastination. However, those subjects who were exposed to paradoxical interventions displayed a delayed but much sharper decrease in procrastination than did the students of the traditional self control group.

In other studies, Solyom (1972) found that psychiatric patients who complained of experiencing problematic obsessive thoughts could be treated with paradoxical directives and display a fifty percent improvement rate (compared to a practically no improvement rate in the untreated group). Ascher and Efran (1978) and Ascher and Turner (1979) demonstrated a significant decrease in insomniac patients symptoms when treated with paradoxical interventions. A one-year follow up found these patients to continue to be insomnia free.

Psychodynamic Conceptualization of Noncompliance

An understanding of the client's reluctance to comply with the process of psychotherapy has long been discussed in the traditional psychodynamic literature (Fenichel, 1945; Freud, 1912; Singer, 1970). Freud (1912) described this noncompliant stance as resistance. Resistance was viewed as the reaction of the individual when faced with unconscious impulses or conflicts which threaten to become conscious. The resistnace can be described as that part of the personality which helps to separate the unconscious from the conscious. When the resistances are overcome through the therapeutic process, the previously repressed unconscious desires and conflicts are made conscious. Regardless of the sources of the conflict that arouse the resistances, the psychodynamic therapist's goal is to bring those sources of conflict to the client's awareness, and help the client to work through the resistance by offering appropriately timed interpretations. Thus, the psychodynamic conceptualization of noncompliance involves an understanding of resistance as an intrapsychic phenomenon which can be overcome by helping the individual to gain insight into the nature of the repressed conflict and then to utilize a more rational

reasoning process to overcome the irrational anxiety.

Freud (1926) wrote of five types of resistance. These include:

1. Repression resistance which works to keep unwanted impulses in the realm of the unconscious.
2. Transference resistance which involves the same type of mechanism, but succeeds in establishing a relationship to the analyst and treatment.
3. Id resistance which requires "working through".
4. Super ego resistance which arises from the sense of guilt or need for punishment which opposes every move toward success.
5. Resistance associated with the "gain" which the client may derive from the illness. To declare any relief or change, one must then give up whatever gains were associated with the psychopathology.

The fifth type of resistance is most congruent with the systems (Haley, 1978) and the social psychological (Strong, 1979) conceptualizations which emphasize relationship and control strategies as potential gains associated with the symptomatic behavior. However, the psychodynamic and strategic psychotherapists have somewhat different techniques for working with the client's resistance and noncompliance. The psychodynamic therapist works towards providing insight and rationality, while the strategic therapist may work directly with the resistance by utilizing affirmation or negation paradoxical directives.

Understanding Compliance and Defiance from a Social/Psychological/Interactional Perspective

It appears that directives are the counselor's major therapeutic tools for changing the behavior of the client.

> The therapeutic effects of counseling are derived from a complex pattern of directives, some intended to invite compliance, others intended to invite defiance; some stated to generate attribution to the self, others stated to invite attribution to external and non-spontaneous circumstances; some stated to invite attribution to the self for abandoning behavior (Strong & Claiborn, 1982, pg. 1972).

The following section will present a social psychological and interactionist perspective on the phenomena of compliance and defiance of a therapeutic directive.

One major determinant of the outcome of a directive is the degree of choice which the client perceives in the directive. If an individual perceives a directive as giving a high degree of choice, compliance is likely. For example, Heilman and Toffler (1976) asked groups of subjects to taste vinegar. In one condition, the subjects were threatened with monetary loss if they did not comply with the directive. In another condition, subjects were given a choice of four vinegars to choose from. In the condition where the taster was offered a choice, the compliance rate was high. The no-choice threatened condition not only produced fewer tastings, but subjects responded with mutinous, defiant behavior.

Strong and Claiborn (1982) report that if a person perceives no choice in the directive, the person will attribute any possible compliance or outcome to the communicator of the directive. On the other hand, if the person perceives a choice in the directive, then that individual will attribute any compliant behavior or subsequent consequences to themselves.

> By phrasing a directive so that the person perceives he or she has a choice as to behaving as directed or not, the person can be led to do as the communicator wishes and to accept personal responsibility for having done so (Strong & Claiborn, 1982, pg. 166).

The fact that a no-choice directive will stimulate defiance has powerful implications for the style of delivery of paradoxical directives. In a recent study by Wright and Strong (1982), students receiving counseling for problematic procrastination received differently worded paradoxical directives. In one case, the counselor insisted that the client must continue to procrastinate exactly as they had been. No choice for alternative procrastinating was allowed. In the other condition, choice was communicated. Counselors instructed clients to continue on with procrastinating by using some of the procrastination behaviors used previously. Directives were given as "you may decide to _____ or you might want to _____ or _____." Data from this study suggested the presence of some differences between defiance rates between two groups. While the differences were not large enough to be statistically significant, clients in the choice condition displayed a tendency towards greater compliance with the paradoxical directives, thus decreasing their procrastination more slowly than did clients in the no-choice condition. Studies in social psychology have demonstrated that messages which imply that a person is powerless but to do exactly as they are told, stimulate defiant behaviors (Goodstadt, 1971; Pallak & Heller, 1973; Worchel & Brehm, 1970).

Another component which appears to affect compliant behavior is the client's perception of the rationale for the directive. If a client believes that the directive is based upon solid, scientific and proven bases, compliance is likely. If, on the other hand, the rationale threatens the client's sense of interpersonal power (Heilman & Toffler, 1976), or if it appears to be based primarily on the whim of the communicator of the directive, (Lopez & Wambach, 1982) then the directive will likely be defied.

Strong and others (Strong, Bradford, & Zodun, Note 1; Strong, Note 2; Strong & Claiborn, 1982) present an interactional/social psychological approach to compliance and defiance. Basic to this theory is the idea that when two people interact with one another, each person's behavior is intended to influence the other to behave in accord with that person's needs and definition of the relationship. The person's definition of the relationship refers to the person's notion of what would be the most desirable form of the relationship, given that person's needs and past experiences of how the needs can be met through interactions. If the two individual's have different definitions of the relationship, they then seek to influence the behavior of the other to conform to their own definition. According to the theory, there are two crucial interactional variables which will influence the outcome of the relationship. The first is incongruence.

> Incongruence is the psychological difference between two interactant's respective desired definitions of their relationship and is expressed in their efforts to influence one another to change. The greater the incongruence in a relationship, the greater

discrepancy each participant experiences between his or her devised definition of the relationship and the feedback he or she receives from the other. (Strong, Note 5. pg. 3).

The greater the incongruence, the less likely the person is to comply with the other's directives.

The second variance is Inter-dependence. Interdependence is the level of dependencies that each of the participants has on one another. Dependence is a function of the person's needs, and the person's perception of the others ability and resources to fulfill these needs. The greater a person's level of dependence is upon another, the more vulnerable that person is to the other's efforts to influence or change. The higher the level of dependence, the greater the likelihood of compliant behavior in response to a directive. See Figure 1.

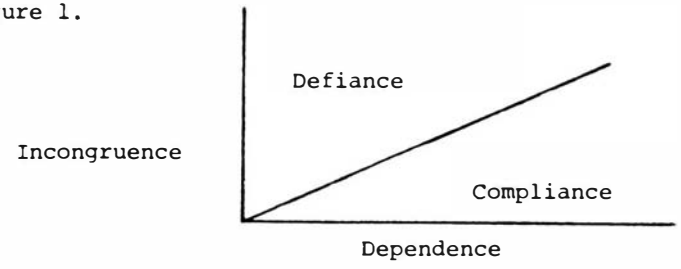


Figure 1. From Strong, S. R. An Interactional/Social Psychological Theory of Change in Therapeutic Counseling. 1982 Unpublished manuscript.

The interaction of these two variables can result in four distinct outcomes to a directive: Simple compliance, spontaneous compliance, simple defiance, or spontaneous defiance. (see Figure 2)

In a relationship where an individual experiences high levels of dependence upon the other, as is often the case within the traditional doctor-patient relationship, and the person perceives the demands being

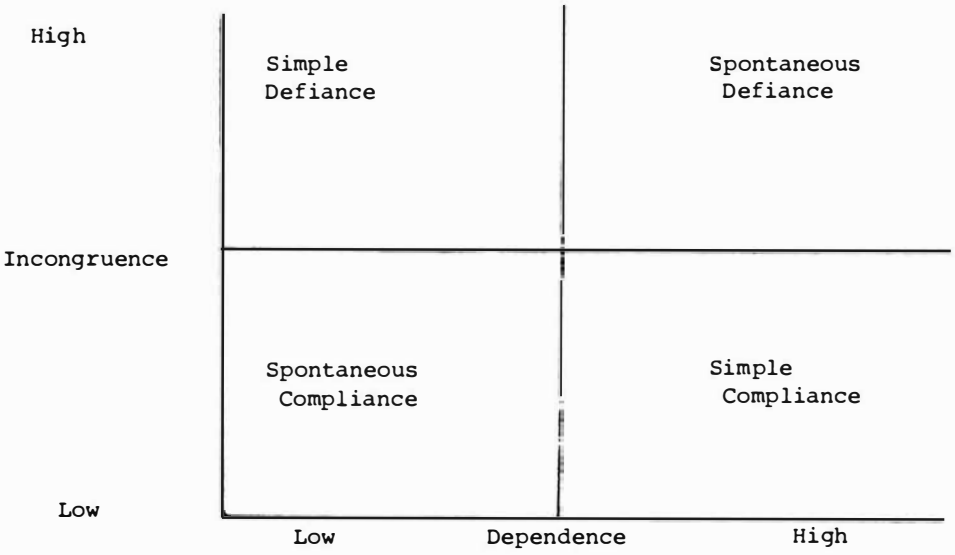


Figure 2. From Strong, S. R. An Interactional/Social Psychological Theory of Change in Therapeutic Counseling, 1982. Unpublished manuscript.

made upon them (the directive) as being congruent (low incongruency) with their needs, then the individual is likely to be compliant with the directive. In fact, they can be expected to comply in such a way as to clearly attribute their compliance to the request of the communicator, "I will comply with your directive because you told me to do so". This is called simple compliance.

In a circumstance where the experienced levels of both dependency and incongruence are low, then the individual is likely to comply with the directive, but in this case, attributes the compliance to oneself. "I chose to comply because I believed it was the correct thing to do." Here, the individual expresses personal responsibility for the compliant behavior. This is referred to as spontaneous compliance. It is believed that individuals will persist with their compliance much longer if the change is "spontaneous".

When the level of incongruence is high, and the individual experiences low levels of dependence upon the other person, then defiance can be predicted. In this case, the defiant behavior is attributed to the self: "I will not undertake the task because I do not wish to do it". Here, the individual takes personal responsibility for the defiant behavior. This is simple defiance.

