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The use of therapist rules, self rules, and contingency-shaped feedback in the treatment of social skills deficits in adults

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The University of North Carolina at Greensboro, 1986

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THE USE OF THERAPIST RULES, SELF RULES, AND CONTINGENCY-SHAPED FEEDBACK IN THE TREATMENT OF SOCIAL SKILLS DEFICITS IN ADULTS

by

IRWIN S. ROSENFARB

A Dissertation Submitted to
the Faculty of the Graduate School at
The University of North Carolina at Greensboro
in Partial Fulfillment
of the Requirements for the Degree
Doctor of Philosophy

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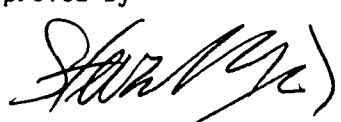

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APPROVAL PAGE

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ROSENFARB, IRWIN SHIMON. The use of therapist rules, self rules, and contingency-shaped feedback in the treatment of social skills deficits in adults. (1986). Directed by Dr. Steven C. Hayes. 243 pp.

Skinner added an important extension to his analysis of human behavior when he discussed the concept of rule-governed behavior. Contingency-shaped behavior is behavior under the control of past consequences. Rule-governed behavior, a subset of contingency-shaped behavior, is behavior under the control of a contingency-specifying stimulus. Although most behavior therapy with verbal, outpatient adults is rule-governed, several problems exist with rule-governed strategies. In most situations, one does not know which behaviors clients should modify. In addition, the human operant literature has shown that when behavior comes under the control of rules, it is less likely to come under the control of changing contingencies.

This study attempted to compare rule-governed with contingency-shaped therapy programs in the treatment of assertive skills deficits in adults. 36 adults participated in an 8-session individual treatment program. Subjects role-played situations in which they were having difficulty behaving assertively. Subjects in one group were given instructions on the behaviors necessary to change to become more assertive. Subjects in a second group developed their own rules for how to act assertively. Subjects in a third group neither were given rules nor were they asked to develop their own rules. Some subjects in each of the above three groups were also given contingency-shaped feedback after role-playing. A seventh group served as a waiting-list control.

Results indicated that subjects in the feedback groups generally improved more than did subjects in either the no-feedback groups or the waiting-list control group. No significant main effects or interaction effects were found for rules on any of the social skills post-test or generalization measures of change. The results extend those found in the human operant literature as they suggest that contingency-shaped behavior is more likely than rule-governed behavior to change when the contingencies change. The results also suggest that rule-governed strategies may not be effective in teaching clients social skills which will generalize to the natural environment. The results support the efficacy of contingency-shaped approaches to psychotherapy and suggest that using a shaping process to effect clinical change may lead to successful treatment strategies.

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Finally, I would like to dedicate this dissertation to Dr. Aaron J. Brownstein - teacher, friend, and scholar.

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CHAPTER I

INTRODUCTION

Skinner (1969) added an important extension to his theoretical analysis of human behavior when he discussed the concept of rule-governed behavior. Skinner distinguished between two different types of behavior. In the first type, called contingency-shaped behavior, individuals engage in certain behaviors because they have been shaped by certain consequences in the past. The second type of behavior, called rule-governed, is a subset of contingency-shaped behavior. Rule-governed behavior is behavior under the control of a contingency-specifying stimulus. Individuals engage in the behavior because they are following a rule. An individual, for example, may learn to play poker by being shaped by the consequences of her play. She becomes more likely to play hands she has won and less likely to play hands she has lost. Such behavior is contingency-shaped. Alternatively, an individual can learn to play poker by studying the probabilities of winning and losing each hand. Such an individual may have had no history of playing poker. Instead, he has learned a rule about how to play. Although the behavior of the first player and that of the second player may look identical, they are actually very different behaviors functionally. The behavior of the first player occurs because in the past certain consequences have accrued for either

engaging in, or not engaging in, similar behaviors. The behavior of the second player is engaged in because in the past certain consequences have accrued for either following, or not following, certain rules.

Rule-governed approaches and behavior therapy

Rule-governed or instructional approaches to psychotherapy tend to predominate in behavior therapy. Rules have become a ubiquitous method of promoting change in behavior therapy (Bellack & Hersen, 1977). They have have been used in the treatment of alcoholic drinking behavior (Miller, Becker, Foy, & Wooten, 1976), marital therapy (Eisler, Hersen, & Agras, 1973), psychotic eating behavior (Ayllon & Azrin, 1964), addictive behavior (Bigelow, Sticker, Leibson, & Griffins, 1976), weight control (Jeffrey, Gerber, Rosenthal, & Lindquist, 1983), disruptive classroom behavior (Herman & Tramontana, 1971), spasmodic torticollis (Bernhardt, Hersen, & Barlow, 1972), smoking behavior (Spring, Sipich, Trimble, & Goeckner, 1978), fear of flying (Giroda & Roehl, 1978), and social isolation in retarded adults (Kleitsch, Whitman, & Santos, 1983), among others. The use of instructions is so predominant in behavior therapy that Black & Schroeder (1985) recently asserted that "instructions are...a necessary part of all phases of response acquisition" (p. 110-111).

Nowhere is the use of rule-governed approaches more pronounced in behavior therapy than in the social skills/assertiveness training literature. By 1979, Twentyman & Zimering reviewed 124 studies in this area, and of those, only 7 failed to use rules of some sort to help

clients change their behavior. The use of rules to change socially unskilled behavior is based upon a molecular skills deficit model of social skills training (Bellack & Hersen, 1979; Twentyman & McFall, 1973). According to this model, the goal of therapy is to provide clients with the specific molecular skills that they are lacking in their response repertoires.

Several problems exist with this model, however, and with rule-governed approaches to social skills training in general. One problem is that the specific components of socially skilled behavior are difficult to identify. Although over 150 studies have been done in this area, the specific behaviors that identify those who are skilled from those who are unskilled are still unclear (Arkowitz, 1983; Bellack & Morrison, 1983; Curran, Farrell, & Grunberger, 1984; Trower, 1984). In fact, Bellack & Morrison (1983) have recently asserted that these specific behavioral deficits have "defied objective measurement" (p. 720). Furthermore, there is some evidence that socially unskilled individuals may not differ from socially skilled individuals in the specific behaviors in their repertoire, but they may differ only in the timing of when they display those behaviors (Fischetti, Curran, & Wessberg, 1977).

A second problem with the use of rule-governed approaches to teach socially skilled behavior is that social skills do not seem to develop naturally through the use of rules or instructions (this issue will be discussed in more detail later). Instead, we seem to learn to interact socially through a shaping process. We seem to learn appropriate and

inappropriate behavior in different social situations because of the effects these behaviors produce in others. It seems therefore that a learning process in therapy that differs from the way such behavior develops naturally may not lead to the most therapeutic generalization.

Rule-governed behavior and human operant performance

A final problem with rule-governed approaches in social skills training programs is that the contingencies surrounding their use is unclear. Rules may be problematic if they prevent clients from coming under the control of other, more important stimuli in the natural environment. Such an "insensitivity" effect has already been shown with the use of instructions in a number of basic, human operant studies. Matthews, Shimoff, Catania, & Sagvolden (1977), for example, looked at the effects of rule-governed behavior under different schedules of reinforcement. Some subjects were instructed on the behaviors necessary to obtain reinforcement on the task (pressing on a telegraph key; a rule-governed process) while other subjects were shaped to respond on the task by being rewarded through closer and closer approximations to the required response (a contingency-shaping process). For those subjects whose behavior was contingency-shaped, responding generally matched that found in non-human animals on similar schedules of reinforcement. Responding was generally sensitive to the particular schedule, and behavior changed when the schedule contingencies changed. When responding was instructed however, the behavior often failed to be sensitive to the schedule of reinforcement, and behavior generally did not change when the schedule contingency changed. Thus, rule-governed

behavior generally led to an "insensitivity" to the programmed contingencies. The programmed contingencies failed to gain control over the subject's behavior. Other contingencies semed to prevent the programmed contingencies from gaining control over behavior.

Similar results were found in a study by Shimoff, Catania, & Matthews (1981). Again, rule-governed behavior generally did not seem to come under the control of programmed schedules of reinforcement whereas shaped behavior generally did come under schedule control. In this study, the instructed subjects made occasional contact with the schedule contingencies, yet their behavior still failed to come under the control of those contingencies. These results suggest therefore that rules do not lead to insensitivity effects because they prevent subjects from coming in contact with programmed contingencies (Galizio, 1979).

Hayes, Brownstein, Zettle, Rosenfarb, & Korn (1986) attempted to explore the processes by which rules may lead subjects to fail to come under the control of schedule contingencies. In Experiment 1, all subjects were exposed to a multiple reinforcement schedule; sometimes rapid responding solved the problem best whereas at other times responding slowly worked best. Some subjects were told to respond rapidly, others were told to respond slowly, a third group was given accurate instructions, and a fourth group was given no instructions about the schedule contingencies. Results suggested that instructions narrowed the range of responding and thereby altered the way in which subjects made contact with the schedule contingencies. The results also

suggested that additional social contingencies may have accounted for some of the individual differences because some subjects making contact with the programmed contingencies continued to follow inaccurate instructions.

The effects of rules and contingencies were further explored in Experiment 2. In this study, subjects were presented with two lights, one of which said, "GO FAST" while the other said "GO SLOW." For some subjects, only the GO FAST light was turned on, for others only the GO SLOW light was turned on, and for a third group, both lights were turned on in an alternating sequence which alternated twice as fast as the multiple reinforcement schedule. In addition, for half the subjects, all lights were turned off after one session, while for the other half, the lights remained on for all three sessions. The results of this experiment showed again that instructions can narrow the range of behaviors that make contact with the schedule contingencies. The results also showed a clear effect for the influence of social control on responding. All subjects in the three session alternating light condition showed behavior that was consistent with the lights, regardless of the actual schedule contingencies. In contrast, all subjects in the one session alternating light condition showed clear and immediate schedule control when the lights were withdrawn. Thus it seemed that the behavior of the subjects in the three session light condition was under the control of another, apparently social, set of contingencies. Again, rules made it less likely that subjects would come under the control of programmed contingencies, and the

insensitivity effect generated by rules seemed to be due to social consequences.

Finally, Hayes, Brownstein, Haas, & Greenway (in press) showed that behavior that may look as if it is under the control of programmed contingencies may actually be rule-governed. Subjects were either given minimal instructions, partially accurate instructions, or completely accurate instructions on the same multiple schedule used previously (Hayes, et al., 1986). Results indicated that when subjects in either the minimal or partial accurate instructions groups showed differential responding on the multiple schedule, their behavior generally extinguished when reinforcement was no longer forthcoming. For subjects in the accurate rules group however, there was no correlation between differential responding on the multiple schedule and responding during the extinction phase. Only 8 out of 15 subjects in the accurate rules group who showed highly sensitive behavior to the multiple schedule showed large extinction effects. In contrast, 22 of the 25 subjects in the other groups who showed highly sensitive behavior to the multiple schedule showed large extinction effects. The results therefore suggest that behavior that looks as if it is under the control of schedule contingencies may acually be rule-governed. It is often only when the programmed contingencies change that behavior which is schedule sensitive can be discerned (Matthews, et al., 1977; Shimoff, et al., 1981).

Processes of change in rule-governed behavior

The results of these human operant studies show that instructions can gain control over behavior quickly and can lead people to become less sensitive to programmed contingencies. There seem to be three ways in which rules can gain control over behavior. First, rules may operate through "pliance" effects (Hayes, et al., 1986; Zettle & Hayes, 1982). In pliance, rules gain control over behavior because in the past, individuals have received socially-mediated reinforcement for a correspondence between behavior and the rule given. For example, children may follow the instruction, "Clean your room!" because in the past, socially mediated consequences were applied when they either followed or failed to follow similar instructions. A client with social skills deficits may follow the rule, "Make sure you talk loud enough," because in the past, social contingencies were applied for the following of such rules. In pliance effects, reinforcement is contingent upon whether the specific instruction is followed or not followed. Pliance effects seem to account for some of the insensitivity effect created by rule-following (Hayes, et al. 1986). Behavior under the control of socially mediated consequences for the point-to-point correspondence between the rule and behavior may not readily come under the control of other contingencies. Individuals who follow rules because of social contingencies for rule-following may not "pay attention to" other stimuli available in the situation.

A second way in which rules may gain control over behavior is through "tracking" effects (Zettle & Hayes, 1982). In tracking, individuals follow rules because in the past, following such rules has led to more effective action. There are no additional, arbitrarily applied, social contingencies for following specific rules. So, for example, individuals may follow the rule, "The way to get to UNCG is to make a left on Tate Street," because in the past, following such a rule has led to reinforcement (the person gets to where she's going). Unlike in pliance, in tracking reinforcement comes only because the behavior itself directly generates reinforcement. Getting to UNCG involves turning left on Tate Street, whether or not the social community can monitor the rule, the behavior, and their point-to-point correspondence. Were no rule given, the outcome (being reinforced for getting to UNCG) would be the same. The outcome in pliance effects would be totally different if no rule were given because the reinforcement only comes for rule-behavior correspondence.

A third type of instructional control is known as "augmenting" (Zettle & Hayes, 1982). In augmenting, the rule becomes an "establishing stimulus" (Michael, 1982) that makes other stimuli more or less potent as reinforcers or punishers. For example, in the human operant literature, a person may be told that people who earn many points on an operant task are more intelligent than those who do not earn many points. These subjects may then work harder to earn points because the reinforcing potential of the points have changed.

Rule-governed behavior and social skills training

In the human operant literature, rules have been shown to gain control over behavior quickly and to establish behavior that is less sensitive to other contingencies. Such an "insensitivity" effect may also occur with the use of rules in social skills training programs. For example, if a client follows instructions because of the contingencies established by his or her therapist, those instructions may make it less likely that the client's behavior will come under the control of other contingencies in the natural environment. If an unassertive client asks a girl out on a date because he is instructed to do so by his therapist, the client may be acting under the control of contingencies established by the therapist. This may then prevent the client from coming under the control of other contingencies available in the dating situation. The fact that assertiveness and social skills training programs often have poor generalizability to the natural environment (Scott, Himadi, & Keane, 1983) may be due to such effects (see Brehm & McAllister [1980] for a similar analysis of the negative effects of therapeutic control using self-attribution theory, and Goldiamond & Dyrud [1968] for a radical behavioral analysis).

Given the potential detrimental effects of rules, it is surprising that only two published studies have specifically tested whether rules add to the efficacy of social skills training programs. McFall & Twentyman (1973) attempted to assess the effects of behavioral rehearsal (role-playing), coaching (i.e., instructions), and symbolic modeling in a two session treatment program for unassertive college students.

Results indicated that behavioral rehearsal and coaching accounted for most of the treatment effects found on self-report and role-play measures of assertiveness. The behavior of the instructed group however failed to generalize more than did the behavior of the role-play only group on in-vivo measures of socially skilled behavior.

Hersen, Eisler, Miller, Johnston, & Pinkston (1973) looked at the additive effects of role-playing, instructions, and modeling in a six session, three day treatment program for hospitalized psychiatric patients. Results showed that instructions added to role-playing effects on measures of duration of looking, loudness, and affect. Instructions did not add to role-playing however on measures of overall assertiveness, or on self-report measures of assertiveness. Generalization of treatment effects was not assessed.

In summary, only two studies in the applied literature have specifically examined whether rules add to the efficacy of social skills training programs. Rule-governed effects have never been adequately tested in an outpatient treatment program for adults. In addition, the generalization of instructional effects over time and over situations has not been adequately assessed.

One purpose of the present investigation was to assess the effects of rules on promoting generalization of behavior change in a social skills treatment program. If the molecular skills deficit model is not a viable method of teaching social skills, then rules should be ineffective in the treatment of social skills deficits. Furthermore, if rules block subjects from coming under the control of other

contingencies, this would suggest that the use of rules may be detrimental in the promotion of long-term behavior change. If subjects follow instructions because of the control established by the therapist (i.e., because of pliance effects), and if coming under therapist control prevents behavior from coming under the control of other, more effective contingencies in the natural environment, then instructions may not be an effective way to teach social skills. Furthermore, if contingency-shaped methods of teaching social skills are developed, instructions could prevent those contingencies from gaining control over behavior. This would suggest that instructions may decrease the effectiveness of contingency-shaped methods of social skills training (this issue will be discussed in more detail below).

If however, the molecular skills deficit approach is a viable method of treating social skills deficits, and if instructions do not block behavior from coming under the control of other, important stimuli, then instructions should promote long-term behavior change. If instructions specify important behaviors that subjects should work on during role-playing, and if instructions work through tracking effects (i.e, if no additional, arbitrary, social reinforcement is given for rule-following), then instructions should help subjects become more socially skilled. In such a situation, instructions would help subjects make contact with effective behavioral repertoires and would help subjects come under the control of environmental sources of reinforcement.

Self rules

An alternative to telling clients what to do in therapy through instructions is to help clients develop with their own instructions for what they wish to modify in therapy. Recent cognitive-behavioral advances in behavior therapy are based upon the premise that self-directed changes are more lasting and lead to more behavior change than do externally-directed changes (Beck, Rush, Hollon, & Shaw, 1979; Kanfer & Gaelick, 1986; Mahoney, 1974; Meichenbaum, 1986). One important therapeutic technique that has come out of this cognitive-behavioral model is self-instructional training. In self-instructional training procedures, clients are typically taught to instruct themselves in performing certain difficult tasks. The procedure has been shown to be effective with hyperactive children (Bornstein & Quevillon, 1976), aggressive children (Camp, Blom, Hebert, & Van Doorinck, 1976), and with schizophrenics (Meichenbaum & Cameron, 1973), among others.

Perhaps the prototypical example of a self-instructional treatment program was one developed by Meichenbaum & Goodman (1971). Meichenbaum & Goodman taught impulsive children to use self-instructions to become more effective in solving sensory-motor and problem-solving tasks. In learning to copy line patterns, children were taught to repeat the following self-instruction before they engaged in the task:

> Okay, what is it I have to do? You want me to copy the picture with the different lines. I have to go slowly and carefully. Okay, draw the line down, down, good; and then to the right, that's

> it; now down some more and to the left. Good, I'm doing fine so far. Remember, go slowly. Now back up again. No, I was supposed to go down. That's okay. Just erase the line carefully...Good. Even if I make an error I can go on slowly and carefully. I have to go down now. Finished. I did it! (Meichenbaum & Goodman, 1971, p. 117).

Results indicated that the self-instructional training group improved significantly more than did a placebo control group on performance measures of impulsivity and that these results maintained at a one-month follow-up.

Just as with external rules, there seem to be three ways in which self-rules can gain control over behavior. First, an individual's self-rule may lead to subsequent behavior change because in the past, behavior in the presence of similar verbal behavior has been reinforced. In the past, behavior correlated with following the verbal rule has led to more effective action. In this case, the self-rule operates through tracking effects (Zettle & Hayes, 1982). For example, an individual may verbalize the rule, "The way to get the machine to work is to press the button." Subsequent behavior may then change because in the past, such an instruction or similar instructions have been correlated with the individual obtaining reinforcement when engaging in the behavior specified by the rule (e.g., the individual finds that the machine then works).

Verbal changes may also cause subsequent non-verbal changes because of social standard setting effects (Hayes & Wolf, 1984; Hayes, Rosenfarb, Wulfurt, Munt, Korn, & Zettle, 1985; Rosenfarb & Hayes, 1984; Zettle & Hayes, 1983). Individuals in our culture have a high probability of receiving social reinforcement for "doing what they say" (Tedeschi, Bonomo, & Schlenker, 1971) so once an individual makes a statement there may be social standards established to act in accord with the statement. Such verbal control has been termed pliance (Zettle & Hayes, 1982). Once an individual says, for example, "I will be assertive," there may be social standards established to engage in assertive behavior. As with instructions emanating from others, in pliance effects, there is explicit reinforcement for a point-to-point correspondence between the behavior and the rule. In tracking, however, the reinforcement only comes from engaging in the behavior specified by the rule.

Finally, self-rules can lead to behavior change through augmenting effects (Zettle & Hayes, 1982). In such a situation, the verbal change serves as an establishing stimulus (Michael, 1982) to make other stimuli more or less potent as reinforcers or punishers. For example, an individual may verbalize the statement, "Abortion kills!" Such a verbalization may then make it more likely that reading anti-abortion literature will be reinforcing. Making the verbal statement increases the likelihood that the anti-abortion stimuli will serve as reinforcers.

Empirical investigations of self rule following

In addition to the cognitive-behavioral self-instructional training literature, several human operant studies have shown that self-instructional change can be an important vehicle for other behavior change. Catania, Matthews, & Shimoff (1982) showed that on a human operant task, when subjects' verbal behavior was reinforced through a shaping process, subsequent non-verbal behavior always matched the verbal. This was true even when the non-verbal behavior was in direct contrast to the contingencies established by the particular schedule of reinforcement. Non-verbal behavior always matched the verbal when verbal behavior was shaped. When verbal behavior was instructed however, subsequent non-verbal behavior sometimes matched the verbal while at other times it failed to do so. Thus, the study demonstrated that a particularly effective way of changing non-verbal behavior was to change verbal behavior through a shaping process.

Catania, et al. assert that non-verbal behavior followed shaped verbal behavior because of the control the verbal behavior established over the non-verbal. Catania et al. conclude that "...a particularly effective way to change human behavior is to change...what the individual thinks" (p. 246). An alternative way of conceptualizing these effects, using the concept of tracking, is to hypothesize that the non-verbal behavior changed because in the past, behavioral changes associated with the following of such verbal rules has led to more effective consequences. Alternatively, it may have been that the change in verbal behavior served as a social standard which led to a subsequent

matching of non-verbal behavior to the verbal in order to meet the standard (a "pliance" effect). It seems that the only way to differentiate between these two alternative hypotheses is to run the same study in both a public and a private context (see Hayes, et al., 1985).

In a follow-up study, Matthews, Catania, & Shimoff (1985) compared the effects of shaped verbal behavior which described performance requirements of the task (e.g., "press slowly" for the left button and "press fast" for the right button) to shaped verbal behavior which described the schedule contingencies (e.g., the button works "after a random time interval" and the button works "after a random number of presses"). Results indicated that non-verbal behavior always followed verbal behavior when performance descriptions were shaped. When verbalizations of schedule contingencies were shaped however, the relationship between the verbal and subsequent non-verbal behavior was inconsistent. The results therefore indicate that just "knowing" how to obtain reinforcement may not be enough for non-verbal behavior change to follow verbal behavior change. Also needed is a description of what is required to obtain reinforcement. The results support the findings of Hayes, et al. (1986) with external instructions and suggest that self-rule following may lead to subsequent behavior change because of pliance effects. More social reinforcement may be obtained for a correspondence between the rule and behavior when the rule actually specifies behavior (e.g., "this is what I need to do") than when the rule only specifies what is required in order to obtain reinforcement (e.g., "this is how the machine works").

Self rules and social skills training

The relationship between self rules and subsequent behavior change seems a crucial one for clinical psychologists. Most clinical psychologists do not have access to behaviors in the environment and therefore cannot modify "natural" behavior. If clinicians however can modify verbal behavior and this change can then generalize to other behaviors, a potent form of behavior change can be utilized. As Ferster (1973) has noted, one important way we learn to observe the environment is to comment upon it and describe it verbally. If clients can be taught to develop their own self-rules for behaviors to modify, this may add to the efficacy of our treatment programs. By teaching clients to verbally discriminate important behaviors, generalization may be enhanced. In addition, almost every major method of psychotherapy attempts to modify verbal behavior in therapy. If a better understanding of the use of self-rules is achieved, those therapies may then become more effective.

Given the importance of this issue, it is surprising that such a paucity of research exists. The efficacy of self-rule following has never been specifically tested in a social skills training program. If having subjects come up with their own rules for which behaviors to modify is an important therapeutic technique, then self-rule training should add to the efficacy of a social skills training program. If having subjects develop their own rules is an effective behavioral procedure, and if self-rule following operates through tracking effects (i.e., if no additional social contingencies are applied for a

correspondence between the rule and behavior), then it seems that those who self-instruct should do better than those who do not self-instruct in improving their socially skilled behavior.

If however, subjects follow their own self-rules because of pliance effects, this would suggest that self-rule following could create as much "insensitivity" as does external rule-following. The data of Catania, et al. (1982) and Matthews, et al. (1985) would suggest that when individuals follow their own performance-description rules, behavior tends not to come under the control of programmed contingencies. If these data can be applied to social skills situations, then self-rule following may prevent behavior from coming under the control of important contingencies in the natural environment.

The efficacy of self-rule following also assumes that the molecular skills deficit approach to social skills training is an appropriate way to teach social skills. If this model is not viable, then instructions (whether self-generated or therapist-generated) should not be efficacious in the treatment of social skills deficits. Another purpose of the present study was to have subjects develop their own rules for which behaviors they wish to modify in a social skills treatment program, to compare self-rule following to external rule-following, and examine whether self-rule following helps, or hinders, a contingency-shaped treatment program from gaining control over behavior.

Contingency-shaping processes

Two methods of changing socially-skilled behavior have so far been discussed: first, the direct use of therapist instructions, and second, the modification of client behavior through self-instructions. Both methods are rule-governed approaches to treatment. As mentioned previously, rule-governed approaches tend to predominate in behavior therapy, and are particularly pronounced in the social skills training literature. The goal of these rule-governed treatments is to identify specific behavioral deficits which differentiate those who are skilled from those who are unskilled, and to instruct individuals on the relevant missing behaviors. The potential problems with the addition of rules to social skills treatments have already been discussed. The use of instructions or rules in social skills training adds an additional, and potentially detrimental, contingency to the training. Furthermore, the rules surrounding the requisite behaviors are complex and may be indiscernible (Azrin & Hayes, 1984). Therefore besides adding an extra source of control, behavior therapists may also be giving inaccurate or incomplete rules.

Applied comparisons of rule-governed and contingency-shaped behavior

An alternative to using rules to change behavior is for behavior to change because of its consequences (Skinner, 1969). Such contingency-shaping of behavior has been a hallmark of the operant approach to psychotherapy, and although the approach has been shown to be effective with non-verbal humans (see Karoly & Harris, 1986 for a

review), it has yet to be systematically applied with verbal, outpatient adults. Furthermore, while some research exists in the basic, human operant literature comparing the use of rules and contingency-shaping as methods of initiating behavior change (e.g., Catania, et al., 1982; Hayes, et al., 1986; Hayes, et al., in press; Matthews, et al., 1977; Shimoff, et al., 1981), little controlled research exists in the applied literature comparing rules and contingencies.

In one related study however, Lazarus (1966) compared the effectiveness of behavioral rehearsal (which included therapist modeling and role-playing by the client), advice-giving, and non-directive reflective listening in the treatment of clients experiencing social and/or interpersonal difficulties. Results showed that 92 per-cent of the clients in the behavioral rehearsal group improved compared to 44 per-cent of the clients in the advice-giving group and 32 per-cent of the clients in the non-directive reflective listening group. Lazarus was the therapist and rater of improvement for all clients, so therapist and rater bias cannot be ruled out. In addition, a description of the techniques was not given so it is difficult to know exactly what was contained in each treatment. Nevertheless, the results suggest that a technique based upon the shaping of actual behaviors in therapy (behavioral rehearsal) may be a more effective method of behavior change than a therapy based upon instructing clients to change (the advice-giving group). Furthermore, the results parallel those found in the basic literature that have shown that shaped behavior was more responsive to programmed contingencies than was instructed behavior (Matthews, et al., 1977; Shimoff, et al., 1981).

A more controlled comparison of the effects of rule-governed versus contingency-shaped behavior was undertaken in a study by Samaan & Parker (1973). Samaan & Parker compared the effectiveness of persuasive advice-giving to the reinforcement of verbal behaviors in therapy in the treatment of students seeking educational or vocational counseling. Results showed that the subjects in the reinforcement group were more likely to talk in therapy about getting help for their problem and were more likely to get relevant information outside of therapy than were subjects in the advice-giving group. The results suggest that the contingency-shaping of behavior in therapy can lead to more behavior change outside of therapy than can simply giving clients rules or advice on changing behavior.

Contingency-shaping and social skills training

Although the results of both the basic and applied literatures suggest that contingency-shaping leads to more sensitivity to changing contingencies than does instructions, the generalizability of these results to the social skills arena is unknown. Few studies in the social skills literature have looked explicitly at a contingency-shaped approach to treatment. In spite of the fact that there are over 150 experimental investigations of social skills training, few have investigated changing actual client behaviors through a contingency-shaped process. Studies have either used practice alone (via role-playing), or some combination of practice, feedback, instructions, and modeling (see Twentyman & Zimering, 1979).

A recent study however, while not directly teaching social skills, developed a contingency-shaped treatment to teach college-aged males to discriminate non-verbal indicants of interest by females. Azrin & Hayes (1984) gave some subjects feedback on their ratings of the amount of interest shown by a female on a videotape to an unseen male. Other subjects watched the same videotape and rated interest but received no feedback. Results showed that subjects in the feedback group were better able to discriminate interest by females than were those in the practice group, and this effect generalized to a greater ability to discriminate interest in women not previously seen in training. Furthermore, subjects in the feedback group also improved in actual social skills, as measured through role-playing scenes. This study thus showed that a contingency-shaped treatment that shaped behavior without the use of rules or instructions could be an effective way of teaching social skills.

Theoretically, the Azrin & Hayes (1984) study is important because it suggests that a contingency-shaping process can be an effective way to teach social skills. Yet if the effects of this shaping process are to generalize, it seems that the reinforcers supporting the shaping process must generalize to the reinforcers maintaining similar behavior in the natural environment. In this study, the feedback used was the actual rating of interest given by undergraduate women. Thus, because a "natural" reinforcer was used, the generalizability of the shaping process may have been enhanced.

The degree to which a shaping process can be used directly to teach social skills is unknown. Theoretically, it would seem that a contingency-shaped treatment that does not use rules or instructions would be the most effective way to teach social skills since an additional contingency through the use of instructions is not added to the training process. Furthermore, shaping by contingencies appears to be the way social skills are taught in the natural environment (Azrin & Hayes, 1984). We often do not learn complex behavior through rules or instructions; rules often cannot even describe complex contingencies (Skinner, 1969). Yet, a contingency-shaped procedure would only be effective if the contingencies used in the training are similar to the contingencies maintaining socially skilled behavior in the natural environment.

A final purpose of the present study was to assess the effectiveness of a contingency-shaped social skills treatment program. If contingency-shaping is an effective way to teach social skills, then those subjects who receive feedback on their level of socially skilled behavior should do better than those who do not receive feedback in improving their social skills. Furthermore, if contingency-shaped feedback is an effective way to teach social skills, and if rules prevent other contingencies from gaining control over behavior, then there should be an interaction between rules and feedback. Rules (either therapist-generated or self-generated) may make it less likely that subjects would learn from feedback effects.

Statement of Purpose

Social skills or assertiveness training is a mainstay of behavior therapy techniques (Bellack & Morrison, 1982). It has been used in the treatment of schizophrenia (Monti, Curran, Corriveau, DeLancey, & Hagerman, 1980), depression (Bellack, Hersen, & Himmelhoch, 1983), alcoholism (Miller & Eisler, 1977), aggressiveness in children (Frederickson, Jenkins, Foy, & Eisler, 1976), sexual deviations (Barlow, Abel, Blanchard, Bristow, & Young, 1977), marital conflict (Birchler, 1979), drug addiction (Van Hasselt, Hersen, & Milliones, 1978), juvenile delinquency (Ollendick & Hersen, 1979), wife abuse (Rosenbaum & O'Leary, 1981), and social isolation in children (Bornstein, Bellack, & Hersen, 1978), among other disorders. Social competance has also been shown to be the best predictor of post-hospital adjustment in hospitalized psychiatric patients (Paul & Lentz, 1977). A final reason for using social skills as a treatment technique is that rule-governed approaches are used overwhelmingly in social skills training studies (Bellack & Morrison, 1982), yet their conceptual validity is unknown.

The present study attempted to compare the effectiveness of therapist rules, self rules, and contingency-shaped feedback in the treatment of social skills deficits in adults. One group of subjects was given instructions on the behaviors necessary to change to develop appropriate social skills (therapist rules group). A second group of subjects developed their own rules for how to act assertively in social skills situations (self rules group). Finally, a third group was

neither given rules nor did they develop their own rules (no rules group). Some subjects in each of the above three groups were also given feedback on their level of socially skilled behavior during role-playing situations. Therefore, some subjects had their behavior shaped directly in therapy. Others simply role-played situations without receiving contingency-shaped feedback. There were thus six independent treatment groups. A seventh group served as a waiting-list control and went through all of the same assessment procedures as did the other six groups but did not receive treatment until after participating in these assessments.

Based upon the above analyses, the following hypotheses were made:

1. It was hypothesized that shaping behavior with feedback would be the most effective way to teach social skills. Based upon the work by Azrin & Hayes (1984), feedback on the level of skill displayed was believed to be an effective way to teach social skills. Furthermore, this treatment was predicted to be the most effective because social skills seem to be taught in the natural environment through a shaping process, and because no additional contingency through the use of rules or instructions was involved in the training. It was predicted however that contingency-shaped feedback may prove to be the most effective treatment only on generalization measures of change. Hypothetically, only when the contingencies change, would the beneficial effects of contingency-shaping become apparent.

2. Subjects developing their own rules were predicted to become more socially skilled than were subjects receiving therapist rules. It was hypothesized that having subjects formulate their own rules would teach subjects to discriminate important aspects of their behavior (Ferster, 1973) and would lead to more generalization than would receiving rules from the therapist. This effect however may only become apparent on generalization measures of change. Only when the contingencies change, during generalization, may the beneficial effects of self rules become apparent.

3. It was predicted that the therapist rules groups would do no better than both the no rules group and waiting-list control group on generalization measures of social skill. The data do not suggest that the identification of specific behavioral deficits is important in social skills training. It was hypothesized therefore that the identification of, and instruction in, specific behaviors to modify would not lead to significant long-term behavior change.

4. The latter two groups (practice only and waiting-list control group) were not expected to differ from each other on any measure. The research literature suggests that practice alone does not improve social skills (Eisler, Hersen, & Miller, 1973; Hersen, et al., 1973).

5. It was predicted that therapist instructions would decrease the effectiveness of contingency-shaped feedback on generalization measures of change. Since the contingencies surrounding the following of

instructions are presumed to involve pliance effects, it was hypothesized that when the contingencies changed, instructions might "block" the effects of the shaping process. Those subjects receiving instructions therefore might benefit less from the shaping process than would those receiving no instructions, or those developing their own instructions.

6. Finally, it was hypothesized that self-instructions would add to the effects of feedback on generalization measures of change. It was hypothesized that self rule-following might operate more through tracking effects than would external rule-following because there would be less social pressure to follow self-instructions than there would be to follow external instructions. Self-instructions hence should be less likely to block subjects from coming under the control of contingency-shaped feedback. When the contingencies change, during generalization, subjects should therefore be able to benefit from both the contingency-shaping process and the verbal discrimination process.

CHAPTER II

METHOD

Subjects.

36 Subjects were solicited from newspaper, television, and radio announcements, and community referral sources. Announcements offered subjects help with social skills and assertiveness training. All subjects paid a twenty-five dollar returnable deposit to participate in the study to be returned after the final follow-up (eight months after the end of treatment). Subjects were informed that they could withdraw from the study at any time and this would not affect return of their deposit (see Appendix A for the subject consent form).

An additional 57 subjects were recruited for the study but could not be given treatment at the time the study was initiated. By the time these subjects were able to be seen for treatment, only 30 (53 per-cent) were still interested in participating. The others were either no longer interested in participating or had been referred for treatment elsewhere. Of these 30, 21 passed the initial screening criteria, and 14 completed treatment. Because these subjects were not selected in the same manner as were the others, and because their data suggest that they came from a different population, their data were not included in the analyses. See Appendix B for a fuller discussion of the way these subjects differed from the others.

Procedure.

Subjects who expressed an interest in participating in the study met with the principal investigator and signed the initial consent form (see Appendix A). Subjects then completed the Rathus Assertiveness Scale (Rathus, 1973) and the short-form Social Introversion scale of the Minnesota Multiphasic Personality Inventory (Briggs & Tellegan, 1967). Only subjects who scored at or below the 10th percentile on the Rathus and at or above the 90th percentile on the MMPI-SI scale were included in the study. Of the 73 subjects who took the pre-test questionnaires, 46 qualified based upon these criteria. Of these, 4 subjects passed the initial screening criteria but chose not to begin treatment.

Subjects who passed the initial screening participated in a behavioral role-playing assessment (see below) and completed the Social Anxiety and Distress scale (Watson & Friend, 1969), and the SCL-90-R (Derogatis, 1983; see below for a description of these questionnaires). In addition, if subjects were in any form of therapy, their therapist was required to sign a consent form stating that he or she was aware that the subject was participating in the study and that he or she would not use social skills training with the subject during the course of the study (see Appendix C for the therapist consent form).

Experimental design.

Subjects were randomly assigned to one of seven groups. Two independent variables were manipulated: 1) type of rule given (therapist rules vs. self rules vs. no rules), and 2) type of feedback given (feedback vs. no feedback). There were thus six independent treatment groups. A seventh group served as a waiting list control. Because subjects who waited for treatment were not included in the study and because several subjects withdrew from the study after beginning treatment (see results), there were an unequal number of subjects in each group (range of four to eight).

Therapists

Treatment was conducted individually in eight fifty minute sessions over a four to six week period. Subjects were scheduled to be seen twice weekly, however due to missed appointments, several subjects took up to six weeks to complete the treatment. The principal investigator and three other advanced graduate students (two in psychosocial nursing, the third in psychiatric social work) served as therapists for all subjects. Therapists were randomly assigned to both treatment groups and subjects, given time and scheduling constraints. Prior to the initial treatment session, therapists met with the principal investigator and discussed the treatment manuals. Therapists role-played situations with each other and discussed difficult situations that might arise. All therapists then worked with pilot subjects (undergraduate psychology students) practicing the treatment

techniques they would employ during treatment. Therapists had approximately thirty hours of training in the specific treatment techniques to be utilized prior to actually beginning the study. The principal investigator also observed several sessions of all therapists to insure that the treatment was carried out as was specified. In addition, therapists met weekly with the principal investigator both individually and in a group session for supervision.

Prior to beginning therapy, therapist reliability on both rule giving and feedback ratings was assessed. All therapists and the principal investigator observed a videotape of a confederate role-playing six situations. Therapists decided, for each of the 85 rules on the Social Skills Deficit Checklist (see Appendix D), whether or not they would give this rule to the subject if working with him in therapy. Therapists also rated each of the six situations on a one to nine scale of assertive quality, ranging from one, very unassertive, to nine, very assertive.

The average reliability with the principal investigator on rules to use during role-playing was .857 (df=83; range of .845 to .869 for the three therapists; reliability assessed as agreements/agreements + disagreements). This figure reflects an average agreement of .484 (df=10; range of .363 to .636) for rules to actually give this subject, and an average agreement of .912 (df=72; range of .876 to .945) for rules not to give this subject. The average reliabilty on the feedback ratings was .814 (df=5; range of .730 to .949 for the three therapists; reliability assessed by Pearson product-moment correlations).

Treatment conditions

During the first treatment session, the therapist spent the first fifteen to thirty minutes describing the purpose of the study and the rationale behind the treatments used (see Appendices E through J for treatment manuals). Subjects and therapists then role-played situations in which subjects were having difficulty interacting (see Appendix K for role-play scenes). Two different problem areas were covered during treatment (adapted from Linehan, Goldfried, & Goldfried, 1979): making requests of others and refusing requests from others. All scenes involved interactions with strangers, friends, and work acquaintances. Subjects role-played up to six scenes from each of the two problem areas. A total of up to 12 different scenes were therefore role-played over the eight sessions (role-play scenes were adapted from Eisler, Hersen, Miller, & Blanchard, 1975; Galassi & Galassi, 1977; and Linehan, Goldfried, & Goldfried, 1979).

Subjects were given their choice of which role-play scenes they wished to work on during therapy. Subjects were presented with two scenes that assessed a similar problem area (e.g., making requests of friends). They were then asked to choose the one scene of the two that was the most relevant to them and in which they had the most difficulty interacting. Subjects also provided the exact details for the scene in order to make the situation as realistic as possible. For example, subjects chose the sex of the confederate in the scene based upon which sex they had the most difficulty with in that situation (Hammen, Jacobs, Mayol, & Cochran, 1980). Subjects could also change the scene if they

could make it more relevant (e.g., instead of disagreeing about a movie, the scene may have been changed to disagreeing about a book). Finally, subjects provided setting events for the scene to make the situation realistic (e.g., gave the name of the supermarket they shopped in, or described their office setting).

After the scene was well developed, one of three conditions was imposed: the therapist either told the subject a behavior to work on during the role-play, the subject developed his or her own rule for what to work on during the role-play, or no rule was given (see specific instructions for each group below). The therapist then asked the subject to close his or her eyes and imagine that he or she was actually in the situation being described. When the subject opened his or her eyes, the therapist gave a pre-determined prompt that began the role-play (e.g., "Do you mind if I borrow you car tonight, Jim?"). The subject responded, and the role-play ended.

After role-playing, half the subjects received feedback on their level of social skill during the role-play (see specific instructions for each group below). Depending on the group, the therapist then either gave the subject another rule to work on, the subject developed his or her own rule, or no rule was given. The subject and therapist then repeated role-playing. This time, after the subject made his or her first response, the therapist made another prompt (e.g., "Oh, come on, Jim, I'll take good care of it.") and the scene ended after the second subject response. The therapist then gave the subject feedback again (for those subjects in the feedback groups only).

Each scene was role-played a total of four times with the therapist delivering one additional prompt during each subsequent role-play attempt. After each situation was role-played four times, the therapist presented another two role-plays scenes to the subject and asked him or her to choose one of the scenes to role-play (see Appendix K for the treatment role-play scenes).

Individual treatment groups.

Therapist rules with feedback group (n=5). Therapists in this group gave subjects rules on specific behaviors to work on during the role-play. Prior to each role-play attempt, the therapist stated, "What you need to do in order to act assertively in this situation is _____." The rule given was taken from the Social Skills Deficit Checklist (see Appendix D). The checklist was adapted from Bellack & Morrison (1983), and consists of 85 socially skilled behaviors. The checklist is divided into nine problem areas: speech content, affect, eye contact, speech dysfluencies, interpersonal distance, body posture, gestures, facial expression, and loudness. Therapists chose the rules to give subjects based upon continuing deficits displayed in previous role-playing scenes. The first rule given was based upon initial deficits displayed in the interaction with the therapist. Only one rule was given prior to each role-play attempt, and therapists were free to use the same rules over again as long as subjects continued to display the same deficits.

After the therapist gave the subject the rule, the scene was role-played. Initially, the subject made only one response during the role-play, with the number of responses increasing up to four during the last role-play attempt. After each role-play attempt, the therapist gave the subject feedback on his or her level of assertiveness. The therapist rated social skills on a one to nine scale, with one being extremely unskilled and nine being extremely skilled.

If the subject asked for feedback on whether he or she was working on the behaviors the therapist had specified, the therapist replied non-specifically, for example, saying "I'd rather give you feedback on how you're coming across as a whole, rather than on specific behaviors." In addition, if the subject asked the therapist to explain what the feedback rating was based upon, the therapist also responded non-specifically, for example, saying, "I'm just giving you my gut-level reaction to how you're coming across. I'm not thinking specifically about what you're doing."

In order to control for the time taken for subjects in the self rules groups to develop their own rules, subjects in this group (as well as subjects in the other non - self-rules groups) talked about each situation prior to each role-play attempt. Subjects talked about prior experiences in similar situations, their feeings about the situation, or anything else they chose to discuss. The therapist simply reflected the subject's feelings or asked open-ended questions that bore upon the subject's statement (e.g., "Tell me more about that"). The therapist did not differentially consequate any rules that the subject may have

given about changing his or her behavior. After approximately five to ten minutes of discussion, the therapist said, "Let's role-play the situation again. What you need to do to act assertively in this situation is ____." See Appendix E for the treatment manual for this group.

Therapist rules with no-feedback group (n=4). Subjects in this group also received rules prior to the role-play scenes as did subjects in the previous group. These subjects however were not given any feedback after role-playing. The therapist did rate the subject's level of social skill as in the previous group (on a one to nine scale) but this rating was not shown to the subjects. If subjects asked for feedback on how they across during the role-play, the therapist responded non-specifically, for example, saying, "When this treatment is over, I won't be able to give you feedback on how you're doing. So to insure that what you learn generalizes, I'd rather not give you feedback now." See Appendix F for the treatment manual for this group.

Self rules with feedback group (n=4). Subjects in this group developed their own rules for the behaviors they wished to change during the role-play. After each role-playing situation was described and before actually role-playing the scene, subjects in this group were asked, "What do you think you can do to act assertively in this situation?" If the subject verbalized an adequate rule (one that specified a behavior that was on the checklist and that the therapist thought was an important one to work on during the role-play), the therapist and subject role-played the scene. If the subject verbalized

an inappropriate or non-specific rule, the therapist prompted and shaped the subject's behavior until an appropriate rule was given. The therapist might have said, for example, "Tell me more about that" to responses that seemed close to a behavior that the subject should work on during the role-play, or the therapist might have said, "What else can you do to act assertively in this situation?" after responses that did not closely match behaviors the subject needed to work on in the role-play. Therapists attempted to follow the lead given by subjects, if possible, or they attempted to bring the subjects' attention to specific behaviors without giving them specific rules (see Table 1 for specific prompts that therapists used to help subjects develop their rules).

Subjects were free to repeat any rule, as long as the rule was on the checklist and the therapist thought that the subject continued to show deficits in the behavior specified by the rule. If subjects asked therapists which behavior they thought the subjects should work on during the role-play, the therapist responded non-specifically, for example saying, "When this treatment is over I won't be able to tell you what to work on so I'd rather not tell you what to work on now."

After approximately five to ten minutes, after the subject had stated a clearly-defined rule, the scene was role-played. After each role-play attempt, subjects received feedback on their level of socially skilled behavior during the role-play, exactly as in the therapist rules with feedback group. If, as in the therapist rules with feedback group, subjects asked for specific feedback on what the rating was based upon,

the therapist replied non-specifically. After the feedback rating was given, the therapist again asked the subject to come up with a rule to work on during the next role-play attempt. This process was repeated for each of the four role-plays for each situation. See Appendix G for the treatment manual for this group.

Self rules with no-feedback group (n=8). Subjects in this group also developed their own rules for which behaviors to work on during the role-play. Their verbal behavior was prompted and shaped by the therapist, if necessary, exactly as in the previous group. These subjects however did not receive any feedback after role-playing. Requests for feedback were responded to as in the therapist rules with no feedback group. Therapists did record each subject's level of social skill on each role-play as in the therapist rules with no feedback group but this rating was not shown to subjects. See Appendix H for the treatment manual for this group.

No rules with feedback group (n=5). This group was not told which behaviors to modify during the role-play attempt. Subjects simply role-played the scene. Subjects and therapists talked about each situation though as in the therapist rules groups with the therapist simply reflecting the subject's feelings and asking open-ended questions. After role-playing, these subjects were given feedback on their level of social skills exactly as in the previous feedback groups. See Appendix I for the treatment manual for this group.

Table 1

Questions asked to prompt the development of self rules

How can you handle the situation better?

How else can you handle the situation better?

Is there anything about the way you say things that might be changed?

Is there anything about your reaction to other people that might cause problems?

Is there anything about the manner in which you say things that could be changed?

Is there anything about your non-verbal behavior that could be changed?

How do you think you came across?

How do you think you can come across more effectively?

How do you think the other person would (or did) perceive you?

What do you mean by _____ (therapist repeats subject's verbalization)?

What do you need to do in order to come across as _____ (therapist repeats subject's verbalization)?

What do you need to do in order to avoid being so _____ (therapist repeats subject's verbalization)?

How can you say it better to make your point?

How do you want the other person to react to you?

How would someone who was assertive handle that situation?

How do you think you handled the last role-play?

- Therapist also prompted certain areas, for example, by saying,

Is there anything about your _____ (therapist fills in area) that could be different?

No rules with no-feedback group (n=5). This group was also not told which behaviors to work on prior to each role-playing scene. They simply talked about the scene with the therapist exactly as in the previous group. These subjects were also not given any feedback after role-playing. As with the previous no feedback groups though, each subject's level of social skill was assessed by the therapist after each scene. If subjects asked for direction from the therapist, the therapist responded non-specifically, for example, saying, "The purpose of this treatment is to put yourself in new situations and to practice role-playing those situations. We believe that people become more socially skilled through role-playing and practice." See Appendix J for the treatment manual for this group.

Waiting list control group (n=5). These subjects were told that because of the requirements of the treatment design, there would be a time delay before they could begin therapy. At the end of four weeks, these subjects were asked to take the post-test assessment battery (see below) and then offered treatment. Subjects were randomly assigned to one of five treatment groups (excluding the no rules with no feedback group). The data from their treatment were not included in any of the analyses.

Post-testing.

Approximately one week after treatment ended, subjects returned to complete all self-report questionnaires and to participate in the behavioral role-play assessment. Subjects were also given a preliminary debriefing on the nature of the study at this time (see Appendix L).

Follow-up.

Both three months and eight months after treatment, subjects were mailed the self-report questionnaires (excluding the SCL-90-R) and asked to return them to the principal investigator. These data however are not included in the dissertation. Subjects will also be fully debriefed at the eight month follow-up (See Appendix M for the debriefing form) and their deposit will be returned.

Dependent measures

Rathus Assertiveness Scale. The Rathus (Rathus,1973; see Appendix N for a copy of the questionnaire) has been widely used as an index of general assertiveness (see Carmody, 1978; Hammen, et al., 1980; Linehan, et al., 1979; Monti, et al., 1980) and has been shown to have good reliability and validity (Rathus, 1973). Higher scores reflect greater levels of assertiveness. Only subjects scoring at or below the 10th percentile on the Rathus were included in the study. This cut-off score is stricter than that which has been used in other assertiveness training programs (Linehan, et al., 1979; Hammen, et al., 1980) and

represents a score of -15 or lower for men and -24 or lower for women (Nevid & Rathus, 1978).

Social Introversion Scale (short-form), Minnesota Multiphasic Personality Inventory. The MMPI-SI scale (Briggs & Tellegan, 1967; see Appendix N) was developed later than the other MMPI clinical scales and is the only empirically derived clinical scale of the MMPI. The scale assesses the tendency to withdraw from and avoid social contact. Only subjects who scored 22 or above on the scale (T-score of 63 or above) were included in the study. This score represents those scoring at least at the 90th percentile on the scale. Although the Social Introversion scale has never been specifically used as a dependent measure in social skills training programs, Williams (1981) showed that this measure correlates significantly with peer ratings of social skill.

Social Anxiety and Distress Scale. The SADS (Watson & Friend, 1969; see Appendix N) assesses tendencies to avoid from and experience negative affect in social situations. The questionnaire consists of 23 items which are scored as either true or false. Higher scores indicate higher levels of anxiety and distress in social situations. The SADS was administered to assess whether treatment effects would generalize to reduce feelings of anxiety in social situations. The SADS has been used previously in social skills training programs (Carmody, 1978; Hammon, et al., 1980; Wolfe & Fodor, 1977).

SCL-90-R. The SCL-90-R (Derogatis, 1983; see Appendix N for a copy of the questionnaire) is a widely used assessment instrument that measures general psychological distress. The questionnaire was administered to subjects to assess whether treatment effects would also reduce general feelings of distress. The inventory consists of 90 statements rated on a five point scale (0 to 4) of distress during the past week. The SCL-90-R consists of nine clinical scales: somatization, obsessive-compulsive, interpersonal sensitivity, depression, anxiety, hostility, phobic anxiety, paranoid ideation, and psychoticism; and three global indices of distress: the Global Severity Index, which is the average rating of all 90 items; the Positive Symptom Total, which is the total number of items positively endorsed (i.e., scored as greater than 0); and the Positive Symptom Distress Index, which is the Global Severity Index divided by the Positive Symptom Total.

Behavioral measures.

An extended interaction behavioral role-playing test, derived from Linehan & Strosahl (1984), was administered to subjects at pre- and post-testing (see Appendix O). Such an extended interaction role-play has been shown to have better validity than single-response role-playing tests (Bellack, 1979; Linehan, et al., 1979; Scott, et al., 1983). Following each response by the subject, the confederate delivered an additional pre-determined prompt, up to three. The role-play ended after four subject responses, or after the subject failed to respond to one of the confederate's prompts.

Role-play scenes were similar but not identical to scenes used during treatment. Six scenes were role-played in both pre- and post-testing. Three role-play scenes were drawn from each of the two problem areas covered during treatment (making requests and refusing requests). Scenes were matched to each other and some subjects received one set in pre-testing and the other set in post-testing while other subjects had the scenes presented in the opposite order. See Appendix O for the role-play scenes.

Generalization scenes.

At post-testing, subjects also role-played an additional six scenes (see Appendix P). Four scenes were similar to the pre- and post-test assessment scenes but were based upon interactions with close friends and family members (Bellack, Hersen, & Himmelhoch, 1983). These scenes assessed generalization across persons. Two additional scenes looked at interactions not specifically covered in treatment; one involved interacting with a member of the opposite sex at a party, and the second involved an extended interaction with a close and respected relative who told subjects that the way they were running their lives was a "disgrace." These scenes both assessed generalization across behaviors. These generalization scenes went on longer than the others. The party situation lasted for one and a half minutes (unless the subject ended the scene earlier), and the negative relative interaction lasted for five minutes, with the first three minutes consisting of negative statements by the relative and the last two minutes consisting of the

relative apologizing for his "aberrant" behavior. As with the other role-plays, the subject was free to stop this role-play at any time.

Trained confederates role-played all scenes with the subject. 6 female undergraduate research assistants served as confederates. The role-play confederates had approximately 50 hours of training prior to working with the subjects, including approximately 10 hours working with pilot subjects (undergraduate psychology students). Confederates also met weekly with the principal investigator for supervision.

The role-play scenes were videotaped and two undergraduate research assistants rated the subjects' responses. The role-play raters had approximately nine months of practice rating tapes prior to doing the ratings for this study. The tapes were rated on three dimensions derived from Linehan (1985) and Linehan, Strosahl; Dimke, & Blichfeldt (no date):

1) Objectives Effectiveness: the degree to which the subject's behavior advanced the objective of the role-play (to either make a request or refuse a request). Behaviors which contributed to the attainment of the objective included making the request or refusal direct, clear, specific, and concise; and giving factual or opinion statements which elaborated upon or defended the request or refusal;

2) Relationship Effectiveness: the degree to which the subject's behavior enhanced the relationship with the other person in the role-play. Behaviors which contributed to relationship enhancement included asking open-ended questions which sought the opinions or

feelings of the other person; and making statements which empathized with the feelings or opinions of the other person;
and 3) Self-Respect Effectiveness: the degree to which the subject's behavior enhanced his or her own self-respect during the role-play. Behaviors which enhanced the subject's self-respect included making positive self-evaluative statements, rejecting statements by the other person which reflected negatively upon the subject, and making statements which conveyed the subject's ability to cope effectively with the problematic situation.

Each response by the subject was rated on a one to five scale on each of the three dimensions, ranging from one, the subject's behavior actively detracted from the characteristics of the scale, to five, the subject's behavior effectively enhanced the characteristics of the scale (see Appendix Q for the scoring criteria for each scale). Subject responses on each scale were averaged for each role-play, and a mean pre-test, post-test, and generalization score was developed on each scale by averaging across all the relevant role-plays.

Rater reliability for each of the three scales was assessed before the raters actually began to rate the role-plays. Reliability was assessed by dividing agreements by agreements plus disagreements. Ratings were scored as agreements only if the numerical ratings of the two raters equalled each other. A total of 18 role-play scenes were rated for reliability purposes (56 responses for the Objectives Effectives measure and 108 responses for the Relationship Effectiveness and Self-Respect Effectiveness measures). Reliability for the

Objectives Effectiveness scale was .893 (df=55); reliability for the Relationship Effectivness scale was .824 (df=107); and reliability for the Self-Respect Effectiveness scale was .852 (df=107).

In-session measure of social skill.

A session-by-session average rating of social skill was determined for each subject by averaging all feedback ratings given during the session.

Control for expectancy effects

During the first treatment session, after the treatment rationale was described and prior to the first role-play attempt, subjects were asked to rate their expectancies for therapeutic success on a one to nine scale ranging from one, very low probability of success to nine, very high probability of success (adapted from Borkovec & Nau, 1973). Subjects were also asked to rate their confidence in the treatment's success, and the treatment's credibility and logic on the same scale (see Appendix R).

Post-test questionnaire.

Subjects were given a questionnaire at post-testing to assess for the factors that they thought were responsible for any improvement in their social skills (see Appendix S).

Check on the independent variable.

To insure that the therapy groups could be discriminated from each other, two advanced graduate students in clinical psychology listened to audiotapes of 27 therapy sessions (an average of 4.5 tapes from each treatment group) and decided to which treatment condition (of the six) each session belonged.

Check on the independence of subject rules.

To insure that the self-rules developed by subjects were actually rules they wished to work on, at post-testing, subjects in the self rules groups were presented with a list of problem behaviors (taken from the Social Skills Deficit Checklist) and asked to rate (on a one to nine scale) each behavior on how important it was to work on to become more socially skilled. The average rating for rules worked on in therapy was then compared to the average rating for rules not worked on in therapy. See Appendix T for this questionnaire.

Check on therapist rule following

Subjects in the therapist rules groups were also presented with the Social Skills Deficit Checklist and asked to choose those behaviors they thought they needed to work on prior to beginning therapy. Subjects responses were then compared to the rules given to subjects during treatment to assess whether subjects thought that the rules they were given were more important to change to become more socially skilled than were the rules they were not given.

Check on self rule/therapist rule equivalence

To insure that subjects in the self rules groups and therapist rules groups developed comparable rules, a two (groups) by nine (rules categories) repeated measures analysis of variance was computed on the number of rules developed for each subject in each of the nine rule categories.

Check on the credibility of the role-plays.

To help insure that the role-plays actually assessed realistic situations for subjects, after each role-play attempt in both pre- and post-testing, subjects were asked, "How likely is it that you would actually be in a situation such as this one in real life?" Subjects responded on a nine point scale, ranging from one, very unlikely, to nine, very likely.

CHAPTER III

RESULTS

Subject Characteristics. 17 males and 19 females participated as subjects. They ranged in age from 19 to 70 (mean age of 37.69). Subjects completed an average of 14.72 years of education (ranging from a 10th grade education to a Ph.D. candidate). They were employed in jobs ranging from a ferry dock worker to a high level state executive. None were curent full-time students. 10 subjects were married; 14 were single; and 12 were either divorced or separated. 25 had some previous therapy experience, and 7 were in therapy while participating in the study. Of the seven in therapy, four were in marital therapy or discussing issues relating to a recent separation. The other three were in individual long-term psychotherapy. One subject had previously been hospitalized for psychiatric problems; two additional subjects were previously hospitalized for alcohol abuse. The average pre-test score on the Rathus Assertiveness Scale was -37.23 for males and -40.52 for females. Both these scores fall below the fifth percentile for adults (Rathus & Nevid, 1978). The average pre-test MMPI-SI scale score was 29.30. This corresponds to a T-score above 74 (more than two standard deviations above the mean). There were no significant group differences on any of these variables or other subject characteristic variables. See Table 2 for a summary of subject characteristics.

Table 2

Summary of Subject Demographic Characteristics

	Group					
	Control	No Feedback			Feedback	
		No Rules	Self Rules	Therapist Rules	No Rules	Self Rules	Therapist Rules
Mean Age	36.4	39.4	32.5	37.25	39.6	52.75	32.0
Per-cent Male	60	40	37.5	50	40	50	60
Mean Income (1)	2.6	3.0	2.42	2.75	2.8	2.5	2.8
Mean Educ. Level (in years)	14.8	15.4	14.5	13.5	15.6	13.75	15.2
Per-cent Married	40	20	12.5	50	0	25	0
Per-cent Previously In Therapy	80	100	75	50	60	50	60
Per-cent Presently In Therapy	20	20	0	25	40	25	20

Note. (1) Code: 1: <10,000
2: 10,000 - 20,000
3: 20,000 - 30,000
4: >30,000

5 subjects withdrew during the course of treatment (2 males and 3 females). Two of the subjects who withdrew were from the no rules with feedback group, with one subject withdrawing from the no rules no feedback group, one from the therapist rules no feedback group, and one from the self rules with feedback group. Four of the five subjects who withdrew stated that they did so because of the heavy time commitment involved in the study (coming to therapy twice weekly). One subject withdrew after seven treatement sessions, and attempts to contact him after he withdrew were unsuccessful.

Baseline measures.

A three (rules) by two (feedback) Analysis of Variance, comparing the six treatment groups, revealed significant pre-test differences on several measures. The anxiety, hostility, and Postive Symptom Total scales of the SCL-90-R all showed significant pre-test differences. In addition, among the role-play measures, significant pre-treatment group differences were found on the Self-Respect Effectiveness measure. Inspection of Table 3 also shows that there was wide pre-treatment variability among the seven groups on many of the other dependent measures. Because of this variability, an Analysis of Covariance (ANACOVA) on post-test and generalization scores (using pre-test scores as the covariate) was used to assess for significant treatment effects. For all dependent measures, first a three-by-two ANACOVA on the treatment groups was done. If this analysis was significant, the significant individual factor scores were compared to the control group via *t* tests on the adjusted LSmeans. If the two-way ANACOVA was not

significant, all the treatment groups were combined and compared to the control group via a t test. Because of the a priori hypothesis that the feedback groups would do better than the control group, all t-test comparisons between the feedback group and the control group were one-tailed. All other t-test comparisons were two-tailed.

Post-test analyses.

For all post-test analyses, an Analysis of Covariance (ANACOVA) on post-test scores, using pre-test scores as the covariate, was used to assess for significant treatment effects.

Rathus Assertiveness Scale. The Rathus is the most relevant self-report measure to assess the skills worked on in therapy. The Rathus assesses subjects' tendencies to approach and avoid difficult assertiveness situations.

A three-by-two ANACOVA, excluding the control group, revealed a significant main effect for feedback. The feedback group improved significantly more than did the no-feedback group ($F=8.74$, $p<.01$). The main effect for rules ($F=1.33$, $p>.28$) and for the interaction of rules and feedback ($F=2.26$, $p>.12$) were not significant. Furthermore, the feedback group improved significantly more than did the control group ($t=1.90$, $p<.04$), while there was no difference between the no-feedback group and the control ($t=0.17$, $p>.86$). Figure 1 presents a visual analysis of these results and Table 3 shows individual group means. As can be seen in Figure 1, the average post-test LSmean for the feedback group was -16.24, while the average post-test LSmeans for the

Table 3

Mean Pre- and Post-Test Scores For All Groups

	Group					
	Control	No Feedback			Feedback	
		No Rules	Self Rules	Therapist Rules	No Rules	Self Rules	Therapist Rules
Measure							
Rathus Assert. Scale							
Pre	-38.4	-39.8	-38.1	-35.25	-41.2	-38.0	-41.6
Post	-32.6	-29.8	-31.1	-33.00	-30.6	- 3.5	-15.0
MMPI-SI Scale							
Pre	26.4	28.8	30.7	27.2	30.0	29.0	31.6
Post	27.0	28.4	29.2	25.0	28.8	25.2	27.6
Soc. Anx. and Dist. Scale							
Pre	19.8	20.4	19.7	17.5	19.8	18.5	23.4
Post	20.0	20.0	19.2	14.0	15.0	15.7	21.8
SCL-90-R Somatiz. Scale							
Pre	7.2	2.4	7.7	11.0	3.0	6.5	5.4
Post	7.8	6.0	6.3	7.2	8.4	4.0	4.4
Obs-Comp. Scale							
Pre	13.6	15.0	13.7	16.5	11.6	12.2	13.4
Post	9.8	8.6	14.3	17.0	9.4	5.5	8.4

Table 3
Mean Pre- and Post-Test Scores For All Groups (continued)

	Control	No Rules	Self Rules	Therapist Rules	No Rules	Self Rules	Therapist Rules
		No Feedback			Feedback		
Inter. Sensitiv. Scale							
Pre	16.0	11.6	14.3	20.5	15.0	12.5	16.6
Post	15.0	5.4	13.8	16.7	12.0	5.7	9.4
Depress. Scale							
Pre	19.2	16.6	22.1	25.5	16.0	17.7	22.4
Post	17.4	12.0	19.0	18.5	13.6	8.7	13.0
Anxiety Scale							
Pre	6.0	6.6	8.0	17.7	10.4	3.7	9.6
Post	4.8	8.2	7.2	11.5	7.2	2.2	6.4
Hostility Scale							
Pre	4.4	5.2	3.2	8.7	2.0	2.0	5.6
Post	4.2	1.8	4.5	7.5	1.6	0.7	6.0
Phob. Anx. Scale							
Pre	1.6	4.0	3.1	7.7	3.6	2.0	3.8
Post	1.6	1.8	2.7	7.5	0.4	0.5	1.2
Paranoid Id. Scale							
Pre	4.0	6.2	6.3	10.5	5.0	4.2	7.2
Post	2.8	2.6	6.5	9.5	3.4	1.2	4.8
Pyschot. Scale							
Pre	5.2	4.0	8.0	14.0	7.0	8.0	8.6
Post	3.4	3.8	9.5	11.2	4.6	1.7	3.8
GSI							
Pre	83.2	77.2	97.3	141.2	79.4	69.7	99.2
Post	72.2	5.0	91.5	113.0	69.6	35.0	61.8
PSDI							
Pre	1.8	1.8	1.9	2.0	1.8	1.7	1.8
Post	1.7	1.5	1.8	1.8	1.6	1.3	1.3
PST							
Pre	46.2	41.4	47.2	64.0	39.2	40.5	55.0
Post	40.4	31.8	45.5	56.7	34.6	26.0	43.8

Table 3
Mean Pre- and Post-Test Scores For All Groups (continued)

	Control	No Rules	Self Rules	Therapist Rules	No Rules	Self Rules	Therapist Rules
		No Feedback			Feedback		
Role-play Measures							
Objectives Effective.							
Pre	3.91	3.78	3.59	3.62	3.76	3.92	3.15
Post	3.86	4.56	4.62	4.34	4.71	4.61	4.59
Generaliz.							
Persons	4.43	4.12	4.45	4.14	4.77	4.62	4.62
Behavior							
A	6.60	7.80	8.37	10.70	8.00	7.00	7.60
B (totl)	24.8	25.8	25.3	24.2	29.0	23.0	25.0
B (pt 1)	14.4	13.8	16.0	15.0	17.2	14.0	15.6
B (pt 2)	10.4	12.0	9.3	9.2	11.8	9.0	9.4
Relation. Effective.							
Pre	3.31	3.36	3.28	3.27	3.24	3.42	3.19
Post	3.33	3.32	3.26	3.10	3.10	3.40	3.32
Generaliz.							
Persons	3.65	3.61	3.67	3.78	3.76	3.51	3.72
Behavior							
A	3.70	4.03	3.41	3.89	3.64	3.38	3.87
B (totl)	3.59	3.68	3.39	3.66	3.49	3.77	3.12
B (pt 1)	3.10	3.62	3.14	3.37	3.06	3.41	2.84
B (pt 2)	4.08	3.75	3.65	4.25	3.92	4.13	3.40
Self-Resp. Effective.							
Pre	3.26	3.13	3.22	3.22	3.42	3.12	3.06
Post	3.27	3.22	3.36	3.37	3.56	3.35	3.40
Generaliz.							
Persons	3.18	3.20	3.14	2.93	3.37	3.09	3.36
Behavior							
A	3.25	3.17	3.32	3.20	3.39	2.93	3.03
B (totl)	3.02	3.22	3.21	3.46	3.70	3.40	3.48
B (pt 1)	3.09	3.38	3.45	3.71	4.03	3.68	3.80
B (pt 2)	2.94	3.07	2.97	3.05	3.37	3.12	3.17

Table 3
Mean Pre- and Post-Test Scores For All Groups (continued)

	Control	No Rules	Self Rules	Therapist Rules	No Rules	Self Rules	Therapist Rules
			No Feedback			Feedback	
Avg. Fdbk. Ratings (by Session)							
Session							
1	-	4.00	5.15	5.33	5.43	5.25	5.05
2	-	6.16	5.13	6.75	5.97	5.63	5.96
3	-	6.71	5.36	5.37	6.13	6.63	5.79
4	-	5.28	5.68	6.09	6.54	6.31	6.41
5	-	6.06	5.55	6.48	6.14	5.98	6.55
6	-	5.79	5.89	6.14	6.65	6.21	6.42
7	-	5.48	5.27	6.09	6.62	6.76	6.22
8	-	5.17	5.84	5.66	7.28	7.22	6.79
Pre-test Questionn.							
Success	-	7.2	5.7	6.2	6.2	7.2	6.4
Logic	-	8.6	7.5	6.7	8.2	8.2	7.8
Confidence	-	6.0	5.3	5.5	6.0	5.7	6.4
Likely to Recommend	-	6.8	6.1	6.2	6.2	7.0	6.0
Post-test Questionn.							
Ther. Direct.	-	4.0	4.3	6.2	4.2	5.0	7.2
Figur. Own	-	8.0	7.0	6.2	7.4	7.5	7.8
Feedback	-	7.5	5.7	7.7	6.6	7.0	7.4
Someone to talk to	-	6.7	6.3	8.7	6.0	3.5	8.0
Role-play	-	7.5	6.3	8.5	7.4	6.2	7.8
Talk Feeling	-	8.2	7.2	8.7	7.0	5.0	7.8
Success	-	7.0	5.3	7.0	6.0	5.5	7.6
Logic	-	7.7	6.3	7.7	7.6	7.0	7.4
Likely to Recommend	-	6.2	6.5	7.5	7.4	7.0	8.0
Pressure	-	3.5	5.7	5.7	5.2	3.5	3.8
Attribution	-	5.2	5.7	3.7	4.4	5.0	5.6
Avg. No. Scenes Role-played in therapy	-	11.4	11.1	11.5	12.0	11.2	11.0

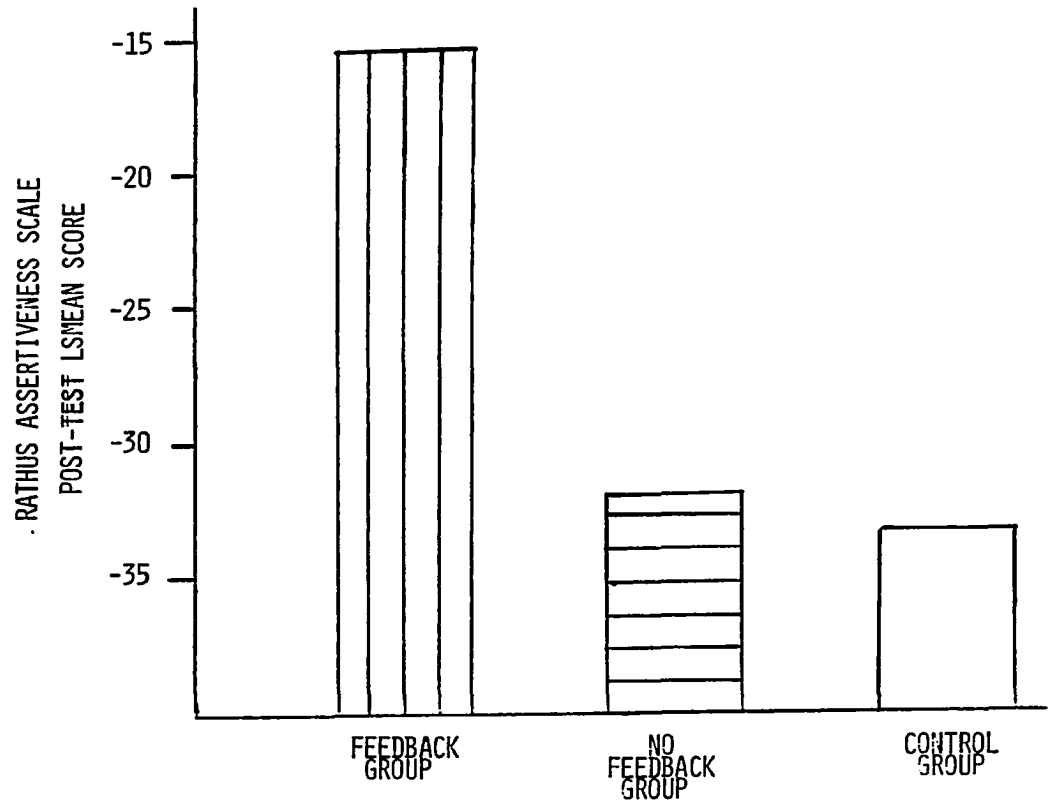

Figure 1. Average post-test LSmean scores for the feedback group, the no-feedback group, and the control group on the Rathus Assertiveness Scale.

Minnesota Multiphasic Personality Inventory - Social Introversion Scale (Short Form). The MMPI-SI scale assesses feelings of social introversion and shyness. A three-by-two ANACOVA failed to reveal significant group differences (see Appendix U for the statistical analysis). The six treatment groups were then combined and compared to the control group. This difference also was not statistically significant (t=1.25, $p>.20$). See Table 3 for individual group means on this measure.