Finally, if both the levels of dependence and incongruence are perceived as high, then the individual will likely defy the directive. However, this defiance is expressed as an action over which the person has no control. Responsibility for the behavior is clearly externalized (e.g. "I really wanted to help you with your request, but I was just too depressed to do anything about it.") This spontaneous defiance communicates

a powerful message: "I wish to comply with your directive, and I will not comply with your request". The double message communicated here is the essence of symptomatic behavior (Strong & Claiborn, 1982).

Research Hypotheses

If the Strong theory (Strong, Note 5; Strong & Claiborn, 1982; Strong, Bradford, & Zodun, Note 4) adequately explains the phenomena of defiance and compliance, and if the following experimental procedure provides an adequate test, it would be expected that when the level of incongruity is high, the subjects should defy the paradoxical directive to continue on procrastinating. If the level of dependence is also high (as in the expert counselor condition) then subjects would defy the directive, and would present the defiant behavior as spontaneous. As the subjects perceive the resources of another person as being lowered, as in the case of working with a novice or peer counselor (or when interacting with an untrained peer) then the response would likely be of the simple defiance type.

Hypothesis I

Scores on the Procrastination Log would be significantly different ($p < .05$) over time, for the subjects in the treatment groups. There would be no significant change in the scores of the subjects of the non-interview control condition. Those subjects who were members of the treatment groups would demonstrate significantly lower Procrastination Log scores at post-test than those subjects who received no treatment.

Hypothesis II

Subjects who participated in the expert treatment condition would express a significantly greater (p .05) frequency of spontaneous defiant responses that the subjects of the peer counselor treatment condition. The subjects who participated in the peer counselor treatment condition would express a significantly greater (p .05) frequency of simple defiant responses than the subjects of the expert counselor treatment conditions. Also, subjects would express a higher frequency of simple defiant responses to the peer confederates than to either the expert or peer counselors.

Hypothesis III

Scores on the trustworthiness and expertness subscales of the Counselor Rating Form would be significantly different (p .05) between subjects in the expert counselor and peer counselor conditions. Subjects in the expert counselor treatment condition would perceive their counselors as being more trustworthy and expert than those of the peer counselor condition.

Hypothesis IV

Scores on the resistance, unconditional regard, empathy and dependence subscales of the Relationship Inventory, Revised, would be significantly different (p .05) between subjects of the expert and peer counselor conditions. Subjects in the expert counselor treatment

group would express less resistance and attribute greater levels of unconditional regard and empathy to their counselors. Further, subjects in the expert counselor condition would express a higher degree of dependency as a factor of their relationship with their counselor than the subjects of the peer counselor condition.

Hypothesis V

Subject's scores on the external orientation and self-control subscales of the Self Perception Inventory would differ significantly (p .05) between the three groups (expert counselor, peer counselor, and no counselor control group). Subjects involved in the treatment conditions would express greater attributes to internal change (self control), while control group subjects would express greater emphasis on external sources.

Hypothesis VI

Subject's octant classification (as determined by highest raw score) on the Interpersonal Checklist would demonstrate a random pattern of distribution among all subjects. There would be no significant clustering of subjects in any single octant.

METHOD

Subjects

The subjects of this study were 30 undergraduate students enrolled at Virginia Commonwealth University during the summer semester of 1982. Students were recruited from Introductory Psychology classes by the primary investigator. The purpose of the project was explained to the potential participants as being a study comparing the level of effectiveness of experienced therapists and peer counselors in the treatment of problematic procrastination among college students.

Students who perceived themselves as having problems with procrastination and who wished to work on changing this behavior, were encouraged to volunteer to complete a personal data sheet (Appendix A), an informed consent form (Appendix B), and a pretest procrastination inventory. This inventory was the Procrastination Log (Appendix C), an eleven item, self report inventory of the student's procrastinatory behaviors of the previous week. One hundred students completed the pretest procedure. Procrastination Log scores ranged from a low of 23 to a high of 106.

Those students who produced the thirty highest Procrastination Log scores were recruited as subjects. The subject population consisted of 18 women and 12 men. Their ages ranged from eighteen to forty years, with a mean age of 25.2 years. All subjects reported experiencing problems with procrastination. Subject's pretest Procrastination Log scores ranged from 66 to 107 with a mean score of 83.5.

The thirty subjects were randomly assigned to one of three experimental groups consisting of ten subjects each. All thirty subjects completed the entire experiment.

Interviewers

The interviewers were six advanced (doctoral level) counseling psychology graduate students. Of the two men and four women who served as interviewers, all had completed doctoral level practica in counseling and had at least one semester's experience working with college students at a University counseling center. Interviewers received approximately four hours of pre-experiment training in the delivery of two types of interviews. Training centered around the memorization of the scripts (Appendices H-K) and the actual process of the experiment. Each interviewer participated in both the expert and peer counselor conditions.

Two graduate student volunteers served as confederate subjects who questioned each subject, regarding their deficance or compliance, following week II. The volunteers were advanced students in Mass Communication studies. The male confederate was 25 years old, and the female was 27 years old. Each confederate met with 10 students who were assigned randomly.

Treatments

Each of the thirty students selected for this study was randomly assigned to one of three groups. The groups consisted of two experimental

treatment conditions and one no-interview control group. Each group consisted of ten subjects.

Expert counselor treatment group (N = 10).

The expert counselor treatment condition was comprised of ten students who were informed by the experimenter that they had been selected as subjects of the expert counselor group. They were told that they would meet twice with a therapist who was an expert in the area of procrastination counseling. An appointment was arranged for the student to meet with the expert counselor for the first of two 50 minute counseling sessions. During the two counseling sessions, the interviewer projected a competent, experienced, and expert image to the subjects. Following 20-25 minutes of the counselor's introduction, greeting, and solicitation of the subject's experiences with procrastination, the counselor presented the paradoxical directive to "keep right on doing exactly as you have been doing" to the subject. Directives were given according to prearranged scripts (Appendix H).

During the second week's interview, the counselors, by script, (Appendix I) questioned the subject as to whether the directive had been followed exactly as it had been given. Reasons for the subject's reported compliance or defiance were requested and recorded. A second paradoxical directive was then given by script, and subjects were asked to make an appointment with the experimenter to return in ten days for a post test.

In this condition, the level of dependence experienced by the subject on the counselor was thought to be elevated due to the subject's need and the expert's supposed ability and resources to meet the need.

Peer counselor condition (N = 10).

The peer counselor treatment condition consisted of ten subjects who were told that they had been selected to work with an inexperienced student counselor who, despite their lack of expertness and experience, would attempt to help them with their problems with procrastination.

The first of two appointments was scheduled with the peer counselor. During the two counseling sessions, the interviewers behaved just as the interviewers of treatment group I, with the exception of their opening statement explaining their inexperience and non expert status to the subject. Following 20-25 minutes of counseling, the peer counselors gave exactly the same paradoxical directive, by script, (Appendix J) as did the expert counselors. A second interview was then scheduled for the following week.

During the second week's interview, the counselors, by script, (Appendix K) questioned the subject as to whether the directive had been followed exactly as it had been given. As in treatment group I, specific reasons for the subject's reported compliance or defiance of the directive were requested and recorded. A second paradoxical directive, similar to the first, was given. Subjects were then requested to make an appointment to return in ten days for a post test.

In this condition, the level of dependence experienced by the subjects was thought to be lowered due to the therapist's supposed lack of experience and expertness in meeting the subject's needs.

In both of the treatment conditions, the level of incongruity between the subject's expectation and the therapist's behaviors was thought to be heightened by the nature of the therapist's directives.

In a recent survey conducted by Gould & Strong (Note 6), initial findings suggested that students would not expect counselors to insist upon the client's completion of a homework assignment, for the counselor to give a directive in which the client has no choice of behaviors, or for counselors to instruct their clients to keep right on practicing their symptomatic behaviors. This set of incongruous conditions was given in both of the treatment groups, by the counselor giving each subject a no choice, paradoxical directive in an authoritarian style.

No interview control group (N = 10).

The ten subjects of the no interview control group were told that they could contribute to the study by completing a series of paper and pencil inventories, one time per week, for a period of approximately four weeks. The control group subjects were not involved in any counseling sessions or directly questioned by the experimenter regarding their procrastination behaviors. These subjects completed a similar battery of inventories, in the same order, and at approximately the same time schedule as the twenty treatment group subjects.

Procedure

At the time of the initial recruitment of subjects, each student completed a pretest Procrastination Log, Interpersonal Checklist, Personal Data Sheet, and signed and informed consent form. Following the scoring of the pretest material, each one of the thirty selected students were randomly assigned to one of the conditions. Approximately one week later, each subject was contacted by the experimenter, informed

of their condition assignment, and appointments were made for an initial counseling session for the following week.

During the first week of counseling sessions, treatment group subjects met in session I with their counselors, and then completed the Counselor Rating Form.

Following the second week's counseling session, treatment group subjects were asked to complete the Procrastination Log and the Relationship Inventory. The subjects were requested to complete the inventories in a specified room. While each of the subjects was completing the tests in a separate office, a confederate (posing as a subject) was in the same room, also "taking the tests". While the confederate and the subject were working on the inventories, the confederate, by script (Appendix L), asked the subject if she/he had been given an assignment during the previous session, and if they chose to complete the assignment. The confederates script structured the questions in such a way as to collect information on how the subject chose to explain their reasons for defiance or compliance with the directive. It was hypothesized that in this casual situation, there would exist a low level of dependence and the subject would express a high level of personal responsibility for their defiant or compliant actions.

During the second week, the no-interview control group subjects completed the Procrastination Log.

Approximately ten days after the second interview, all thirty subjects returned to complete the Procrastination Log and the Self Perception Inventory. One week later, all subjects met with the

experimenter and were debriefed. Of the thirty subjects, four were given referrals to the University Counseling Service (on their request), in order to participate in a more extended and general therapy program.

Instrumentation and Analysis

Data related to Hypothesis I, which compared the levels of procrastination reported by the subjects of the treatment and control groups, was statistically analyzed by using an analysis of variance with repeated measures procedure. Procrastination data was obtained from the subjects' scores on the Procrastination Log. Subjects responded twice to each of the log's eleven items. First, they indicated how true the item was for them during the previous seven day period (on a 7 point Likert Scale ranging from true to false), and secondly, by reporting how satisfied they were with their performance (again using a 7 point Likert Scale ranging from very satisfied to very dissatisfied). A total score was obtained by summing the two component scores. Wright (1982) reported Chronbach Alpha internal consistency reliability coefficients, determined by Lopez and Wambach (1982), to be .67 and .76.

Data related to Hypothesis II, which compared the frequency of compliant or defiant responses across conditions, was statistically analyzed by using a series of Chi-Square analyses. As part of the analysis process, all of the subjects' responses were audio tape recorded and then transcribed for classification of response types. Three raters, working independently, judged each response as being compliant or defiant, and simple or spontaneous. Responses were then classified by virtue of the more frequently rated response type.

Hypothesis III compared subjects' perceptions of their counselors along the dimensions of trustworthiness and expertness. Any possible differences in perception between subjects of the expert and peer counselor groups were investigated by using a t-test for independent samples comparison. The Counselor Rating Form (Appendix D) was used to measure subjects' perceptions of their counselors. The CRF is an 18 item scale which presents the subject with a variety of descriptive word pairings pertaining to the subject's impression of the counselor (e.g. fair, unfair). The subjects responded on a 7 point Likert Scale. The CRF was originally developed as a 36 item instrument and was later shortened by Corrigan and Schmidt (1983). Original reliability estimates consisted of split-half correlations ranging from .85 to .91 (LaCrosse & Barak, 1976). Following Corrigan and Schmidt's factor analysis revision, the shortened form yielded reliability coefficients ranging from .82 to .94. Although the instrument consists of three subscales (trustworthiness, expertness, and attractiveness), only the trustworthiness and expertness scores were used in the t-test analysis.

The fourth hypothesis examined in this study compared the perceptions of the subjects in both treatment groups of their relationships with the counselors. The dimensions upon which these relationships were measured were resistance, unconditional regard, empathy, and dependency. The Relationship Inventory (Appendix E) was used to quantify the subjects' evaluations along these dimensions. The instrument is a 30 item scale which was developed by Strong, Wambach, Lopez and Cooper (1979) from Barrett-Lennard's (1962) original inventory. Subjects responded to each item statement by

indicating their agreement on a 7 point Likert Scale. Cronbach Alpha internal consistency reliability coefficients obtained in the Lopez and Wambach study (1982) ranged from .54 to .70. Hypothesis IV as statistically analyzed by a t-test for independent samples procedure.

Hypothesis V compared all subjects' orientation to change, along the dimensions of externality and internality. Externality and self control scores were obtained from the Self Perception Inventory (Appendix G). The instrument consists of 40 items. Each item was endorsed by the subject on a 7 point Likert Scale which ranged from true to false. The data was statistically analyzed with two separate analyses of variance procedures.

The final hypothesis examined the personality typologies of the procrastinators. Personality typologies were determined by scores obtained from the Interpersonal Checklist (Appendix F). The ICL is a 128 item inventory which requires the subject to endorse those adjectives which describe themselves. The checklist was devised by LaForge and Suczek (1955) to measure personality variables described by Leary (1956). Eight interpersonal traits are represented in the 128 items of the ICL: (a) Managerial-Autocratic, (b) Competitive-Narcissistic, (c) Aggressive-Sadistic, (d) Rebellious-Distrustful, (e) Self-effacing-Masochistic, (f) Docile-Dependent, (g) Cooperative-Over conventional, and (h) Responsible-Hypernormal. Each item was descriptive of one octant classification and also carried an intensity value (1-4). A low intensity item describes a trait manifestation which is necessary

In moderate amounts (e.g. grateful). High intensity items refer to trait manifestations in inappropriate or extreme amounts (e.g. clinging vine). A numeric sum is calculated for each octant. That octant which has the greatest sum total is considered the subject's dominant personality description. Armstrong's (1958) study of 100 subjects yielded test-retest reliability to be .64 - .83 with a mean of .78 for octant reliability. Kuder-Richardson estimates ranged from .95 to .97.

The data obtained from the ICL was statistically examined by utilizing a series of Chi-Square and Fisher's test analyses to test for any significant over representation of personality types among the sample. Further, subjects' scores on the Procrastination Log were used to compare levels of procrastination with predominant personality type.

RESULTS

Table I presents a summary of all mean scores and standard deviations obtained from each of the tests. On the Procrastination Log, the pretest mean scores of the three groups were essentially the same, ranging from 80.5 to 85.8. From Procrastination Log scores obtained following week II of the study, the mean score for the expert counselor condition was the same as at the pretest ($\bar{X} = 83.6$), while the means of the peer and control groups dropped to 74.1 and 74.8, respectively. Means at the follow up were 71.9 for the expert group, and 67.9 for the peer group, and 65.6 for the control group.

Pretest, posttest and follow up means for the three groups are graphically displayed in Figure 3. Overall, there was a substantial decrease, over time, in all three conditions on the Procrastination Log.

Table II (see Appendix M) summarizes the results of the analysis of variance with repeated measures procedure. A significant main effect for time ($F(2,20) = 12.77$, $p < .001$) was found. However, there was not a significant main effect for the second factor. Differences among the conditions were not statistically significant ($F(2,20) = 1.02$, $p > .05$). Further, interaction among conditions with time was not statistically significant ($F(2,20) = 0.37$, $p > .05$).

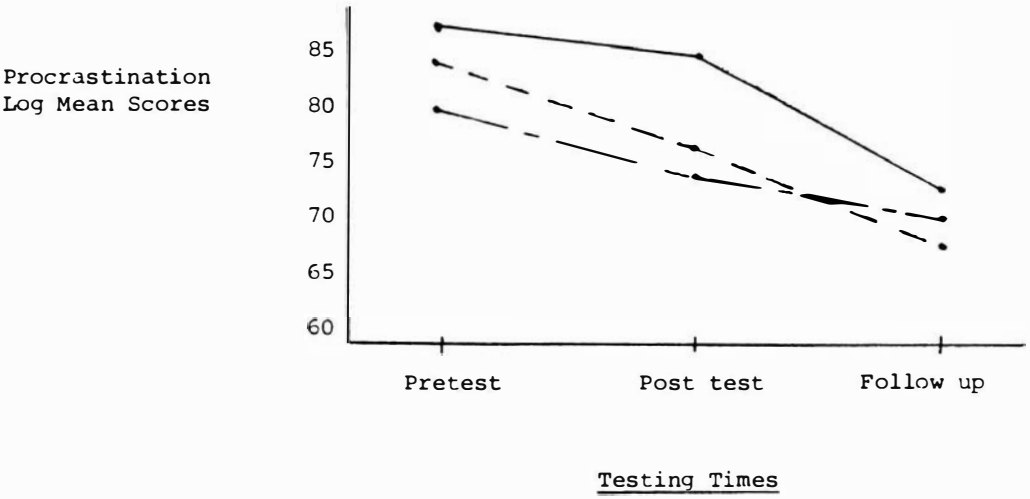
Table 1

Means and Standard Deviations for the Expert, Peer and Control Conditions on all Measures

	Condition					
	Expert		Peer		Control	
MEASURE	M	S.D.	M	S.D.	M	S.D.
Procrastination Log						
Pretest	85.8	10.26	80.5	11.71	84.1	7.88
Posttest	83.6	16.94	74.1	17.79	74.8	11.58
Follow Up	71.9	15.9	67.9	19.84	65.6	13.11
Counselor Rating Form						
Expertness	39.0	3.16	36.2	5.81		
Trustworthiness	55.0	6.80	56.6	8.51		
Relationship Inventory						
Resistance	17.50	5.97	22.8	10.93		
Unconditional Regard	42.40	8.34	39.20	8.71		
Empathy	48.0	5.54	46.40	6.26		
Dependence	31.80	7.57	29.50	9.59		
Self Perception Inventory						
Self Control	41.60	6.26	44.50	7.55	40.70	6.80
Externality	33.10	4.56	29.40	3.98	28.36	6.96

Note. N=30. Only those subjects of the experimental conditions (n=20) completed the Counselor Rating Form and The Relationship Inventory.

Figure 3. Comparison of expert, peer, and control group Procrastination Log mean scores over three testing times.



Note. N = 30

Expert Counselor Condition

Peer Counselor Condition

Control Group

Multiple means comparison tests (Neuman-Keuls, Scheffe) revealed that the differences between the pretest mean and the follow up mean were statistically significant. Tables III and IV (Appendix M) summarize the means comparison tests.

Table V presents the frequency of spontaneously defiant, simple defiant, spontaneous compliant, and simple compliant responses by the subjects to counselors and to confederates in each condition. While it was expected that subjects would respond to the counselors with defiant responses to the paradoxical directives, fourteen of the twenty subjects stated that they complied and carried out the entire paradoxical directive. While there is clearly a trend towards complying with the therapists' directives, the rate of compliance or defiance reported to counselors was not significantly different ($x^2(2,20) = 3.20$ $p > .05$). Of the 20 subjects, five expressed simple compliance to the directive, nine expressed spontaneous defiance, three reported simple defiance, and three reported spontaneous defiance. There were no significant differences among the frequencies of each response type ($x^2(2,20) = 4.80$, $p > .05$).

In terms of differences among treatment groups, two subjects of the expert counselor condition, and three subjects in the peer condition reported simple compliance; five subjects of the expert counselor group and four of the peer counselor group subjects reported spontaneous compliance, one expert condition subject and two peer condition subjects stated simple defiance, and two expert group subjects and one peer group subject reported spontaneous defiance.

While the total number of subjects is too small to allow

Table V

Frequency of Simple Compliance, Spontaneous Compliance, Simple Defiance, and Spontaneous Defiance by Condition and Audience.

	Expert		Peer		Overall	
RESPONSE	Cslr	Cnfed	Cslr	Cnfed	Cslr	Cnfed
Simple Compliance	2	2	3	2	5	4
Spontaneous Compliance	5	6	4	4	9	10
Simple Defiance	1	1	2	1	3	2
Spontaneous Defiance	2	1	1	3	3	4
Total Compliance	7	8	7	6	14	14
Total Defiance	3	2	3	4	6	6
Total Simple	3	3	5	3	8	6
Total Spontaneous	7	7	5	7	12	14

for an adequate analysis with the x^2 statistic, none of the comparisons, by condition, is significant by any criterion.

As can be seen in Table V, subjects reports to confederates did not differ substantially from their reports to the counselors. The overall frequencies for response types are within one of being identical for confederate and counselor reports. The largest difference is for the report of spontaneous defiance in the peer condition, where one subject identified his response as spontaneously defiant to the peer counselor, three did so to the confederate peer. None of the differences among conditions for any response type to counselors or to confederates were statistically significant.

The expertness subscale scores of the Counselor Rating Form, reflecting the subjects' perception of their counselor's level of expertness of counselor's skills, could range from a low score of 0 to a maximum of 42. The mean score for all subjects, given in Table I, was 37.6, indicating that all subjects perceived the counselors as highly expert. The mean score of expertness rating in the expert counselor condition was 39.0, and in the peer counselor condition, the mean was 36.20 The difference between the mean scores was not statistically significant ($t(18) = 1.34$, $p > .05$).

The trustworthiness scores, reflecting responsibility, sincerity and trustworthiness, could range from a minimum of 0 to a maximum score of 63. The overall mean score obtained from all treatment group subects was 55.8, indicating that subjects perceived all of the counselorsto be highly trustworthy. The mean of trustworthiness ratings of subjects in the expert counselor condition

was $\underline{M}$ = 55.0. While the mean for subjects in the peer condition was slightly greater (M = 56.6), the t-test comparison of the two group means indicated that the difference between the scores was not statistically significant ($t(18) = .46$, $p > .05$). Table VI (Appendix M) presents a summary of the statistical comparison.