Social Anxiety and Distress Scale. The SADS is a 23 item questionnaire assessing the degree to which subjects feel anxious and distressed in social situations. The three-by-two ANACOVA failed to reveal significant group differences on this measure (see Appendix U for statistical analysis). The combined treatment group also was not significantly different from the control group (t=1.00, $p>.32$). Table 3 shows the individual group means on this measure.

SCL-90-R. The SCL-90-R is a 90 item checklist which assesses subjective distress in the past week. The checklist consists of nine clinical scales: somatization, obsessive-compulsive, interpersonal sensitivity, depression, anxiety, hostility, phobic anxiety, paranoid ideation, and psychoticism; and three general indices of distress: a Global Severity Index, a Positive Symptom Total, and a Positive Symptom Distress Index.

Three-by-two ANACOVAs revealed significant effects on both the phobic anxiety and somatization scales. On the phobic anxiety scale, a significant main effect was found for feedback ($F=8.35$, $p<.01$), but not for rules ($F=2.98$, $p>.07$) or for the interaction of rules and feedback ($F=1.07$, $p>.35$). The feedback group improved significantly more than did the no feedback group. The feedback group also improved significantly more than did the control group ($\underline{t}=2.05$, $p<.03$), while there was no statistically significant difference between the no-feedback group and the control ($\underline{t}=0.50$, $p>.60$). The nature of these effects can be seen in Figure 2.

On the somatization scale, a significant main effect was found for rules ($F=4.90$, $p<.05$) while the effects for feedback ($F=0.20$, $p>.66$) and for the interaction of rules and feedback were not statistically significant($F=0.46$, $p>.63$). LSMEANS post-hoc tests revealed that both the therapist rules group and the self rules group improved significantly more than did the no-rules group ($p<.05$ in both cases) whereas the therapist rules and self rules groups failed to differ significantly from each other ($p>.91$). In comparisons with the control group however, none of the rules groups differed significantly from the control ($\underline{t}=1.26$, $p>.22$, therapist rules group vs. control; $\underline{t}=1.37$, $p>.18$, self rules group vs. control; and $\underline{t}=1.12$, $p>.28$, no rules group vs. control). Table 3 shows the individual group means on this measure.

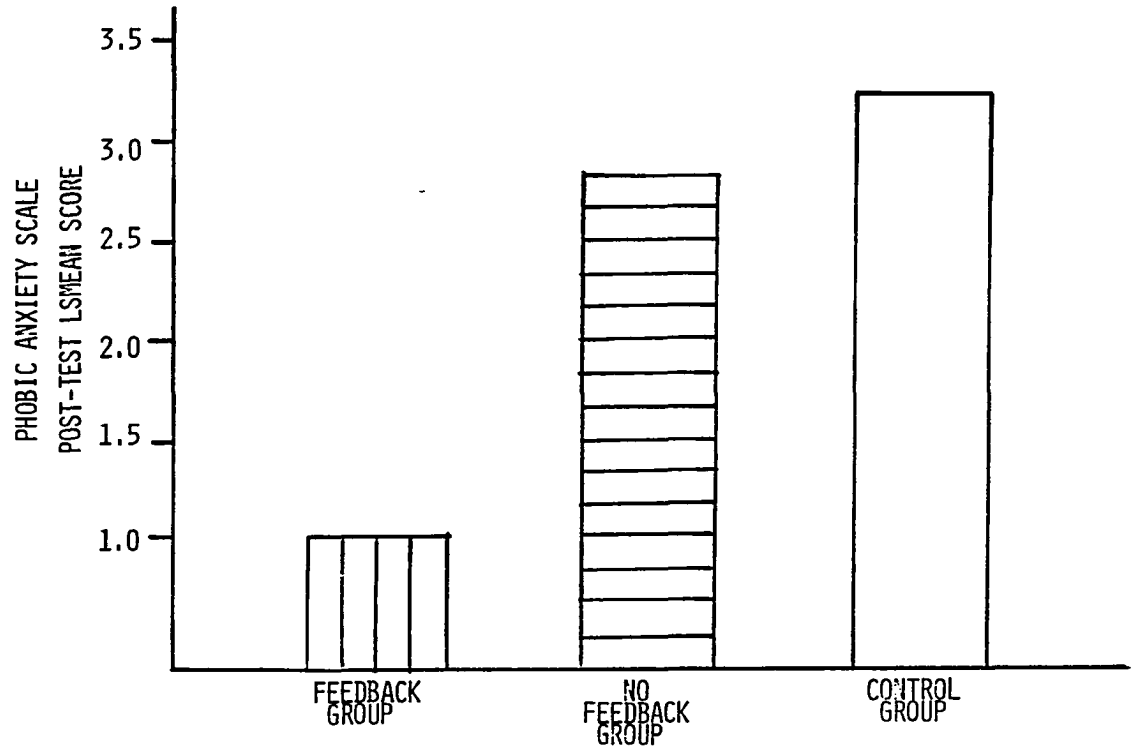

Figure 2. Average post-test LSmean scores for the feedback group, the no-feedback group, and the control group on the SCL-90-R Phobic Anxiety scale (lower scores indicate less phobic anxiety).

No other significant effects were found on any of the SCL-90-R scales, either in the three-by-two ANACOVA, or in the comparison between the combined treatment group and the control group. See Table 3 for individual group means and Appendix U for all statistical analyses.

Behavioral Role-Play Measures.

The role-plays were scored on three dimensions: Objective Effectiveness, which assessed the degree to which subjects obtained their objectives in the role-play; Relationship Effectiveness, which assessed the degree to which subjects attempted to maintain a positive relationship with the other person in the role-play; and Self-Respect Effectiveness, which assessed the degree to which subjects enhanced their self-respect in the role-play interaction. An average score on each of the three scales was obtained in each role-play, and an average role-play score was then derived for the pre-test role-plays, the post-test role-plays, and the generalization role-plays.

Objectives Effectiveness. A three-by-two ANACOVA, comparing the six treatment groups, failed to reveal significant group differences (see Appendix U). The six treatment groups were then combined and compared to the control group. This difference was statistically significant (t=4.79, $p<.01$), with the combined treatment group improving significantly more than the control group. As can be seen in Figure 3, while the post-test LSmeans for the treatment groups averaged 4.59, the

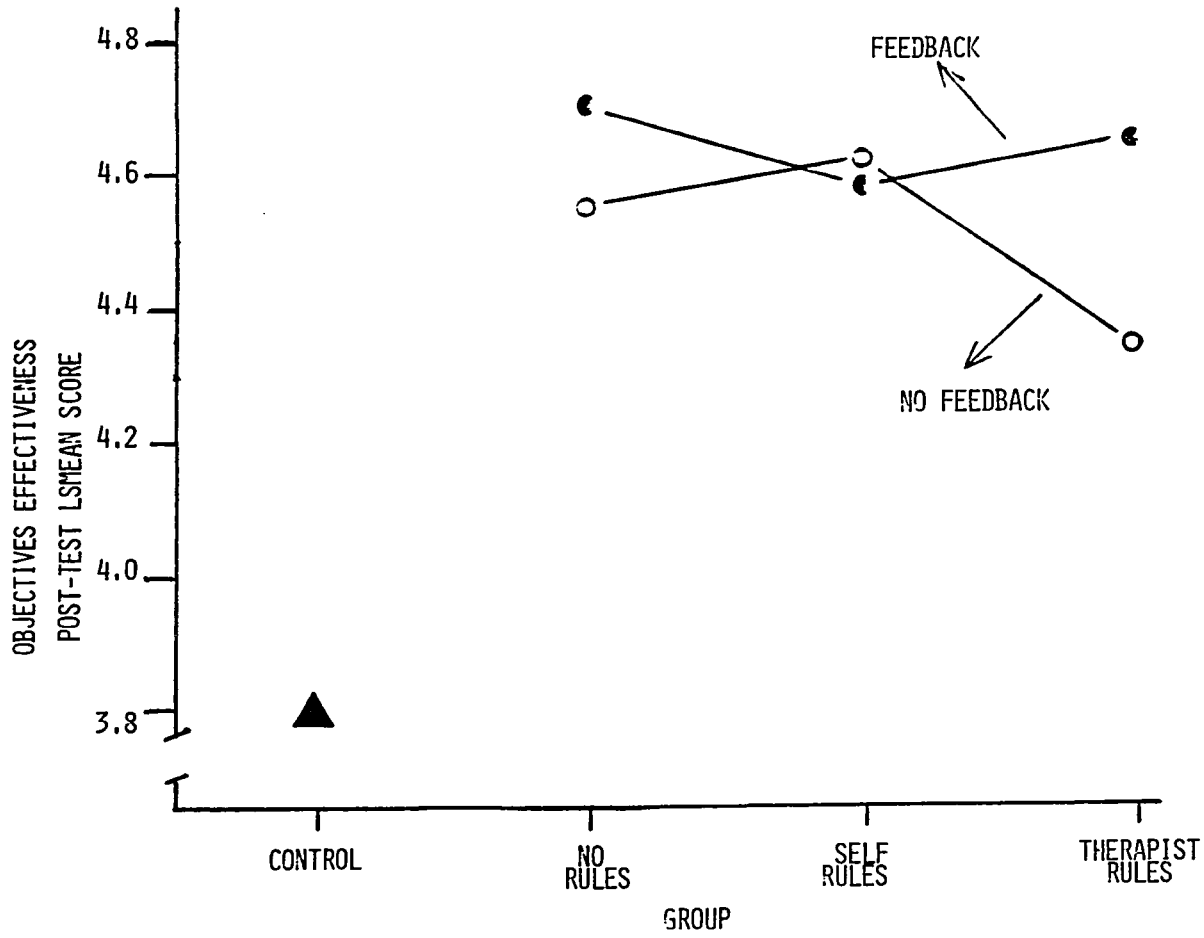

Figure 3. Average post-test LSmean scores for all seven groups on the behavioral role-play Objectives Effectiveness measure.

average post-test LSmean score for subjects in the control group was only 3.80.

Relationship Effectiveness. The three-by-two ANACOVA failed to yield significant group differences (see Appendix U). The combined treatment group was also not statistically different from the control group (t=0.30, $p>.75$). See Table 3 for group means on this measure.

Self-Respect Effectiveness. A three-by-two ANACOVA failed to reveal significant group differences (see Appendix U). The treatment groups were then combined and compared to the control group. This difference was also not statistically significant (t=1.40, $p>.16$). Table 3 shows the individual group means for this measure.

Generalization across persons.

Four role-play scenes were included during post-testing only. These scenes assessed similar skills to those developed during treatment, but looked at interactions with close friends and significant others (see Appendix P for these role-play scenes). An average score across all four role-plays was developed on each of the three role-play dimensions (Objectives Effectiveness, Relationship Effectiveness, and Self-Respect Effectiveness). All analyses on these measures were assessed with an Analysis of Covariance, using pre-test scores on the relevant dimension as the covariate.

Objectives Effectiveness. A three-by-two ANACOVA, comparing the six treatment groups, revealed a significant main effect for feedback ($F=9.23$, $p<.01$). The feedback group improved significantly more than did the no feedback group. A non-significant effect was found for rules ($F=0.15$, $p>.86$), and for the interaction of rules and feedback ($F=1.48$, $p>.24$). The feedback group also improved significantly more than did the control group on this measure ($t=1.86$, $p<.05$), while there was no difference between the no-feedback group and the control ($t=0.28$, $p>.78$). As seen in Figure 4, the feedback group's average LSmean score on this generalization measure was 4.69 (on a 5 point scale). In comparison, the average LSmean score for the no-feedback group was 4.20, and the average LSmean score for the control group was 4.36.

Relationship Effectiveness. No significant differences between groups were found in the three-by-two ANACOVA. A lack of significance was also found in the comparison between the combined treatment group and the control($t=0.22$, $p>.82$). See Table 3 for the group means on this measure and Appendix U for the statistical analysis.

Self-Respect Effectiveness. The three-by-two ANACOVA failed to reveal significant group differences (see Appendix U). The treatment groups were then combined and compared to the control group. This difference was also not statistically significant ($t=0.14$, $p>.88$). See Table 3 for the means on this measure.

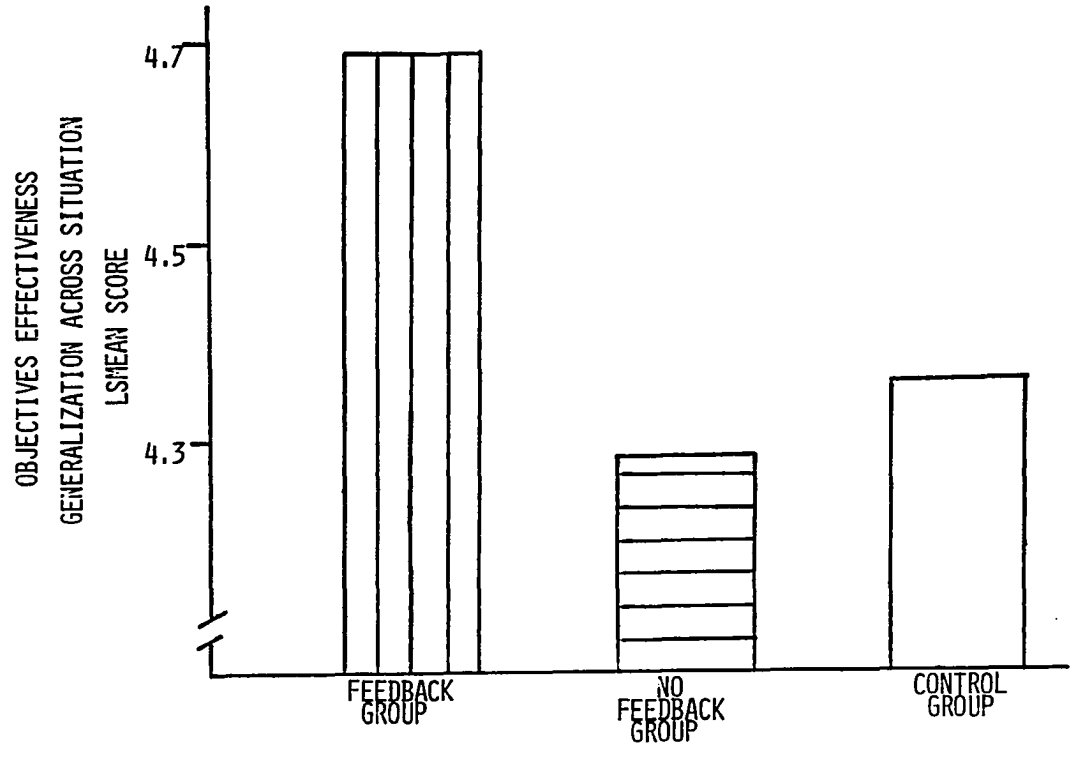

Figure 4. Average LSmean scores for the feedback group, the no-feedback group, and the control group on the behavioral role-play Objectives Effectiveness generalization across situation measure.

Generalization across behavior.

Two scenes were role-played during post-testing only, assessing response generalization. The first scene involved an interaction with a member of the opposite sex at a party, and the second situation was an extended interaction role-play (lasting for five minutes), in which a close and respected relative of the subject continually told subjects that the way they were running their lives was a "disgrace." In the second situation, the relative's negative behavior toward the subject lasted for three minutes (unless the subject stopped the role-play), and during the last two minutes of the role-play, the relative apologized for his or her prior negative behavior (see Appendix P for a copy of these role-plays). These role-plays were scored on the same three dimensions as all of the previous role-plays; however the Objectives Effectiveness measure in both situations assessed the number of responses subjects gave during the role-play. This was done in order to determine whether some subjects ended the role-plays earlier than did others. It was hypothesized that subjects who could stay in the role-play longer were more effective in meeting their objectives in the role-play. Furthermore, in the party situation, responses which enhanced one's objective in the situation also enhanced the relationship with the other person. In the negative relative interaction, responses which enhanced the objective also enhanced the subject's self-respect. Scoring the Objectives Effectiveness scale on these role-plays as in the previous scenes therefore would have been redundant. As with the other analyses, an Analysis of Covariance, using pre-test scores on the

relevant scale as the covariate, was used to assess for significant group differences.

Objectives Effectiveness. The party situation went on for one and one-half minutes, unless the subject stopped the role-play prior to this time. There was a non-significant difference across the treatment groups in the number of responses made by subjects (see Appendix U for analysis, and Table 3 for group means). There was also a non-significant difference on this measure in the comparison between the combined treatment group and the control group ($t=1.00$, $p>.32$).

The first part of the abusive relative role-play, during which the relative made negative responses to the subject, lasted for three minutes unless the subject stopped the role-play prior to this. The second half of the role-play, in which the relative apologized to the subject, lasted for two minutes, unless the subject stopped the role-play prior to this.

There was a non-significant difference between groups in the number of responses made in this role-play (see Appendix U). There was also a non-significant difference between the treatment groups in the number of responses made in either the first half of the role-play or in the second half (see Appendix U). There was a non-significant difference between the combined treatment group and the control group in the total number of responses made. This difference was also not significant when either the first half of the role-play or the second half were assessed

independently. Table 3 shows the individual group means on this measure.

Relationship Effectiveness. Both the three-by-two ANACOVA, comparing the six treatment groups, and the t-test comparison between the adjusted means of the combined treatment group and the control group, failed to yield significant differences on this measure in either the party role-play or in the extended interaction role-play. See Appendix U for the statistical analyses and Table 3 for group means on these measures.

Self-Respect Effectiveness. A three-by-two ANACOVA failed to yield significant differences in the party role-play situation. The comparison between the combined treatment group and the control group was also not significant ($t=0.14$, $p>.90$). Table 3 shows the group means on this measure.

Looking at the extended interaction role-play, the three-by-two ANACOVA revealed a significant main effect for feedback ($F=4.39$, $p<.05$). The feedback group improved significantly more than did the no-feedback group. The effects for rules and for the interaction of rules and feedback were not significant ($F=0.98$, $p>.38$ for rules; $F=0.92$, $p>.41$ for the interaction). The feedback group also improved significantly more than did the control group ($t=3.57$, $p<.01$), while there was no statistical difference between the no-feedback group and the control ($t=2.00$, $p>.05$). As seen in Figure 5, the adjusted score for the feedback group on this measure was 3.54. In contrast, the adjusted

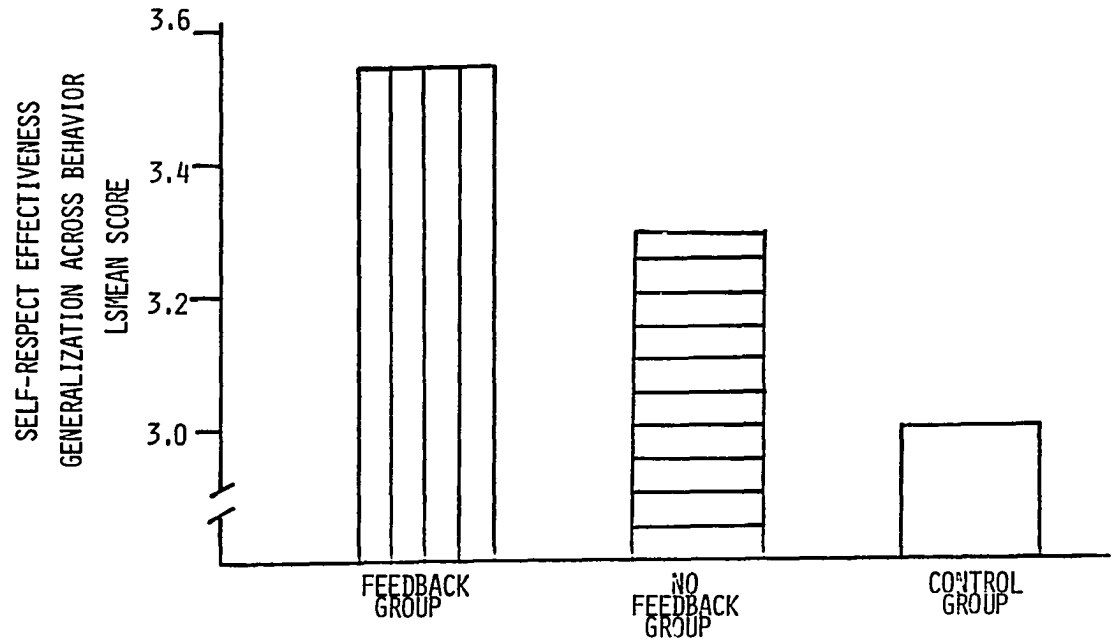

Figure 5. Average LSmean scores for the feedback group, the no-feedback group, and the control group on the behavioral role-play Self-Respect Effectiveness generalization across behavior measure.

score for the no-feedback group was 3.28, and the adjusted mean score for the control group was 3.00.

Looking at the first part of the extended interaction only (the berating part), the two-way ANACOVA failed to reveal significant group differences (see Appendix U). The feedback - no-feedback comparison however approached convention levels of significance ($F=4.15$, $p<.053$). In addition, the feedback group differed significantly from the control group ($t=2.05$, $p<.03$) while the difference between the no-feedback group and the control was not significant ($t=2.05$, $p>.05$).

Looking at the second part of the role-play (the apologizing part), the two-way ANACOVA also failed to reveal significant differences among the treatment groups (see Appendix U). As with the first part however, the feedback - no-feedback comparison approached conventional levels of significance ($F=3.24$, $p<.085$). Both the feedback and no-feedback groups however failed to differ significantly from the control group on this measure. See Table 3 for the individual group means.

Within-session feedback scores.

While only subjects in the feedback groups received within-session feedback ratings orally from the therapist, the level of skill of all subjects was rated after each role-play attempt by the therapist. An average feedback rating score for each subject was then derived for each session. A three-by-two-by-eight repeated measures analysis of variance, across all eight treatment sessions, revealed significant effects for both time ($F=2.74$, $p<.02$) and for feedback ($F=13.16$, $p<.01$).

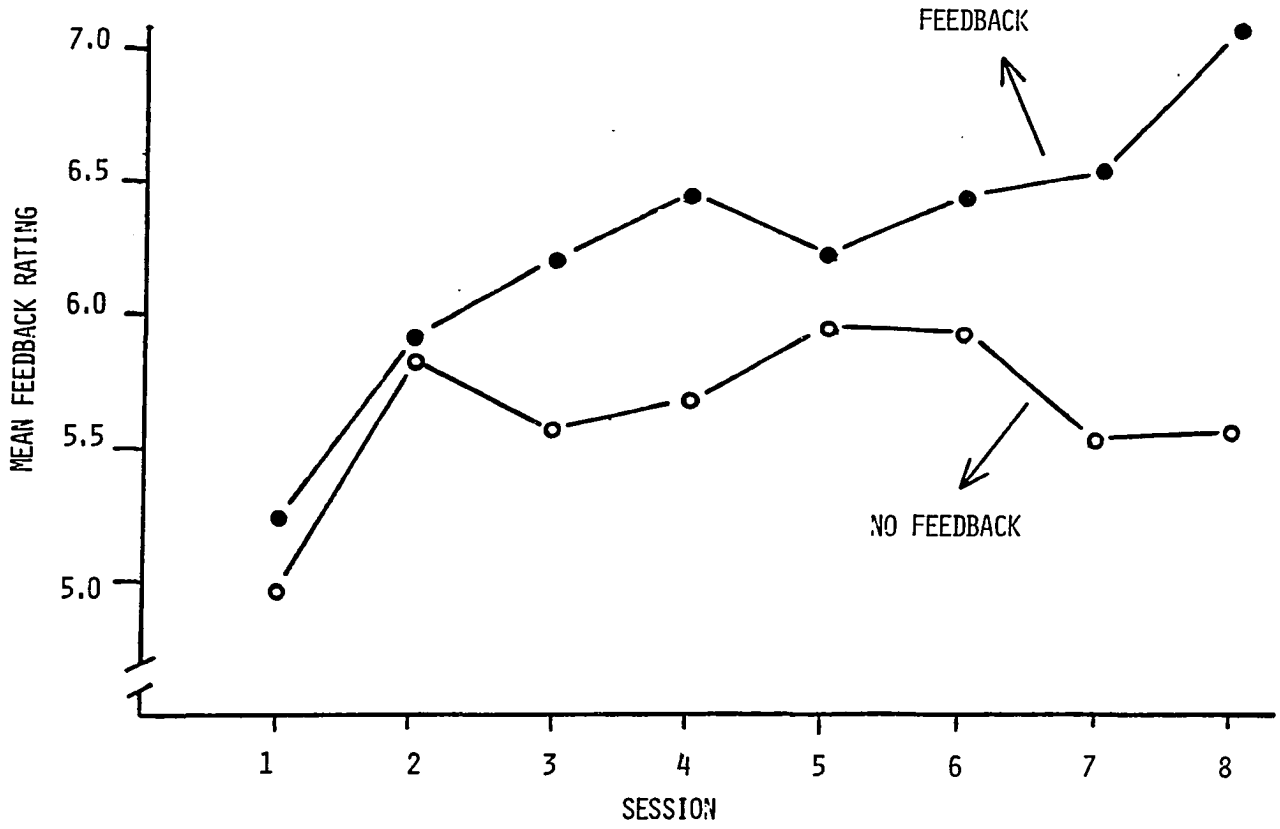

Figure 6. Average within-session feedback ratings for the feedback and no-feedback groups.

The feedback-by-time interaction however was not significant ($F=1.40$, $p>.20$). Newman-Keuls post-hoc tests revealed that the first session's feedback ratings were significantly different from the ratings in the other sessions, but that the ratings for sessions two through eight did not differ significantly from each other. In addition, the feedback group's overall ratings were significantly higher than were the no-feedback group's overall ratings (mean rating of 6.25 for the feedback group compared to a mean rating of 5.65 for the no-feedback group). Comparisons with the control group on this measure were impossible since the control group did not participate in treatment. Figure 6 shows the session-by-session feedback ratings for both the feedback and no-feedback groups. As can be seen in the figure, the two groups tended to diverge in their ratings over time. The difference in feedback ratings between the groups in the first session was only .27 points (on a 9 point scale). By the eighth session, this difference was 1.53 points.

Post-test ratings.

During the post-test assessment, subjects were asked how important each of the following were to their treatment: getting direction from their therapist, figuring things out on their own, getting feedback from their therapist on role-playing, having someone to talk to, role-playing different situations, and talking about their feelings. In addition, subjects were asked how successful they thought the treatment was in helping them with their problems, how likely they would be to recommend the treatment to a friend, how logical they thought the treatment was,

and how much pressure they felt to change their behavior during treatment. Subjects were also asked to indicate how much of the changes which occurred in treatment were due to their own direction, and how much was due to the therapist's direction. Subjects answered each question on a 9 point scale (see Appendix S).

The only significant difference among the treatment groups occurred in response to the question, "How important was talking about your feelings in therapy." Results indicated significant main effects for both rules ($F=4.26$, $p<.03$) and feedback ($F=5.50$, $p<.03$). The interaction of rules and feedback was not significant ($F=0.41$, $p>.66$). LSMeans post-hoc tests indicated that the therapist rules group subjects thought that it was more important to talk about their feelings in therapy than did the self-rules group subjects ($p<.01$; mean of 8.22 compared to a mean of 6.50). The difference between the no rules and the self rules groups approached conventional levels of significance ($p<.061$), with the no rules group subjects stating that it was more important to talk about their feelings. The difference between the therapist rules and no rules group on this measure was not significant ($p>.42$). In addition, no-feedback group subjects thought it was more important to talk about their feelings in therapy than did feedback group subjects (mean of 7.87 compared to a mean of 6.71). No other significant effects between groups were found on any of the other post-test ratings. See Table 3 for the group means and Appendix U for the statistical analyses.

Expectancy Effects.

Results showed no significant differences among the treatment groups for expected success prior to treatment. Subjects in general believed that treatment would be successful (mean rating=6.42 on a 9 point scale, ranging from 1, very low probability of success, to 9, very high probability of success). There was also no significant differences among the treatment groups in their confidence in the treatment's success, and in the expected treatment's logic or credibility. See Table 3 for the group means on these measures, and Appendix U for the statistical analyses.

Therapist Effects.

No significant therapist effects were found on any of the significant dependent measures. See Appendix U for the analyses.

Number of scenes role-played.

Subjects role-played an average of 11.36 scenes over the eight sessions (range of 8 to 12). There were no significant differences among the treatment groups in the total number of scenes role-played (see Appendix U for the statistical analysis).

Check on the independent variable.

Raters correctly identified 23 of the 27 therapy tapes listened to (85.2 per-cent), a rate much higher than that which would be expected by chance alone (=97.09, p<.001). This suggests that independent raters were able to distinguish among the different treatments.

Check on the credibility of the role-play scenes.

After each role-play attempt during pre- and post-testing, subjects were asked, "How likely is it that you would actually be in a situation such as this one in real life?" Subjects responded on a nine point scale, ranging from one, very unlikely, to nine, very likely. The average rating for all scenes was 4.86 (range of 3.11 to 6.58), indicating that, in general, subjects thought that the situations were relatively realistic.

Check on the independence of self rule generation.

At post-testing, subjects in the self rules groups rated each rule on the Social Skills Deficit Checklist on a one to nine scale, ranging from one, this behavior was not important to change to become more socially skilled, to nine, this behavior was very important to change to become more socially skilled. Results showed that rules used in therapy were rated as significantly more important to work on than were rules not used in therapy (t=5.84, p<.01). This indicates that subjects thought that the rules they developed in therapy reflected important behaviors to work on to become more socially skilled.

Check on therapist rule following.

At post-testing, subjects in the therapist rules groups also rated each rule on the Social Skills Deficit Checklist on a one to nine scale. Subjects rated the rules used in therapy significantly higher than they rated the rules not used in therapy ($t=3.72$, $p<.01$). This indicates that subjects thought that the rules they were given by the therapist reflected important behaviors to work on to become more socially skilled.

Check on self rule/therapist rule equivalence

A two (groups) by nine (rule categories) repeated measures analysis of variance failed to reveal a difference between the therapist rules and self rules groups in the average number of rules used in each of the nine rule categories ($F=1.39$, $p>.20$). This indicates that there were no significant differences between groups in the type of rules developed. There was a significant difference however in the number of rules used from each of the nine rule categories ($F=268.99$, $p<.001$). Newman-Keuls post-hoc tests revealed that both groups used significantly more rules reflecting speech content than any other type of rule. No other statistically significant differences between rule categories were noted. An analysis of the rules used in both groups also indicates that both groups frequently used the same rule repeatedly.

Correlational Analyses.

To assess the relationship among the different variables in the study, a Pearson product moment correlational analysis was performed among all the dependent measures, the responses to the post-test questionnaire, and the subject characteristic variables (i.e., age, sex, income, and education). See Appendix U for a summary of the statistically significant correlations.

Summary of results

The feedback group improved significantly more than did the no feedback group on the Rathus Assertiveness Scale, the SCL-90-R phobic anxiety scale, the generalization across persons Objectives Effectiveness measure, and the generalization across behavior extended interaction Self-Respect Effectiveness measure. In addition, in all these cases, the feedback group improved significantly more than did the control group while the difference between the no feedback group and the control group was not statistically significant.

The therapist rules and self rules groups improved significantly more than did the no rules group on the SCL-90-R somatization scale only. On this scale however, neither of these groups differed significantly from the control group. Only the feedback group differed significantly from the control on post-test and generalization measures of change. Yet, all treatment groups improved significantly more than did the control on the post-test Objectives Effectiveness measure.

Finally, no significant interaction effects between rules and feedback were found on any of the dependent measures.

CHAPTER IV

DISCUSSION

The results suggest that contingency-shaped feedback is an effective way to teach social skills. Feedback proved to be more effective than both the no-feedback and the waiting list control groups on a self-report measure of assertiveness, on a measure of phobic anxiety, and on behavioral role-play measures of social skill. Furthermore, feedback was shown to be more effective than both the no feedback and the control groups on generalization role-play measures of social skill, showing that the significant treatment effect for feedback generalized to new situations not specifically trained in therapy.

The results suggest that shaping can be an effective way to treat social skills deficits in adults. The results extend the work of Azrin & Hayes (1984), who showed that feedback was effective in teaching college-aged males to discriminate non-verbal indicants of interest in females. Azrin & Hayes reported that in a short, one session treatment program, feedback on the level of interest females showed toward males increased the likelihood that males would be able to discriminate interest that other females showed in different situations. This effect further generalized so that males trained in this discrimination procedure increased in the level of social skills displayed in role-play interactions. The results of the present study extend those of Azrin &

Hayes by showing that a contingency-shaping treatment can be used to directly teach new skills in therapy in an extended, eight session treatment program.

The results also extend the basic work of human operant researchers (Hayes, et al., 1986; Hayes, et al., in press; Matthews, et al., 1977; Shimoff, et al., 1981). Matthews, et al. (1977), for example, showed that instructed behavior generally failed to come under the control of new contingencies. Shaped behavior, in contrast, generally changed under new stimulus conditions. Similarly, in this study, the data suggest that when behavior was shaped, behavior generalized to new situations. Shaped behavior generally changed as the situation changed. In contrast, instructed behavior, as compared to the control group, did not generalize when the stimulus conditions changed.

The results of the present investigation also extend Skinner's (1969) analysis of the distinction between rule-governed and contingency-shaped behavior. Skinner stated that contingency-shaped behavior is behavior under the control of past consequences while rule-governed behavior, a subset of contingency-shaped behavior, is behavior under the control of a contingency-specifying stimulus (i.e., a rule). The human operant literature has shown that this distinction may be a useful way of understanding both verbal (Catania, et al., 1982) and non-verbal behavior (Matthews, et al., 1977). The present study adds to this analysis and shows that this distinction can also be a useful way of discriminating among applied treatment programs. Furthermore, this

distinction was helpful in predicting the efficacy of different therapeutic techniques.

An analysis of the possible behavioral processes underlying feedback

Several factors may have accounted for the efficacy of feedback in this study. First and most likely, feedback may have been effective because of reinforcement processes. Subjects may have been learned to respond appropriately in different situations because their behavior was shaped by the contingencies. Subjects may have learned, just as they seem to do naturally, what is appropriate and what is inappropriate in different social situations, and their behavior may have changed as the contingencies changed (i.e., as the feedback ratings changed).

Alternatively, it may have been that the feedback ratings did not reinforce change, but merely served as discriminative stimuli for changes in behavior. If this were the case, then the feedback ratings would have served as a cue to signal an increased probability of the subjects obtaining reinforcement. The reinforcers for the behavior change could have come elsewhere, for example through subtle cues that the therapist may have emitted during role-plays or in post role-play discussions. If the ratings did serve discriminative functions, then this would indicate that there was a correlation between the feedback ratings and the subtle cues emitted by therapists. In order to determine whether the ratings served as reinforcers for behavior change or as discriminative stimuli, one would have had to have held the supposed reinforcers constant and manipulated the feedback ratings only.

If behavior still changed, the feedback effect must have been a reinforcement effect.

A third way in which the feedback ratings may have served to increase behavior change was through an establishing stimulus effect. If this were the case, the ratings would have made it more likely that certain stimuli would have served as reinforcers. If the feedback ratings did serve as establishing stimuli, then contingent reinforcement would always have been available; the ratings would have merely served to change the reinforcing value of those stimuli.

The lack of significance on many of the dependent measures

While significant effects were found for the feedback treatment across many dependent measures, significant effects were not found on other dependent measures. No significant treatment effects were found on the self-report measures of social introversion (the MMPI-SI scale) and social anxiety (the Social Anxiety and Distress Scale), on the general measure of psychological distress (the SCL-90-R), and on the behavioral role-play Relationship Effectiveness measure. Several factors may have accounted for this lack of significance. First, the MMPI-SI scale asks many questions about early childhood and long-term personality functioning which one would not expect to change with treatment (e.g., "When I was a child, I belonged to a crowd that tried to stick together through thick and thin"). The MMPI-SI scale has never been used in social skills or assertiveness training programs, and although research suggests that it correlates with behavioral measures

of socially skilled behavior (Williams, 1981), there are no data that suggest that the measure is clinically sensitive to changes in socially skilled behavior.

The Social Anxiety and Distress Scale (SADS) has been used in social skills programs, but its ability to correlate with changes in socially skilled behavior has yet to be demonstrated. Carmody (1979), Hammon, et al. (1980), and Wolfe & Fodor (1977) all failed to find significant group differences at post-testing using this measure. Significant group differences however were obtained in these studies on social skills measures of change.

The SCL-90-R has also not been used previously in social skills treatment programs. Furthermore, the fact that there were no significant correlations between either the self-report or role-play measures of social skill in this study and the Global Severity Index of the SCL-90-R (see Appendix U) suggests that there may be no significant relationship between assertiveness, in general, and subjective feelings of psychological distress.

On the behavioral role-play measures, while significant treatment effects were found on the Objectives Effectiveness measure in both post-testing and on generalization scenes, and a significant effect was found on the Self-Respect Effectiveness measure during generalization, no significance was found on the Relationship Effectiveness measure. The Relationship Effectiveness measure assessed the degree to which subjects worked toward maintaining a positive relationship with the other person in the role-play scenes (Linehan, 1984).