The resistance scores from the Relationship Inventory could range from a low of 0 to a maximum of 56. The overall mean score for all subjects was 20.15, representing a moderately low level of resistance to the counselors. The mean of resistance scores for the subjects of the expert counselor condition was 17.50, and for the subjects in the peer counselor treatment group, $\underline{M}$ = 22.80. The difference between the means was not statistically significant ($t)18) = 1.35$, $p > .05$). The unconditional regard scores could range from 0 to a maximum of 56. The overall mean score for all subjects was 40.80, representing a moderately high degree of unconditional regard from the counselors. The mean scores for the subjects of the expert counselor condition and the peer counselor condition were $\underline{M}$ = 42.20 and $\underline{M}$ = 39.20, respectively. The statistical comparison of the group means indicate that the differences were not significant ($t(18) = .84$, $p > .05$). The empathy subscale scores could range from 0 to 56. The mean score of subjects in the expert and peer counselor treatment conditions were $\underline{M}$ = 48.80 and $\underline{M}$ = 46.40, respectively. Both scores indicate moderately high levels of perceived empathy. However, the scores are not significantly different from one another ($t(18) = .60$, $p > .05$). The dependency subscale scores could range from a minimum of 0 to a maximum of 42. The overall mean score for this variable was $\underline{M}$ = 30.65.

The means for subjects in the peer and expert treatment groups were $\underline{M}$ = 29.50 and $\underline{M}$ = 31.80, respectively. These scores indicate that subjects perceived all of the counselors as being moderately well equipped to meet the needs defined in the relationship. The t-test comparison of the difference between the two groups indicated that the difference was not statistically significant ($t(18) = .60$, $p > .05$). Table VII (Appendix M) summarizes the t-test comparisons of Relationship Inventory subscale scores between treatment groups.

The overall mean of the self control scale of the Self Perception Inventory was $\underline{M}$ = 42.27. The subjects in the expert counselor condition and the peer counselor condition obtained means of $\underline{M}$ = 41.6 and $\underline{M}$ = 44.5, respectively. Subjects in the control group produced a mean score of $\underline{M}$ = 40.70. The results of an analysis of variance of the differences among the three groups indicated that the differences were not statistically significant ($\underline{F}(2,30) = .83$, $p > .05$). The overall mean score of the externality subscale was 30.60. Means for the expert counselor, peer counselor, and the control condition were $\underline{M}$ = 33.10, $\underline{M}$ = 29.40, and 28.36, respectively. The analysis of variances performed on the three group means indicated that the differences among the groups were not statistically significant ($\underline{F}$ (2,30) = 1.71, $p > .05$). However, the overall mean score for the self control scale was $\underline{M}$ = 42.27, and the mean score of the externality scale was $\underline{M}$ = 30.60, a difference which is statiscally significant, (independent sample $t(18) = 2.09$, $p < .05$). Tables VIII and IX (Appendix M) summarize these comparisons.

On the Interpersonal Checklist, five subjects described themselves as Managerial-Autocratic (Octant I); one subject as Competitive-Narcissistic (Octant II); four subjects as Aggressive-Sadistic (Octant III); two as Rebellious-Distrustful (Octant IV); three subjects as Cooperative-Overconventional; and seven subjects as Responsible-Hypernormal. The Chi-Square analysis of the frequencies indicated that there was no significant clustering of subjects around any single personality type ($x^2(7, N = 30) = 6.78$, $p > .05$). Since the number of cells, when compared to the number of subjects, yielded an expectancy of less than five, the Chi-Square computed may not be reliable.

In additional analysis, high (86-103) scorers on the Procrastination Log were separated from the lower scorers (60-85), and octants were collapsed into quadrants. Table XI summarizes the results of the comparison. A Chi-Square analysis indicated that there was no significant relationship between the Procrastination Log scores and quadrant classification (x^2 (3, $N = 30$) = 1.95, $p > .05$).

Table XI

Chi-Square analysis of primary quadrant classifications on the Interpersonal Checklist by subjects Procrastination Log scores.

			Primary Quadrants			
			1-2	3-4	5-6	7-8
Procrastination Log Scores	High (86-103)	fe	2.0	2.0	2.67	3.33
		fo	1	3	2	4
	Low (60-85)	fe	4.0	4.0	5.33	6.67
		fo	5	3	6	6

Note. N = 30. df = 3

$x^2 = 1.95$, n.s.

Table X

Single sample Chi-Square analysis of frequency of primary octant classifications by subjects on the Interpersonal Checklist.

	OCTANTS							
	1/AP	2/BL	3/DE	4/FG	5/HI	6/JK	7/LM	8/NO
Expected Frequency	3.75	2.75	3.75	3.75	3.75	3.75	3.75	3.75
Observed Frequency	5	1	4	2	5	3	3	7

Note. All cells have an expected frequency of less than 5. The Chi-Square computed may not be reliable.

N = 30. df = 7

x^2 = 6.78. ns.

DISCUSSION

The purpose of this study was to empirically investigate the hypothesis that subjects would report their responses to counselor's directives differentially according to their perception of the counselor's level of expertness and the subject's expressed level of dependency upon the counselor. It was hypothesized that, as the subject became involved in a counseling situation in which paradoxical directives were given by the therapist, those subjects who were told that their counselor was an inexperienced "peer" counselor would express low dependency and attribute less expertness to their counselor's skills. In this circumstance, it was hypothesized that subjects would report that they defied the paradoxical directives to "keep right on procrastinating" in such a way as to acknowledge their defiance with personal responsibility (simple defiance). In the situation which involved the subjects being told that their counselors were experts in effectively treating problems of procrastination, the subjects were expected to report their defiance of the directives as being the result of circumstances over which they had no control or responsibility. In an interview with a confederate peer, which followed the subject's second counseling session, the subjects were expected to acknowledge even more responsibility in their reports of defiance than they had to either sets of counselors.

The experiment involved the use of an analogue counseling situation which included counselors giving subjects a predetermined

paradoxical directive. It was hypothesized that the subjects would report having defied the counselor's symptom prescription directive, and would report fewer procrastination behaviors as a result. Further, subjects who took part in either one of the treatment conditions were expected to exhibit greater reduction of the procrastination than did those subjects who received no treatment.

The data clearly indicated that all subjects made considerable improvement in controlling their procrastination. The rate of improvement for the subjects in the treatment groups was consistent with similar studies involving paradoxical treatment of procrastination among college students (Wright & Strong, 1981). The concurrent improvement among those subjects who received no treatment except to complete a number of inventories, including the Procrastination Log each week, may be explained by the phenomenom of decreased symptomatic behavior through self-monitoring behaviors (Bristol & Sloan, 1979, Hayes & Canon, 1977). This is consistent with Kazdin's (1974) reports of decreased symptomatic behaviors following a series of behavioral counts made by subjects. The influence of self monitoring to decrease procrastination was described by three of the control group subjects in follow-up telephone communications. Each reported that they procrastinated less because they had been made more aware of the presence of unwanted behaviors while completing the Procrastination Log,and were therefore better able to stop them from occurring. Based upon the existing data, it cannot be determined whether the significant decrease in procrastination behaviors was related to the paradoxical therapy, the self monitoring procedures, or the fact that the subjects

were aware that they were taking part in a study which involved periodic measurement of procrastination behaviors.

An examination of the data indicated that the primary hypotheses of the study were, clearly, not supported. A differential response according to the subjects' perception of the counselors experience and expertness levels did not occur. In fact, in both the expert and peer counselor groups, subjects were more likely to report having complied with the directive than to having defied. This factor is particularly curious in light of the significant improvement of all groups of subjects; procrastination scores from the pretest measurement to the follow up.

In the expert condition, students were more likely to report having complied with the directive to "procrastinate more", yet reported almost no change in their Procrastination Log scores. If the subjects really did comply with the"procrastinate more" directive, as they reported, then one would expect to find an increase in the procrastinatory behaviors reported. Approximately ten days following the posttest report, students of the expert counselor condition reported a sudden drop in their Procrastination Log scores.

Subjects of the peer counselor condition reported even more paradoxical results. In this group, subjects reported having complied with the "procrastinate more" directive, yet also reported having "procrastinated less" by way of their steadily declining Procrastination Log scores at the posttest and follow-up testings.

It seems unlikely that students could have complied with the directive to "procrastinate more" and then report having experienced the same or less procrastination. It may be that subjects, in fact, defied the directives (therefore procrastinating the same or less) but reported to the counselor that they had complied. This circumstance would be most likely in the event that the subjects experienced high levels of dependence upon the counselors. The greater the dependency, the greater the need to report compliance to the counselor. However, this style of dealing with interpersonal demands represents a clear divergence from the original theory. The theory proposes that when a person is involved in a highly dependent relationship, and there exists an incongruent demand, that the person will respond by defying the demand in such a way as to deny personal responsibility for the action by way of a "symptom". The data from this study suggests that another option is to report compliance while performing defiance.

Reporting compliance and performing defiance can be seen as one way to deal with a high dependency/high incongruence situation. In that situation, the subject is able to defy the incongruent directive, yet not take personal responsibility for the defiance.

Among the basic assumptions of Hypotheses III and IV was the idea that subjects would perceive the expert counselors as being highly competent and possessing many of the qualities which enhance the dependency variable, therefore affecting response type. Analyses of scores from the Counselor Rating Form and the Relationship Inventory clearly indicate that subjects perceived no difference in those variables which

would determine differential perceptions of the expert and peer counselors. It appears that the subjects perceived all of the counselors as being expert, trustworthy, empathetic, and dependable. Thus, the experimental maniuplation of convincing the subjects that their counselors were either expert or novice, simply by providing them with that information, was not successful. The failure of this critical experimental manipulation is likely to have affected the outcome of the study in a significant way. Since the two experimental groups were perceived to be essentially the same, the current data does not provide the opportunity to test the hypothesis of differential effects due to the experience variable.

Since the subjects only information regarding their counselor's level of experience and expertness was the provision of this information to each subject (all counselors behaved professionally and used the same scripts), subjects may have made their assessments of the counselor's status based upon a number of other factors. Slaney (1977) compared client ratings of their counselors and found that clients may perceive the directiveness of the counselor to be a sign of expertness and effectiveness. Both the expert and peer counselors provided directives in this study. Secondly, counselors and the experimenter stated to the subjects that the experts were very experienced counselors, while the peer counselors were described as novice. Heppner & Heesacker (1983) examined students' Counselor Rating Form evaluations of their counselors and found that counselor experience level does not affect CRF scores. In fact, all of the counselors in that study were rated as highly expert, trustworthy, and attractive. These findings are consistent with the data of the current study. LaCrosse (1977) described this phenomenom as "the good guy effect".

Subject's responses to the peer confederates are equally interesting. It was hypothesized that subjects would even more readily state their simple defiance to a peer, since the dependency variable would be minimal in that relationship. The results indicate that the subjects tended to report the same response to the peer as they did to their counselor. This may be the result of the subjects having just presented the counselor with a response, and therefore represents an attempt to maintain cognitive consistency. It is also possible that subjects responded to both the confederate peer and the counselors in an accurate fashion, and inaccurately estimated an improvement in procrastination behaviors as measured by the Procrastination Log.

In terms of Research Hypothesis V, which investigated the relationship between a subject's orientation to personal change (external or self control) and the experimental condition, the results failed to indicate a significant difference between the treatment and non-treatment groups. There was, however, a significantly greater number of subjects who stated that change occurred as the result of some internal, self directed factors. This suggests that all of the subjects expressed personal responsibility (spontaneous change) for their decrease in procrastination. Strong & Claiborn (1982) argue that spontaneous change is the most permanent style of change, since the subject attributes the phenomenom as one which reflects a change not only in behavior, but within the self as well. This is the type of change which is the goal of paradoxical psychotherapy.

Hypothesis VI involved an empirical examination of the distribution of personality types (as measured by the Interpersonal Checklist) among

the sample of procrastinators. As was predicted, no single octant was significantly over represented among this population. It is interesting to note that Edwards' (1957) study found a correlation of .83 between each item's social desirability rating and the rate of endorsement among college students. In the present study, those octants judged to be less socially desirable in the Edward's study were not significantly less likely to be endorsed than the desirable ones. It may be that this population of procrastinators is somehow different from the overall college student population. As of yet, a large scale normative sample has not been obtained for the Interpersonal Checklist, therefore an unqualified statement regarding the possible differences in the personality types of the procrastinators and the general population cannot be made.

Limitations of the Study

The current study has some of the same limitations as do many of the previous analogue studies. The reliance upon only two counseling sessions, the use of self-report measure to assess therapeutic change, and the lack of verification of accuracy of the subjects' reported compliance or defiance of the paradoxical directive may all be considered weaknesses in the experimental design. Further, while the use of the scripted directives was necessary for reliability across subjects, the lack of flexibility and the relatively brief interactions between the subjects and the therapist may have seriously limited the establishment of a relationship. Therefore, the directive may have been an isolated technique rather than a carefully planned part of a short term counseling program.

A possible deficit of relationship building may also account for the critical failure of the experimental manipulation of differentiating between expert and novice counselors. The therapeutic relationship which must consist of varying levels of dependency, trust, empathy, and congruence may have been measured long before these components could be fully developed and differentiated. Although scores from the Relationship Inventory and the CRF indicate that a trusting, dependable and therapeutic relationship did exist, after just two contacts, it seems likely that even greater levels of these factors continue to develop as a therapeutic relationship progresses. Future research studies may benefit from allowing even greater relationship building to occur before attempting to differentiate treatment groups by measuring relationship components.

Finally, while all of the interviewers were trained in the technique of delivering this paradoxical directive, the level of comfort, trust, and experience in working with a directive and paradoxical style varied considerably between interviewers. Future research projects which investigate the use of specific therapeutic techniques may consider these weaknesses and attempt to utilize alternative strategies to minimize the effects.

Reference Notes

Strong, S.R., Bradford, C., & Zodun, H. (1982). A Relationship Theory of Personality Change. Unpublished manuscript, Virginia Commonwealth University, Richmond, Virginia.

Strong, S.R. (1982). An Interactional/Social Psychological Theory of Change in Therapeutic Counseling. Unpublished manuscript, Virginia Commonwealth University, Richmond, Virginia.

Wright, M.R. (1980). The Effects of Paradoxical Directives in a Brief Counseling Situation. Unpublished doctoral dissertation, University of Nebraska, Lincoln.

Strong, S.R. & Claiborn, C.D. (1980). Interactional Counseling: A Theoretical Framework for Therapeutic Relationships. Unpublished manuscript, University of Nebraska, Lincoln.

Beck, J.T., & Strong, S.R. (1980) Dynamics of Interpretations: A Comparison of Paradoxical and Traditional Forms. Unpublished manuscript, University of Nebraska, Lincoln.

Gould, G.T., & Strong, S.R. (1982) Gould-Strong Expectancies About Counseling Inventory. Unpublished raw data, Virginia Commonwealth University, Richmond, Virginia.

References

Abramowitz, C., Abramowitz, S., & Roback, H. (1974). Differential effectiveness of directive and non-directive group therapies as a function of client internal-external locus of control. Journal of Consulting and Clinical Psychology, 42, 849-853.

Armstrong, R.G. (1958). The Leary Interpersonal Checklist: A reliability study. Journal of Clinical Psychology, 14, 393-394.

Ascher, L., & Efran, J. (1978). Use of paradoxical intention in a behavioral program for sleep onset insomnia. Journal of Consulting and Clinical Psychology, 46, 547-550.

Ascher, L. & Turner, R. (1979). Paradoxical intention and insomnia: An experimental investigation. Behavior Research and Therapy, 17, 408-411.

Ashby, J., Ford, D., Guerney, B., & Guerney, L. (1957) Effects on clients of a reflective and leading type of therapy. Psychological Monographs, 71, Whole no. 453.

Baker, E. (1960) Differential effects of two psychotherapeutic approaches. Journal of Counseling Psychology, 7, 46-50.

Barrett-Lennard, G.T. (1962) Dimensions of therapist response as causal factors in therapeutic change. Psychological Monographs, 76, Whole No. 562.

Bateson, G., Jackson, D.D., Haley, J., & Weakland, J. (1956) Toward a theory of schizophrenia. Behavioral Science, 1, 251-264.

Beck, J. T., & Strong, S.R. (1982) Positive connotation: Stimulating therapeutic change with paradoxical interpretations. Journal of Counseling Psychology, in press.

Brehm, J. (1966) A theory of psychological reactance. New York: Academic Press.

Corrigan, J.D. & Schmidt, L.D. (1983) Development and validation of revisions in the Counselor Rating Form. Journal of Counseling Psychology, 30, 64-75.

DeShazur, S. (1978) Brief hypnotherapy of two sexual dysfunctions: The crystal ball technique. American Journal of Clinical Hypnosis, 20, 203-208.

Dunlap, K. (1928) Revision of the fundamental law of habit formation. Science, 67, 360-362.

Dunlap, K. (1932) Habits: Their making and unmaking. New York, Liverwight.

Edwards, A.L. (1957). Social desirability and probability of endorsement of items in the Interpersonal Checklist. Journal of Abnormal and Social Psychology, 55, 394-396.

Erickson, M.H. (1965) The use of symptoms as an integral part of hypnotherapy. American Journal of Clinical Hypnosis, 8, 57-65.

Erickson, M. H. (1973) Varieties of double bind. American Journal of Clinical Hypnosis, 13, 143-157.

Feldman, D.A., Strong, S.R., & Danser, D.B. (1982) A comparison of paradoxical and non-paradoxical interpretations and directives: Journal of Counseling Psychology.

Fenichel, O. (1945) The psychoanalytic theory of the neurosis. New York: Norton.

Frank, G. (1964) The effects of directive and non-directive statements by therapists on the content of patient verbalizations. Journal of General Psychology, 71, 323-328.

Frankl, V. (1960) Paradoxical intention: A logotherapeutic technique. American Journal of Psychotherapy, 14, 520-535.

Freud, S. (1956) A note on the unconscious in psychoanalysis. In J. Strachey (Ed. and Trans.), The standard edition of the complete psychological works of Sigmund Freud, (Vol. 12, pp. 264-286). London: Hogarth Press (Original work published 1912)

Freud, S. (1959) Inhibitions, symptoms and anxiety. In J. Strachey (Ed. and trans.), The standard edition of the complete psychological works of Sigmund Freud, (Vol. 20., pp. 160-210). London: Hogarth Press. (Original work published 1926)

Friel, K.T. (1977) Directive or non-directive?: Therapists' self perception as it relates to their tendency to influence patients. Smith College In Social Work, 48, 49-51.

Goodstadt, M.A. (1971) Helping and refusal to help: A test of balance and reactance theories. Journal of Experimental Social Psychology, 7, 610-622.

Haley, J. (1963) Strategies of psychotherapy. New York: Grune & Stratton.

Haley, J. (1973) Uncommon therapy. New York: Norton & Co.

Haley, J. (1976) Problem-solving therapy. New York: Josey-Bass.

Hayes, S.C., & Cannon, N. (1977). Multiple tracking and self monitoring. Behavior Therapy, 8, 814-831.

Heilman, M., & Toffler, B. (1976).Reacting to reactance: An interpersonal interpretation of the need for freedom. Journal of Experimental Social Psychology, 12, 519-529.

Heppner, P.P., & Heesacker, M. (1983). Perceived counselor characteristics, client expectations and client satisfaction with counseling. Journal of Counseling Psychology, 30, 31-39.

Jackson, D. (1968). Therapy, communication and change: Human communication (vol. 2). Palo Alto, California: Science Behavior.

Kanfer, F.H., Cox, L.E., Greiner, J.M., & Karoly, P. (1974). Contracts, demand characteristics and self-control. Journal of Personality and Social Psychology, 30, 605-619.

Kazdin, A. E. (1974). Self monitoring and behavioral change. In M. J. Mahoney & C. E. Thoresen (Eds.), Self-control: Power to the person. (pp 123-154). Monterey, Calif.: Brooks Cole.

LaCrosse, M.B. (1977). Comparative perceptions of counselor behavior: A replication and extension. Journal of Counseling Psychology, 24, 464-471.

LaCrosse, M.B. & Barak, A. (1975). Multidimensional perceptions of counselor behaviors. Journal of Counseling Psychology, 22, 471-476.

LaForge, R., & Suczek, R.F. (1955). The interpersonal dimension of personality: An interpersonal checklist. Journal of Personality, 24, 94-112.

Leary, T. (1956). Multiple measurement of interpersonal behavior: A manual for the use of the interpersonal system of personality. Berkeley: Psychological Consultation Service.

Lopez, F. G., & Wambach, C. (1982). Effects of paradoxical and self control directives in counseling. Journal of Counseling Psychology, 29, 115-124.

Madanes, C. (1980). Protection, paradox and pretending. Family Process, 19, 73-85.

Malleson, N. (1959). Panic and phobia: A possible method of treatment. Lancet, 1, 225-227.

Marks, I. (1972). Paradoxical intention. In W. Agras (Ed.), Behavior modification, Boston: Little & Brown.

Minnchin, S. (1974). Families and family therapy. Cambridge: Harvard University Press.

Morrison, J.K., Libow, J.A., Smith, F.G., & Becker, R.A. (1978). Comparative effectiveness of directive vs. non-directive group therapist styles on client problem resolution. Journal of Clinical Psychology, 34, 186-187.

Pearls, F. S. Gestalt therapy verbatim. Moab, Utah: Real People Press, 169.

Pollak, M.S. & Heller, J.F. (1973). Interactive effects of commitments to future interaction and a threat to attitudinal freedom: Journal of Personality and Social Psychology, 17, 325-331.