This lack of significance may have been due to the fact that there was a significant correlation between subjects' scores on this measure and four demographic variables: age, whether subjects were in therapy elsewhere, sex, and income (see Appendix U). Older subjects, subjects in therapy elsewhere, females, and those with higher incomes all did better on this measure. These significant correlations suggest that the tendency to maintain a positive relationship with the other person in difficult assertiveness situations is not uniform across age, sex, income, and therapy experiences. The ability to teach these skills therefore may have been influenced by these socio-cultural factors. No such significant correlations were found with either the Objectives Effectiveness or Self-Respect Effectiveness role-play measures, suggesting that these measures were not as influenced by socio-cultural factors. This may have made it easier to shape these skills with subjects.

Although statistical significance was not obtained on some of the dependent measures, significant treatment effects were found on many of the important dependent measures. Subjects in the feedback group improved more than did subjects in either the no feedback or control groups on the Rathus Assertiveness Scale and on the SCL-90-R phobic anxiety scale. The Rathus was the most relevant self-report measure to assess the skills taught in the study. The scale directly assesses assertiveness skills across many social situations. Furthermore, the Rathus has previously been shown to be clinically sensitive to changes in assertive behavior (Hammen, et al., 1980; Linehan, et al., 1979; Monti, et al., 1980).

Subjects in the feedback group also improved more than did subjects in both the no feedback and control groups on the phobic anxiety scale of the SCL-90-R. The phobic anxiety scale assesses persistent fears to people and places. Agorophobic subjects, social phobics, and those with phobic anxiety depersonalization syndrome all score highly on this scale (Derogatis, 1983). It is not surprising, therefore, that significant treatment effects were obtained on this measure. The results suggest that subjects in the feedback group, as compared to those in the other groups, became less fearful and anxious in social situations as a result of having participated in this treatment.

An analysis of the effects of rule-governed treatments

The results suggest that the feedback treatment was generally efficacious in helping subjects become more socially skilled. The rule-governed treatments, however, were generally not efficacious in helping subjects become more socially skilled. The results revealed that rules, as compared to no rules, had no statistically significant effect on the teaching of social skills. These results therefore call into question the molecular skills deficit model of social skills training (Bellack & Hersen 1979; McFall & Twentyman, 1973). According to this model, maladaptive behaviors are construed in terms of the absence of specific molecular skills. The therapeutic objective is to provide clients with direct training in precisely those specific skills that they are lacking in their repertoire (McFall & Twentyman, 1973). These results suggest that this attempt may not lead to effective treatment strategies. Identifying and isolating specific molecular

deficits which discriminate between those who are unskilled and those who are skilled and then directly training those skills through instructions may not be productive in the long run.

One should not accept the null hypothesis, however. The failure of instructions to change behavior may have been due to several factors. First, therapists may not have been giving accurate instructions. It may not be that rules in general are ineffective; it may have been simply that these rules for these subjects were ineffective. As there are little data to support the giving of some rules over others in particular situations, therapists needed to decide individually which rules to give subjects prior to each role-play attempt. It may have been that the rules therapists gave were not correlated with socially skilled behavior, and if other rules would have been given, behavior may have changed.

Several factors mitigate against such an analysis. First, the list of instructions to give subjects was culled from many social skills articles and books. The final list of 85 behaviors reflected behaviors which those in the field have said are important ones to modify. The probability is unlikely that an important known behavioral deficit was left off the list. Second, therapists were trained prior to the study on which instructions to give, and adequate reliability was obtained among all the therapists on important behaviors to change (see results). All therapists also met weekly with the principal investigator both individually and in a group session for supervision, and therapists frequently observed each other's therapy sessions. Instructions to give

subjects were frequently discussed during these meetings. The probability that there were other, more appropriate rules to give subjects seems unlikely.

The results of this study are also consistent with other studies that have examined the efficacy of instructions in social skills training programs. Only two published studies have specifically tested whether instructions add to the efficacy of social skills treatments. McFall & Twentyman (1973) found that general, non-specific instructions did not help college students become more assertive in in-vivo generalization social skills situations. Similarly, Hersen, et al. (1973) found that specific, behavioral instructions failed to help hospitalized psychiatric patients become more socially skilled on measures of overall assertiveness (either in role-play situations or on self-report measures) in a three-day, six-session treatment program. The results of the present study are consistent with previous results that suggest that instructions may not be an efficacious way to treat social skills deficits in adults.

Instructions may have been ineffective in this study because subjects may not have followed the instructions given. There was no specific feedback given to subjects on whether they actually followed the instructions. This was done to avoid confounding the effects of instructions with the effects of feedback on instructions. Therapists though were free to keep giving the same rules to subjects if therapists believed that subjects continued to display the same continuing deficits. There therefore was a contingent relationship between

performance in the role-play and the subsequent rule given. It seems that this would have increased the probability that subjects would actually have followed the rules given. Furthermore, after therapy, subjects continued to believe that the rules they were given in therapy specified important behavioral deficits (see results). This adds support to the hypothesis that subjects attempted to follow the rules given to them. Finally, therapists were continually present to monitor whether subjects actually followed rules, so one would hypothesize that pliance effects would have served to increase the probability that subjects would follow the rule given (Rueger, Gaydos, Quinn, & Deitz, 1986).

The therapist rules and self rules groups did improve significantly more than did the no rules group on one dependent measure - the somatization scale of the SCL-90-R. Both groups however failed to differ significantly from the control group on this measure. The somatization scale assesses subjective distress arising from "perceptions of bodily dysfunction" (Derogatis, 1983, p. 6). The scale asks subjects how much they were distressed by headaches, pains, and soreness, for example, in the past week. The significant results found on this scale may have been due to the relationship between the somatic concerns and directive interventions. The research literature suggests that subjects who tend to endorse many somatic complaints also tend to be very needy of attention and direction from others (Graham, 1977). Furthermore, somatic complaints may decrease when direction is given (Kolb, 1977). If this is so, then the rules (either self-generated or therapist generated) may have served as directives for subjects.

Guidance through rules may have made it less necessary for subjects to have focused on somatic concerns to get attention and direction. No rules subjects were given fewer directives than were subjects in both rules groups. Their self-reported somatic complaints did not decrease as readily. The fact, however, that all three treatment groups failed to differ significantly from the control group at post-testing on this measure makes this analysis tenuous and suggests that the significant results obtained on this measure may have simply been due to random fluctuations in responding.

The therapist rules and no rules groups also rated one question on the post-test questionnaire significantly higher than did the self rules group. Two main effects were found in response to the question, "How important was it to talk about your feelings in therapy?" Subjects in the therapist rules and no rules groups stated that it was more important to talk about their feelings in therapy than did subjects in the self rules group (the difference between the no rules and self rules groups only approached conventional levels of significance, $p<.061$). In addition, no-feedback group subjects thought it was more important to talk about their feelings in therapy than did feedback group subjects. It should be noted though that all groups thought it was between somewhat important and very important to talk about their feelings in therapy. The lowest group mean on this measure was 6.50 (on a nine point scale) for subjects in the self rules group.

The fact that both the therapist rules and no rules groups thought it was more important to talk about their feelings may have been due to the fact that subjects in those groups were encouraged to talk about their feelings in therapy while subjects in the self rules group were not encouraged to do so. This was encouraged in the therapist rules and no rules groups in order to control for the amount of time it took the self rules group subjects to develop their own rules. No-feedback group subjects may have also spent more time talking about their feelings than did feedback group subjects, although this was not explicitly encouraged in their treatment. For feedback group subjects, time was spent discussing the feedback ratings. Subjects in the no-feedback group may have spent this time talking about their feelings. It is important to note that the question did not ask subjects whether they thought talking about their feelings was <u>helpful</u> in their treatment. It merely asked whether talking about feelings was <u>important</u> in treatment. The fact that some subjects spent more time talking about their feelings may have led them to think it was more important in their treatment.

<u>The lack of self rule and interaction effects</u>

The results generally showed a lack of therapeutic effectiveness for the rule-governed treatments. The results failed to support the hypothesis that asking subjects to develop their own rules would prove to be more beneficial than therapist-given rules. Self rules were no more beneficial than either therapist rules or no rules in improving social skills. The results did not support the cognitive-behavioral assumption that self-directed changes would lead to more behavior change

than would externally-directed changes (Beck, Rush, Hollon, & Shaw, 1979; Kanfer & Gaelick, 1986; Mahoney, 1974; Meichenbaum, 1986). The data also failed to support Ferster's (1973) contention that teaching subjects to discriminate aspects of their environment verbally is an important therapeutic change procedure.

The failure of self-instructions to initiate behavior change adds further evidence that the molecular skills deficit approach is not an effective way to teach social skills. Just as with therapist-given instructions, the efficacy of the self-instructional treatment was based upon the assumption that the identification of specific behavioral deficits was an important way to teach social skills. This assumption was not supported by the data. Yet, as with the therapist rules group, it may have been that subjects did not follow their own rules or that the specific rules used were not the right ones for these subjects in these situations. The fact that subjects developed their rules, and after treatment, still continued to believe that their rules were important (see results), suggests that subjects probably attempted to follow their rules. In addition, the fact that therapists had to agree that the rules developed by subjects pointed to valid behavioral deficits suggests that the rules subjects developed were appropriate for those situations.

The lack of self-instructional effects coincides with the general pattern of results in the self-instructional literature. In that literature, the results tend to suggest a lack of clinical effectiveness for self-instructions, per se (cf., Kendall, 1985). Instead, the

results suggest that other aspects of the procedure (i.e., operant procedures such as the reinforcement of appropriate behavior and response cost procedures) may account for the effectiveness of the entire treatment package. The results of the self-instructional literature and these data both suggest that teaching complex, new behaviors through rules or instructions may not be as effective a way to teach new skills as is the natural shaping of new behavioral repertoires.

The results of this study also failed to show an interaction between rules and feedback on any of the dependent measures. The results failed to support the prediction that self-rules would increase the effectiveness of contingency-shaped feedback while therapist rules would decrease the effectiveness of contingency-shaped feedback. Several factors may have accounted for this lack of statistical significance. First, the small number of subjects in each cell (range of four to eight) made it difficult statistically to find an interaction effect. Therefore, any interpretation of the lack of interaction effects should be viewed cautiously.

Second, self-rules may not have added to contingency-shaped feedback because attempting to change molecular behavioral deficits in subjects may not be an effective treatment strategy. Therefore, asking subjects to decide which molecular behaviors they wish to change may not be productive. Alternatively, it may have been that subjects failed to follow their own rules, or the rules developed by subjects may not have been appropriate for them to use to become more socially skilled. As

discussed above, the fact that subjects developed, and after therapy, continued to endorse their own rules would tend to preclude the first hypothesis. The fact that therapists needed to agree that subject rules were appropriate ones would tend to preclude the second hypothesis.

The failure to find that therapist instructions blocked subjects from coming under the control of feedback effects may have been due to the small number of subjects in the therapist rules with feedback group (n=5). It may also have been that subjects who received both instructions and feedback learned to ignore the instructions and follow the feedback. If the instructions initiated behavior change through tracking effects, one would expect that over time, the instructional effects would tend to diminish if the shaping process led to more effective behavior. The fact however that therapists continually monitored behavior suggests that subjects probably followed the rules given to them even if these rules were less effective than the feedback. Presumably, the instructions were followed because of pliance effects. If this were so, it may have been that the following of the rules and the behavior change due to contingency-shaping were orthogonal. Subjects may have been able to follow the rule and still come under the control of the shaping process. In this situation then, instructions would have led neither to a "sensitivity" or "insensitivity" effect. They would simply have had no effect on the ability of other contingencies to gain control over behavior.

While few significant treatment effects were found for rules, all treatment groups improved significantly more than did the control group on the post-test Objectives Effectiveness measure. Subjects who received therapy were more able to attain their objectives in the post-test role-plays than were the control subjects. Several factors may have accounted for this improvement. First, simply practicing difficult social interactions may have extinguished fears or anxieties about interacting in these situations. According to the conditioned anxiety model of social skills deficits (e.g., Wolpe, 1969), conditioned anxiety inhibits the expression of socially skilled behavior. The fact that all treatment groups improved on this measure, relative to the control group, supports this model and suggests that merely practicing difficult assertive responses can increase socially skilled behavior.

Second, it may have been that subjects actually learned to become more socially skilled through the role-playing. Therapists may have emitted subtle behavioral cues to subjects contingent upon their role-play performance. This may have accounted for why all subjects improved with role-playing. Yet, while all treatment groups became more socially skilled when assessed in role-play situations similar to those practiced in therapy, only the feedback groups improved significantly on the generalization role-play scenes. This suggests that the significant effect for role-playing only did not generalize to situations different from those practiced in therapy. Furthermore, these effects did not generalize to changes in self-reported assertiveness. Only the feedback groups improved significantly more than the control group in self-reported assertiveness.

The molecular skills deficit model of psychopathology and psychotherapy

The results suggest that a contingency-shaped approach to teach social skills was generally efficacious, and that an instructional or rule-governed approach was generally not efficacious. These results seem to have implications for our understanding of both the etiology and treatment of social skills deficits, and psychological disorders in general. The results call into question the molecular skills deficits model of social skills training (e.g., Bellack & Hersen, 1979; McFall & Twentyman, 1973). According to this model, socially unskilled behavior is viewed as being caused by the absence of specific, molecular skills. The goal of treatment is to provide clients with precisely those specific skills that they are lacking in their repertoires.

Not only is this model the predominant one in social skills training, the model also tends to predominate in behavior therapy, in general. Behavior therapy has been based in large part upon the attempt to identify specific, molecular skills which differentiate those with psychopathology from those without psychopathology and then to directly teach those missing behaviors through instructions (Bellack & Hersen, 1977; Kazdin, 1982). For example, the predominant behavioral treatment for depression attempts to identify specific pleasant events which depressed individuals are not engaging in, and then attempts to direct depressed individuals to engage in those events (Lewinsohn & Lee, 1981). The major behavioral treatment for juvenile delinquency (Achievement Place; Fixsen, Phillips, Phillips, & Wolf, 1976) attempts to identify specific, molecular behaviors for juveniles to learn (e.g., room

cleaning, watching daily newscasts, and articulating correctly), and then directs these youths to perform those behaviors, giving them tokens when they do perform them.

This method of psychotherapy has several problems. First, it assumes that one can identify the specific molecular behaviors which differentiate those with psychopathology from those without psychopathology. Yet, after over 15 years of research in social skills training, there are little data to support such an attempt. In fact, there are data that suggest that topographical deficits may not even differentiate those who are skilled from those who are unskilled; the distinguishing characteristic may simply be in the timing of when social skills are displayed (Fischetti, et al., 1977). Furthermore, even if some specific deficit was shown to be characteristic of those with a certain disorder, it would be another step to suggest that that specific deficit was an important one to modify. Even if the data did suggest, for example, that unassertive people maintain less eye contact than do assertive people, it may be that training in eye contact would not help those people become more assertive. The lack of eye contact may simply be a by-product of other, more important ways in which those who are unskilled differ from those who are skilled.

Another problem with the attempt to identify specific molecular deficits is that even if a behavior were shown to be a critical deficit in one situation, it would be almost impossible to know if that deficit would still be an important one if the situation changed. Just because eye contact was important in situation A does not mean that eye contact

would be important in situation B. Given the fact that there is an infinite array of possible situations and an infinite array of possible behaviors, the probability of identifying precisely those molecular skills to teach in specific behavioral situations seem impossible. Yet, this is the goal of many social skills researchers. Conger & Conger (1982), for example, stated that our goal as researchers should be to develop a "periodic table of social elements" (p. 317), and Bellack (1979) asserted that "the issue is not so much the importance of molecular response components per se as it is the determination of exactly which behaviors are important in diverse situations" (p. 97). The fact that social skills researchers and behavior therapists, in general, seem to be in a period of "collective soul-searching and self-flagellation" (Dow & Craighead, 1984) may be due to the enormity of the task researchers have set for themselves.

A final problem with the attempt to identify specific molecular behavioral deficits is that a verbal description of complex behavior may never fully describe the subtle contingencies involved in complex interactions. Skinner (1969) has noted that complex behavior is difficult to identify verbally, and the rules developed often do not seem to describe the contingencies adequately. Trower (1984), in his cogent critique of the current state of social skills training, made a similar point about the attempt to identify specific, molecular deficits in socially unskilled individuals:

> The puzzled therapist...asks the question: "what are social skills?" She consults the literature - common practice in any scientific enterprize - but the definitions offered (and they are

> hard to come by) are shot through with vagueness, and give her little practical help. However, she finds more precise instructions in further articles, suggesting that skillful assertiveness consists of a mean of n seconds of smiling, talking loudly, etc., in a given time period. Is this what she needs? A sort of cookbook of social skills in which she looks up the recipe, say, for assertiveness or warmth, and it gives the behavioural ingredients - a quantity of eye contact, a measure of smiling, an amount of talk, a pinch of this and a dash of that. The upshot is that our therapist has failed to find out what is a social skill, and by implication what is a social deficit, and if she proceeds as she started, may end up trying to train her client to do things which are bizarre rather than simply gauche, and encouraging the idea that faking 'warmth' etc. is right and proper (pp. 52-53).

The social skills therapist who attempts to teach social skills through instructions on specific, molecular behaviors to modify may train his or her client to act stilted and cardboard-like in social situations, rather than to act natural and socially sensitive.

Contingency-shaped approaches to psychotherapy

In some situatons, instead of attempting to identify the specific molecular deficits of those with psychopathology and to then instruct those skills, we may be able to teach complex skills more effectively through contingency-shaping processes. For example, a ballet teacher may tell his students, "I want you float like a butterfly when you pirouette," and he may be able to teach his students to float like

butterflies by giving them feedback on when they are and when they are not floating like butterflies. But he may never be able to identify the specific, behavioral components of 'floating like a butterfly' (Shull, personal communication, 1986).

A similar situation exists in clinical psychology today. A behavior therapist may have difficulty telling a depressed client which specific behaviors to modify in her repertoire to become less depressed, but he may be very adept at discriminating adaptive behavior from maladaptive behavior. He may also be very adept at helping clients become less depressed by giving them his "gut-level" reaction to what "feels right" adaptively (Herbert, 1986). With complex behaviors developed through contingency-shaped processes, natural shaping may prove to be more effective than instructions in changing behavior.

Contingency-shaped processes have been criticized by some who claim that contingency-shaping cannot explain "why" behavior changes when it does change. Curran, et al. (1984) for example, make such an argument in discussing the use of "molar" ratings in social skills training:

> Molar ratings can also be criticized for the paucity of information they provide. A rating of '2' on a 9-point scale suggests that a subject does not appear very skillful, but does not tell us why. It is obvious that any two subjects whose social skills level in a given situation was rated a '2' may have received this rating for very different reasons. It is exactly this question of why they received a '2' that is of primary importance in designing a treatment program. Molar ratings do not provide us with the level

> of information that is frequently needed. They may at best tell us how skillful a subject performs in a particular situation; they cannot tell us why he or she appears that way (p. 23).

Yet, it seems that a behavioral analysis does not require that one identify specific molecular deficits to design effective treatment programs. A behavioral analysis could also suggest that the way to change behavior is to change the environmental contingencies (Skinner, 1953). One simply needs to manipulate environmental controlling variables in order to modify behavior. It may be that the more behavior therapists look to environmental contingencies to affect behavior change, and the less they look toward the identification of specific molecular deficits, the more progress they may potentially make in the development of effective treatment strategies.

It should be noted that in some applied situations, rule-governed approaches are effective and vitally important behavior change techniques. If we want to teach children not to touch hot stoves, the most effective way to do so is probably through instructions. Similarly, if we want to help people get to where they are going, rules seem the simplest and most efficient way to help people.

If the natural environment is not teaching appropriate skills, rules may be necessary as a supplement to the shaping process. In self-control situations, for example, rules may be useful in helping clients to come under the control of new, adaptive contingencies (Hayes, et al., 1985). Rules may also be useful in clinical situations in which it would be adaptive for clients to come under the control of social,

verbal contingencies. Clients with antisocial personality disorder, for example, may benefit from rule-governed strategies.

Rules may also be adaptive in situations in which the natural contingencies would never adequately shape new behavior. In educational settings, for example, rules may be useful in teaching reading and writing skills. If the behaviors that rules specify are discrete and discernible, and if the contingencies surrounding the following of rules are not maladaptive in the long run, then rules may be more effective than contingency-shaping processes in helping clients change their behavior.

A contingency-shaped analysis of psychotherapy process

These results also seem to have implications for our understanding of the processes of change in psychotherapy, in general. The results suggest that a contingency-shaping process may help explain for the efficiacy of the psychotherapy process. Many psychotherapists have suggested that factors within the therapeutic relationship account for therapeutic change (Frank, 1973; Luborsky, 1977; Rogers, 1957). Yet, even though the therapeutic relationship may be an important therapeutic change mechanism, there has been little written on the relationship from a behavior analytic perspective. A contingency-shaped analysis may help fill this void and may help explain the processes of change in psychotherapy. The therapeutic relationship may affect change through a process by which the therapist contingently reinforces changes in behavior by the client (Kohlenberg & Tsai, in press; Rosenfarb, 1985).

Traux (1966), for example, showed that in a long-term successful therapy case, Carl Rogers used the processes of empathy, warmth, acceptance, and directiveness contingently to reinforce certain classes of behavior in a client. In a follow-up study, Truax (1968) found that in group therapy sessions, when therapists consequated clients' self-exploration behaviors through the use of empathy, warmth, and genuineness, clients not only showed greater levels of self-exploration, but this increased self-exploration was correlated with greater improvement in therapy. Thus, these two studies suggest that differentially consequating client behavior in therapy can lead to positive therapeutic change.

The importance of the Truax studies is that they provide support for a contingency-shaped analysis of the therapeutic process. The results of these studies suggest that the process of "unconditional positive regard" (Rogers, 1957) may actually be a process of differential reinforcement of positive therapeutic behaviors. Other therapeutic procedures may also be effective because of the shaping of new behavior in therapy. In the present study, therapist gave their "gut-level reaction" to the subject's behavior in role-play situations. In interactions where no role-playing occurs, such "gut-level" reactions may be occurring naturally. The therapist in such situations may be subtly shaping new client behaviors in the interaction between the two of them. A behavior therapist, for example, may help a client express angry feelings by reinforcing the expression of angry feelings in therapy.

Not only did the present study show that contingency-shaping can be an effective therapeutic change procedure, the results also suggest that instructions are not efficacious in the treatment of social skills deficits in adults. Behavior therapy has been based in large part upon the use of instructions to help clients change their behavior (Bellack & Hersen 1977; Kazdin, 1982). These results suggest that such directive interventions may not be effective in social skills interventions. Instead, these results support the view that therapists who attempt to shape new behaviors in therapy within the context of the therapeutic relationship may be the most effective clinically. These data suggest, for example, that if a behavior therapist wants to help her client become more socially skilled with his boss, it may not be effective for the therapist to give the client the instruction to tell his boss how he feels. It may be more effective for the therapist to shape assertive responses as they occur in therapy. The therapist, for example, may change the client's appointment time when the client requests that she do so, or the therapist may stop coming late to sessions when confronted about this by the client. Contingency-shaping may help explain the processes of change in psychotherapy and behavior therapy, and therefore can potentially be utilized to help make our current therapeutic procedures even more effective.

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APPENDICES

APPENDIX A

Subject Consent Form

Social Skills Training Research Study

Investigators

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Investigator's Statement

Past research has shown that an effective way to help people become more socially skilled is to directly teach them new skills in therapy. By having people practice new ways of behaving, research suggests that they can then become more skilled in social situations. The present research project is being conducted in partial fulfillment of a graduate degree in psychology and is an attempt to compare different methods of social skill training based upon this principle. All subjects who participate in the study will receive treatment for their social skills problems.

Participation involves several phases. First, you will be asked to participate in a two-part screening procedure in which you will be asked to complete two questionnaires and participate in an interview. The questionnaires look at your ability to be assertive and socially skilled in different situations and the most personal and sensitive items on these questionnaires ask whether youhave had any peculiar and strange experiences, whether you mind being made fun of, and whether you like to talk about sex. The interview will ask you to talk about, for example, your prior therapy experiences. The screening will be done in one session and will take approximately one-half hour. Based upon the results of this screening, you may or may not be asked to continue in the study. Those who are screened from further participation will be referred for services elsewhere. Participants who are in treatment elsewhere will need to obtain their therapist's written permission in order to participate in this study. Therapists will also be asked not to include role-playing methods of treating social skills problems in their own therapy during the course of your participation in this study.

If you pass the screening criteria, you will be asked to participate in the second phase of the study, which will consist of answering two additional questionnaires and participating in a behavioral role-playing assessment. The questionnaires ask you about your anxiety in social situation and general problems you might be experiencing at this time. The most personal and sensitive items on these questionnaires ask whether you have had a loss of sexual interest or pleasure in the past week, whether you have had thoughts of ending your life in the past week, and whether you have had the idea that someone else can control your thoughts in the past week. The role-play assessment asks you to imagine interacting in various interpersonal situations, for example, asking your father to borrow some money. The role-play assessment will be videotaped for later review.

The third phase of the study consists of eight 50 minute individual therapy sessions occurring twice weekly for four weeks. Therapy will involve

role-playing situations that are difficult for you to deal with at this time. Therapy will be conducted by graduate students who have received training in the techniques employed and who will be supervised by Irwin Rosenfarb, Ph.C., the principal investigator for the study. Some treatment sessions will be audiotaped and/or observed through a one-way mirror, but this will only be done by individual directly concerned with the evaluation and implementation of this project.

You will be asked to return one week after the final therapy session to complete an assessment battery similar to the one you will have engaged in before therapy. This assessment will take approximately one and one-half hours. Finally, at approximately four months and nine months from now, you will be mailed several questionnaires that ask you about your level of assertiveness and you will be asked to mail these questionnaires back to the principal investigator. Completing the questionnaires will take approximately 15 minutes.

You will be randomly assigned to one of several treatment groups and each treatment group will be using different methods of social skills training. Some participants will be put on a waiting list and will not participate in the treatment sessions (phase three) until the first sessions have been completed (about four weeks). Participants on the waiting list will be asked to complete all questionnaires and participate in the behavioral role-play assessment again before beginning treatment. These participants will not be asked to participate in any assessment after they end treatment.

Although you will not be asked to pay for the treatment you receive, you will be asked to make a $25.00 deposit that will be returned to you at the end of the final follow-up, approximately nine months from now. The $25.00 deposit is due after screening (phase one) and before the treatment sessions (phase three). Participants on the waiting list will also pay the $25.00 deposit but this money will be returned to them before beginning therapy (approximately four weeks from now).

Social skills therapy has been used extensively to help people overcome their difficulties in the past. No ill effects have been reported from participating in such therapy. You will be asked however to role-play situations that may be difficult for you and which may cause you some stress and dis fort. You will have some choice as to which situations you wish to role-play and can refuse to role-play any situation if you so desire. You will be free to withdraw from the study at any time; there will be no penalty or loss of benefit if you do so. Alternative therapies for social skills problems are available through community mental health centers, private therapists, and the University Counseling Center.

You may ask any question you wish at any time about any aspect of the study or about your rights either before, during, or after your participation in the study. Your participation in the study will be confidential. Research assistants with whom you work will all be aware of the confidential nature of yer participation. Your individual study results will be shared with your outside therapist, if you and your therapist so request. Data will be analyzed by groups and data will be coded by number. All data will be kept by the principal investigator only, and will be destroyed after they have been analyzed. It is estimated that it will take approximately one year to gather and analyze the data. The videotapes will be reviewed by research assistants directly associated with this research project to assess the effectiveness of your responses, and the audiotapes will be

reviewed by research assistants directly associated with this research project to insure that the treatment you are given follows standard procedures. A copy of the results of this study will be placed in the library at the University of North Carolina at Greensboro.

_____

Signature of Investigator Date

Subject's Statement

The study describes above has been explained to me, and I voluntarily consent to participate in this activity. I have had an opportunity to ask questions and understand that future questions I may have about the research or about subjects' rights will be answered by one of the investigators listed above.

_____

Signature of Subject Date

Copies to: Subject
Investigators' File

APPENDIX B

Due to the fact that over 170 people expressed interest in participating in the study, it was impossible to screen all subjects at the time the study was initiated. Subjects who were unable to be screened immediately were told that there would be a waiting period of approximately four to six weeks before it could be determined whether they would qualify to participate in the study. These subjects were given the option of being referred for treatment elsewhere if they chose not to wait. Of the 57 subjects who expressed an interest in participating but were told that they would have to wait for screening, 30 (53 per-cent) were still interested after the four to six week period. Of these, 21 qualified based upon the screening criteria, 18 began treatment, and 14 completed treatment.

Since there was a self-selection bias among these subjects as only those willing to wait for a screening appointment participated, these subjects' data were analyzed separately from the others. In comparing the pre-test scores of those who waited to those who participated in the initial project, several trends were noted: subjects who waited were somewhat less likely to have been in therapy in the past than were those who did not wait (=3.01, $p<.10$). 69 per-cent of those who participated immediately were previously in therapy; only 43 per-cent of those who waited were in therapy in the past. In addition, more subjects who waited dropped out of therapy than did those who did not wait. 14 per-cent of those who received immediate treatment withdrew from therapy while over 22 per-cent of those who waited subsequently withdrew once they began treatment. Finally, more males were among those who waited than were among those who participated immediately. 71 per-cent of those who waited were male while only 47 per-cent of those who received treatment immediately were male.

Combining the results of those who waited with those who received immediate treatment also tended to alter the pattern of results in the post-test data. For example, the main effects for feedback on both the Rathus Assertiveness Scale and the Self-Respect generalization (across behavior) scale were no longer statistically significant when the data from all subjects were analyzed together ($F=2.43$, $p>.12$ on the Rathus; $F=0.66$, $p>.42$ for the Self-Respect generalization measure). In addition, although the main effects for feedback on both the phobic anxiety scale and the Objectives Effectiveness generalization scale remained statistically significant when the post-test data of the subjects who waited were included ($F=4.53$, $p<.04$ for the phobic anxiety scale; $F=4.91$, $p<.04$ for the Objectives Effectives generalization scale), in both cases the comparison of the feedback group with the control group was no longer statistically significant ($\underline{t}=1.26$, $p>.11$ for the phobic anxiety scale; $\underline{t}=1.22$, $p>.12$ for the Objectives Effectiveness

measure). In some cases, additional statistical significance was obtained when the data from all subjects were analyzed together. The main effects for feedback, for example, on both the Self-Respect generalization (across persons) measure and on the SCL-90-R psychoticism scale became statistically significant ($F=7.34$, $p<.02$, for the Self-Respect generalization measure and $F=4.77$, $p<.04$, for the SCL-90-R psychoticism scale) when the data from all subjects were analyzed together. In both these analyses, the feedback group improved significantly more than did the no feedback group.

It appears, therefore that asking subjects to wait before being screened for treatment tends to bias the selection. Asking subjects to wait tended to bias the selection toward males and toward subjects who were less likely to have been in therapy previously. It also skewed the selection toward those who were less willing to be referred for treatment elsewhere. Finally, asking subjects to wait tended to increase the likelihood that these subjects would drop-out once they began treatment. Given the fact that these subjects were not selected in the same manner as were the others, and their data indicate that they came from a different population, their data were not included in the results reported in the study. Because of this exclusion however, the results of this study should be interpreted cautiously.

APPENDIX C

Therapist Consent Form

This statement acknowledges that I am currently seeing _____ in therapy and I believe that he or she has a social skills deficit and is an appropriate candidate for participation in a research project involving the treatment of social skills deficits through role-playing. I also agree that should the above named person participate in the social skills research project, I will not use role-playing to treat his or her social skills problem for the course of the research investigation.

I am aware that the above named person will participate in a comprehensive behavioral assessment battery and that these data as well as the results of the treatment will be shared with me upon my request. I also agree that I will contact Irwin Rosenfarb, the principal investigator, should the above named person's condition deteriorate such that participation in this research project would be detrimental to his or her mental health.

Signed: _____

Name: _____

Address: _____

_____

_____

Phone: _____

Please return the above form to:

Irwin Rosenfarb, Ph.C.
Department of Psychiatry, GI-15
University of Washington
Seattle, WA 98195

Phone: 543-4970

APPENDIX D

Social Skills Deficit Checklist

A. Speech content

1. Denies criticism
2. Rejects what others have to say
3. Denies compliments
4. Too self-depreciating
5. Asks too many open-ended questions
6. Does not ask enough open-ended questions
7. Uses paraphrasing inappropriately
8. Talks about self too much
9. Does not talk about self enough
10. Does not show enough interest in other person
11. Acts apologetic in making requests
13. Gives excuses when making requests
14. Too demanding
15. Too coersive
16. Too hostile
17. Is not empathic enough
18. Does not recognize rights of others
19. Does not use enough "feeling" talk
20. Does not make comments concise and to the point
21. Uses too many "I" statements
22. Does not use enough "I" statements
23. Has difficulty keeping conversation going
24. Too much self-disclosure
25. Too little self-disclosure
26. Attacks other person too much
27. Directs criticism at person instead of at behavior
28. Does not start conversation on a positive note
29. Does not end conversation on a positive note
31. Asks too many "personal" questions
32. Too critical of other person
33. Remarks too sarcastic
34. Remarks too judgmental
35. Remarks too dogmatic
36. Comments inappropriate to the situation
37. Compliments other person too much
38. Compliments other person too little
39. Gives up too easily
40. Solicits too much feedback
41. Does not solicit enough feedback
42. Changes topic of conversation inappropriately
43. Offers too much feedback
44. Does not offer enough feedback

45. Interrupts other person too much
46. Does not indicate attentiveness to what others say
47. Uses same word repeatedly (i.e. _____)

B. Affect

48. Too much affect
49. Too little affect
50. Sarcastic voice tone
51. Condescending voice tone
52. Gets too angry
53. Does not get angry enough

C. Eye contact

54. Too much eye contact
55. Too little eye contact

D. Dysfluencies

56. Inappropriate throat clearing
57. Nervous laughter or joking
58. Abnormal breathing pattern

E. Interpersonal distance

59. Too close to other person
60. Too far from other person

F. Body posture

61. Wooden body posture
62. Slouched body posture
63. Shifts head excessively
64. Excessive body movement
65. Inappropriate pacing

G. Gestures

66. Nervous hand gestures
67. Covers mouth when talking
68. Scratches head
69. Rubs eyes
70. Rubs neck
71. Touches hair inappropriately
72. Plays with facial hair
73. Plays with jewelry
74. Adjusts clothing inappropriately
75. Finger pointing

H. Facial expression

76. Inappropriate smiling
77. Raises eye brow
78. Blinks too much
79. Squints eyes
80. Pursed, tight lipped mouth
81. Tension in forehead
82. Swallows excessively
83. Wets lips

I. Loudness

84. Speech too loud
85. Speech too soft

86. Other:_____.
87. Other:_____.
88. Other:_____.
89. Other:_____.
90. Other:_____.

APPENDIX E

Treatment Manual
Therapist Rules with Feedback Group

Session 1

1. Develop rapport and ask subject about concerns.
Have subjects talk for several minutes about their social skills problem and also about themselves.
Ask subject to relate any concerns about treatment.

2. Review overview of treatment
(Summarize the following in your own words; adapted from Galassi & Galassi, 1977)

This treatment is designed to help you to express a variety of personal opinions, feelings, and attitudes in a more appropriate and socially effective manner. Such training is often called assertiveness or social skills training. Social skills or assertiveness training involves standing up for your rights and expressing your thoughts, feelings, and beliefs in direct, honest, and appropriate ways which do not violate the rights of others. Assertive behavior is not threatening or punishing toward another person. The basic message is: This is what I think, this is what I feel, and this is how I see the situation. This message is said without dominating, humiliating, or degrading others.

One assumption of this treatment is that social skills are learned. They are not something you are born with or something you posses - like blue eyes. It's a skill or a way of behaving. It's also not necessarily a general way of behaving. People are not skilled in all situations. One learns different types of behavior in different situations. For example, someone may have difficulty expressing disagreement with his or her boss but have no difficulty expressing difficulty with friends. Similarly, someone may have no difficulty expressing disagreement with people but he or she may have difficulty expressing positive feelings to others. Treatment here will involve practicing new ways of behaving in a wide variety of situations with a wide variety of people.

At this point, you may be wondering how you learned or developed the habit of not asserting yourself in certain situations. There probably is no easy answer to that question, and certainly that answer will be different for each person. However, there are a number of factors, which may have contributed to this process.

For example, people often fail to assert themselves in a particular situation because they have previously been punished either physically or verbally for expressing themselves in that situation. If you were punished as a child for expressing your opinions, particularly opinions which disagreed with others, you now may feel uncomfortable or uptight in situations which call for you to express yourself. Feeling uptight or anxious is unpleasant for most of us and is something we seek to reduce or avoid. One way of reducing anxiety in the above situation is to not express our opinions - to behave nonassertively.

Thus one way that we learn not to express ourselves in a particular situation is by being punished repeatedly for expressing ourselves in that situation and thereby developing feelings of discomfort. We relieve these feeings of discomfort by not asserting ourselves.

A person may also learn to behave nonassertively in a situation because nonassertive behavior is rewarded or reinforced in that situation. For instance, suppose a friend asks you to make a special trip downtown to pick up a package so that he or she won't be late to a weekly card game. To fulfill the request means considerable inconvenience for you at this time. If you behave nonassertively and comply, it is quite likely that your friend will praise you and say nice things to you. Even though you felt the request was untimely, the praise from your friend made it more likely that you would continue to hide your real feelings and comply with his or her requests in the future.

The behavior generally displayed by significant individuals around us as we were growing up is another important influence on the development of nonassertive behavior. If your parents usually gave in to the demands of others even though this caused considerable inconvenience, you may have learned to accomodate others while denying yourself. Perhaps you can recall your next-door neighbor, Mr. Smith, who was always borrowing, but seldom returning your father's power tools. Even though dad grumbled and complained about this when Mr. Smith wasn't around, he continued to lend his tools because he felt that it was so important to be a "good" neighbor. This pattern may have led you to repeat the same behaviors with your friends and neighbors.

A fourth contributing factor involves lack of opportunity to develop appropriate behavior. Many individuals behave nonassertively in social situations because they have not had the opportunity in the past to learn appropriate ways of behaving. When confronted by the new situation, they are at a loss for how to respond and in addition may feel uptight because of their lack of knowledge. For instance, the college freshman who is just beginning to date because previously his or her parents felt that the individual was too young for such activities may report feeling anxious because, "I don't know how to begin a conversation with my date," or "I couldn't make small talk because I have never done that before." The individual reports that he or she was too passive because he or she did not know how to behave. Another example is provided by the individual who reports difficulty coping with

sales persons because previously "my parents and/or spouse took care of those matters for me and I never had to pay much attention or worry about how to cope with situations in which I didn't like what the salesperson was showing me."

Regardless of the exact reason why a person has not become socially skilled, we believe that you can learn to become more socially skilled by practicing new ways of responding in social situations. We believe that learning to behave in a socially skilled manner is like learning any other skill, like learning to swim, or to drive a car. It requires practice. Research has shown that practice through role-playing is the best way to teach social skills.

In this treatment program we will practice different situations that are relevant to you. Two basic problem areas will be covered: asking for help from other people and refusing unreasonable requests by others. Within each problem area, we will practice situations involving interactions with friends, strangers, and authority figures. So altogether there will be six different types of situations that we will practice here. Some examples of the types of situations we will practice include: asking your boss for time off, returning a defective wallet to the store, dealing with a friend who keeps borrowing money from you, and asking a friend to donate to charity.

3. Review of specific treatment plan

In this treatment, you will be asked to choose scenes that are relevant to your own life. You will be asked to alter the scenes to make them as relevant to your own life as possible. Over the eight sessions here, we will role-play up to 12 different situations. In addition to role-playing the scene, we will talk about your feelings about each situation before role-playing. I will also give you rules or instructions about what you can do differently before each scene in order to help improve your social skills. The instructions will be on specific behaviors you can change during role-playing. Finally, I'll also give you feedback after the scene on how assertive you were in the situation. The feedback will be on a one to nine scale, where one is very unskilled and nine is very skilled.

We'll role-play each situation four times. I'll give you instructions before each role-play and feedback afterwards. We'll also talk about your feelings about the scene some each time before role-playing and we'll role-play each scene longer and longer each time we practice it so it becomes more realistic to you and so you can have more practice in dealing with the scene. Do you have any questions? Good. Let's get right into the first situation, then. But before that, I'd like you to fill out this questionnaire. I'd like you to fill it out anonymously. I don't want to see your responses, so when you're done with the questionnaire, put it in the envelope at the front desk.
(Have subject fill out pre-test questionnaire)
Now let's get to the first situation.

4. Introduce first role-playing scene
- Read the two scenes and ask subject which scene is most relevant
Say, "Which situation are you most likely to come across in you everyday life?"
"Which situation presents the most difficulty for you?"
- Make sure subject doesn't choose one scene because he (she) is fearful of interacting in the other scene.
- After subject chooses one of the two scenes, ask subject to provide exact details about scene to make it relevant.
For example, say, "Which sex would you have more difficulty interacting with in this situation?"
"Is there any aspect about the situation that can be changed to make it more realistic?"
"Describe some details about the situation to make it realistic."

5. Have subject talk about situation
Say, "Have you ever been in this situation before? What happened?"
Be empathic and supportive. Do not differentially respond to any of the subject's rules.
Ask open-ended questions. Have subject talk about his or her feelings about the situation.

6. Present a rule.
- Choose the rule from the list provided or if none of those are appropriate, choose another comparable rule.
Indicate your rule on the sheet provided. Base your rule on deficits displayed by the subject in your interactions with him (her).
- Make sure subject understands the rule. Give simple rules at the beginning; progress to more complex rules. Have rules given in subsequent role-plays bear on continuing deficits displayed in each role-play scene.

7. Role play the scene.
- Ask the subject to close his (her) eyes and read the scene.
Ask the subject to open his (her) eyes when he (she) has the scene clearly in mind.
When subject opens eyes, read the first prompt.
- Stop the role-play after the subject responds to your prompt.

8. Give subject feedback.
- Say, "I'm now going to give you feedback on your level of social skills in the role-play on a one to nine scale where one is very unskilled and nine is very skilled. Based upon that scale, I would rate that role-play a ____." Record your rating on the sheet provided. If subject receives a low score on the scene and looks displeased, say, "Since we're just beginning, it's not expected that you'll do well at first. Remember, the key to improving is to practice changing your behavior."
If the subject asks what you based the rating on, say it's just a global or gut-level impression of their level of skill.

9. Have subject talk about the situation.
- For example, say, "How did you feel about the role-play?"
Be empathic and supportive. Do not differentially respond to any of the subject's rules.
Ask open-ended questions. Have subject talk about his or her feelings about the situation.

10. Give rule again.
- After approximately five to ten minutes, say, "Let's role-play that scene again. What I'd like you to work on in this role-play attempt is ____."
Use either the same rule or a different rule from the list depending upon continuing deficits shown by the subject.
Record your rule on the sheet provided.

11. Repeat role-playing.
- This time, after subject responds to your prompt, provide another prompt (as described in the scene).
- End the role-play after the second subject response.

12. Give feedback
- Give the subject a feedback rating as previously.
Record your rating on the sheet provided.

13. Repeat steps 9, 10, 11, and 12
- Give another rule before each role-play attempt, and give one more prompt during each subsequent role-play attempt.
- Give another feedback rating after each role-play.
- Be sure to record both the rule and the feedback rating on the sheet provided.
- After the scene is role-played four times, present two new scenes to the subject and ask him or her to choose one of the scenes to role-play.

14. Repeat steps 4 through 13

15. Termination
- After approximately 50 minutes, say, "That's all we have time for today."
Be sure to end after a role-play attempt.
- Ask subject about any concerns or questions
Give subject positive feedback about session and attempts to act assertively.
- Schedule next session.

Sessions 2 through 8

1. Review what has happened to subject since last session and ask if subject has any concerns about therapy
- Ask subject if anything unusual has happened
- Ask subject if he (she) has been in any assertiveness situations since last session
- Review scenes role-played the previous session

2. Role-playing
- Introduce next role-play scene or continue with same role-play scene from last week.

3. Repeat steps 4 through 14 from Session 1
- Role-play scenes as in the first session.
- Give a rule prior to each role-play attempt.
- Give feedback after each role-play attempt.

4. Termination
(See session 1, Number 15)

At the end of session 7:

- Remind subject that treatment will end after the next session.
Review thoughts and feelings surrounding termination.
Talk about any difficulties subject might see in future.
- Schedule final session.

At the end of session 8:

- Review thoughts and feeling surrounding termination
Talk about any difficulties subject might see in the future
Encourage subject to continue role-playing in vivo
Stress point that learning social skills is a life long process and shouldn't end with this treatment.
Provide subject with referrals if he or she feels that help is needed.
- Schedule post-treatment assessment

General considerations

1. Specific rules to be used in each role-play scene are determined by the therapist, based upon continuing deficits, in consultation with the principal investigator and other therapists.

2. Be empathic and supportive at all times.

3. Direct conversation back to role-playing or skills focus if subject

continually brings up thoughts and feelings, either at the beginning of the session or past the alloted time before role-playing. For example, say, "I can see that you're really upset about your marriage. Let's use these feelings to work on developing skills to insure you're not dominated anymore."

4. An exception to this general rule surrounds a crisis situation. The therapist should not allow the treatment protocol to interfere with good clinical judgement.

APPENDIX F

Treatment Manual
Therapist Rules with No Feedback Group

Session 1

1. Develop rapport and ask subject about concerns.
Have subjects talk for several minutes about their social skills problem and also about themselves.
Ask subject to relate any concerns about treatment.

2. Review overview of treatment
(Summarize the following in your own words; adapted from Galassi & Galassi, 1977)

(See Appendix E, Session 1, Number 2)

3. Review of specific treatment plan

In this treatment, you will be asked to choose scenes that are relevant to your own life. You will be asked to alter the scenes to make them as relevant to your own life as possible. Over the eight sessions here, we will role-play up to 12 different situations. In addition to role-playing the scene, we will talk about your feelings about each situation before role-playing. I will also give you rules or instructions about what you can do differently before each scene in order to help improve your social skills. The instructions will be on specific behaviors you can change during role-playing.

We'll role-play each situation four times. I'll give you instructions before each role-play attempt. We'll also talk about your feelings about the scene some each time before role-playing and we'll role-play each scene longer and longer each time we practice it so it becomes more realistic to you and so you can have more practice in dealing with the scene. Do you have any questions? Good. Let's get right into the first situation, then. But before that, I'd like you to fill out this questionnaire. I'd like you to fill it out anonymously. I don't want to see your responses, so when you're done with the questionnaire, put it in the envelope at the front desk.
(Have subject fill out pre-test questionnaire)
Now let's get to the first situation.

4. Introduce first role-playing scene
- Read the two scenes and ask subject which scene is most relevant
Say, "Which situation are you most likely to come across in you everyday life?"
"Which situation presents the most difficulty for you?"
- Make sure subject doesn't choose one scene because he (she) is fearful of interacting in the other scene.

- After subject chooses one of the two scenes, ask subject to provide exact details about scene to make it relevant.
For example, say, "Which sex would you have more difficulty interacting with in this situation?"
"Is there any aspect about the situation that can be changed to make it more realistic?"
"Describe some details about the situation to make it realistic."

5. Have subject talk about situation
Say, "Have you ever been in this situation before? What happened?"
Be empathic and supportive. Do not differentially respond to any of the subject's rules.
Ask open-ended questions. Have subject talk about his or her feelings about the situation.

6. Present a rule.
- Choose the rule from the list provided or if none of those are appropriate, choose another comparable rule.
Indicate your rule on the sheet provided. Base your rule on deficits displayed by the subject in your interactions with him (her).
- Make sure subject understands the rule. Give simple rules at the beginning; progress to more complex rules. Have rules given in subsequent role-plays bear on continuing deficits displayed in each role-play scene.

7. Role play the scene.
- Ask the subject to close his (her) eyes and read the scene.
Ask the subject to open his (her) eyes when he (she) has the scene clearly in mind.
When subject opens eyes, read the first prompt.
- Stop the role-play after the subject responds to your prompt.

8. Have subject talk about the situation.
- For example, say, "How did you feel about the role-play?"
Be empathic and supportive. Do not differentially respond to any of the subject's rules.
Ask open-ended questions. Have subject talk about his or her feelings about the situation.
- Do not give the subject differential feedback on his (her) performance in the role-play.
If subject asks for feedback, say "I'd rather you tell me how you thought you did," or
"When treatment is over I won't be able to give you feedback, so I'd rather not give you feedback now," or
"It's more important for you to decide how well you did than for me to tell you how well you did."
You can also say, "I'll tell you which specific behaviors to work on when we role-play the scene again."
- Record the subject's level of social skill in the role-play (on a one to nine scale) on the sheet provided but do not show this rating to the subject.

9. Give rule again.
- After approximately five to ten minutes of talking about the situation, say, "Let's role-play that scene again. What I'd like you to work on in this role-play attempt is ____."
Use either the same rule or a different rule from the list depending upon continuing deficits shown by the subject.
Record your rule on the sheet provided.

10. Repeat role-playing.
- This time, after subject responds to your prompt, provide another prompt (as described in the scene).
- End the role-play after the second subject response.

11. Talk about the scene
- Ask the subject how they felt about the role-play
Be empathic and supportive
Do not differentially respond to any subject rule.
Do not give the subject differential feedback on his (her) performance in the role-play.
- Record the subject's feedback rating as previously but don't show this rating to the subject.

12. Repeat steps 9, 10, and 11
- Give another rule before each role-play attempt, and give one more prompt during each subsequent role-play attempt.
- Be sure to record both the rule and the feedback rating on the sheet provided.
- After the scene is role-played four times, present two new scenes to the subject and ask him or her to choose one of the scenes to role-play.

13. Repeat steps 4 through 12

14. Termination
- After approximately 50 minutes, say, "That's all we have time for today."
Be sure to end after a role-play attempt.
- Ask subject about any concerns or questions
Give subject positive feedback about session and attempts to act assertively.
- Schedule next session.

Sessions 2 through 8

1. Review what has happened to subject since last session and ask if subject has any concerns about therapy
- Ask subject if anything unusual has happened since last session
- Ask subject if he (she) has been in any assertiveness situations since last session
- Review scenes role-played the previous session

2. Role-playing
- Introduce next role-play scene or continue with same role-play scene from last week.

3. Repeat steps 4 through 13 from Session 1
- Role-play scenes as in the first session.
- Give a rule prior to each role-play attempt.

4. Termination
(See session 1, Number 14)

At the end of session 7:

- Remind subject that treatment will end after the next session.
Review thoughts and feelings surrounding termination.
Talk about any difficulties subject might see in future.
- Schedule final session.

At the end of session 8:

- Review thoughts and feeling surrounding termination
Talk about any difficulties subject might see in the future
Encourage subject to continue role-playing in vivo
Stress point that learning social skills is a life long process and shouldn't end with this treatment.
Provide subject with referrals if he or she feels that help is needed.
- Schedule post-treatment assessment

General considerations

1. Specific rules to be used in each role-play scene are determined by the therapist, based upon continuing deficits, in consultation with the principal investigator and other therapists.

2. Be empathic and supportive at all times.

3. Direct conversation back to role-playing or skills focus if subject continually brings up thoughts and feelings, either at the beginning of

the session or past the alloted time before role-playing. For example, say, "I can see that you're really upset about your marriage. Let's use these feelings to work on developing skills to insure you're not dominated anymore."

4. An exception to this general rule surrounds a crisis situation. The therapist should not allow the treatment protocol to interfere with good clinical judgement.

APPENDIX G

Treatment Manual
Self Rules with Feedback Group

Session 1

1. Develop rapport and ask subject about concerns.
Have subjects talk for several minutes about their social skills problem and also about themselves.
Ask subject to relate any concerns about treatment.

2. Review overview of treatment
(Summarize the following in your own words; adapted from Galassi & Galassi, 1977)

(See Appendix E, Session 1, Number 2)

3. Review of specific treatment plan

In this treatment, you will be asked to choose scenes that are relevant to your own life. You will be asked to alter the scenes to make them as relevant to your own life as possible. Over the eight sessions here, we will role-play up to 12 different situations. In addition to role-playing the scene, we will talk about each situation before role-playing. You will develop, along with my help, specific rules or instructions about what you can do differently in each scene in order to help you to improve your social skills. The instructions you develop will be on specific behaviors you can change during role-playing. I'll also give you feedback after the scene on how assertive you were in the situation. The feedback will be on a one to nine scale, where one is very unskilled and nine is very skilled.

We'll role-play each situation four times. You'll develop your own rules before each role-play attempt and I'll give you feedback after each role-play attempt. We'll role-play each scene longer and longer each time we practice it so it becomes more realistic to you and so you can have more practice in dealing with the scene. Do you have any questions? Good. Let's get right into the first situation, then. But before that, I'd like you to fill out this questionnaire. I'd like you to fill it out anonymously. I don't want to see your responses, so when you're done with the questionnaire, put it in the envelope at the front desk.
(Have subject fill out pre-test questionnaire)
Now let's get to the first situation.

4. Introduce first role-playing scene
- Read the two scenes and ask subject which scene is most relevant
Say, "Which situation are you most likely to come across in you everyday life?"

"Which situation presents the most difficulty for you?"
- Make sure subject doesn't choose one scene because he (she) is fearful of interacting in the other scene.
- After subject chooses one of the two scenes, ask subject to provide exact details about scene to make it relevant.
For example, say, "Which sex would you have more difficulty interacting with in this situation?"
"Is there any aspect about the situation that can be changed to make it more realistic?"
"Describe some details about the situation to make it realistic."

5. Begin self rule development
- Say, "What can you do to act assertively in this situation?"
If subject gives an appropriate rule (one that reflect a continuing deficit and is on the Deficit Checklist), repeat the rule back to the subject, record the rule on the sheet provided, and go to number 6.
- If the subject does not give an appropriate rule, attempt to shape one particular rule from the Social Skills Deficit Checklist.
Attempt to shape a rule that seems closest to the the rule given by the subject.
- Say, "Tell me more," or "What do you mean?" to have subject continue responding.
- If subject does not give a rule that seems close to one on the Deficit Checklist, use list (see Table 1) to prompt responding.
After subject has developed an adequate rule, say, "So what you're saying you need to do to act assertively in this situation is _____?"
If subject agrees, role-play scene.
- Be sure to record the subject's rule on the sheet provided.

6. Role play the scene.
- Ask the subject to close his (her) eyes and read the scene.
Ask the subject to open his (her) eyes when he (she) has the scene clearly in mind.
When subject opens eyes, read the first prompt.
- Stop the role-play after the subject responds to your prompt.

7. Give subject feedback.
- Say, "I'm now going to give you feedback on your level of social skills in the role-play on a one to nine scale where one is very unskilled and nine is very skilled. Based upon that scale, I would rate that role-play a ____." Record your rating on the sheet provided. If subject receives a low score on the scene and looks displeased, say, "Since we're just beginning, it's not expected that you'll do well at first. Remember, the key to improving is to practice changing your behavior."
If the subject asks what you based the rating on, say it's just a <u>global</u> or <u>gut-level</u> impression of their level of skill.

8. Ask subject to develop another rule
Subject may use either the same rule or a different rule from the list depending upon continuing deficits shown.
- Shape the subject's verbal behavior to help him (her) develop an

appropriate rule, if necessary.
Record the subject's rule on the sheet provided.

9. Repeat role-playing.
- This time, after subject responds to your prompt, provide another prompt (as described in the scene).
- End the role-play after the second subject response.

10. Give feedback
- Give the subject a feedback rating as previously.
Record your rating on the sheet provided.

11. Repeat steps 8, 9, and 10
- Ask the subject to develop another rule before each role-play attempt, and give one more prompt during each subsequent role-play attempt.
- Give another feedback rating after each role-play.
- Be sure to record both the rule and the feedback rating on the sheet provided.
- After the scene is role-played four times, present two new scenes to the subject and ask him or her to choose one of the scenes to role-play.

12. Repeat steps 4 through 11

13. Termination
- After approximately 50 minutes, say, "That's all we have time for today."
Be sure to end after a role-play attempt.
- Ask subject about any concerns or questions
Give subject positive feedback about session and attempts to act assertively.
- Schedule next session.

Sessions 2 through 8

1. Review what has happened to subject since last session and ask if subject has any concerns about therapy
- Ask subject if anything unusual has happened
- Ask subject if he (she) has been in any assertiveness situations since last session
- Review scenes role-played the previous session

2. Role-playing
- Introduce next role-play scene or continue with same role-play scene from last week.

3. Repeat steps 4 through 12 from Session 1
- Role-play scenes as in the first session.
- Help the subject develop a rule prior to each role-play attempt.
- Give feedback after each role-play attempt.

4. Termination
(See session 1, Number 13)

At the end of session 7:

- Remind subject that treatment will end after the next session.
Review thoughts and feelings surrounding termination.
Talk about any difficulties subject might see in future.
- Schedule final session.

At the end of session 8:

- Review thoughts and feeling surrounding termination
Talk about any difficulties subject might see in the future
Encourage subject to continue role-playing in vivo
Stress point that learning social skills is a life long process and shouldn't end with this treatment.
Provide subject with referrals if he or she feels that help is needed.
- Schedule post-treatment assessment

General considerations

1. Specific rules to be used in each role-play scene are determined by the rules subjects initially give. Make sure subject wants to change the behavior specified by the rule and feels as if he (she) has developed the rule specified. Subjects should not feel as if the therapist is directing them to develop the rule. Rather, they should feel as if the therapist is helping them to develop their own rules. Therapist should help subjects develop rules that specify continuing

deficits displayed in role-play scenes. Therapist should consult with the principal investigator and other therapists to insure that rules are self-generated and specify important behavioral deficits.

2. Be empathic and supportive at all times.

3. Direct conversation back to role-playing or skills focus if subject continually brings up thoughts and feelings, either at the beginning of the session or past the alloted time before role-playing. For example, say, "I can see that you're really upset about your marriage. Let's use these feelings to work on developing skills to insure you're not dominated anymore."

4. An exception to this general rule surrounds a crisis situation. The therapist should not allow the treatment protocol to interfere with good clinical judgement.

APPENDIX H

Treatment Manual
Self Rules with No Feedback Group

Session 1

1. Develop rapport and ask subject about concerns.
Have subjects talk for several minutes about their social skills problem and also about themselves.
Ask subject to relate any concerns about treatment.

2. Review overview of treatment
(Summarize the following in your own words; adapted from Galassi & Galassi, 1977)

(See Appendix E, Session 1, Number 2)

3. Review of specific treatment plan

In this treatment, you will be asked to choose scenes that are relevant to your own life. You will be asked to alter the scenes to make them as relevant to your own life as possible. Over the eight sessions here, we will role-play up to 12 different situations. In addition to role-playing the scene, we will talk about each situation before role-playing. You will develop, along with my help, specific rules or instructions about what you can do differently in each scene in order to help you to improve your social skills. The instructions you develop will be on specific behaviors you can change during role-playing.

We'll role-play each situation four times. You'll develop your own rules before each role-play attempt. We'll role-play each scene longer and longer each time we practice it so it becomes more realistic to you and so you can have more practice in dealing with the scene. Do you have any questions? Good. Let's get right into the first situation, then. But before that, I'd like you to fill out this questionnaire. I'd like you to fill it out anonymously. I don't want to see your responses, so when you're done with the questionnaire, put it in the envelope at the front desk.
(Have subject fill out pre-test questionnaire)
Now let's get to the first situation.

4. Introduce first role-playing scene
- Read the two scenes and ask subject which scene is most relevant
Say, "Which situation are you most likely to come across in you everyday life?"
"Which situation presents the most difficulty for you?"
- Make sure subject doesn't choose one scene because he (she) is fearful of interacting in the other scene.

- After subject chooses one of the two scenes, ask subject to provide exact details about scene to make it relevant.
For example, say, "Which sex would you have more difficulty interacting with in this situation?"
"Is there any aspect about the situation that can be changed to make it more realistic?"
"Describe some details about the situation to make it realistic."

5. Begin self rule development
- Say, "What can you do to act assertively in this situation?"
If subject gives an appropriate rule (one that reflect a continuing deficit and is on the Deficit Checklist), repeat the rule back to the subject, record the rule on the sheet provided, and go to number 6.
- If the subject does not give an appropriate rule, attempt to shape one particular rule from the Social Skills Deficit Checklist.
Attempt to shape a rule that seems closest to the the rule given by the subject.
- Say, "Tell me more," or "What do you mean?" to have subject continue responding.
- If subject does not give a rule that seems close to one on the Deficit Checklist, use list (see Table 1) to prompt responding.
After subject has developed an adequate rule, say, "So what you're saying you need to do to act assertively in this situation is _____?"
If subject agrees, role-play scene.
- Be sure to record the subject's rule on the sheet provided.

6. Role play the scene.
- Ask the subject to close his (her) eyes and read the scene.
Ask the subject to open his (her) eyes when he (she) has the scene clearly in mind.
When subject opens eyes, read the first prompt.
- Stop the role-play after the subject responds to your prompt.

7. Ask subject to develop another rule
- Do <u>not</u> give the subject differential feedback on his (her) performance in the role-play.
If subject asks for feedback, say "I'd rather you tell me how you thought you did," or
"When treatment is over I won't be able to give you feedback, so I'd rather not give you feedback now," or
"It's more important for you to decide how well you did than for me to tell you how well you did."
You can also say, "You can decide which specific behaviors to work on when we role-play the scene again."
- Record the subject's level of social skill in the role-play (on a one to nine scale) on the sheet provided but do <u>not</u> show this rating to the subject.
- Ask subject, "What would you like to work on in the next role-play attempt?"
Subject may use either the same rule or a different rule from the list depending upon continuing deficits shown.
- Shape the subject's verbal behavior to help him (her) develop an

appropriate rule, if necessary.
Record the subject's rule on the sheet provided.

8. Repeat role-playing.
- This time, after subject responds to your prompt, provide another prompt (as described in the scene).
- End the role-play after the second subject response.

9. Repeat steps 7 and 8
- Ask the subject to develop another rule before each role-play attempt, and give one more prompt during each subsequent role-play attempt.
- Do not give the subject differential feedback on his (her) performance in the role-play.
- Be sure to record both the rule and the feedback rating on the sheet provided.
- After the scene is role-played four times, present two new scenes to the subject and ask him or her to choose one of the scenes to role-play.

10. Repeat steps 4 through 9

11. Termination
- After approximately 50 minutes, say, "That's all we have time for today."
Be sure to end after a role-play attempt.
- Ask subject about any concerns or questions
Give subject positive feedback about session and attempts to act assertively.
- Schedule next session.

Sessions 2 through 8

1. Review what has happened to subject since last session and ask if subject has any concerns about therapy
- Ask subject if anything unusual has happened
- Ask subject if he (she) has been in any assertiveness situations since last session
- Review scenes role-played the previous session

2. Role-playing
- Introduce next role-play scene or continue with same role-play scene from last week.

3. Repeat steps 4 through 10 from Session 1
- Role-play scenes as in the first session.
- Help the subject develop a rule prior to each role-play attempt.

4. Termination
(See session 1, Number 11)

At the end of session 7:

- Remind subject that treatment will end after the next session.
Review thoughts and feelings surrounding termination.
Talk about any difficulties subject might see in future.
- Schedule final session.

At the end of session 8:

- Review thoughts and feeling surrounding termination
Talk about any difficulties subject might see in the future
Encourage subject to continue role-playing in vivo
Stress point that learning social skills is a life long process and shouldn't end with this treatment.
Provide subject with referrals if he or she feels that help is needed.
- Schedule post-treatment assessment

General considerations

1. Specific rules to be used in each role-play scene are determined by the rules subjects initially give. Make sure subject wants to change the behavior specified by the rule and feels as if he (she) has developed the rule specified. Subjects should not feel as if the therapist is directing them to develop the rule. Rather, they should feel as if the therapist is helping them to develop their own rules. Therapist should help subjects develop rules that specify continuing deficits displayed in role-play scenes. Therapist should consult with

the principal investigator and other therapists to insure that rules are self-generated and specify important behavioral deficits.

2. Be empathic and supportive at all times.

3. Direct conversation back to role-playing or skills focus if subject continually brings up thoughts and feelings, either at the beginning of the session or past the alloted time before role-playing. For example, say, "I can see that you're really upset about your marriage. Let's use these feelings to work on developing skills to insure you're not dominated anymore."

4. An exception to this general rule surrounds a crisis situation. The therapist should not allow the treatment protocol to interfere with good clinical judgement.

APPENDIX I

Treatment Manual
No Rules with Feedback Group

Session 1

1. Develop rapport and ask subject about concerns.
Have subjects talk for several minutes about their social skills problem and also about themselves.
Ask subject to relate any concerns about treatment.

2. Review overview of treatment
(Summarize the following in your own words; adapted from Galassi & Galassi, 1977)

(See Appendix E, Session 1, Number 2)

3. Review of specific treatment plan

In this treatment, you will be asked to choose scenes that are relevant to your own life. You will be asked to alter the scenes to make them as relevant to your own life as possible. Over the eight sessions here, we will role-play up to 12 different situations. In addition to role-playing the scene, we will talk about your feelings about each situation before role-playing. I'll also give you feedback after the scene on how assertive you were in the situation. The feedback will be on a one to nine scale, where one is very unskilled and nine is very skilled.

We'll role-play each situation four times. I'll give you feedback after each role-play attempt. We'll also talk about your feelings about the scene some each time before role-playing and we'll role-play each scene longer and longer each time we practice it so it becomes more realistic to you and so you can have more practice in dealing with the scene. Do you have any questions? Good. Let's get right into the first situation, then. But before that, I'd like you to fill out this questionnaire. I'd like you to fill it out anonymously. I don't want to see your responses, so when you're done with the questionnaire, put it in the envelope at the front desk.
(Have subject fill out pre-test questionnaire)
Now let's get to the first situation.

4. Introduce first role-playing scene
- Read the two scenes and ask subject which scene is most relevant
Say, "Which situation are you most likely to come across in you everyday life?"
"Which situation presents the most difficulty for you?"
- Make sure subject doesn't choose one scene because he (she) is fearful of interacting in the other scene.

- After subject chooses one of the two scenes, ask subject to provide exact details about scene to make it relevant.
For example, say, "Which sex would you have more difficulty interacting with in this situation?"
"Is there any aspect about the situation that can be changed to make it more realistic?"
"Describe some details about the situation to make it realistic."

5. Have subject talk about situation
Say, "Have you ever been in this situation before? What happened?"
Be empathic and supportive. Do not differentially respond to any of the subject's rules.
Ask open-ended questions. Have subject talk about his or her feelings about the situation.

6. Role play the scene.
- After approximately five to ten minutes of talking about the scene, say, "Let's role play the scene now."
- Ask the subject to close his (her) eyes and read the scene.
Ask the subject to open his (her) eyes when he (she) has the scene clearly in mind.
When subject opens eyes, read the first prompt.
- Stop the role-play after the subject responds to your prompt.

7. Give subject feedback.
- Say, "I'm now going to give you feedback on your level of social skills in the role-play on a one to nine scale where one is very unskilled and nine is very skilled. Based upon that scale, I would rate that role-play a ____." Record your rating on the sheet provided. If subject receives a low score on the scene and looks displeased, say, "Since we're just beginning, it's not expected that you'll do well at first. Remember, the key to improving is to practice changing your behavior."
If the subject asks what you based the rating on, say it's just a global or gut-level impression of their level of skill.

8. Have subject talk about the situation.
- For example, say, "How did you feel about the role-play?"
Be empathic and supportive. Do not differentially respond to any of the subject's rules.
Ask open-ended questions. Have subject talk about his or her feelings about the situation.

9. Repeat role-playing.
- After approximately five to ten minutes, say, "Let's role-play that scene again."
- This time, after subject responds to your prompt, provide another prompt (as described in the scene).
- End the role-play after the second subject response.

10. Give feedback
- Give the subject a feedback rating as previously.
Record your rating on the sheet provided.

11. Repeat steps 8, 9, and 10
- Give one more prompt during each subsequent role-play attempt.
- Give another feedback rating after each role-pláy.
- Be sure to record the feedback rating on the sheet provided.
- After the scene is role-played four times, present two new scenes to the subject and ask him or her to choose one of the scenes to role-play.

12. Repeat steps 4 through 11

13. Termination
- After approximately 50 minutes, say, "That's all we have time for today."
Be sure to end after a role-play attempt.
- Ask subject about any concerns or questions
Give subject positive feedback about session and attempts to act assertively.
- Schedule next session.

Sessions 2 through 8

1. Review what has happened to subject since last session and ask if subject has any concerns about therapy
- Ask subject if anything unusual has happened
- Ask subject if he (she) has been in any assertiveness situations since last session
- Review scenes role-played the previous session

2. Role-playing
- Introduce next role-play scene or continue with same role-play scene from last week.

3. Repeat steps 4 through 12 from Session 1
- Role-play scenes as in the first session.
- Give feedback after each role-play attempt.

4. Termination
(See session 1, Number 13)

At the end of session 7:

- Remind subject that treatment will end after the next session.
Review thoughts and feelings surrounding termination.
Talk about any difficulties subject might see in future.
- Schedule final session.

At the end of session 8:

- Review thoughts and feeling surrounding termination
Talk about any difficulties subject might see in the future
Encourage subject to continue role-playing in vivo
Stress point that learning social skills is a life long process and shouldn't end with this treatment.
Provide subject with referrals if he or she feels that help is needed.
- Schedule post-treatment assessment

General considerations

1. Be empathic and supportive at all times.

2. Direct conversation back to role-playing or skills focus if subject continually brings up thoughts and feelings, either at the beginning of the session or past the alloted time before role-playing. For example, say, "I can see that you're really upset about your marriage. Let's use these feelings to work on developing skills to insure you're not dominated anymore."

3. An exception to this general rule surrounds a crisis situation. The therapist should not allow the treatment protocol to interfere with good clinical judgement.

APPENDIX J

Treatment Manual
No Rules with No Feedback Group

Session 1

1. Develop rapport and ask subject about concerns.
Have subjects talk for several minutes about their social skills problem and also about themselves.
Ask subject to relate any concerns about treatment.

2. Review overview of treatment
(Summarize the following in your own words; adapted from Galassi & Galassi, 1977)

(See Appendix E, Session 1, Number 2)

3. Review of specific treatment plan

In this treatment, you will be asked to choose scenes that are relevant to your own life. You will be asked to alter the scenes to make them as relevant to your own life as possible. Over the eight sessions here, we will role-play up to 12 different situations. In addition to role-playing the scene, we will talk about your feelings about each situation before role-playing.

We'll role-play each situation four times. We'll also talk about your feelings some each time before role-playing and we'll role-play each scene longer and longer each time we practice it so it becomes more realistic to you and so you can have more practice in dealing with the scene. Do you have any questions? Good. Let's get right into the first situation, then. But before that, I'd like you to fill out this questionnaire. I'd like you to fill it out anonymously. I don't want to see your responses, so when you're done with the questionnaire, put it in the envelope at the front desk.
(Have subject fill out pre-test questionnaire)
Now let's get to the first situation.

4. Introduce first role-playing scene
- Read the two scenes and ask subject which scene is most relevant
Say, "Which situation are you most likely to come across in you everyday life?"
"Which situation presents the most difficulty for you?"
- Make sure subject doesn't choose one scene because he (she) is fearful of interacting in the other scene.
- After subject chooses one of the two scenes, ask subject to provide exact details about scene to make it relevant.
For example, say, "Which sex would you have more difficulty interacting with in this situation?"

"Is there any aspect about the situation that can be changed to make it more realistic?"
"Describe some details about the situation to make it realistic."

5. Have subject talk about situation
Say, "Have you ever been in this situation before? What happened?"
Be empathic and supportive. Do not differentially respond to any of the subject's rules.
Ask open-ended questions. Have subject talk about his or her feelings about the situation.

6. Role play the scene.
- After approximately five to ten minutes of talking about the scene, say, "Let's role play the scene now."
- Ask the subject to close his (her) eyes and read the scene.
Ask the subject to open his (her) eyes when he (she) has the scene clearly in mind.
When subject opens eyes, read the first prompt.
- Stop the role-play after the subject responds to your prompt.

7. Have subject talk about the situation.
- Do not give the subject differential feedback on his (her) performance in the role-play.
If subject asks for feedback, say "I'd rather you tell me how you thought you did," or
"When treatment is over I won't be able to give you feedback, so I'd rather not give you feedback now," or
"It's more important for you to decide how well you did than for me to tell you how well you did."
You can also say, "The most important part of this treatment is role-playing and practicing interacting in new situations."
- Record the subject's level of social skill in the role-play (on a one to nine scale) on the sheet provided but do not show this rating to the subject.
- Discuss the subject's feelings about the role-play
- For example, say, "How did you feel about the role-play?"
Be empathic and supportive. Do not differentially respond to any of the subject's rules.
Ask open-ended questions. Have subject talk about his or her feelings about the situation.

8. Repeat role-playing.
- After approximately five to ten minutes, say, "Let's role-play that scene again."
- This time, after subject responds to your prompt, provide another prompt (as described in the scene).
- End the role-play after the second subject response.

9. Repeat steps 7 and 8
- Give one more prompt during each subsequent role-play attempt.
- Be sure to record the feedback rating on the sheet provided but don't show this rating to the subject.