Raskin, D. & Klein, A. (1976). Losing a symptom through keeping it. Archives of General Psychiatry, 33, 548-555.

Rogers, C.R. (1951). Client centered therapy. Boston: Houghton Mifflin

Schmitt, J.P. (1980). Unconditional positive regard: The hidden paradox. Psychotherapy: Theory, Research and Practice, 17, 237-245.

Seligman, M. (1972). Learned helplessness. Annual Review of Medicine, 23, 407-412.

Singer, E. (1970). Key concepts in psychotherapy. New York: Basic Books.

Slaney, R. (1977) Perceptions of alternative roles for the facilitative conditions. Journal of Counseling Psychology, 24, 169-172.

Smith, C. (1971). An atypical session: Resistance and the negativistic patient. Psychotherapy: Theory, Research and Practice, 8, 276-279.

Solyom, L., Garza-Perez, J., Ledwidge, B., & Solyom, C. (1972). Paradoxical intention in the treatment of obsessive thoughts: A pilot study. Comprehensive Psychiatry, 13, 291-297.

Stampfl, T., & Levis, D. (1967). Essentials of implosive therapy: A learning theory based psychodynamic behavioral therapy. Journal of Abnormal Psychology, 72, 496-503.

Strong, S.R. (1978). Social psychological approach to psychotherapy research. In S. Garfield & A. Bergin (Eds.) Handbook of psychotherapy and behavior change. New York: Wiley & Sons.

Strong, S.R., Wambach, C.A., Lopez, F.G., & Cooper, R. K. (1979). Motivational and equipping functions of interpretation in counseling. Journal of Counseling Psychology, 26, 98-107.

Strong, S.R. (1982). Emerging of clinical and social psychology: A clinician's perspective. In G. Weary & H. Mirels (Eds.) Integration of clinical and social psychology, New York: Oxford University Press.

Strong, S.R. & Claiborn, C.D. (1982). Change through interaction: Social psychological processes of counseling and psychotherapy. New York: Wiley.

Troemel-Ploetz, S. (1980). "I'd come to you for therapy": Interpretation, redefinition and paradox in Rogerian therapy. Psychotherapy: Theory, Research and Practice, 17, 246-257.

Watzlawick, P., Beavin, J. & Jackson, D.C. (1967). Pragmatics of human communication. New York: Norton.

Watzlawick, P., Weaklund, J.H., & Fisch, R. (1974). Change: Principles of problem formation and problem resolution. New York: Norton.

Weeks, G. & L'Abate, L. (1982). Paradoxical psychotherapy: Theory and practice with individuals, couples, and families. New York: Brunner/Mazel.

Wright, R.M., & Strong, S. R. (1982). Stimulating therapeutic change with directives: An exploratory study. Journal of Counseling Psychology, 29, 195-198.

Wolpe, J. (1958). Psychotherapy by reciprocal inhibition. Stanford, California: Stanford University Press.

Worchel, S., & Brehm, J. (1970). Effects of threats to attitudinal freedom as a function of agreement with the communicator. Journal of Personality and Social Psychology, 14, 18-22.

Zeig, J. (1980). A teaching seminar with Milton H. Erickson. New York: Brunner/Mazel.

Appendix A

Personal Data Sheet

Name _____

Age _____

Sex _____

Social Security Number _____

Current Address _____

_____

Current Phone _____

Are your currently:

A full-time student? Yes No

A part-time student? Yes No

Experiencing problems with procrastination? Yes No

Informed Consent Form

You are invited to participate in a study of the effectiveness of counseling methods for facilitating change of procrastinating behaviors. If you decide to participate, and are selected to participate, you will be assigned, by chance, to one of 2 counseling conditions or to a non-interview, questionnaire only, condition.

You will be asked to complete one questionnaire today, and if selected to participate in the study, will complete several questionnaires during the next 4 weeks. Further, if you are assigned to one of the counseling conditions, you will attend 2 sessions to discuss your procrastination with a counselor. Each counseling session will last approximately 30 minutes. These sessions will be tape recorded for the purpose of review and scoring by the experimenter only. All recordings will be destroyed following the completion of the study. One week following the second session, you will be asked to return to complete a final brief questionnaire.

Your decision whether to participate in the study is completely voluntary. If you decide to participate, you are free to withdraw your consent and discontinue participation at any time. If you have any questions, feel free to address them to Mr. Glenn T. Gould, Room [redacted]

All information collected during the study is confidential and reports of the research will be in group form only, with all personal references removed.

I give my consent to participate in this experiment with full knowledge of the above.

_____ _____

SIGNATURE DATE

I thank you for your efforts.
Glenn T. Gould, M.A.

Procrastination Log

Name _____

Date _____

Consider this last week. For each item below, please circle first the number which which describes how true the item has been for you during the past week. Then circle the number which best describes how satisfied you are with your performance.

		True (1) Mostly true (2) More true than false (3) Cannot say (4) More false than true (5) Mostly false (6) False (7)	Very dissatisfied (1) Moderately dissatisfied (2) Slightly dissatisfied (3) Neutral (4) Slightly satisfied (5) Moderately satisfied (6) Very satisfied (7)
1.	I reviewed my reading and notes so I wouldn't have to cram for exams later.	1 2 3 4 5 6 7	1 2 3 4 5 6 7
2.	I worked on papers and assignments that are due later in the quarter.	1 2 3 4 5 6 7	1 2 3 4 5 6 7
3.	I kept up with the reading required for my courses.	1 2 3 4 5 6 7	1 2 3 4 5 6 7
4.	I cleaned my room, apartment, or house.	1 2 3 4 5 6 7	1 2 3 4 5 6 7
5.	I promptly answered letters from my family and friends.	1 2 3 4 5 6 7	1 2 3 4 5 6 7
6.	I arrived on time for classes.	1 2 3 4 5 6 7	1 2 3 4 5 6 7
7.	I watched television or listened to music when I should have been studying.	1 2 3 4 5 6 7	1 2 3 4 5 6 7

		True (1) Mostly true (2) More true than false (3) Cannot say (4) More false than true (5) Mostly false (6) False (7)	Very dissatisfied (1) Moderately dissatisfied (2) Slightly dissatisfied (3) Neutral (4) Slightly satisfied (5) Moderately satisfied (6) Very satisfied (7)
8.	I went out when I should have been studying.	1 2 3 4 5 6 7	1 2 3 4 5 6 7
9.	I talked on the telephone or visited with friends when I should have been studying.	1 2 3 4 5 6 7	1 2 3 4 5 6 7
10.	This week I tried harder to control my procrastination than I did last week.	1 2 3 4 5 6 7	1 2 3 4 5 6 7
11.	I spent time thinking about procrastination and what I could do about it.	1 2 3 4 5 6 7	1 2 3 4 5 6 7

Appendix D

(revised form)

COUNSELOR RATING FORM

Listed below are several scales which contain word pairs at either end of the scale and seven spaces between the pairs. Please rate the counselor you just saw on each of the scales.

If you feel that the counselor very closely resembles the word at one end of the scale, place a check mark as follows:

fair ___:___:___:___:___:___:__X__: unfair

OR

fair __X__:___:___:___:___:___:___: unfair

If you think that one end of the scale quite closely describes the counselor then make your check mark as follows:

rough ___:__X__:___:___:___:___:___: smooth

OR

rough ___:___:___:___:___:__X__:___: smooth

If you feel that one end of the scale only slightly describes the counselor, then check the scale as follows:

active___:___:__X__:___:___:___:___: passive

OR

active___:___:___:___:__X__:___:___: passive

If both sides of the scale seem equally associated with your impression of the counselor or if the scale is irrelevant, then place a check mark in the middle space:

hard ___:___:___:__X__:___:___:___: soft

Your first impression is the best answer.

PLEASE NOTE: PLACE CHECK MARKS IN THE MIDDLE OF THE SPACES.

informed	___:___:___:___:___:___:___:	ignorant
insightful	___:___:___:___:___:___:___:	insightless
stupid	___:___:___:___:___:___:___:	intelligent
unlikeable	___:___:___:___:___:___:___:	likeable
logical	___:___:___:___:___:___:___:	illogical
open	___:___:___:___:___:___:___:	closed
prepared	___:___:___:___:___:___:___:	unprepared
unreliable	___:___:___:___:___:___:___:	reliable
disrespectful	___:___:___:___:___:___:___:	respectful
irresponsible	___:___:___:___:___:___:___:	responsible
selfless	___:___:___:___:___:___:___:	selfish
sincere	___:___:___:___:___:___:___:	insincere
skillful	___:___:___:___:___:___:___:	unskillful
sociable	___:___:___:___:___:___:___:	unsociable
deceitful	___:___:___:___:___:___:___:	straightforward
trustworthy	___:___:___:___:___:___:___:	untrustworthy
genuine	___:___:___:___:___:___:___:	phony
warm	___:___:___:___:___:___:___:	cold

Relationship Inventory*

Name _____

Date _____

The Relationship Inventory asks you to describe your reactions to your counselor. Please rate how much you agree or disagree with each item. For example, the first item is "The counselor wanted to understand how I saw things." If this is very much how you feel about the counselor, you would circle 7, mostly agree. If you feel quite the opposite was true, you would circle 1, mostly disagree.

SAMPLE	Mostly Disagree	Moderately Disagree	Slightly Disagree	Neither Agree or Disagree	Slightly Agree	Moderately Agree	Mostly Agree
The counselor wanted to understand how I saw things.	1	2	3	4	5	6	7

Some statements may be difficult to evaluate on the basis of your time with your counselor, but please try to use your experiences in the interviews to make some assessment of the counselor. Don't spend too much time on each item. Your immediate and honest reaction to each item is most desirable.

* Adapted from the Relationship Inventory-Form ORM-64 by G.T. Barrett-Lennard, Ph.D.

		Mostly Disagree	Moderately Disagree	Slightly Disagree	Neither Agree or Disagree	Slightly Agree	Moderately Agree	Mostly Agree
1.	The counselor wanted to understand how I saw things.	1	2	3	4	5	6	7
2.	The counselor's interest in me depended on the things I said or did.	1	2	3	4	5	6	7
3.	The counselor may have understood my words, but did not see the way I felt.	1	2	3	4	5	6	7
4.	The counselor seemed opinionated.	1	2	3	4	5	6	7
5.	The counselor wanted me to be a particular kind of person.	1	2	3	4	5	6	7
6.	Sometimes the counselor thought that I felt a certain way because its the way she/he felt.	1	2	3	4	5	6	7
7.	The counselor helped me to get a more accurate picture of myself.	1	2	3	4	5	6	7
8.	The counselor liked certain things about me, and there were certain things she or he did not like.	1	2	3	4	5	6	7
9.	The counselor realized what I meant even when I had difficulty in saying it.	1	2	3	4	5	6	7
10.	I did not agree with some of the things the counselor said.	1	2	3	4	5	6	7

		Mostly Disagree	Moderately Disagree	Slightly Disagree	Neither Agree or Disagree	Slightly Agree	Moderately Agree	Mostly Agree
11.	The counselor just took no notice of some things that I thought or felt.	1	2	3	4	5	6	7
12.	At times I sensed that the counselor was not aware of what he/she was really feeling with me.	1	2	3	4	5	6	7
13.	Some of the things the counselor said did not fit with my experience.	1	2	3	4	5	6	7
14.	The counselor approved of some things I do, and disapproved of others.	1	2	3	4	5	6	7
15.	At times the counselor thought that I felt a lot more strongly about a particular thing than I really did.	1	2	3	4	5	6	7
16.	I do not think that this counselor could really help me.	1	2	3	4	5	6	7
17.	Whether I was in good spirits or felt upset did not make the counselor feel any more or less appreciative of me.	1	2	3	4	5	6	7
18.	The counselor really understood my problem	1	2	3	4	5	6	7
19.	The counselor did not realize how sensitive I was about some of the things we discussed.	1	2	3	4	5	6	7

		Mostly Disagree	Moderately Disagree	Slightly Disagree	Neither Agree or Disagree	Slightly Agree	Moderately Agree	Mostly Agree
20.	Whether the ideas and feelings I expressed were "good" or "bad" seemed to make no difference to the counselor's feelings towards me.	1	2	3	4	5	6	7
21.	Sometimes the counselor seemed to be trying out a technique on me rather than saying what he or she really thought.	1	2	3	4	5	6	7
22.	I don't think that anything I said or did really changed the way the counselor felt toward me.	1	2	3	4	5	6	7
23.	What other people think of me affected the way the counselor felt toward me (or would have if she or he had known).	1	2	3	4	5	6	7
24.	If I were to talk to a counselor again, I would want to see the same person.	1	2	3	4	5	6	7
25.	The counselor seemed to have the abilities to help me to change my procrastination.	1	2	3	4	5	6	7
26.	I can depend on this counselor to make use of his or her skills to help me to change my procrastination.	1	2	3	4	5	6	7
27.	The counselor really seemed to understand my concerns about procrastination.	1	2	3	4	5	6	7
28.	I found that this counselor helped me to feel better about my procrastination.	1	2	3	4	5	6	7

		Mostly Disagree	Moderately Disagree	Slightly Disagree	Neither Agree or Disagree	Slightly Agree	Moderately Agree	Mostly Agree
29.	I found my sessions with this counselor to be helpful to me in the area of better controlling my procrastination.	1	2	3	4	5	6	7
30.	If I needed to talk with a counselor on a regular, continuing basis, I would look forward to working with this counselor.	1	2	3	4	5	6	7

Appendix F

The Interpersonal Checklist

Name _____ Date _____

Directions:

This booklet contains a list of descriptive words and phrases which you will use in describing yourself.

Read the items quickly and circle only those words which you feel are descriptive of yourself at the present time. Your first impression is generally the best, so work quickly and don't be concerned about duplications, contradictions or being exact.

1. well thought of
2. makes a good impression
3. able to give orders
4. forceful
5. self-respecting
6. independent
7. able to take care of self
8. can be indifferent to others
9. can be strict if necessary
10. firm but just
11. can be frank and honest
12. critical of others
13. can complain if necessary
14. often gloomy
15. able to doubt others
16. frequently disappointed
17. able to criticize
18. apologetic
19. can be obedient
20. usually gives in
21. grateful
22. admires and imitates others
23. appreciative
24. very anxious to be approved of
25. cooperative
26. eager to get along with others
27. friendly
28. affectionate and understanding
29. considerate
30. encourages others
31. helpful
32. big-hearted and unselfish
33. often admired
34. respected by others
35. good leader
36. likes responsibility
37. self-confident
38. self-reliant and assertive
39. businesslike
40. likes to compete with others
41. hard-boiled when necessary
42. stern but fair
43. irritable
44. straightforward and direct
45. resents being bossed
46. skeptical
47. hard to impress
48. touchy and easily hurt
49. easily embarrassed
50. lacks self-confidence
51. easily led
52. modest
53. often helped by others
54. very respectful to authority
55. accepts advice readily

56. trusting and eager to please
57. always pleasant and agreeable
58. wants everyone to like him
59. sociable and neighborly
60. warm
61. kind and reassuring
62. tender and soft-hearted
63. enjoys taking care of others
64. gives freely of self
65. always giving advice
66. acts important
67. bossy
68. dominating
69. boastful
70. proud and self-satisfied
71. thinks only of himself
72. shrewd and calculating
73. impatient with others mistakes
74. self-seeking
75. outspoken
76. often unfriendly
77. bitter
78. complaining
79. jealous
80. slow to forgive a wrong
81. self-punishing
82. shy
83. passive and unaggressive
84. meek
85. dependent
86. wants to be led
87. lets others make decisions
88. easily fooled
89. too easily influenced by others
90. will confide in anyone
91. fond of everyone
92. likes everybody
93. forgives anything
94. oversympathetic
95. generous to a fault
96. overprotective of others
97. tries to be too successful
98. expects everyone to admire him
99. manages others
100. dictatorial
101. somewhat snobbish
102. egotistical and conceited
103. selfish
104. cold and unfeeling
105. sarcastic
106. cruel and unkind
107. frequently angry
108. hard-hearted
109. resentful
110. rebels against everything

111. stubborn
112. distrusts everybody
113. obeys too willingly
114. spineless
115. hardly ever talks back
116. clinging vine
117. likes to be taken care of
118. will believe anyone
119. wants everyone's love
120. agrees with everyone
121. friendly all the time
122. loves everyone
123. too lenient with others
124. tries to comfort everyone
125. too willing to give to others
126. spoils people with kindness

SELF-PERCEPTION INVENTORY (9-81)/ Client's Attribution to Change

Name_____

Date_____

The Self-Perception Inventory asks you to describe your attitudes and beliefs about the personal issues and concerns focused on in this study. For each statement below, please circle the number which best indicates how true or false the statement is as a description of your beliefs and attitudes about these issues and concerns. Please rate each statement honestly and to the best of your ability.

		True (1)	Mostly True (2)	More True Than False (3)	Cannot Say (4)	More False Than True (5)	Mostly False (6)	False (7)
		1	2	3	4	5	6	7
1.	As I grow personally, I become more aware of relationships with others and how I affect others.	1	2	3	4	5	6	7
2.	My personal difficulties reflect a lack of ability to control my emotions and behaviors.	1	2	3	4	5	6	7
3.	My concern about others' feelings often affect my behavior.	1	2	3	4	5	6	7
4.	Through personal trials, I become more aware of who I really am.	1	2	3	4	5	6	7
5.	Overcoming personal difficulties is a matter of the growth of my ability to control my emotions and behaviors.	1	2	3	4	5	6	7
6.	I can overcome my personal problems if I really want to.	1	2	3	4	5	6	7

7.	My personal difficulties will not be resolved until the circumstances I face get better.	1	2	3	4	5	6	7
8.	As I grow personally, I gain the ability to overcome my difficutlies and personal problems.	1	2	3	4	5	6	7
9.	I have enough self-control to deal with my personal difficulties.	1	2	3	4	5	6	7
10.	The direction of personal development is from self-centeredness to a greater concern for the well-being of others.	1	2	3	4	5	6	7
11.	Personal difficulties reflect deep unconscious conflicts from the past.	1	2	3	4	5	6	7
12.	My personal difficulties can be controlled through concentration.	1	2	3	4	5	6	7
13.	I often appear relazed and unburdened in order to help others not feel anxious and burdened.	1	2	3	4	5	6	7
14.	Personal difficulties reflect undeveloped personality potentials.	1	2	3	4	5	6	7
15.	My difficulties and personal problems are due to events that happened a long time ago.	1	2	3	4	5	6	7
16.	Difficult periods in my life have impeded my growth.	1	2	3	4	5	6	7
17.	I courageously face my own faults.	1	2	3	4	5	6	7
18.	Overcoming my personal difficulties is not a matter of will power.	1	2	3	4	5	6	7
19.	My personal difficulties come and go depending on who I am with and what is happening to me.	1	2	3	4	5	6	7
20.	The times I face personal difficulties are the least fruitful times in my life	1	2	3	4	5	6	7
21.	I am sensitively aware of the needs and feelings of others.	1	2	3	4	5	6	7

22.	Personal growth and actualization is not the answer to my personal difficulty.	1	2	3	4	5	6	7
23.	I try to resolve my problems because others want me to.	1	2	3	4	5	6	7
24.	Personal difficulties do not mark periods of personal growth.	1	2	3	4	5	6	7
25.	Personal difficulties are resolved by growth as a person.	1	2	3	4	5	6	7
26.	I seldom put myself down to enhance others' feelings about their own strengths and abilities.	1	2	3	4	5	6	7
27.	Overcoming personal difficulties is not a matter of personal development.	1	2	3	4	5	6	7
28.	Compared to others, I am sensitively aware of my feelings.	1	2	3	4	5	6	7
29.	With effort, I can overcome my personal difficulties.	1	2	3	4	5	6	7
30.	My problems and difficulties are lessened as my personal potentials develop.	1	2	3	4	5	6	7
31.	Becoming aware of the origins of my conflicts in the past resolves personal problems.	1	2	3	4	5	6	7
32.	Even if I try hard, I cannot overcome my personal difficulties.	1	2	3	4	5	6	7
33.	Others hold me responsible for personal problems I cannot help.	1	2	3	4	5	6	7
34.	Personal growth is the product of suffering.	1	2	3	4	5	6	7
35.	I often do things to benefit others at considerable cost to myself.	1	2	3	4	5	6	7
36.	I cannot control my personal difficulties even if I am determined to do so.	1	2	3	4	5	6	7
37.	My personal difficulties are a result of the circumstances I face.	1	2	3	4	5	6	7
38.	Difficult times in life are intense growing experiences.	1	2	3	4	5	6	7

39.	I am not very aware of my feelings, needs, and abilities.	1	2	3	4	5	6	7
40.	Overcoming personal difficulties is not related to my development as a person.	1	2	3	4	5	6	7

Appendix H

Interview I

Expert Counselor Condition

A. Greeting and Purpose

Counselor introduces self and thanks subject for coming. After greeting subject, counselor directs subject to an interviewing room.

Counselor: "As you may know _____, I am an advanced doctoral student here in the V.C.U. psychology program. I've been asked to participate in this project because I have a considerable amount of experience working with students who have had problems with procrastination. The purpose of these interviews will be for the two of us to discuss your experiences with procrastination so that I can help you to better control your own behavior."

B. Description of the Problem

Counselor: "Your volunteering for this project suggests that you are concerned about procrastination and are interested in doing something about it. Maybe we can start by you giving me some background on your experiences and how they have affected your coursework and assignments."