- After the scene is role-played four times, present two new scenes to the subject and ask him or her to choose one of the scenes to role-play.

10. Repeat steps 4 through 9

11. Termination
- After approximately 50 minutes, say, "That's all we have time for today."
Be sure to end after a role-play attempt.
- Ask subject about any concerns or questions
Give subject positive feedback about session and attempts to act assertively.
- Schedule next session.

Sessions 2 through 8

1. Review what has happened to subject since last session and ask if subject has any concerns about therapy
- Ask subject if anything unusual has happened
- Ask subject if he (she) has been in any assertiveness situations since last session
- Review scenes role-played the previous session

2. Role-playing
- Introduce next role-play scene or continue with same role-play scene from last week.

3. Repeat steps 4 through 10 from Session 1
- Role-play scenes as in the first session.
- Do not give the subject rules or differential feedback on his (her) performance in the role-play.

4. Termination
(See session 1, Number 11)

At the end of session 7:

- Remind subject that treatment will end after the next session.
Review thoughts and feelings surrounding termination.
Talk about any difficulties subject might see in future.
- Schedule final session.

At the end of session 8:

- Review thoughts and feeling surrounding termination
Talk about any difficulties subject might see in the future
Encourage subject to continue role-playing in vivo
Stress point that learning social skills is a life long process and shouldn't end with this treatment.
Provide subject with referrals if he or she feels that help is needed.
- Schedule post-treatment assessment

General considerations

1. Be empathic and supportive at all times.

2. Direct conversation back to role-playing or skills focus if subject continually brings up thoughts and feelings, either at the beginning of the session or past the alloted time before role-playing. For example, say, "I can see that you're really upset about your marriage. Let's use

these feelings to work on developing skills to insure you're not dominated anymore."

3. An exception to this general rule surrounds a crisis situation. The therapist should not allow the treatment protocol to interfere with good clinical judgement.

APPENDIX K

Treatment role-plays

A. Making Requests of Strangers

Subject chooses one of the following two scenes:

1. Returning a wallet to a store

You have recently bought a wallet in a department store. After using it for two days the stitching starts to come out and the leather begins to tear. Although you've thrown away your sales slip, you bring the wallet back to the store. You are now standing in the store in front of the counter. The man who sold you the wallet walks over to you.

When you have this firmly in mind, open your eyes:

Therapist prompts:

A. May I help you?

1. I'm sorry. We can't accept returned merchandise without a sales slip.
2. It's impossible for me to do anything without a sales slip.
3. I'm sorry. I can't help you.

2. Someone cuts ahead of you in line:

You are in a crowded grocery store and are in a hurry. You have picked up one small item and get in line to pay for it. A man with a shopping cart full of groceries cuts in line right in front of you.

When you have this firmly in mind, open your eyes:

Therapist prompts:

A. Oh, you don't mind if I get in line here, do you?

1. But I'm late for an appointment.
2. The line is not very long and I m really in a hurry.
3. Well, I am really late for an appointment.
4. Okay, I'll get in the back.

B. Making Requests of Strangers
Subject chooses one of the following:

1. Asking someone not to smoke in the elevator.
You are entering an elevator in a tall building and you find yourself standing next to a man (woman) who is smoking. There is a sign on the elevator that says "NO SMOKING" and the smoke is beginning to bother you.
When you have this firmly in mind, open your eyes.

Therapist prompts:
A. Good weather we've been having lately.

1. I'll be getting off the elevator soon.
2. What's the big deal?
3. Why don't you just move to the other side of the elevator?
4. Okay, I'll put it out.

2. Asking someone in the theater to stop talking.
You are at a movie. The man (woman) in the seat in back of you keeps telling the person sitting next to him (her) what will happen next. It is impossible for you to keep from hearing him (her), and you would really like him (her) to stop talking.
When you have this firmly in mind, open your eyes.

Therapist prompts:
A. Isn't this movie good?

1. I haven't been talking that loud.
2. Well, I haven't really said that much.
3. Nobody else seems to be bothered.
4. Okay, I'll be quiet.

C. Making Requests of Strangers
Choose one of the following:

1. Asking for another table in a restaurant.
You're sitting at a rather nice restaurant with a group of friends and have just begun your meal. You notice that there is a huge draft in the restaurant that is blowing right on your table. You decide that you'd like to move tables and notice that there are several other tables in the restaurant that are open. Your waitress is now approaching your table...
When you have this firmly in mind, open your eyes.

Therapist prompts:
A. I hope you're enjoying your meal.

1. But those tables are reserved.
2. You would need to have another waiter at that table, and since I started waiting on you, I need to finish.
3. The draft doesn't feel too bad. It just takes some getting used to.
4. I'll see what I can do.

2. Complaining to a neighbor about loud noise.
It is 11:00 on a Wednesday night and you're ready to go to sleep for the night. You next-door neighbor, however, is having a loud party in his (her) apartment and is making alot of niose. It is really important that you get some sleep tonight, so you decide to ask your neighbor to cut down the noise...You are now in front of your neighbor's apartment and have just knocked on his (her) door...
When you have this firmly in mind, open your eyes.

Therapist prompts:
A. Hello.

1. Oh the music isn't that loud.
2. It's my birthday and we're celebrating.
3. What are you, a party-pooper, or something?
4. Okay, I'll turn the music down.

D Refusing Requests from Friends
Choose one of the following:

1. In this situation, your host is trying to get you to stay at a party when you want to go home.
You are getting ready to leave a party at the home of friends so that you can get some sleep. Just then that host asks if he can get you another drink. You explain that you have to go home, but he (she) wants to get you the drink anyway...
When you have this firmly in mind, open your eyes.

Therapist prompts:
A. Oh, you have time for one more. Tell me how you've been lately...

1. Aw, come on. One more drink won't take that long. Stay and talk with me.
2. You can't be that tired. The evening is young.
3. Fine guest you are. I ask you to stay and talk to me and you won't even do it. What's the matter with you anyway?
4. Well, I'm glad you came. It was good seeing you again.

2. This is a situation in which a friend tries to sell you something.
The fourteen-year-old son of a friend of yours comes to your door selling magazine subscriptions. You already subscribe to several and the others you have absolutely no interest in. Your friend's son is now standing at your door...
When you have this firmly in mind, open your eyes.

Therapist prompts:
A. It would be a personal favor to me if you bought one, since I'm trying to win a scholarship in a sales contest...

1. But if I don't sell a certain number of the magazines, I just might not be able to win this scholarship.
2. Gee, my mother told me you'd be able to help me out.
3. I know you might not need these magazines, but why don't you take a subscription as a favor?
4. Okay, thank you.

E. Refusing requests from Authority
Choose one of the following:

1. Refusing to donate time to charity.
You are in the lobby of a movie theater, waiting in line. A male acquaintance walks over and says hello. He tells you he is the chairman of a fund raising campaign in your area; it happens to be a cause you think is worthwhile. He is talking about the need for door-to-door soliciting in your particular neighborhood within the next few days. As you realize he is about to ask you for your help, you become concerned because you are really very busy with lots of other things right now...
When you have this firmly in mind, open your eyes.

Therapist prompts:
A. It's a very good cause. We need your help, and it will only take about three hours.

1. I was really hoping you could put in three hours this week.
2. It's such a good cause, please don't let us down.
3. Couldn't you reconsider...it's only for three hours.
4. I understand. Maybe you can make it some other time.

2. Refusal for more work on a community project.
A community project has been planned. There are several things left to do before the project is finished, but instead of asking the other members to do the work, the chairperson, who is a casual friend of yours, asks if you would help her do it. You feel you have already done your share of the work...
When you have this firmly in mind, open your eyes.

Therapist prompts:
A. You're such a good worker. I know it will be done right if you do it. How about it?

1. I know you've worked hard and I shouldn't ask more of you, but I'm really desperate...
2. Won't you please reconsider! I really need to get someone to do this and you have always been so dependable.
3. I know you feel overworked, but others are overworked too. Please do it as a favor to me.
4. I understand. Don't worry. I'll find someone else.

F. Asking for help from friends
Choose one of the following:

1. Asking a co-worker to switch work hours with you.
You have volunteered to work at a local recreation center on Tuesday nights. However, next Tuesday you have some out-of-town company coming to dinner. You've decided to ask one of your co-workers to switch evenings with you this week. You are now walking over to your co-worker, and greet each other hello...
When you have this firmly in mind, open your eyes.

Therapist prompts:
A. Anything I can help you with, _____?

1. I prefer Thursday night here.
2. I don't know.
3. Let me think about it.
4. Okay, I'll do it.

2. Asking a friend to donate to charity.
You've decided to do some fund raising for a local charity. You think it's a very worthwhile cause. You decide to go door-to-door soliciting in your neighborhood. You're walking up to one of your friend's house to ask for a donation. You knock on the front door and he (she) answers the door. You have just exchanged hellos...
When you have this firmly in mind, open your eyes.

Therapist prompts:
A. Anything I can help you with, ____?

1. I don't know.
2. Money's pretty tight right now.
3. Why is this cause better than any other?
4. Okay. I can spare a few dollars.

G. Asking_for_help_from_authority_figures
Choose one of the following:

1. Asking your physician questions.
You are at your doctor's office and he (she) has just given you a prescription to get filled. You want to know what the prescription is and what the potential side effects are. Your doctor is generally quite vague on these issues. He has handed you the prescription...
When you have this firmly in mind, open your eyes.

Therapist prompts:
A. Okay, that's it for today.

1. It's name is not important. Just take two teaspoons after each meal and give me a call in five days or so.
2. Don't worry. Just call me if you have any more difficulties.
3. No one I know has ever had any problems with it.
4. It's called Phyzyme and contains an antibiotic for the bacteria and an ingredient to coat your stomach.

2. Asking your boss for time off.
You've just remembered that your child is in a school play this afternoon and you'd like to take time off from work to go see it. You feel you've been working hard and have the time coming to you. You are now walking to your boss' office to ask him (her) for the time off. You knock on your boss' door. He (she) says "Come in". You exchange hellos...
When you have this firmly in mind, open your eyes.

Therapist prompts:
A. What can I do for you, ____?

1. We're quite busy today.
2. There are also alot of other people out today.
3. This doesn't seem that important.
4. Okay. Go ahead.

H. Refusing requests from friends
Choose one of the following:

1. Refusing a friend who wants to borrow your car.
A friend of yours has borrowed your car several times in the past. He (she) never pays for gas and always leaves the car a mess. You've decided that you don't want to loan him (her) your car anymore. You see your friend walking up to you now. He (she) walks up to you and you exchange hellos...
When you have this firmly in mind, open your eyes.

Therapist prompts:
A. How about loaning me your car tonight.

1. Come on, I'll return it real soon.
2. But I have to get to the bank in a hurry.
3. I promise to return the favor.
4. Oh, alright.

2. Refusing a friend who wants to borrow money from you.
A friend of yours has borrowed money from you several times in the past. He (she) never pays you back, although he (she) always promises to do so. You've decided that you don't want to loan him (her) any more money until he (she) pays you back. You see your friend walking up to you now. He (she) walks up to you and you exchange hellos...
When you have this firmly in mind, open your eyes.

Therapist prompts:
A. How about loaning me $5, ____? I'll pay you back tomorrow.

1. Come on. I'll pay you back tomorrow.
2. I'm getting paid tomorrow. I'll pay you back.
3. I promise I'll pay you everything I owe you.
4. Oh, alright.

I. Refusing requests from a stranger
Choose one of the following:

1. Refusing to donate to a co-worker's baby gift.
One of your co-workers (co-worker's wife) has just had a baby. You feel that you have never gotten along with this person. Another co-worker, who you don't know, is taking up a collection for him (her), but you have decided that you don't want to give. Your co-worker has just walked up to your desk...
When you have this firmly in mind, open your eyes.

Therapist prompts:
A. Hi. I'm taking up a collection for _____. How about contributing?

1. Everyone's giving.
2. You only have to give a dollar.
3. What are you...cheap or something?
4. Okay.

2. Refusing to accept money at a yard sale.
You're having a yard sale and someone wants to buy a table that you are selling. You originally asked $20.00 for it. The other person has offered you $10.00, but you feel that it is worth at least $15.00...
When you have this firmly in mind, open your eyes.

Therapist prompts:
A. I'll give you $10.00 for it.

1. I don't think it's worth more than $10.00.
2. You're never going to sell it at that price.
3. Okay. I'll give you $12.50, but that is my final offer.
4. Thank you anyway.

J. Asking for help from friends
Choose one of the following:

1. Asking a friend to borrow his (her) car.
Your car has been broken and is in the repair shop today. You really need a car tonight to go to an important meeting. You decide to ask one of your friends if he (she) will loan you his (her) car. You are now walking over to his (her) house. You knock on the front door and he (she) answers. You exchange formalities for awhile...
When you have this firmly in mind, open your eyes.

Therapist prompts:
A. Well, how can I help you, ____?
1. I would hate for something to happen.
2. What if you get into an accident?
3. I'm not sure.
4. Okay.

2. Asking a friend to watch your house when you go on vacation.
You are leaving in a few days for a two-week trip and want to ask a friend to water your plants and keep an eye on your house while you are away. You are now going over to his (her) house. You knock on the front door and he (she) answers. You make small talk for awhile...
When you have this firmly in mind, open your eyes.

Therapist prompts:
A. Well, how can I help you, ____?

1. I'm afraid I might kill your plants.
2. I would hate for anything to happen.
3. I'm not sure I know how to do this.
4. Okay, I'll do it. When are you planning to go?

K. Refusing with friends
Choose one of the following:

1. Refusing a gift from a friend.
A friend of yours has just brought you a birthday gift. You are both seated in your living room, and you are in the process of opening up the gift. When you see that it is a sweater, you thank her and try it on. It fits well, but you really don't like the style at all...
When you have this firmly in mind, open your eyes.

Therapist prompts:
A. I hope you like it. If you don't, I can take it back.
1. But I think it is beautiful!
2. I spent so much time picking it out.
3. I'm so disappointed you don't like it.
4. Okay, why don't we go together to try to find another sweater.

2. Refusing time from a friend.
In speaking with a girlfriend of yours yesterday, you told her that you would help her with a project for about an hour, if she came to your place at 11:00 that morning. She said she would. You are now sitting waiting for her to arrive. You look at your watch and see it is a quarter to twelve, and you realize that there are a number of errands you really have to attend to at noon. As you now decide that you can't wait any longer, and you are ready to leave, your friend appears at the door...
When you have this firmly in mind, open your eyes.

Therapist prompts:
A. I'm sorry I'm so late, but can you help me out for an hour anyway?
1. I really need some help now, and you promised!
2. How can I get these things done if you don't help?
3. I'm so late now and I doubly need your help to get done.
4. I understand. It's my fault I'm late. Maybe we can make it another time.

L. Refusing request from a friend
Choose one of the following:

1. Dealing with a co-worker who complains about you to others.
A friend of yours has been working on a school project with you. You feel that you've been doing your share of the work, but you have heard that your friend has told others that you haven't been doing your fair share. You have just met your friend and exchanged greetings...
When you have this firmly in mind, open your eyes.

Therapist prompts:
A. Well, I've got to get going.
1. I haven't been saying anything bad.
2. I don't want to talk about it.
3. I have been doing most of the work.
4. Okay, Let's talk about it.

2. Dealing with a friend who continually criticizes you.
A friend of yours has a habit of criticizing you in front of others. He (she) thinks the comments are funny, but you don't. He (she) has recently insulted you again in front of a group of people. You are now standing alone with him (her) in a corner of the room...
When you have this firmly in mind, open your eyes.

Therapist prompts:
A. Well, I've got to be going.
1. I thought it was funny.
2. I think you are taking this too personally.
3. Oh, loosen up.
4. I'm sorry I insulted you.

APPENDIX L

Debriefing statement
(given after the treatment phase)

Past research has shown that an effective way to help people become more socially skilled is to directly teach them new skills in therapy. By having people practice new ways of behaving, research suggests that they can then become more skilled in social situations.

The present research project was an attempt to compare different methods of social skills training based upon this principle. All subjects were asked to role-play different social skills situations in treatment. In addition, some subjects were given instructions or rules on what to do to act socially skilled during the role-play scenes. This is a common addition to most social skills treatment programs. Other subjects were asked to develop their own instructions for how to act socially skilled. A third group was given neither instructions nor did they develop their own rules; they simply role-played the scenes. Half of the subjects in each of the above three groups were also given feedback after role-playing. More information on the specific nature of each treatment as well as the results of the study will be described in more detail at the final follow-up eight months from now.

The situations you role-played before and after treatment and the questionnaires you answered were the ways we determined the amount of social skills improvement for each person. We hope you benefitted from participating in this study. If you feel that you would still like to get some help for your social skills problems, we would be happy to make a referral for you. Thank you for participating in this study.

APPENDIX M

Debriefing statement
(given after the final follow-up)

Past research has shown that an effective way to help people become more socially skilled is to directly teach them new skills in therapy. By having people practice new ways of behaving, research suggests that they can then become more skilled in social situations.

The present research project was an attempt to compare different methods of social skills training based upon this principle. All subjects were asked to role-play different social skills situations in treatment. In addition, some subjects were given instructions or rules on what to do to act socially skilled during the role-play scenes. This is a common addition to most social skills treatment programs however there is some research that suggests that some kinds of instructions might be detrimental in teaching people new skills.

As an alternative to instructions, other subjects were asked to develop their own instructions for how to act socially skilled. We hypothesized that people who developed their own rules would develop better social skills than those who were given instructions. A third group was given neither instructions nor did they develop their own rules; they simply role-played the scenes.

Half of the subjects in each of the above three groups were also given feedback after role-playing. We believed that those who were given feedback would become more socially skilled than those who were not given feedback. Research has shown that feedback is an effective way to teach new behavior. No study however has looked at the importance of feedback alone in teaching social skills.

The situations you role-played before and after treatment and the questionnaires you answered were the ways we determined the amount of social skills improvement for each person. We hope you benefitted from participating in this study. If you feel that you would still like to get some help for your social skills problems, we would be happy to make a referral for you. Thank you for participating in this study.

APPENDIX N

Self-report questionnaires

APPENDIX O

Pre-and Post-test Role-play Assessment Scenes

Practice Situation No. 1

It's a cool autumn evening, and you are taking a leisurly walk after dinner. It's just before sunset and the sky is just beginning to darken. As you reach the corner of your block, you hear your name being called, and notice a friend that you haven't seen in many months waving to you from across the street. Your friend walks over to you...When you have this clearly in mind, open your eyes and look at your friend.

CONFEDERATE: I haven't seen you in ages.

Confederate responses:

Confederate responds cheerfully to subject. Goal is to put subject at ease.
Role-play ends after approximately 90 seconds after a natural pause in the conversation.

Practice Situation No. 2

You have taken a friend out to lunch for his birthday to his favorite cafe. You've finished eating a satisfying lunch, and are talking over a warm cup of tea. Your friend is laughing, and really seems to be enjoying himself. Although he doesn't know it, you've purchased a present that you know he will like. You've waited until after lunch to surprise him with it, so you reach down and pick it up from behind your seat...When you have this clearly in mind, open your eyes and look at your friend.

CONFEDERATE: What've you got there?

Confederate responses:

Confederate responds cheerfully to subject. Goal is to put subject at ease.
Role-play ends after approximately 90 seconds after a natural pause in the conversation.

A.
(Subject role-plays one of the following interactions in pre-testing and role-plays the other interaction in post-testing)

1. You've handed in a paper that your professor requested you write. When you go to class this morning you find it sitting on your desk. Your professor has marked all over it and didn't seem to understand many of your comments. You decide to speak to him about it...After a few minutes have passed, you walk over to your professor's desk...When you have this clearly in mind, open your eyes and look at your professor.

CONFEDERATE: Can I help you, _____ (insert subject's name).

Confederate responses:

1. I see no need to discuss it.
2. My comments were based on my reading of your paper.
3. I've gotten much better papers from other students.

2. You've handed in a report that your boss requested you write. When you return to work this morning you find it sitting on your desk. Your boss has marked all over it and didn't seem to understand many of your comments. You decide to speak to him about it...After a few minutes have passed, you walk over to your boss's desk...When you have this clearly in mind, open your eyes and look at your boss.

CONFEDERATE: Can I help you, _____ (insert subject's name).

1. I see no need to discuss it.
2. My comments were based on my reading of your report.
3. I've gotten much better reports from other employees.

B.
(Subject role-plays one of the following interactions in pre-testing and role-plays the other interaction in post-testing)

CONFEDERATE: Before we do this role-play, I'd like to ask you a question. What kind of salad dressing do you usually like on your salad? (Insert blue cheese unless subject says blue cheese. Then, insert russian).

You are out to lunch with a group of friends at a rather enjoyable restaurant. You are seated and the waitress comes over and takes your order. You order a salad with _____ dressing, just the way you like it. When the waitress brings the order to your table, you notice that the salad is smothered with _____ dressing, one you really don't like at all...The waitress is now coming over to the table...When you have this clearly in mind, open your eyes and look at the waitress.

CONFEDERATE: I hope you're enjoying your meal!

Confederate responses:

1. Well, I have it written down here _____, and I'm sure you ordered it that way.
2. I wrote it down when you ordered it, and I'm sure that's what you said.
3. Well, it's too late to change it now.

CONFEDERATE: Before we do this role-play, I'd like to ask you a question. How do you usually like your steak cooked? (Insert well done unless subject says well done. Then, insert rare).

You are out to dinner with a group of friends at a rather enjoyable restaurant. You are seated and the waitress comes over and takes your order. You order a steak _____, just the way you like it. When the waitress brings the order to your table, you notice that the steak is cooked _____ and it tastes awful...The waitress is now coming over to the table...When you have this clearly in mind, open your eyes and look at the waitress.

CONFEDERATE: I hope you're enjoying your meal!

Confederate responses:

1. Well, I have it written down here _____, and I'm sure you ordered it that way.
2. I wrote it down when you ordered it, and I'm sure that's what you said.
3. Well, it's too late to change it now.

C.
(Subject role-plays one of the following interactions in pre-testing and role-plays the other interaction in post-testing).

1. You have been working at the same company now for over a year and a half without a raise in pay. You feel you do excellent work for the company and really deserve a raise. So...you go talk to your supervisor about it...When you have this clearly in mind, open your eyes and look at your supervisor.

CONFEDERATE: We have only a few raises to give out and they go to the best.

Confederate responses:

1. Oh...you're _____(insert subject's name) aren't you? I think I know what department you work in.
2. I'd really like a raise too, everyone wants a raise.
3. A lot of people are making less than you and living off of it.

2. You have been working at the same company now for over a year and a half without a promotion. You feel you do excellent work for the company and really deserve a promotion. So...you go talk to your supervisor about it...When you have this clearly in mind, open your eyes and look at your supervisor.

CONFEDERATE: We have only a few promotions to give out and they go to the best.

Confederate responses:

1. Oh...you're _____(insert subject's name) aren't you? I think I know what department you work in.
2. I'd really like a promotion too, everyone wants a promotion.
3. A lot of people aren't doing as well as you and are still happy.

D.
(Subject role-plays one of the following interactions in pre-testing and role-plays the other interaction in post-testing)

1. It's a beautiful Saturday afternoon, and some good friends have come over to ask you to join them on a picnic in the country. You have no commitments, YOU HAVE NOTHING TO DO. You really just want to spend the day by yourself...When you have this clearly in mind, open your eyes and look at your friend.

CONFEDERATE: We're counting on you coming along! We won't take no for an answer!

Confederate responses:

1. C'mon, we'll have a good time.
2. I told everyone that you're coming. Don't disapoint me.
3. It seems you're spending too much time by yourself lately.

2. A group of close friends have invited you to a party on Saturday night. You don't want to go because you really just want to spend the evening by yourself. You have no commitments, YOU HAVE NOTHING TO DO...When you have this clearly in mind, open your eyes and look at your friend.

CONFEDERATE: We're counting on you coming along! We won't take no for an answer!

Confederate responses:

1. C'mon, we'll have a good time.
2. I told everyone that you're coming. Don't disapoint me.
3. It seems you're spending too much time by yourself lately.

E.
(Subject role-plays one of the following interactions in pre-testing and role-plays the other interaction in post-testing)

1. It's late in the evening, and you're doing some last minute grocery shopping just before going home. You notice a good friend of yours standing nearby and go over to say hello. As you chat, you remember that several months ago you lent this friend a book which was never returned. You realize that you'd really like to get the book back...When you have this clearly in mind, open your eyes and look at your friend.

CONFEDERATE: Sorry to be rushing off but I've got to be getting home.

Confederate responses:

1. Oh, that book. I'm pretty sure I returned it.
2. C'mon, you know me. I would have returned it by now.
3. Why do you care so much about a little book -- it seems that you're so stingy.

2. It's late in the evening, and you're doing some last minute grocery shopping just before going home. You notice a good friend of yours standing nearby and go over to say hello. As you chat, you remember that several months ago you lent this friend a record album which was never returned. You realize that you'd really like to get the album back...When you have this clearly in mind, open your eyes and look at your friend.

CONFEDERATE: Sorry to be rushing off but I've got to be getting home.

Confederate responses:

1. Oh, that album. I'm pretty sure I returned it.
2. C'mon, you know me. I would have returned it by now.
3. Why do you care so much about a little record album -- it seems that you're so stingy.

F.
(Subject role-plays one of the following interactions in pre-testing and role-plays the other interaction in post-testing)

1. You are talking on the telephone with a friend of yours. She is raving about a movie she just saw. You have seen the movie too but thought it was unnecessarily violent and in bad taste, and you would like to tell your friend how you feel about the movie...When you have this clearly in mind, open your eyes and look at your friend.

CONFEDERATE: I really thought that movie was great.

Confederate responses:

1. I can't believe you didn't like it.
2. I think you missed the point of the movie.
3. I don't think you <u>really</u> understood the plot.

2. You are talking on the telephone with a friend of yours. She is raving about a book she just read. You have read the book too but thought it was unnecessarily offensive and in bad taste, and you would like to tell your friend how you feel about the book...When you have this clearly in mind, open your eyes and look at your friend.

CONFEDERATE: I really thought that book was wonderful.

Confederate responses:

1. I can't believe you didn't like it.
2. I think you missed the point of the book.
3. I don't think you <u>really</u> understood the plot.

APPENDIX P

Generalization Role-play scenes

Generalization across persons
(Subjects role-play all of the following in post-testing only)

A. You have dropped in to visit your father. The two of you are exchanging pleasant conversation, but the real reason for your visit is to ask for some money which you desparately need to survive the month. Your father is on his way to work, so you know your time is limited. Just as your about to make your request, your father gets up...When you have this clearly in mind, open your eyes and look at your father.

CONFEDERATE: Well, I hate to interrupt, but I've got to get going.

Confederate responses:

1. Don't you think you should take responsibility for your own finances.
2. Nevertheless, at your age, you should be able to handle it yourself.
3. You can't always rely on your family to bail you out.

B. Before we go on to the next interaction, I need to ask you a question. Are you married?

If Yes: In the next interaction, (Confederate's name) will be your husband/wife.

If No: Please pretend that in the next interaction, (confederate's name) is your boyfriend/girlfriend.

You and your boyfriend/girlfriend/spouse are having a discussion. She/he feels that you are not spending enough time together, and is very upset and hurt. You, however, feel that you really need more time to yourself and YOU JUST DON'T HAVE THE TIME FOR HIM/HER...When you have this clearly in mind, open your eyes and look at your boyfriend/girlfriend/spouse.

CONFEDERATE: It doesn't seem that you care enough to spend time with me anymore.

Confederate responses:

1. How can you say you care when you don't want to spend time with me?
2. If you aren't willing to give me more time, then this relationship isn't worth it.
3. If you weren't so self-centered you would be able to understand me.

C. Before we go on to the next interaction, I'd like to ask you a question. Other than in this study, have you ever been in therapy before?

If yes: What was the name of your last or favorite therapist?
(insert name into blank)

If no: For the next interaction, I'd like you to imagine that you're in therapy.
(insert "your therapist" into blank)

You are in a therapy session with _____. You have been getting more tense and depressed during the whole session. The session is almost over and you feel worse. It is a whole week until your next session. You want another session before then....When you have this clearly in mind, open your eyes and look at _____.

CONFEDERATE: Well, I think it's time to stop.

Confederate responses:

1. I realize that you think you need another session, but don't you think you can handle it.
2. Don't you think that you are blowing this out of proportion?
3. It just doesn't seem that you are in that much pain.

D. You have had a fight with a close friend of yours several weeks ago and have not spoken to her since. After thinking about the situation, you realize that you were too critical of your friend and did not hear what she was saying. You decide to apologize to her, and decide to call her up on the phone...When you have this clearly in mind, open your eyes.

CONFEDERATE: Hello

Confederate responses:

1. I don't think you mean that.
2. Some of the things you said were pretty nasty.
3. I don't think you really care about me.

Generalization across behavior role-plays
(Subjects role-play both scenes in post-testing only)

A. You are at a party and don't know anyone but the host or hostess. Everyone else at the party seems to know each other. You look across the room and see someone of the opposite sex standing alone. You decide to walk up to him (her) and initiate a conversation...You are now walking over to this person...When you have this clearly in mind, open your eyes.

CONFEDERATE: Hello.

Confederate responses:

Respond in ten words or less. Respond non-specifically (do not ask questions). Do not initiate any interaction or encourage the subject in any way.

Role-play stops after 90 seconds or after 10 seconds of silence.

B. The next interaction will continue on longer than the others. This interaction will continue until you feel you have met the demands of the situation and want to stop the role-play, or, if the interaction continues on too long, one of us may say, "stop."

One of your close relatives has come for one of his rare visits to the area. You enjoy his company, and have always respected his opinions and judgements very much. Yet, tonight the conversation has not been all that pleasant. In fact, he has been very critical and rejecting of you...When you have this clearly in mind, open your eyes and look at your relative.

CONFEDERATE: The way you're running your life is a disgrace.

Stress-inducing responses:

1. I'm really disappointed in you.
2. You're an embarrassment to the family.
3. The only time you come around is when you want something from us.
4. Do you care that your relatives don't even consider you part of the family anymore?
5. Well, with what you've done to the family, how can you even ask?
6. The only reason I keep in contact with you is because you are a relative.
7. Considering the people you're around, it's no wonder you've turned out the way you are.
8. I'd be surprised if anybody would call you a friend.
9. I bet even your friends secretly feel the way I do.
10. How can you respect other people when it seems that you don't even respect yourself.
11. Aren't you ever going to learn to take responsibility for yourself?
12. I don't think you even know what the word responsibility means.
13. You only think about yourself, and this just proves it.
14. Face it, you're a selfish person.
15. It seems like nothing's important to you anymore.
16. I hope you're listening to what I'm saying.
17. Maybe I'm wasting my time trying to see your point of view.
18. I really wish you'd get your act together.
19. It sounds like your priorities are pretty mixed up.
20. Someone should have straightened you out a long time ago.

Atoning responses:

1. I guess I've overlooked some things.
2. Maybe it's hard for me to be objective because I've been listening to the rest of the family too much.
3. Maybe you're right...maybe things aren't as bad as I'm making them out to be.
4. Maybe I'm just overreacting.
5. I meant this trip to be a vist, not a lecture.
6. I don't know why I said that.
7. I really stepped out of line.
8. I hope you understand...I'm sorry.
9. I shouldn't have said most of those things.
10. Don't let what I said upset you.
11. You know, you're right. Who am I to judge?
12. By now I must have overstayed my welcome. I hope I can visit you again under better circumstances.
13. I'm sorry I have projected so many of my opinions on you. It's just that I care so much for you.
14. Afterall, you know yourself better than anyone. Listen to your own feelings.

APPENDIX Q

Interpersonal Effectiveness: Scoring criteria

OBJECTIVES EFFECTIVENESS

For the purpose of rating on the objectives dimension, there are two relevant role-play categories:

A) Initiation — the subject's task is to attain an objective by making requests
B) Refusal — the subject's task is to refuse a request made by the confederate

Rating Criteria — The following classes of behaviors have been designated as positive (effective) contributors to the attainment of the objective:

Persuasiveness

* The request or refusal will be clear, direct, specific, concise, coherently articulated, and related to the objective at hand.

Substantiation

* Factual or opinion statements which elaborate on or defend the request or refusal OR plans for objective attainment OR consequences that will be experienced if the objective is or is not attained.

Non-Verbals

* Eye contact is consistent, and voice tone is firm and unwavering.

Rules for Rating: Each response of the subject is rated on a 1-5 scale, according to the following schema:**

Functional Contribution to Effectiveness		Behavioral Components	
5	Statements which strongly advance the objective	5-A	A persuasive request or refusal accompanied by good non-verbals;
		5-B	A convincing and clear substantiation accompanied by good non-verbals
4	Statements which moderately advance the objective	4-A	A request or refusal that is undercut by vagueness, lack of specificity, conciseness, or coherence, or which is accompanied by poor non-verbals
		4-B	A substantiation which is undercut in one of the same ways as is a request or refusal
3	Statements which are unrelated to objective attainment; thus, those which don't advance or compromise the objective	3	refer to functional description & examples
2	Statements which moderately compromise the objective	2	A request or refusal is made but is immediately retracted or "undone"
1	Statements which seriously compromise the objective	1-A	Initiation role-play: the subject will retract or explicitly abandon the request
		1-B	Refusal role-play: the subject will indicate compliance with the confederate's request
		1-C	The subject does not respond, or otherwise explicitly terminates the role-play.

** NOTE: for cases in which a single response contains more than one behavioral component, assign a rating according to the lowest component present. (This rule applies to the relationship and self- respect dimensions as well.)

Objectives Effectiveness

Role-play #1: Requesting Favor From Relative; Initiation

5-A "I need some money to get me through the month. Can you lend it to me?"

5-B "If you can lend me one hundred dollars, I can pay you back at the end of the month when I get my paycheck." (plan)

4-A "I really need some money-- its going to be hard for me to make it through the month. I wish I could think of another way to make ends meet right now. Can you possibly lend it to me?"

4-B "If I don't get the loan from you I'll have to drop some courses, or not buy all the books I need, or I could go ahead and sell the car, but I'd rather not do that."

3 "What do you think about my ability to handle money?"

2 "I'd really like the money, but if you can't give it to me I'll go somewhere else and get it."

1 "That's OK dad, I don't really need the loan."

Role-play #2: Occupational Request; Initiation

5-A "I'm a good employee and I'd like to have a raise."

5-B "I've worked here for a year and a half and have always done a good job. My work record shows that."

4-A "I'd like to be in a good position with this company and I feel like I need to be moving forward and earning more money, I'd like that raise."

4-B "People often have to take drastic measures when they're denied raises."

3 "How do you feel about the quality of my work?"

2 "I'd like that raise but if you can't give it to me I'll just have to settle for the pay I make now."

1 "Well, I don't like to rock the boat, though I'm disappointed, I guess I'm not going to get a raise right now."

RELATIONSHIP EFFECTIVENESS

Rating Criteria: The following classes of behavior have been designated as positive (effective) contributors to relationship enhancement:

Elicitation

*Open-ended questions which seek the opinions or feelings of the confederate

Acknowledgement

*Statements which convey empathy with the feelings or opinions of the confederate

Valuing

*Statements which convey the importance of, and appreciation for, the relationship

Joint Responsibility

*Statements by which the subject advocates a mutual stance towards the situation regarding problem solving

Non-Verbals

*Eye contact will be consistent but won't appear as "staring", and voice tone will be warm and pleasant, without sarcasm.

Rules for Rating: Each response of the subject is rated on a 1-5 scale, according to the following schema:

Functional Contribution to Effectiveness	Behavioral Components	
5 Statements which strongly enhance the relationship	5	Clear and convincing use of one or more of the above social skills, accompanied by good non-verbals
4 Statements which moderately enhance the relationship	4	Use of one or more of the above social skills which is undercut by being vague or indirect, tentative or qualified, or which is accompanied by poor non-verbals
3 Statements which don't enhance or compromise the relationship	3	Refer to functional description and examples
2 Statements which moderately compromise the relationship	2-A	A mildly critical statement
	2-B	Non-verbals are inconsistent with content of response (sarcasm)
	2-C	A rejection of the feeling or opinion of the confederate, without hostility
1 Statements which seriously compromise the relationship	1	An overtly hostile statement eg: a rude rejection or taunting

Scored Sample Responses
Relationship Effectiveness

Role-play #1: Requesting Favor from Relative

5. "I understand why you may feel that I'm too dependent on the family." (Acknowledgement)

4. "I really think you should help me out this time but maybe I can pay you back later".

3. "I need the money to pay my tuition."

2A. "I kind of resent your implication that I'm not pulling my own weight."

2C. "I don't really think that my responsibility or lack of it is the issue here."

1. "You've never helped me out before and its obvious you're not going to do it now!"

Role-play #2: Occupational Request

5. "Do you feel that my work performance is deserving of a raise?" (Elicitation)

4. "I've been offered a higher paying position at another company but I like working here."