Counselor and subject discuss subject's procrastination. Counselor listens carefully, clarifying problem behaviors and writing down on the cue sheet specifically what the subject does to procrastinate. During the course of the interview, the counselor should use reflective statements and should not attempt to provide insight or make interpretations for the subject.

C. Directive

Counselor: "_____, It seems that you have tried to control your procrastination at various times, but without very much success. It seems clear to me that you need to observe just what you do to procrastinate and to learn more about these activities. So, what I want you to do...no, what I insist that you do is to keep right on doing exactly what you have been doing; keep on _____ and _____, and _____, just as you have been doing them. In fact, you might want to practice doing them even more than usual. While you are procrastinating, you must always be consciously thinking

about your procrastinating. The next time we meet, I will ask you to report on your experiences of this coming week. Now _____, do you have any questions about what you are to do?"

The counselor now schedules a second interview, one week from this initial interview. (Please try to schedule it for the same day and time, and also impress upon the subject that it is important not to miss next week's appointment, regardless of the outcome of the assignment.)

Appendix I

Expert Counselor Condition

A. Greeting

The counselor goes to the reception area and thanks the subject for keeping the appointment.

B. Discussion of Homework

Counselor: "Last week I asked you to make an effort to keep right on procrastinating and to be careful to be conscious of your behaviors, feelings and thoughts. You were also to learn something about yourself. How did it go?"

The counselor must record if the subject completed the entire assignment and exactly why or why not.

1. If the subject reports not procrastinating at all:

   a. Counselor asks "What did you do instead?" Counselor attempts to uncover what the subject did instead of procrastinating.

   b. The counselor expresses doubts about the client's ability to maintain this sudden change of habits.

   c. The counselor comments: "I've worked with a number of individuals who procrastinate, and I have found that it is necessary for them to follow this assignment just as I state it, in order to achieve consistent change.

2. If the subject reports procrastinating exactly as directed, 7 days per week:

   a. The counselor and subject discuss what the subject learned about his or her actions, feelings and thoughts when procrastinating (for about 20 minutes). Explore other areas of procrastination if needed to fill in the time.

3. If the subject reports to following the directive only partially, find out why they could/did not fully comply. (Be sure to record this information)

   a. The counselor and subject discuss what the subject has learned during the past week. Explore other areas of procrastinating if necessary.

b. The counselor comments that it is extremely important that the subject follow exactly what the counselor has directed for any substantial change to occur.

C. Directive

After 20-25 minutes, counselor states:

> "I've been working with individuals who have experienced procrastination for some time now. Based upon my experience and training, I know that in order for you to overcome procrastination, you must keep on doing exactly as you have been doing and that you must very consciously observe your thoughts, behaviors, and feelings each day, for the next seven days.
>
> Do you have any questions?"
>
> "Next week you will be asked to come in again to fill out 2 very brief questionnaires, O.K.?"

Counselor dismisses the subject and wishes them well.

Appendix J

Interview I

Peer Counselor Condition

A. Greeting and Purpose

Counselor introduces self and thanks subject for coming. After greeting subject, counselor directs subject to an interviewing room.

Counselor: "As you may know, _____, I am a student here at V.C.U., majoring in psychology. I've done some work with the counselors here, so they have asked me to try my hand at peer counseling. The purpose of these interviews seems to be for us to discuss your experiences with procrastination so that I can try, if I can, to help you to better control your procrastinating."

B. Description of the Problem

Counselor: "Your volunteering for this study suggests that you are concerned about procrastination and are interested in doing something about it. Maybe we can start by you giving me some background on your experiences and how it has affected your coursework and assignments."

Counselor and subject discuss subject's procrastination. Counselor listens carefully, clarifying problem behaviors and writing down on the cue sheet specifically what the subject does to procrastinate. During the course of the interview, the counselor should use reflective statements and should not attempt to provide insight or make interpretations for the subject.

C. Directive

Following 20-25 minutes of problem description, the counselor will deliver the following directive.

Counselor: "_____, it seems that you have tried to control your procrastination at various times, but without very much success. It seems clear to me that you need to observe just what you do to procrastinate and to learn more about these activities. So, what I want you to do...no, what I insist that you do is to keep right on doing exactly what you have been doing; keep on _____ and _____ and _____, just as you have been doing them. In fact, you might want to

practice doing them even more than usual. While you are procrastinating, you must always be consciously thinking about your procrastinating. The next time we meet, I will ask you to report on your experiences of this coming week. Now _____, do you have any any questions about what you are to do?"

The counselor now schedules a second interview, one week from this initial interview. (Please make it for the same time, and also impress upon the client that it is important not to miss next week's appointment, regardless of the outcome of the assignment.).

Appendix K

Interview II

Peer Counselor Condition

A. Greeting

The counselor goes to the reception area and thanks the subject for keeping the appointment.

B. Discussion of Homework

Counselor: "Last week I asked you to make an effort to keep right on procrastinating and to be careful to be conscious of your behaviors, feelings and thoughts. You were also to learn something about yourself. How did it go?"

The counselor must record if the subject completed the assignment and exactly why or why not.

1. If subject reports not procrastinating at all:

   a. Counselor asks "What did you do instead?" Counselor attempts to uncover what the subject did instead of procrastinating.

   b. The counselor expresses doubts about this sudden change of habits.

   c. The counselor comments: "Even though I'm not an experienced counselor, I really hope that you will try to follow my assignments just as I state them."

2. If the subject reports procrastinating exactly as directed, 7 days per week:

   a. Counselor and subject discuss what subject learned about his or her actions, feelings and thoughts when procrastinating (for about 20 minutes). Explore other areas of procrastination if needed to fill in the time.

3. If the subject reports to following the directive only partially, find out why they could/did not fully comply. (Be sure to record this information).

   a. Counselor and subject discuss what the subject has learned during the past week. Explore other areas of procrastination if necessary.

b. The counselor comments that it is important that the subject must try to follow exactly what the counselor has directed for anything to happen.

C. Directive

After 20-25 minutes, counselor states:

> "Even though I don't have much experience with these things, it seems that in order for you to overcome procrastinating, you must keep observing your behaviors and learning about yourself. So, I must insist that you keep on doing exactly as you have been doing and that you very consciously observe your thoughts, behaviors and feelings each day, for the next 7 days. Do you have any questions?"
>
> "Next week you will be asked to come in again to fill out 2 very brief questionnaires, O.K.?"

Counselor dismisses the subject and wishes them well.

Appendix L

Confederate's Script

During the second week of interviews, all subjects will be required to complete the Procrastination Log and the Counselor Rating Forms. The subjects will be taken to the testing room where the confederate experimenter will appear to be completing the package of questionnaires. After the subject has completed approximately 3-5 minutes of test taking, the confederate will ask:

Confederate: "Are you in this procrastination experiment too?" (following a 30-50 second pause) "Tell me, did your counselor ask you to some kind of homework assignment last week?"
(Confederate waits for subject's response)

"Did you do it?"

(subject responds)

"How come?"

Following this brief conversation, the confederate will leave the testing room and will immediately record the subject's responses.

Appendix M

Statistical Tables II-IV, VI-IX, XII-XIV

Table II

Analysis of Variance with Repeated Measures Comparison of Procrastination Log Scores Over Time.

Source	df	ss	ms	f
Trials (A)	2	3422.13	1711.06	12.77*
Groups (B)	2	710.81	355.41	1.02
Error (Within Groups)	27	9385.75	347.62	
A x B	4	199.44	49.86	.037
Error (Between Groups)	54	7236.44	134.01	

Note. n = 20

* $p < .001$

Table III

Neuman-Keuls Post-hoc Comparison of Procrastination Log Mean Scores

		Pretest	Posttest	Follow up
Mean Scores		68.47	77.50	83.47
68.47	1		9.03	15.00*
77.50	2			5.97

* $p < .05$

Table IV

Sheffe Post-hoc Comparison of Procrastination Log Mean Scores.

		Pretest	Posttest	Follow up
Mean Scores		83.47	77.50	68.47
Posttest	77.50	1.33	-	-
Follow up	68.47	18.40*	3.04	-

*p < .05

Table VI

T-Test Comparisons of Expert and Peer Condition Subjects on Expertness, and Trustworthiness Subscales of the Counselor Rating Form.

	Condition					
	Expert		Peer			
SUBSCALE	M	S.D.	M	S.D.	t	p
Expertness	39.0	3.16	36.2	5.81	1.34	ns
Trustworthiness	55.0	6.80	56.6	8.51	0.64	ns

Note. n = 20. df = 18.

Table VII

T-Test comparisons of expert and peer condition subjects' scores on resistance, unconditional regard, empathy, and dependence subscales of the Relationship Inventory.

	Conditions					
	Expert		Peer			
Subscale	M	S.D.	M	S.D.	t	p
Resistance	17.50	5.95	22.8	10.93	1.35	ns
Unconditional Regard	42.40	8.34	39.20	8.71	0.84	ns
Empathy	48.0	5.54	46.40	6.26	0.60	ns
Dependence	31.80	7.57	29.50	9.59	0.60	ns

Note. n = 20. df = 18.

Table VIII

Analysis of variance of self-control and externality subscale scores of the Self Perception Inventory for experimental and control conditions.

Source of variance	df	ss	ms	f	p
Self Control					
Between Groups	2	78.87	39.33	0.83	ns
Within Groups	27	1281.	47.44		
Total	29	1359.87			
Externality					
Between Groups	2	93.8	46.9	1.71	ns
Within Groups	27	739.4	27.38		
Total	29	833.2			

Note. N = 30

Table IX

T-Test comparison of overall orientation to internal and external orientation to change by all subjects' combined scores.

		Orientation to Change				
		Self Control		Externality		
Condition	df	M	S.D.	M	S.D.	t p
Expert[a]	9	41.6	6.26	33.10	4.56	1.74
Peer[a]	9	44.5	7.55	29.40	3.98	2.84*
Control[a]	9	40.70	6.80	28.36	6.96	2.36*
Total[b]	29	42.27	6.87	30.60	5.36	2.09*

Note. [a] n = 10

[b] N = 30

* $p < .05$

Table XII

Fisher's 2 x 2 Exact Test of Procrastination Log scores and two Interpersonal Checklist quadrants.

		Primary Quadrants	
		5-6	3-4
Procrastination Log Scores	High (86-103)	2	3
	Low (60-85)	6	3

Note. Fisher's exact Probability = 0.343. ns.

Table XIII

Fisher's 2 x 2 Exact Test of Procrastination Log scores and two Interpersonal Checklist quadrants.

		Primary Quadrants	
		1-2	7-8
Procrastination Log Scores	High (86-103)	1	4
	Low (60-85)	5	6

Note. Fisher's Exact Probability = 0.346. ns.

Table XIV

Chi-Square analysis of frequency of compliant and defiant responses to counselors.

	Response	
	Comply	Defy
Frequency expected	10	10
Frequency observed	14	6

Note. N = 20. df = 1.
x^2 = 3.20. ns.

VITA

[redacted]