3. "I feel this is the right time for me to request and receive a raise."

2A. "I feel you're treating myself and other good employees unfairly if you don't give out raises on a regular basis."

2C. "I don't want to just get by on what I make; I want to feel that I'm getting ahead."

1. "I think it stinks that I didn't get a raise six months ago and I intend to speak to your supervisor about this."

SELF-RESPECT EFFECTIVENESS

Rating Criteria: The following classes of behaviors have been designated as positive (effective) contributors to the enhancement of self-respect;

Positive Self-Referenced Statements

*The expression of positively-toned self-evaluative statements

Rejection of Confederate Pushes

*The subject will reject or counter statements of the confederate which reflect negatively on the subject ie: negative trait characterizations

Ability to Cope vs. Hopelessness

*Statements which convey the subject's ability to deal effectively with the problematic situation, even in the face of refusal by the confederate to assist or cooperate. The converse of coping ability, hopelessness, is reflected in statements which convey an inability to cope or a sense of defeatism.

Rules for Rating: Each response of the subject is rted on a 1-5 scale, according to the following schema:

Functional Contribution to Effectiveness		Behavioral Components
5 Statements which strongly enhance self-respect	5-A	Clear and convincing use of a positive self-referenced statement (includes coping statements)
	5-B	Clear and convincing rejection of a confederate push
4 Statements which moderately enhance self-respect	4-A	Tentative, qualified, or indirect use of a positive self-referenced statement
	4-B	Tentative, qualified, or indirect rejection of a confederate push
3 Statements which don't enhance or compromise self-respect	3	Refer to functional description and examples
2 Statements which moderately compromise self-respect	2-A	Tentative, qualified, or indirect use of a negative self-referenced statement (includes statements conveying hopelessness)
	2-B	Tentative, qualified, or indirect acceptance of a confederate push
1 Statements which seriously compromise self-respect	1-A	A statement which is explicitly negatively self-referenced
	1-B	A statement conveying explicit acceptance of a confederate push

SCORED SAMPLE RESPONSES

Self-Respect Effectiveness

Role-play #1: Requesting Favor from Relative

5-A. "An important part of being responsible is asking for help when you need it, which is what I'm doing right now."

5-B. "I think I've managed quite well on my own up until now."

4-A. "I'd like to think I handle my money pretty well, given the low-paying job I've got."

4-B. "I don't think I've asked you for money very often before."

3. "I appreciate the help you've given me in the past."

2-A. "I've overspent my budget this time, but it won't happen again."

2-B. "[illegible] dependent on you once or twice before."

1-A. "I know that I'm not handling my money well these days."

1-B. "You're right, at my age I should be able to handle it myself."

Role-play #2: Occupational Request

5-A. "I feel I deserve a raise because my work and my effort are excellent."

5-B. "I think I AM one of the best and deserve one of those raises."

4-A. "I think I could be one of your best employees if I had a monetary incentive."

3. "I'd like to set up a meeting to discuss this further and review my work."

2-A. "Well, I don't think I've caused you much grief since I've been here."

2-B. "Well, if I'm not one of the best, how could I improve my performance?"

1-A. "Well, I guess I haven't been putting my best foot forward lately."

1-B. "I didn't know you thought my work performance wasn't up to par."

APPENDIX R

Pre-test questionnaire

Please circle the appropriate number:

1. How logical does this treatment seem to you?

1	2	3	4	5	6	7	8	9
not at all logical				somewhat logical				very logical

2. How successful do you think this treatment will be in dealing with your problem?

1	2	3	4	5	6	7	8	9
not at all successful				somewhat successful				very successful

3. How confident are you that the treatment will be successful in dealing with your problem?

1	2	3	4	5	6	7	8	9
not confident				somewhat confident				very confident

4. How likely would you be to recommend this treatment to a friend?

1	2	3	4	5	6	7	8	9
not at all likely				somewhat likely				very likely

5. What factors do you think would be responsible if you improve with this treatment (please list)?

1. _____.
2. _____.
3. _____.
4. _____.
5. _____.

APPENDIX S

Post-test questionnaire

Please circle the appropriate number on each line

1. How important were each of the following in the treatment you just completed?

A. Your therapist telling you to do things differently

1 2 3 4 5 6 7 8 9

not at all important — somewhat important — very important

B. Your figuring out what to do on your own

1 2 3 4 5 6 7 8 9

not at all important — somewhat important — very important

C. Your therapist giving you feedback on your role-playing

1 2 3 4 5 6 7 8 9

not at all important — somewhat important — very important

D. Having someone to talk to

1 2 3 4 5 6 7 8 9

not at all important — somewhat important — very important

E. Role-playing different situations

1 2 3 4 5 6 7 8 9

not at all important — somewhat important — very important

F. Talking about your feelings

1	2	3	4	5	6	7	8	9
not at all important				somewhat important				very important

2. How successful do you think this treatment was in helping you with your problems?

1	2	3	4	5	6	7	8	9
not at all successful				somewhat successful				very successful

3. How logical did this treatment seem to you?

1	2	3	4	5	6	7	8	9
not at all logical				somewhat logical				very logical

4. How likely would you be to recommend this treatment to a friend?

1	2	3	4	5	6	7	8	9
not at all likely				somewhat likely				very likely

5. How much pressure did you feel to change your behavior with this treatment?

1	2	3	4	5	6	7	8	9
no pressure				some pressure				much pressure

Please circle the number which best indicates the way you felt about the treatment you just completed:

1. All changes were due to my therapist's direction.

2. Changes were due much more to my therapist's direction than to my own direction.

3. Changes were due somewhat more to my therapist's direction than to my own direction.

4. Changes were due a little more to my therapist's direction than to my own direction.

5. Changes were due equally to my therapist's direction and my own direction.

6. Changes were due a little more to my own direction than to my therapist's direction.

7. Changes were due somewhat more to my own direction than to my therapist's direction.

8. Changes were due much more to my own direction than to my therapist's direction.

9. All changes were due to my own direction.

If you improved with this treatment,
what factors do you think were responsible for
the improvement (please list)?

1. _____.

2. _____.

3. _____.

4. _____.

5. _____.

APPENDIX T

Post-test rule questionnaire

ID Number _____ Date _____

PROBLEM CHECKLIST
ANSWER SHEET

Please answer each response according to the following scale:

1 2 3 4 5 6 7 8 9

This behavior was not important to change to become more socially skilled. No problem existed in this area.	This behavior was somewhat important to change to become more socially skilled. A moderate problem existed in this area.	This behavior was very important to change to become more socially skilled A definite problem existed in this area.

Example:

1. 6
This person wrote the number 6 in response to the first behavior, DENIES CRITICISM. This person therefore believes that changing the behavior, DENIES CRITISM, was between somewhat important and very important in helping him or her become more socially skilled.

2. 2
This person wrote the number 2 in response to the second behavior, REJECTS WHAT OTHERS HAVE TO SAY. This person therefore believes that changing the behavior, REJECTS WHAT OTHERS HAVE TO SAY, was close to not important at all in helping him or her become more socially skilled.

Please put your own answers below:

1._____	26._____	51._____	76._____
2._____	27._____	52._____	77._____
3._____	28._____	53._____	78._____
4._____	29._____	54._____	79._____
5._____	30._____	55._____	80._____
6._____	31._____	56._____	81._____
7._____	32._____	57._____	82._____
8._____	33._____	58._____	83._____
9._____	34._____	59._____	84._____
10._____	35._____	60._____	85._____
11._____	36._____	61._____	86._____
12._____	37._____	62._____	87._____
13._____	38._____	63._____	88._____
14._____	39._____	64._____	89._____
15._____	40._____	65._____	
16._____	41._____	66._____	
17._____	42._____	67._____	
18._____	43._____	68._____	
19._____	44._____	69._____	
20._____	45._____	70._____	
21._____	46._____	71._____	
22._____	47._____	72._____	
23._____	48._____	73._____	
24._____	49._____	74._____	
25._____	50._____	75._____	

DO NOT WRITE ON THIS SHEET
RECORD ALL YOUR ANSWERS ON THE ANSWER SHEET

Enclosed is a list of behaviors which some people believe are important to the development of social skills. Please review each behavior on the list and decide if that behavior was an important one for you to work on in order to help you become more socially skilled.

For example, if changing the behavior was not at all important in helping you to become more socially skilled, you would write the number 1 next to the number corresponding to that behavior. If changing the behavior was somewhat important in helping you to become more socially skilled, you would write the number 5 next to the number corresponding to that behavior. If changing the behavior was very important in helping you to become more socially skilled, you would write the number 9 next to the number corresponding to that behavior.

It is not important to decide whether you actually changed the behavior listed. You are asked to decide only if changing the behavior was important in order for you to become more socially skilled.

PROBLEM CHECKLIST

1. Denies criticism
2. Rejects what others have to say
3. Denies compliments
4. Is too self-depreciating
5. Asks too many open-ended questions
6. Does not ask enough open-ended questions
7. Uses paraphrasing inappropriately
8. Talks about him or herself too much
9. Does not talk about him or herself enough
10. Does not show enough interest in the other person
11. Acts apologetic in making requests
12. Acts apologetic in refusing requests
13. Gives excuses when making requests
14. Gives excuses when refusing requests
15. Is too demanding
16. Is too coercive
17. Is too hostile
18. Does not recognize the rights of others
19. Does not use enough feeling talk
20. Is not empathic enough
21. Does not make comments concise and to the point
22. Uses too many "I" statements
23. Does not use enough "I" statements
24. Has difficulty keeping the conversation going
25. Self-discloses too much
26. Does not self-disclose enough
27. Attacks the other person too much
28. Directs criticism at the person instead of at behavior
29. Does not start conversation on a positive note
30. Does not end conversation on a positive note

PROBLEM CHECKLIST (continued)

31. Asks too many personal questions
32. Is too critical of the other person
33. Remarks are too sarcastic
34. Remarks are too judgemental
35. Remarks are too dogmatic
36. Comments are inappropriate to the situation
37. Compliments the other person too much
38. Compliments the other person too little
39. Gives up too easily
40. Solicits too much feedback
41. Changes the topic inappropriately
42. Does not solicit enough feedback
43. Changes the topic of conversation inappropriately
44. Does not offer enough feedback
45. Offers too much feedback
46. Is not attentive to what the other person says
47. Does not acknowledge the other person's position
48. Does not compromise
49. Does not express needs or wants
50. Has too much affect
51. Has too little affect
52. Is too sarcastic in voice tone
53. Is condescending in voice tone
54. Gets too angry
55. Does not get angry enough
56. Has too much eye contact
57. Has too little eye contact
58. Clears his or her throat inappropriately
59. Laughs nervously or jokes inappropriately
60. Has an abnormal breathing pattern
61. Has too many hesitancies in his or her speech
62. Uses too many ums & ahs
63. Stands too close to the other person
64. Stands too far from the other person
65. Has a wooden body posture
66. Has a slouched body posture
67. Shifts his or her excessively
68. Has excessive body movement
69. Paces inappropriately
70. Is nervous with hand gestures
71. Covers mouth when talking
72. Scratches head inappropriately
73. Rubs eyes inappropriately
74. Rubs neck inappropriately
75. Touches hair inappropriately
76. Plays with facial hair
77. Plays with jewelry
78. Adjusts clothing inappropriately
79. Points finger inappropriately
80. Smiles inappropriately
81. Raises eye brow inappropriately
82. Blinks too much
83. Squints eyes
84. Has a pursed, tight lipped mouth
85. Shows tension in forehead
86. Swallows excessively
87. Wets lips
88. Speaks too loud
89. Speaks too low

APPENDIX U

Statistical Analyses

Table 4

Three (Rules) by Two (Feedback) Analysis of Covariance
on Post-Test Scores
Dependent Measure: Rathus Assertiveness Scale

SOURCE	DF	TYPE III SUM OF SQUARES	F VALUE	PR > F
PRE-TEST SCORE	1	2393.63	10.12	0.004
RULES	2	631.09	1.33	0.282
FEEDBACK	1	2068.65	8.74	0.006
RULES*FEEDBACK	2	1071.18	2.26	0.125

Table 5

Three (Rules) by Two (Feedback) Analysis of Covariance
on Post-Test Scores
Dependent Measure: MMPI-SI Scale

SOURCE	DF	TYPE III SUM OF SQUARES	F VALUE	PR > F
PRE-TEST SCORE	1	295.10	25.63	0.000
RULES	2	28.48	1.24	0.308
FEEDBACK	1	15.02	1.30	0.264
RULES*FEEDBACK	2	4.13	0.18	0.836

Table 6

Three (Rules) by Two (Feedback) Analysis of Covariance
on Post-Test Scores
Dependent Measure: Social Anxiety and Distress Scale

SOURCE	DF	TYPE III SUM OF SQUARES	F VALUE	PR > F
PRE-TEST SCORE	1	636.89	26.26	0.000
RULES	2	4.05	0.08	0.920
FEEDBACK	1	13.55	0.56	0.461
RULES*FEEDBACK	2	62.31	1.28	0.295

Table 7

Three (Rules) by Two (Feedback) Analysis of Covariance
on Post-Test Scores
Dependent Measure: SCL-90-R Somatization Scale

SOURCE	DF	TYPE III SUM OF SQUARES	F VALUE	PR > F
PRE-TEST SCORE	1	615.07	33.55	0.000
RULES	2	179.51	4.90	0.016
FEEDBACK	1	3.58	0.20	0.662
RULES*FEEDBACK	2	17.03	0.46	0.633

Table 8

Three (Rules) by Two (Feedback) Analysis of Covariance
on Post-Test Scores
Dependent Measure: SCL-90-R Obsessive-Compulsive Scale

SOURCE	DF	TYPE III SUM OF SQUARES	F VALUE	PR > F
PRE-TEST SCORE	1	738.20	24.46	0.000
RULES	2	25.81	0.43	0.656
FEEDBACK	1	80.21	2.66	0.116
RULES*FEEDBACK	2	185.16	3.07	0.065

Table 9

Three (Rules) by Two (Feedback) Analysis of Covariance
on Post-Test Scores
Dependent Measure: SCL-90-R Interpersonal Sensitivity Scale

SOURCE	DF	TYPE III SUM OF SQUARES	F VALUE	PR > F
PRE-TEST SCORE	1	779.07	29.41	0.000
RULES	2	5.31	0.10	0.904
FEEDBACK	1	40.84	1.54	0.226
RULES*FEEDBACK	2	156.09	2.95	0.071

Table 10

Three (Rules) by Two (Feedback) Analysis of Covariance
on Post-Test Scores
Dependent Measure: SCL-90-R Depression Scale

SOURCE	DF	TYPE III SUM OF SQUARES	F VALUE	PR > F
PRE-TEST SCORE	1	2314.23	73.79	0.000
RULES	2	69.24	1.10	0.347
FEEDBACK	1	37.24	1.19	0.286
RULES*FEEDBACK	2	91.28	1.46	0.253

Table 11

Three (Rules) by Two (Feedback) Analysis of Covariance
on Post-Test Scores
Dependent Measure: SCL-90-R Anxiety Scale

SOURCE	DF	TYPE III SUM OF SQUARES	F VALUE	PR > F
PRE-TEST SCORE	1	594.87	23.06	0.000
RULES	2	30.95	0.60	0.556
FEEDBACK	1	15.62	0.61	0.444
RULES*FEEDBACK	2	26.10	0.51	0.609

Table 12

Three (Rules) by Two (Feedback) Analysis of Covariance
on Post-Test Scores
Dependent Measure: SCL-90-R Hostility Scale

SOURCE	DF	TYPE III SUM OF SQUARES	F VALUE	PR > F
PRE-TEST SCORE	1	140.71	14.88	0.000
RULES	2	28.43	1.50	0.242
FEEDBACK	1	00.01	0.00	0.973
RULES*FEEDBACK	2	32.76	1.73	0.198

Table 13

Three (Rules) by Two (Feedback) Analysis of Covariance
on Post-Test Scores
Dependent Measure: SCL-90-R Phobic Anxiety Scale

SOURCE	DF	TYPE III SUM OF SQUARES	F VALUE	PR > F
PRE-TEST SCORE	1	349.40	118.27	0.000
RULES	2	17.59	2.98	0.070
FEEDBACK	1	24.66	8.35	0.008
RULES*FEEDBACK	2	6.33	1.07	0.357

Table 14

Three (Rules) by Two (Feedback) Analysis of Covariance
on Post-Test Scores
Dependent Measure: SCL-90-R Paranoid Ideation Scale

SOURCE	DF	TYPE III SUM OF SQUARES	F VALUE	PR > F
PRE-TEST SCORE	1	329.48	38.11	0.000
RULES	2	21.11	1.22	0.312
FEEDBACK	1	5.53	0.64	0.431
RULES*FEEDBACK	2	24.75	1.43	0.258

Table 15

Three (Rules) by Two (Feedback) Analysis of Covariance
on Post-Test Scores
Dependent Measure: SCL-90-R Psychoticism Scale

SOURCE	DF	TYPE III SUM OF SQUARES	F VALUE	PR > F
PRE-TEST SCORE	1	676.37	44.36	0.000
RULES	2	28.94	0.95	0.401
FEEDBACK	1	64.45	4.23	0.050
RULES*FEEDBACK	2	9.08	0.30	0.745

Table 16

Three (Rules) by Two (Feedback) Analysis of Covariance
on Post-Test Scores
Dependent Measure: SCL-90-R Grand Symptom Index

SOURCE	DF	TYPE III SUM OF SQUARES	F VALUE	PR > F
PRE-TEST SCORE	1	52771.49	64.62	0.000
RULES	2	351.87	0.22	0.807
FEEDBACK	1	258.50	0.32	0.578
RULES*FEEDBACK	2	2469.20	1.51	0.240

Table 17

Three (Rules) by Two (Feedback) Analysis of Covariance
on Post-Test Scores
Dependent Measure: SCL-90-R Positive Symptom Distress Index

SOURCE	DF	TYPE III SUM OF SQUARES	F VALUE	PR > F
PRE-TEST SCORE	1	5.30	71.99	0.000
RULES	2	0.07	0.48	0.626
FEEDBACK	1	0.08	1.21	0.281
RULES*FEEDBACK	2	0.34	2.33	0.118

Table 18

Three (Rules) by Two (Feedback) Analysis of Covariance
on Post-Test Scores
Dependent Measure: SCL-90-R Positive Symptom Total

SOURCE	DF	TYPE III SUM OF SQUARES	F VALUE	PR > F
PRE-TEST SCORE	1	5076.41	46.70	0.000
RULES	2	20.77	0.10	0.909
FEEDBACK	1	100.81	0.93	0.345
RULES*FEEDBACK	2	401.17	1.85	0.179

Table 19

Three (Rules) by Two (Feedback) Analysis of Covariance
on Post-Test Scores
Dependent Measure: Objectives Effectiveness

SOURCE	DF	TYPE III SUM OF SQUARES	F VALUE	PR > F
PRE-TEST SCORE	1	0.19	3.14	0.089
RULES	2	0.07	0.62	0.547
FEEDBACK	1	0.14	2.36	0.137
RULES*FEEDBACK	2	0.15	1.24	0.306

Table 20

Three (Rules) by Two (Feedback) Analysis of Covariance
on Post-Test Scores
Dependent Measure: Relationship Effectiveness

SOURCE	DF	TYPE III SUM OF SQUARES	F VALUE	PR > F
PRE-TEST SCORE	1	0.14	2.41	0.133
RULES	2	0.11	1.01	0.379
FEEDBACK	1	0.00	0.16	0.696
RULES*FEEDBACK	2	0.10	0.89	0.425

Table 21

Three (Rules) by Two (Feedback) Analysis of Covariance
on Post-Test Scores
Dependent Measure: Self-Respect Effectiveness

SOURCE	DF	TYPE III SUM OF SQUARES	F VALUE	PR > F
PRE-TEST SCORE	1	0.01	0.52	0.475
RULES	2	0.00	0.06	0.941
FEEDBACK	1	0.09	2.71	0.112
RULES*FEEDBACK	2	0.10	1.40	0.266

Table 22

Three (Rules) by Two (Feedback) Analysis of Covariance
Dependent Measure: Objectives Effectiveness Generalization Across Persons

SOURCE	DF	TYPE III SUM OF SQUARES	F VALUE	PR > F
PRE-TEST SCORE	1	0.78	4.89	0.036
RULES	2	0.04	0.15	0.863
FEEDBACK	1	1.47	9.23	0.005
RULES*FEEDBACK	2	0.47	1.48	0.248

Table 23

Three (Rules) by Two (Feedback) Analysis of Covariance
Dependent Measure: Relationship Effectivess Generalization Across Persons

SOURCE	DF	TYPE III SUM OF SQUARES	F VALUE	PR > F
PRE-TEST SCORE	1	0.01	0.18	0.677
RULES	2	0.14	0.70	0.505
FEEDBACK	1	0.00	0.03	0.874
RULES*FEEDBACK	2	0.13	0.70	0.508

Table 24

Three (Rules) by Two (Feedback) Analysis of Covariance
Dependent Measure: Self-Respect Effectiveness
Generalization Across Persons

SOURCE	DF	TYPE III SUM OF SQUARES	F VALUE	PR > F
PRE-TEST SCORE	1	0.00	0.10	0.753
RULES	2	0.12	0.89	0.425
FEEDBACK	1	0.24	3.32	0.081
RULES*FEEDBACK	2	0.28	1.96	0.162

Table 25

Three (Rules) by Two (Feedback) Analysis of Covariance
Dependent Measure: Objectives Effectivess Generalization
Across Behavior (Party Situation)

SOURCE	DF	TYPE III SUM OF SQUARES	F VALUE	PR > F
PRE-TEST SCORE	1	8.42	0.50	0.487
RULES	2	16.72	0.49	0.616
FEEDBACK	1	14.30	0.85	0.367
RULES*FEEDBACK	2	10.70	0.32	0.731

Table 26

Three (Rules) by Two (Feedback) Analysis of Covariance
Dependent Measure: Relationship Effectiveness
Generalization Across Behavior (Party Situation)

SOURCE	DF	TYPE III SUM OF SQUARES	F VALUE	PR > F
PRE-TEST SCORE	1	0.11	0.49	0.492
RULES	2	1.52	3.19	0.059
FEEDBACK	1	0.12	0.51	0.481
RULES*FEEDBACK	2	0.13	10.28	0.754

Table 27

Three (Rules) by Two (Feedback) Analysis of Covariance
Dependent Measure: Self-Respect Effectivess Generalization
Across Behavior (Party Situation)

SOURCE	DF	TYPE III SUM OF SQUARES	F VALUE	PR > F
PRE-TEST SCORE	1	0.25	3.04	0.094
RULES	2	0.03	0.21	0.811
FEEDBACK	1	0.08	0.99	0.329
RULES*FEEDBACK	2	0.21	1.18	0.324

Table 28

Three (Rules) by Two (Feedback) Analysis of Covariance
Dependent Measure: Objectives Effectiveness Generalization
Across Behavior (Extended Interaction Situation)
Total Interaction

SOURCE	DF	TYPE III SUM OF SQUARES	F VALUE	PR > F
PRE-TEST SCORE	1	0.04	0.00	0.953
RULES	2	15.27	0.57	0.572
FEEDBACK	1	0.49	0.04	0.849
RULES*FEEDBACK	2	9.80	0.37	0.696

Table 29

Three (Rules) by Two (Feedback) Analysis of Covariance
Dependent Measure: Relationship Effectiveness Generalization
Across Behavior (Extended Interaction Situation)
Total Interaction

SOURCE	DF	TYPE III SUM OF SQUARES	F VALUE	PR > F
PRE-TEST SCORE	1	8.42	0.50	0.487
RULES	2	16.72	0.49	0.616
FEEDBACK	1	14.30	0.85	0.367
RULES*FEEDBACK	2	10.70	0.32	0.731

Table 30

Three (Rules) by Two (Feedback) Analysis of Covariance
Dependent Measure: Self-Respect Effectiveness Generalization
Across Behavior (Extended Interaction Situation)
Total Interaction

SOURCE	DF	TYPE III SUM OF SQUARES	F VALUE	PR > F
PRE-TEST SCORE	1	0.00	0.06	0.811
RULES	2	0.17	0.98	0.389
FEEDBACK	1	0.38	4.39	0.046
RULES*FEEDBACK	2	0.16	0.92	0.411

Table 31

Three (Rules) by Two (Feedback) Analysis of Covariance
Dependent Measure: Objectives Effectiveness Generalization
Across Behavior (Extended Interaction Situation)
Part One

SOURCE	DF	TYPE III SUM OF SQUARES	F VALUE	PR > F
PRE-TEST SCORE	1	0.98	0.05	0.824
RULES	2	1.32	0.03	0.967
FEEDBACK	1	3.11	0.16	0.694
RULES*FEEDBACK	2	36.10	0.92	0.412

Table 32

Three (Rules) by Two (Feedback) Analysis of Covariance
Dependent Measure: Relationship Effectiveness Generalization Across Behavior (Extended Interaction Situation) Part One

SOURCE	DF	TYPE III SUM OF SQUARES	F VALUE	PR > F
PRE-TEST SCORE	1	0.82	1.77	0.196
RULES	2	0.10	0.12	0.891
FEEDBACK	1	0.07	0.16	0.691
RULES*FEEDBACK	2	0.68	0.74	0.489

Table 33

Three (Rules) by Two (Feedback) Analysis of Covariance
Dependent Measure: Self-Respect Effectiveness Generalization Across Behavior (Extended Interaction Situation) Part One

SOURCE	DF	TYPE III SUM OF SQUARES	F VALUE	PR > F
PRE-TEST SCORE	1	0.01	0.06	0.812
RULES	2	0.19	0.51	0.604
FEEDBACK	1	0.76	4.15	0.052
RULES*FEEDBACK	2	0.26	0.72	0.496

Table 34

Three (Rules) by Two (Feedback) Analysis of Covariance
Dependent Measure: Objectives Effectiveness Generalization
Across Behavior (Extended Interaction Situation)
Part Two

SOURCE	DF	TYPE III SUM OF SQUARES	F VALUE	PR > F
PRE-TEST SCORE	1	0.32	0.02	0.886
RULES	2	45.11	1.47	0.249
FEEDBACK	1	0.12	0.01	0.927
RULES*FEEDBACK	2	0.48	0.02	0.984

Table 35

Three (Rules) by Two (Feedback) Analysis of Covariance
Dependent Measure: Relationship Effectiveness Generalization
Across Behavior (Extended Interaction Situation)
Part Two

SOURCE	DF	TYPE III SUM OF SQUARES	F VALUE	PR > F
PRE-TEST SCORE	1	0.06	0.09	0.761
RULES	2	0.01	0.01	0.990
FEEDBACK	1	0.01	0.03	0.866
RULES*FEEDBACK	2	1.79	1.32	0.286

Table 36

Three (Rules) by Two (Feedback) Analysis of Covariance
Dependent Measure: Self-Respect Effectiveness Generalization Across Behavior (Extended Interaction Situation) Part Two

SOURCE	DF	TYPE III SUM OF SQUARES	F VALUE	PR > F
PRE-TEST SCORE	1	0.00	0.09	0.770
RULES	2	0.13	0.91	0.417
FEEDBACK	1	0.23	3.24	0.084
RULES*FEEDBACK	2	0.01	0.13	0.877

Table 37

Three (Rules) by Two (Feedback) by Eight (Sessions) Analysis of Variance
Dependent Measure: Within-Session Feedback Ratings

SOURCE	DF	TYPE III SUM OF SQUARES	F VALUE	PR > F
RULES	2	1.46	0.59	0.556
FEEDBACK	1	16.33	13.16	0.000
RULES*FEEDBACK	2	4.13	1.66	0.192
TIME	7	23.79	2.74	0.010
RULES*TIME	14	10.44	0.60	0.861
FEEDBACK*TIME	7	12.19	1.40	0.206
RULES*FEEDBACK*TIME	14	8.38	0.48	0.940

Table 38

Three (Rules) by Two (Feedback) Analysis of Variance
Dependent Measure: Pre-test Questionnaire
Expected Success

SOURCE	DF	TYPE III SUM OF SQUARES	F VALUE	PR > F
RULES	2	0.66	0.12	0.885
FEEDBACK	1	0.34	0.13	0.724
RULES*FEEDBACK	2	8.09	1.49	0.244

Table 39

Three (Rules) by Two (Feedback) Analysis of Variance
Dependent Measure: Pre-test Questionnaire
Logic

SOURCE	DF	TYPE III SUM OF SQUARES	F VALUE	PR > F
RULES	2	5.95	1.68	0.206
FEEDBACK	1	1.60	0.90	0.351
RULES*FEEDBACK	2	2.84	0.80	0.459

Table 40

Three (Rules) by Two (Feedback) Analysis of Variance
Dependent Measure: Pre-test Questionnaire
Confidence

SOURCE	DF	TYPE III SUM OF SQUARES	F VALUE	PR > F
RULES	2	1.18	0.20	0.818
FEEDBACK	1	1.32	0.46	0.505
RULES*FEEDBACK	2	0.95	0.16	0.849

Table 41

Three (Rules) by Two (Feedback) Analysis of Variance
Dependent Measure: Pre-test Questionnaire
Likely to Recommend

SOURCE	DF	TYPE III SUM OF SQUARES	F VALUE	PR > F
RULES	2	1.05	0.12	0.883
FEEDBACK	1	0.00	0.00	0.991
RULES*FEEDBACK	2	3.07	0.36	0.698

Table 42

Three (Rules) by Two (Feedback) Analysis of Variance
Dependent Measure: Post-test Questionnaire
Therapist directedness

SOURCE	DF	TYPE III SUM OF SQUARES	F VALUE	PR > F
RULES	2	34.12	1.88	0.174
FEEDBACK	1	2.47	0.27	0.606
RULES*FEEDBACK	2	0.62	0.03	0.966

Table 43

Three (Rules) by Two (Feedback) Analysis of Variance
Dependent Measure: Post-test Questionnaire
Figuring things out on one's own

SOURCE	DF	TYPE III SUM OF SQUARES	F VALUE	PR > F
RULES	2	2.10	0.33	0.719
FEEDBACK	1	1.64	0.52	0.476
RULES*FEEDBACK	2	5.13	0.81	0.455

Table 44

Three (Rules) by Two (Feedback) Analysis of Variance
Dependent Measure: Post-test Questionnaire
Having someone to talk to

SOURCE	DF	TYPE III SUM OF SQUARES	F VALUE	PR > F
RULES	2	57.38	6.74	0.005
FEEDBACK	1	15.01	3.39	0.078
RULES*FEEDBACK	2	7.52	0.85	0.440

Table 45

Three (Rules) by Two (Feedback) Analysis of Variance
Dependent Measure: Post-test Questionnaire
Role-playing

SOURCE	DF	TYPE III SUM OF SQUARES	F VALUE	PR > F
RULES	2	16.92	2.02	0.154
FEEDBACK	1	0.67	0.16	0.692
RULES*FEEDBACK	2	0.52	0.06	0.939

Table 46

Three (Rules) by Two (Feedback) Analysis of Variance
Dependent Measure: Post-test Questionnaire
Talking about feelings

SOURCE	DF	TYPE III SUM OF SQUARES	F VALUE	PR > F
RULES	2	24.08	4.26	0.026
FEEDBACK	1	15.53	5.50	0.027
RULES*FEEDBACK	2	2.30	0.41	0.669

Table 47

Three (Rules) by Two (Feedback) Analysis of Variance
Dependent Measure: Post-test Questionnaire
Success

SOURCE	DF	TYPE III SUM OF SQUARES	F VALUE	PR > F
RULES	2	17.10	2.70	0.087
FEEDBACK	1	0.05	0.02	0.892
RULES*FEEDBACK	2	3.02	0.48	0.626

Table 48

Three (Rules) by Two (Feedback) Analysis of Variance
Dependent Measure: Post-test Questionnaire
Logic

SOURCE	DF	TYPE III SUM OF SQUARES	F VALUE	PR > F
RULES	2	5.18	0.75	0.484
FEEDBACK	1	0.01	0.00	0.954
RULES*FEEDBACK	2	1.16	0.17	0.846

Table 49

Three (Rules) by Two (Feedback) Analysis of Variance
Dependent Measure: Post-test Questionnaire
Likely to Recommend

SOURCE	DF	TYPE III SUM OF SQUARES	F VALUE	PR > F
RULES	2	5.72	0.74	0.487
FEEDBACK	1	3.62	0.94	0.342
RULES*FEEDBACK	2	0.64	0.08	0.920

Table 50

Three (Rules) by Two (Feedback) Analysis of Variance
Dependent Measure: Post-test Questionnaire
Pressure

SOURCE	DF	TYPE III SUM OF SQUARES	F VALUE	PR > F
RULES	2	0.82	0.08	0.927
FEEDBACK	1	4.90	0.89	0.354
RULES*FEEDBACK	2	22.32	2.03	0.153

Table 51

Three (Rules) by Two (Feedback) Analysis of Variance
Dependent Measure: Post-test Questionnaire
Attribution

SOURCE	DF	TYPE III SUM OF SQUARES	F VALUE	PR > F
RULES	2	2.48	0.30	0.743
FEEDBACK	1	0.06	0.02	0.902
RULES*FEEDBACK	2	10.48	1.27	0.301

Table 52

Three (Rules) by Two (Feedback) Analysis of Variance
Dependent Measure: Number of scenes role-played

SOURCE	DF	TYPE III SUM OF SQUARES	F VALUE	PR > F
RULES	2	1.51	0.65	0.528
FEEDBACK	1	0.03	0.03	0.864
RULES*FEEDBACK	2	1.42	0.61	0.549

Table 53

Three (Rules) by Two (Feedback) Analysis of Covariance
Dependent Measure: Effect for Therapist
Rathus Assertiveness Scale

SOURCE	DF	TYPE III SUM OF SQUARES	F VALUE	PR > F
PRE-TEST SCORE	1	2755.08	9.16	0.005
THERAPIST	3	1288.83	1.43	0.257

Table 54

Three (Rules) by Two (Feedback) Analysis of Covariance
Dependent Measure: Effect for Therapist
SCL-90-R phobic anxiety scale

SOURCE	DF	TYPE III SUM OF SQUARES	F VALUE	PR > F
PRE-TEST SCORE	1	419.95	96.20	0.000
THERAPIST	3	5.75	0.44	0.726

Table 55

Three (Rules) by Two (Feedback) Analysis of Covariance
Dependent Measure: Effect for Therapist
Objectives Effectiveness Generalization Across Persons

SOURCE	DF	TYPE III SUM OF SQUARES	F VALUE	PR > F
PRE-TEST SCORE	1	0.54	2.61	0.118
THERAPIST	3	0.33	0.53	0.665

Table 56

Three (Rules) by Two (Feedback) Analysis of Covariance
Dependent Measure: Effect for Therapist
Self-Respect Generalization Across Behavior
(Extended Interaction Situation)
Total Situation

SOURCE	DF	TYPE III SUM OF SQUARES	F VALUE	PR > F
PRE-TEST SCORE	1	0.09	0.84	0.368
THERAPIST	3	0.04	0.15	0.929

Table 57

Statistically significant Pearson product-moment correlations and p values

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SEE END OF TABLE FOR KEY TO HEADING CODES

	RATH1	RATH2	MMPI1	MMPI2	SADS1	SADS2	SOM1	SOM2	OC1
RATH1	1.00000	0.45779	-0.38234	-0.42703	-0.39677	-0.22216	-0.34925	-0.46181	-0.12846
	0.0000	0.0050	0.0214	0.0094	0.0166	0.1928	0.0368	0.0046	0.4553
RATH2	0.45779	1.00000	-0.20608	-0.65464	-0.00755	-0.21572	-0.29368	-0.39846	-0.21737
	0.0050	0.0000	0.2279	0.0001	0.9652	0.2064	0.0821	0.0161	0.2028
MMPI1	-0.38234	-0.20608	1.00000	0.67921	0.48018	0.51520	0.18664	0.32456	-0.03159
	0.0214	0.2279	0.0000	0.0001	0.0030	0.0013	0.2757	0.0535	0.8549
MMPI2	-0.42703	-0.65464	0.67921	1.00000	0.32517	0.60020	0.13784	0.43183	0.16633
	0.0094	0.0001	0.0001	0.0000	0.0530	0.0001	0.4227	0.0085	0.3323
SADS1	-0.39677	-0.00755	0.48018	0.32517	1.00000	0.73332	-0.13514	-0.04051	-0.28221
	0.0166	0.9652	0.0030	0.0530	0.0000	0.0001	0.4320	0.8146	0.0954
SADS2	-0.22216	-0.21572	0.51520	0.60020	0.73332	1.00000	-0.04393	0.12107	-0.15151
	0.1928	0.2064	0.0013	0.0001	0.0001	0.0000	0.7992	0.4818	0.3777
SOM1	-0.34925	-0.29368	0.18664	0.13784	-0.13514	-0.04393	1.00000	0.64187	0.31644
	0.0368	0.0821	0.2757	0.4227	0.4320	0.7992	0.0000	0.0001	0.0601
SOM2	-0.46181	-0.39846	0.32456	0.43183	-0.04051	0.12107	0.64187	1.00000	0.41611
	0.0046	0.0161	0.0535	0.0085	0.8146	0.4818	0.0001	0.0000	0.0116
OC2	0.08710	-0.36887	0.16195	0.33356	-0.33058	-0.01991	0.28245	0.51142	0.64937
	0.6135	0.0268	0.3453	0.0468	0.0489	0.9083	0.0951	0.0014	0.0001
INSEN1	-0.28776	-0.18183	0.23985	0.27499	0.05822	0.00889	0.37591	0.51158	0.43391
	0.0888	0.2885	0.1588	0.1045	0.7359	0.9590	0.0239	0.0014	0.0082
INSEN2	-0.13946	-0.35070	0.34040	0.37653	0.02063	0.12677	0.30062	0.48561	0.40184
	0.4173	0.0360	0.0422	0.0236	0.9049	0.4613	0.0748	0.0027	0.0151
DEP1	-0.00601	-0.03311	0.13879	0.18038	-0.13140	0.02357	0.53439	0.59008	0.64336
	0.9723	0.8480	0.4195	0.2924	0.4449	0.8915	0.0008	0.0002	0.0001
DEP2	-0.08659	-0.31945	0.29759	0.39595	-0.08459	0.14758	0.50938	0.74731	0.57526
	0.6156	0.0575	0.0779	0.0168	0.6238	0.3904	0.0015	0.0001	0.0002
ANX1	-0.22764	-0.21723	0.06252	0.13947	-0.05300	-0.08413	0.46597	0.48003	0.59442
	0.1818	0.2032	0.7172	0.4172	0.7589	0.6257	0.0042	0.0031	0.0001
ANX2	-0.07028	-0.29367	0.27996	0.39152	-0.02185	0.16044	0.46355	0.70142	0.54329
	0.6838	0.0821	0.0982	0.0182	0.8994	0.3499	0.0044	0.0001	0.0006
HOS1	-0.01686	-0.14524	-0.04953	0.03799	-0.02127	0.05769	0.31520	0.25779	0.42147
	0.9222	0.3980	0.7742	0.8259	0.9020	0.7382	0.0611	0.1290	0.0105

Table 57

Statistically significant Pearson product-moment correlations and p values (continued)

	RATH1	RATH2	MMPI1	MMPI2	SADS1	SADS2	SOM1	SOM2	OC1
HOS2	-0.00100	-0.16364	0.09723	0.11774	-0.05105	0.01910	0.28249	0.24575	0.35431
	0.9954	0.3403	0.5727	0.4940	0.7675	0.9120	0.0951	0.1485	0.0340
PHOB1	-0.42378	-0.28831	0.27420	0.39369	0.18741	0.24966	0.46253	0.59068	0.54709
	0.0100	0.0882	0.1056	0.0175	0.2737	0.1420	0.0045	0.0001	0.0006
PHOB2	-0.40258	-0.42641	0.23779	0.35056	0.16970	0.26039	0.64574	0.54266	0.41312
	0.0149	0.0095	0.1626	0.0361	0.3224	0.1251	0.0001	0.0006	0.0123
PAR1	-0.03842	-0.16339	0.04463	0.16044	-0.20069	-0.10769	0.34380	0.39073	0.48860
	0.8239	0.3410	0.7961	0.3499	0.2405	0.5319	0.0401	0.0185	0.0025
PAR2	0.09492	-0.21366	0.20343	0.16371	-0.23144	-0.08774	0.33147	0.34074	0.34786
	0.5819	0.2108	0.2340	0.3401	0.1744	0.6109	0.0483	0.0420	0.0376
PSYCHOT1	-0.08429	-0.14572	0.18967	0.23423	0.03282	0.06023	0.42191	0.48427	0.57998
	0.6250	0.3964	0.2679	0.1691	0.8493	0.7271	0.0104	0.0028	0.0002
PSYCHOT2	0.06132	-0.22177	0.14896	0.22943	-0.21547	-0.06028	0.32970	0.48470	0.56012
	0.7224	0.1936	0.3859	0.1783	0.2069	0.7269	0.0496	0.0027	0.0004
GSI1	-0.21570	-0.23149	0.16745	0.25151	-0.08396	0.00060	0.61971	0.63566	0.71300
	0.2064	0.1743	0.3290	0.1390	0.6264	0.9972	0.0001	0.0001	0.0001
GSI2	-0.12714	-0.38385	0.30980	0.41507	-0.10148	0.10589	0.50161	0.72502	0.58529
	0.4600	0.0208	0.0660	0.0118	0.5559	0.5388	0.0018	0.0001	0.0002
PSDI1	-0.26213	-0.24670	0.20968	0.35993	-0.08127	0.02199	0.49638	0.68978	0.70109
	0.1225	0.1469	0.2197	0.0311	0.6375	0.8987	0.0021	0.0001	0.0001
PSDI2	-0.15973	-0.36134	0.31773	0.47595	-0.11725	0.06678	0.36113	0.72042	0.55279
	0.3521	0.0304	0.0590	0.0033	0.4959	0.6988	0.0305	0.0001	0.0005
PST1	-0.13082	-0.09342	0.14670	0.10071	-0.07293	0.00169	0.60121	0.48529	0.64013
	0.4470	0.5879	0.3932	0.5589	0.6725	0.9922	0.0001	0.0027	0.0001
PST2	-0.10752	-0.34673	0.33432	0.33519	-0.02849	0.16049	0.55445	0.63310	0.55138
	0.5325	0.0383	0.0463	0.0457	0.8690	0.3498	0.0005	0.0001	0.0005
OBJBEH1	0.17932	0.28424	-0.32080	-0.42344	0.07846	-0.17014	-0.05922	0.02958	-0.07625
	0.2954	0.0929	0.0564	0.0101	0.6492	0.3212	0.7316	0.8640	0.6585
OBJBEH2	0.40086	0.14306	-0.01074	-0.06966	0.03137	-0.01000	-0.36609	-0.29473	-0.12468
	0.0154	0.4052	0.9504	0.6864	0.8559	0.9539	0.0281	0.0810	0.4688
SRPRE	0.36583	0.05612	-0.18763	-0.16112	-0.19828	-0.24673	0.08473	0.08475	-0.02168
	0.0282	0.7451	0.2732	0.3479	0.2464	0.1469	0.6232	0.6231	0.9001
SRBEH2	-0.06385	0.14053	0.12892	-0.17717	0.22557	-0.04784	0.10408	-0.11989	-0.34022
	0.7114	0.4137	0.4537	0.3013	0.1859	0.7817	0.5458	0.4861	0.0423

Table 57

Statistically significant Pearson product-moment correlations and p values (continued)

	RATH1	RATH2	MMPI1	MMPI2	SADS1	SADS2	SOM1	SOM2	OC1
LOGIC2	-0.12472	0.03479	-0.18484	-0.17588	0.10071	-0.11554	-0.08428	-0.26291	-0.41241
	0.5192	0.8578	0.3371	0.3614	0.6032	0.5506	0.6638	0.1682	0.0262
LIKREC2	0.09949	0.27712	0.01230	-0.35700	0.20625	-0.08011	-0.00791	-0.11658	-0.42536
	0.6009	0.1382	0.9486	0.0528	0.2742	0.6739	0.9669	0.5396	0.0191
AGE	0.03991	-0.01851	-0.08664	-0.01584	0.09766	0.06947	-0.18936	-0.30072	-0.50686
	0.8172	0.9147	0.6154	0.9269	0.5710	0.6873	0.2687	0.0747	0.0016
SEX	-0.12936	-0.32655	0.27688	0.37229	-0.15888	-0.08271	0.29396	0.40665	0.18147
	0.4521	0.0519	0.1021	0.0254	0.3547	0.6315	0.0818	0.0138	0.2895
	OC2	INSEN1	INSEN2	DEP1	DEP2	ANX1	ANX2	HOS1	HOS2
SOM1	0.28245	0.37591	0.30062	0.53439	0.50938	0.46597	0.46355	0.31520	0.28249
	0.0951	0.0239	0.0748	0.0008	0.0015	0.0042	0.0044	0.0611	0.0951
SOM2	0.51142	0.51158	0.48561	0.59008	0.74731	0.48003	0.70142	0.25779	0.24575
	0.0014	0.0014	0.0027	0.0002	0.0001	0.0031	0.0001	0.1290	0.1485
OC1	0.64937	0.43391	0.40184	0.64336	0.57526	0.59442	0.54329	0.42147	0.35431
	0.0001	0.0082	0.0151	0.0001	0.0002	0.0001	0.0006	0.0105	0.0340
OC2	1.00000	0.50116	0.76460	0.67805	0.82729	0.45764	0.70848	0.40397	0.56261
	0.0000	0.0019	0.0001	0.0001	0.0001	0.0050	0.0001	0.0145	0.0004
INSEN1	0.50116	1.00000	0.71600	0.67081	0.56353	0.65831	0.61914	0.55351	0.50073
	0.0019	0.0000	0.0001	0.0001	0.0003	0.0001	0.0001	0.0005	0.0019
INSEN2	0.76460	0.71600	1.00000	0.58700	0.74842	0.43885	0.59901	0.38076	0.62043
	0.0001	0.0001	0.0000	0.0002	0.0001	0.0074	0.0001	0.0220	0.0001
DEP1	0.67805	0.67081	0.58700	1.00000	0.80796	0.64542	0.78932	0.48372	0.57121
	0.0001	0.0001	0.0002	0.0000	0.0001	0.0001	0.0001	0.0028	0.0003
DEP2	0.82729	0.56353	0.74842	0.80796	1.00000	0.51964	0.84156	0.37108	0.55476
	0.0001	0.0003	0.0001	0.0001	0.0000	0.0012	0.0001	0.0259	0.0004
ANX1	0.45764	0.65831	0.43885	0.64542	0.51964	1.00000	0.70641	0.59152	0.54035
	0.0050	0.0001	0.0074	0.0001	0.0012	0.0000	0.0001	0.0001	0.0007
ANX2	0.70848	0.61914	0.59901	0.78932	0.84156	0.70641	1.00000	0.51526	0.52571
	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0000	0.0013	0.0010
HOS1	0.40397	0.55351	0.38076	0.48372	0.37108	0.59152	0.51526	1.00000	0.64788
	0.0145	0.0005	0.0220	0.0028	0.0259	0.0001	0.0013	0.0000	0.0001
PHOB1	0.39775	0.52694	0.36628	0.56279	0.50377	0.69929	0.67490	0.50722	0.30087
	0.0163	0.0010	0.0280	0.0004	0.0017	0.0001	0.0001	0.0016	0.0746

Table 57

Statistically significant Pearson product-moment correlations and p values (continued)

	OC2	INSEN1	INSEN2	DEP1	DEP2	ANX1	ANX2	HOS1	HOS2
PHOB2	0.38832	0.46779	0.44208	0.50729	0.49929	0.62548	0.61070	0.60137	0.44458
	0.0193	0.0040	0.0069	0.0016	0.0019	0.0001	0.0001	0.0001	0.0066
PAR1	0.58413	0.74183	0.52078	0.68077	0.51741	0.73415	0.66360	0.72483	0.60505
	0.0002	0.0001	0.0011	0.0001	0.0012	0.0001	0.0001	0.0001	0.0001
PAR2	0.75661	0.63567	0.73317	0.65769	0.68461	0.56148	0.67948	0.54907	0.70170
	0.0001	0.0001	0.0001	0.0001	0.0001	0.0004	0.0001	0.0005	0.0001
PSYCHOT1	0.69048	0.74640	0.70290	0.77193	0.68596	0.77873	0.77398	0.65944	0.69112
	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
PSYCHOT2	0.84946	0.51470	0.70221	0.75466	0.79471	0.56362	0.73968	0.51520	0.67693
	0.0001	0.0013	0.0001	0.0001	0.0001	0.0003	0.0001	0.0013	0.0001
GSI1	0.66916	0.79940	0.63466	0.87240	0.74055	0.86487	0.82257	0.69386	0.63895
	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
GSI2	0.88087	0.68935	0.84006	0.81209	0.94352	0.64692	0.88730	0.52666	0.67633
	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0010	0.0001
PSDI1	0.69209	0.80071	0.67765	0.84118	0.76466	0.68189	0.78441	0.55467	0.52449
	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0004	0.0010
PSDI2	0.81348	0.67898	0.82065	0.72147	0.86579	0.49539	0.75529	0.32290	0.52540
	0.0001	0.0001	0.0001	0.0001	0.0001	0.0021	0.0001	0.0548	0.0010
PST1	0.54772	0.70269	0.50181	0.78038	0.61284	0.81895	0.68559	0.63139	0.57680
	0.0005	0.0001	0.0018	0.0001	0.0001	0.0001	0.0001	0.0001	0.0002
PST2	0.79495	0.61121	0.75709	0.73201	0.88215	0.65208	0.81619	0.57256	0.68629
	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0003	0.0001
RELBEH2	-0.27351	-0.36437	-0.37662	-0.39000	-0.29754	-0.30415	-0.27090	-0.23629	-0.53694
	0.1065	0.0289	0.0236	0.0187	0.0780	0.0713	0.1100	0.1653	0.0007
SRSIT	-0.02373	0.38715	0.18250	0.25558	0.18305	0.10672	0.25116	0.00016	0.02128
	0.8907	0.0197	0.2867	0.1325	0.2852	0.5356	0.1395	0.9993	0.9019
SRBEH2	-0.39794	-0.14912	-0.32030	-0.21485	-0.39101	0.07743	-0.13918	-0.01758	-0.20535
	0.0162	0.3854	0.0568	0.2083	0.0184	0.6535	0.4182	0.9190	0.2296
SUCCESS1	-0.35836	-0.09438	-0.36890	-0.33403	-0.38431	-0.22372	-0.33787	-0.14588	-0.38229
	0.0477	0.6135	0.0411	0.0663	0.0328	0.2263	0.0630	0.4336	0.0338
LOGIC1	-0.35477	-0.07260	-0.29620	-0.22313	-0.22082	-0.24527	-0.19352	-0.22517	-0.42577
	0.0502	0.6979	0.1057	0.2276	0.2326	0.1836	0.2969	0.2233	0.0169
CONFID1	-0.26944	-0.12120	-0.20997	-0.38015	-0.40881	-0.21450	-0.34229	-0.07804	-0.14121
	0.1427	0.5160	0.2569	0.0349	0.0224	0.2465	0.0594	0.6765	0.4486

Table 57

Statistically significant Pearson product-moment correlations and p values (continued)

	OC2	INSEN1	INSEN2	DEP1	DEP2	ANX1	ANX2	HOS1	HOS2
TALK	0.41619	0.27586	0.40643	0.34156	0.30327	0.15377	0.33426	0.32435	0.48075
	0.0222	0.1401	0.0258	0.0647	0.1033	0.4172	0.0710	0.0803	0.0072
SUCCESS2	-0.29721	-0.09382	-0.38773	-0.13780	-0.28571	-0.04687	-0.11752	0.16270	-0.09737
	0.1107	0.6219	0.0343	0.4677	0.1259	0.8057	0.5363	0.3903	0.6087
LOGIC2	-0.50228	-0.27176	-0.53333	-0.40675	-0.50326	-0.07034	-0.31943	-0.08402	-0.35735
	0.0055	0.1538	0.0029	0.0285	0.0054	0.7169	0.0912	0.6648	0.0570
AGE	-0.40666	-0.38475	-0.40018	-0.54613	-0.40000	-0.43924	-0.34286	-0.31372	-0.44807
	0.0138	0.0205	0.0156	0.0006	0.0156	0.0074	0.0406	0.0624	0.0061
SEX	0.35084	0.38048	0.30395	0.27278	0.34691	0.06573	0.35931	0.14444	0.05223
	0.0359	0.0221	0.0715	0.1075	0.0382	0.7033	0.0314	0.4007	0.7622
INCOME	-0.40355	-0.55130	-0.57321	-0.47425	-0.46549	-0.30759	-0.36515	-0.34752	-0.44969
	0.0162	0.0006	0.0003	0.0040	0.0048	0.0723	0.0310	0.0408	0.0067
EDUC	-0.33653	-0.29459	-0.36244	-0.30418	-0.37417	-0.35590	-0.29170	-0.16832	-0.29384
	0.0448	0.0811	0.0298	0.0713	0.0246	0.0331	0.0843	0.3265	0.0820
	PHOB1	PHOB2	PAR1	PAR2	PSYCHOT1	PSYCHOT2	GSI1	GSI2	PSDI1
GSI1	0.75179	0.72233	0.83238	0.69887	0.90609	0.75133	1.00000	0.84490	0.88468
	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0000	0.0001	0.0001
GSI2	0.60528	0.62088	0.68039	0.80975	0.82325	0.87820	0.84490	1.00000	0.83121
	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0000	0.0001
PSDI2	0.42556	0.39488	0.51137	0.64798	0.64095	0.72331	0.69246	0.89036	0.84685
	0.0097	0.0172	0.0014	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
PST1	0.62789	0.60759	0.78721	0.63261	0.80512	0.60464	0.90520	0.69184	0.66221
	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
PST2	0.60103	0.63987	0.64737	0.79015	0.79437	0.80136	0.81741	0.92417	0.69050
	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
OBJBEH2	-0.24984	-0.38616	-0.21069	-0.15400	-0.25414	-0.23710	-0.31794	-0.23600	-0.32008
	0.1417	0.0200	0.2174	0.3699	0.1347	0.1638	0.0588	0.1658	0.0570
RELBEH2	-0.08399	-0.05055	-0.37735	-0.42355	-0.29194	-0.39003	-0.34016	-0.36642	-0.40964
	0.6262	0.7697	0.0233	0.0101	0.0840	0.0187	0.0424	0.0279	0.0131
SUCCESS1	-0.12417	-0.21803	-0.30540	-0.53057	-0.26392	-0.41336	-0.26063	-0.41730	-0.19631
	0.5057	0.2387	0.0948	0.0021	0.1514	0.0208	0.1567	0.0195	0.2899
LOGIC1	-0.15600	-0.24243	-0.20773	-0.39625	-0.39725	-0.33821	-0.27045	-0.31317	-0.14409
	0.4020	0.1888	0.2621	0.0273	0.0269	0.0627	0.1411	0.0863	0.4393

Table 57

Statistically significant Pearson product-moment correlations and p values (continued)

	PHOB1	PHOB2	PAR1	PAR2	PSYCHOT1	PSYCHOT2	GSI1	GSI2	PSDI1
CONFID1	-0.27853	-0.28834	-0.16919	-0.28302	-0.15837	-0.26839	-0.28017	-0.37596	-0.29892
	0.1292	0.1157	0.3629	0.1229	0.3948	0.1443	0.1269	0.0371	0.1024
TALK	0.02406	0.05087	0.41000	0.49224	0.37589	0.40918	0.26695	0.37205	0.22664
	0.8996	0.7895	0.0244	0.0057	0.0406	0.0248	0.1539	0.0429	0.2285
AGE	-0.26700	-0.21796	-0.46877	-0.34613	-0.50855	-0.47998	-0.52331	-0.43822	-0.45375
	0.1154	0.2016	0.0039	0.0386	0.0015	0.0031	0.0011	0.0075	0.0054
SEX	0.19260	0.23752	0.25684	0.25516	0.23190	0.26794	0.28457	0.37197	0.44453
	0.2604	0.1630	0.1305	0.1331	0.1735	0.1141	0.0925	0.0255	0.0066
INCOME	-0.19272	-0.22330	-0.46967	-0.53482	-0.52816	-0.46005	-0.49381	-0.51437	-0.54271
	0.2674	0.1972	0.0044	0.0009	0.0011	0.0054	0.0026	0.0016	0.0008
EDUC	-0.27568	-0.34871	-0.38381	-0.27891	-0.48045	-0.36958	-0.40503	-0.38201	-0.24471
	0.1037	0.0371	0.0208	0.0995	0.0030	0.0265	0.0143	0.0215	0.1503
	PSDI2	PST1	PST2	OBJPRE	OBJPOST	OBJPER	OBJBEH1	OBJBEH2	RELPRE
PSDI2	1.00000	0.48743	0.70291	0.21430	-0.09700	0.11281	-0.09512	-0.15543	0.00323
	0.0000	0.0026	0.0001	0.2095	0.5736	0.5124	0.5810	0.3654	0.9851
PST1	0.48743	1.00000	0.78338	-0.19780	-0.23877	-0.03098	0.02533	-0.18136	-0.30199
	0.0026	0.0000	0.0001	0.2475	0.1608	0.8577	0.8834	0.2898	0.0734
OBJPRE	0.21430	-0.19780	-0.07557	1.00000	0.29884	0.40200	0.11669	0.01298	0.44586
	0.2095	0.2475	0.6613	0.0000	0.0766	0.0151	0.4979	0.9401	0.0064
OBJPOST	-0.09700	-0.23877	-0.21398	0.29884	1.00000	0.49384	0.31575	0.20465	0.09744
	0.5736	0.1608	0.2101	0.0766	0.0000	0.0022	0.0607	0.2312	0.5718
RELPOST	-0.20430	-0.07630	-0.18917	-0.05366	0.01188	0.04506	0.13255	-0.06586	0.37807
	0.2320	0.6583	0.2692	0.7560	0.9452	0.7941	0.4409	0.7027	0.0230
RELBEH1	-0.06091	0.16737	0.03302	-0.01912	0.01084	0.04354	0.45200	-0.16715	0.13119
	0.7281	0.3366	0.8506	0.9132	0.9507	0.8039	0.0064	0.3372	0.4525
RELBEH2	-0.30719	-0.24566	-0.33610	-0.02944	-0.08528	-0.10855	0.16044	0.16398	0.25872
	0.0684	0.1487	0.0451	0.8647	0.6209	0.5286	0.3499	0.3393	0.1276
SRPRE	0.20620	0.02956	0.12514	0.44440	0.06481	0.18701	0.04265	0.16154	-0.17896
	0.2276	0.8641	0.4671	0.0066	0.7073	0.2748	0.8049	0.3466	0.2963
SRPOST	-0.23993	-0.07513	-0.03214	-0.04803	0.43697	0.34465	0.09929	0.14414	-0.31400
	0.1587	0.6632	0.8524	0.7809	0.0077	0.0395	0.5645	0.4016	0.0622
SRSIT	0.24147	0.20638	0.11098	0.25786	0.27899	0.63530	0.07096	0.11985	-0.02847
	0.1560	0.2272	0.5193	0.1289	0.0994	0.0001	0.6809	0.4863	0.8691
SRBEH1	0.16946	0.01118	0.06461	0.38117	0.17717	0.21460	0.33867	0.23536	-0.11963
	0.3305	0.9492	0.7123	0.0239	0.3086	0.2157	0.0466	0.1735	0.4937

Table 57

Statistically significant Pearson product-moment correlations and p values (continued)

	PSDI2	PST1	PST2	OBJPRE	OBJPOST	OBJSIT	OBJBEH1	OBJBEH2	RELPRE
SRBEH2	-0.43638	-0.09218	-0.23022	-0.04821	0.42642	0.35330	0.15787	0.16161	-0.25559
	0.0078	0.5928	0.1768	0.7801	0.0095	0.0345	0.3578	0.3464	0.1324
SUCCESS1	-0.30491	-0.17376	-0.37273	-0.17731	0.23605	0.16620	0.34317	0.13244	0.20012
	0.0953	0.3499	0.0389	0.3400	0.2011	0.3716	0.0588	0.4776	0.2804
CONFID1	-0.40414	-0.19579	-0.30764	-0.18681	0.31431	0.20478	0.13106	0.18470	0.05557
	0.0241	0.2912	0.0923	0.3143	0.0851	0.2691	0.4822	0.3199	0.7665
THRFDBK	0.08620	0.11710	0.04320	-0.02090	-0.18840	-0.04792	-0.18313	0.23488	-0.40971
	0.6506	0.5377	0.8207	0.9127	0.3187	0.8015	0.3327	0.2115	0.0245
FEELTLK	0.23296	0.22368	0.20146	-0.12064	0.07256	0.08439	0.21202	0.22071	-0.39920
	0.2154	0.2348	0.2857	0.5254	0.7032	0.6575	0.2607	0.2412	0.0289
SUCCESS2	-0.42516	-0.05406	-0.19547	-0.19844	0.27170	0.23995	0.46138	0.05299	-0.11273
	0.0192	0.7766	0.3006	0.2932	0.1464	0.2015	0.0103	0.7809	0.5531
LOGIC2	-0.45868	-0.30850	-0.45892	-0.11042	0.19002	0.27571	0.41608	-0.06399	0.27756
	0.0123	0.1035	0.0123	0.5685	0.3235	0.1477	0.0248	0.7416	0.1449
LIKREC2	-0.23214	-0.03836	-0.13351	0.15020	0.27643	0.45107	0.54140	0.12690	0.07415
	0.2170	0.8405	0.4819	0.4282	0.1392	0.0124	0.0020	0.5040	0.6970
PRESSURE	0.17395	0.07012	0.09419	-0.01223	0.24291	0.42656	0.18866	0.09530	0.09370
	0.3579	0.7127	0.6205	0.9489	0.1959	0.0187	0.3181	0.6164	0.6224
AGE	-0.43337	-0.54863	-0.42015	0.08248	-0.00117	-0.12616	0.00195	0.12108	0.41040
	0.0083	0.0005	0.0107	0.6325	0.9946	0.4635	0.9910	0.4818	0.0129
INCOME	-0.46886	-0.36253	-0.48180	0.21056	0.18609	0.04926	0.34821	0.29536	0.28022
	0.0045	0.0323	0.0034	0.2247	0.2845	0.7787	0.0404	0.0850	0.1030
EDUC	-0.19985	-0.43136	-0.43345	0.17430	0.05251	0.25202	0.03995	0.23202	0.26545
	0.2426	0.0086	0.0083	0.3093	0.7610	0.1381	0.8171	0.1733	0.1176

	RELPOST	RELSIT	RELBEH1	RELBEH2	SRPRE	SRPOST	SRSIT	SRBEH1	SRBEH2
RELPOST	1.00000	0.20198	0.20234	0.37889	-0.38733	-0.24678	-0.21471	-0.37925	-0.06539
	0.0000	0.2375	0.2437	0.0227	0.0196	0.1468	0.2086	0.0246	0.7048
SRPRE	-0.38733	-0.02525	-0.12070	-0.27265	1.00000	0.29705	0.12975	0.50329	0.11177
	0.0196	0.8838	0.4898	0.1077	0.0000	0.0785	0.4507	0.0021	0.5163
SRPOST	-0.24678	0.18524	-0.13478	-0.19578	0.29705	1.00000	0.15322	0.22521	0.66176
	0.1468	0.2794	0.4401	0.2525	0.0785	0.0000	0.3723	0.1933	0.0001
LOGIC1	0.16618	0.23217	0.16440	0.07553	-0.03219	0.37810	0.18466	0.05831	0.06528
	0.3716	0.2088	0.3853	0.6864	0.8635	0.0360	0.3200	0.7595	0.7272

Table 57

Statistically significant Pearson product-moment correlations and p values (continued)

	RELPOST	RELSIT	RELBEH1	RELBEH2	SRPRE	SRPOST	SRSIT	SRBEH1	SRBEH2
RLPLAY	0.43455	0.20081	0.46332	0.38934	-0.20597	0.16159	0.08629	0.06599	0.43036
	0.0164	0.2873	0.0114	0.0335	0.2749	0.3936	0.6503	0.7338	0.0176
SUCCESS2	0.51885	0.26506	0.50543	0.09902	-0.15970	0.23146	0.00000	-0.00987	0.37942
	0.0033	0.1569	0.0052	0.6026	0.3992	0.2184	1.0000	0.9595	0.0386
LOGIC2	0.44434	0.23976	0.35970	0.27606	-0.23767	0.42082	-0.02433	-0.02770	0.42996
	0.0157	0.2103	0.0601	0.1472	0.2144	0.0230	0.9003	0.8887	0.0199
LIKREC2	0.24695	0.19762	0.49149	0.02619	0.08704	0.25057	0.25680	0.16278	0.40153
	0.1883	0.2952	0.0068	0.8907	0.6474	0.1817	0.1707	0.3989	0.0279
PRESSURE	0.43640	0.32387	0.00496	0.25565	-0.05687	0.15526	0.24106	0.00443	0.19477
	0.0159	0.0808	0.9796	0.1727	0.7653	0.4127	0.1994	0.9818	0.3023
ATTRIB	0.06845	0.24416	-0.05445	-0.00019	-0.09632	-0.38481	-0.07103	0.10186	-0.26685
	0.7242	0.2018	0.7832	0.9992	0.6192	0.0393	0.7143	0.6060	0.1617
AGE	0.42372	0.12003	-0.05338	0.35444	-0.12943	0.08798	-0.32580	-0.22161	0.15106
	0.0100	0.4856	0.7607	0.0339	0.4519	0.6099	0.0525	0.2007	0.3792
SEX	0.36236	0.12853	0.28448	-0.12831	0.09133	-0.07648	0.05890	-0.28820	0.00224
	0.0299	0.4550	0.0977	0.4558	0.5963	0.6575	0.7329	0.0932	0.9897
INCOME	0.37557	0.06487	0.18930	0.51665	-0.21739	-0.20962	-0.08232	0.13144	0.13107
	0.0262	0.7112	0.2836	0.0015	0.2097	0.2268	0.6383	0.4587	0.4529

	SUCCESS1	LOGIC1	CONFID1	LIKREC1	THRFDBK	TALK	RLPLAY	FEELTLK	SUCCESS2
SUCCESS1	1.00000	0.61851	0.69328	0.43909	-0.18890	0.01541	0.15683	-0.03040	0.27608
	0.0000	0.0002	0.0001	0.0135	0.3175	0.9356	0.4079	0.8733	0.1397
LOGIC1	0.61851	1.00000	0.38791	0.43924	-0.17045	-0.14133	0.21717	-0.04075	0.31648
	0.0002	0.0000	0.0311	0.0134	0.3678	0.4563	0.2490	0.8307	0.0884
CONFID1	0.69328	0.38791	1.00000	0.38368	-0.08522	0.18736	0.16912	0.14201	0.43774
	0.0001	0.0311	0.0000	0.0331	0.6543	0.3215	0.3716	0.4541	0.0156
LIKREC1	0.43909	0.43924	0.38368	1.00000	0.28184	0.07251	0.33993	0.20102	0.39424
	0.0135	0.0134	0.0331	0.0000	0.1313	0.7034	0.0661	0.2868	0.0311
THRFDBK	-0.18890	-0.17045	-0.08522	0.28184	1.00000	0.50242	0.40209	0.41059	0.19699
	0.3175	0.3678	0.6543	0.1313	0.0000	0.0047	0.0276	0.0242	0.2968
TALK	0.01541	-0.14133	0.18736	0.07251	0.50242	1.00000	0.36442	0.71049	0.31913
	0.9356	0.4563	0.3215	0.7034	0.0047	0.0000	0.0477	0.0001	0.0856
RLPLAY	0.15683	0.21717	0.16912	0.33993	0.40209	0.36442	1.00000	0.62478	0.73289
	0.4079	0.2490	0.3716	0.0661	0.0276	0.0477	0.0000	0.0002	0.0001
FEELTLK	-0.03040	-0.04075	0.14201	0.20102	0.41059	0.71049	0.62478	1.00000	0.49771
	0.8733	0.8307	0.4541	0.2868	0.0242	0.0001	0.0002	0.0000	0.0051

Table 57

Statistically significant Pearson product-moment correlations and p values (continued)

	SUCCESS1	LOGIC1	CONFID1	LIKREC1	THRFDBK	TALK	RLPLAY	FEELTLK	SUCCESS2
LOGIC2	0.48143	0.52528	0.38784	0.40603	0.08849	-0.01151	0.72086	0.14755	0.67173
	0.0082	0.0034	0.0376	0.0289	0.6481	0.9527	0.0001	0.4450	0.0001
LIKREC2	0.20701	0.12693	0.36938	0.46062	0.24617	0.31021	0.52754	0.27438	0.62744
	0.2724	0.5039	0.0445	0.0104	0.1897	0.0952	0.0027	0.1423	0.0002
PRESSURE	0.14464	0.15576	0.16445	0.35373	0.02746	0.30587	0.37210	0.33098	0.35199
	0.4457	0.4111	0.3852	0.0552	0.8855	0.1002	0.0429	0.0740	0.0564
PREVTHER	0.38423	0.24075	0.47931	0.01661	-0.49199	-0.10724	-0.14213	-0.08919	0.11719
	0.0328	0.1920	0.0064	0.9293	0.0058	0.5727	0.4537	0.6393	0.5374

	LOGIC2	LIKREC2	PRESSURE	ATTRIB	NUMRPLY	AGE	SEX	INCOME	EDUC
LOGIC2	1.00000	0.50675	0.23451	-0.09633	-0.11115	0.43362	-0.05193	0.38087	0.39997
	0.0000	0.0050	0.2208	0.6258	0.5734	0.0188	0.7890	0.0455	0.0316
PRESSURE	0.23451	0.17378	1.00000	-0.16842	0.05653	-0.01980	0.43914	0.01375	0.24126
	0.2208	0.3584	0.0000	0.3825	0.7709	0.9173	0.0152	0.9436	0.1990
INCOME	0.38087	0.31051	0.01375	-0.10515	0.07165	0.31938	-0.33245	1.00000	0.47775
	0.0455	0.1011	0.9436	0.5944	0.7119	0.0615	0.0510	0.0000	0.0037
MARSTAT	0.35595	0.07037	-0.07913	-0.11633	-0.29853	0.44611	-0.02266	0.18779	0.09082
	0.0581	0.7118	0.6777	0.5479	0.1091	0.0064	0.8956	0.2800	0.5984

Heading Codes

RATH1 - Rathus Assertiveness Scale - Pre Score
RATH2 - Rathus Assertiveness Scale - Post Score
MMPI1 - MMPI - Social Introversion Scale - Pre Score
MMPI2 - MMPI - Social Introversion Scale - Post Score
SADS1 - Social Anxiety and Distress Scale - Pre Score
SADS2 - Social Anxiety and Distress Scale - Post Score
SOM1 - SCL-90-R Somatization Scale - Pre Score
SOM2 - SCL-90-R Somatization Scale - Post Score
OC1 - SCL-90-R Obsessive-Compulsive Scale - Pre Score
OC2 - SCL-90-R Obsessive-Compulsive Scale - Post Score
INSEN1 - SCL-90-R Interpersonal Sensitivity Scale - Pre Score
INSEN2 - SCL-90-R Interpersonal Sensitivity Scale - Post Score
DEP1 - SCL-90-R Depression Scale - Pre Score
DEP2 - SCL-90-R Depression Scale - Post Score
ANX1 - SCL-90-R Anxiety Scale - Pre Score
ANX2 - SCL-90-R Anxiety Scale - Post Score
HOS1 - SCL-90-R Hostility Scale - Pre Score
HOS2 - SCL-90-R Hostility Scale - Post Score
PHOB1 - SCL-90-R Phobic Anxiety Scale - Pre Score
PHOB2 - SCL-90-R Phobic Anxiety Scale - Post Score
PAR1 - SCL-90-R Paranoia Scale - Pre Score
PAR2 - SCL-90-R Paranoia Scale - Post Score
PSYCHOT1 - SCL-90-R Psychoticism Scale - Pre Score
PSYCHOT2 - SCL-90-R Psychoticism Scale - Post Score

Table 57

Statistically significant Pearson product-moment correlations and p values (continued)

GSI1 - SCL-90-R Grand Symptom Index - Pre Score
GSI2 - SCL-90-R Grand Symptom Index - Post Score
PSDI1 - SCL-90-R Positive Symptom Distress Index - Pre Score
PSDI2 - SCL-90-R Positive Symptom Distress Index - Post Score
PST1 - SCL-90-R Positive Symptom Total - Pre Score
PST2 - SCL-90-R Positive Symptom Total - Post Score
OBJPRE - Objectives Effectiveness Pre Score
OBJPOST - Objectives Effectiveness Post Score
OBJSIT - Objectives Effectiveness Generalization Across Situations
OBJBEH1 - Objectives Effectiveness Generalization Across Behavior Scene 1
OBJBEH2 - Objectives Effectiveness Generalization Across Behavior Scene 2
RELPRE - Relationship Effectiveness Pre Score
RELPOST - Relationship Effectiveness Post Score
RELPER - Relationship Effectiveness Generalization Across Situations
RELBEH1 - Relationship Effectiveness Generalization Across Behavior Scene 1
RELBEH2 - Relationship Effectiveness Generalization Across Behavior Scene 2
SRPRE - Self-Respect Effectiveness Pre Score
SRPOST - Self-Respect Effectiveness Post Score
SRPER - Self-Respect Effectiveness Generalization Across Situations
SRBEH1 - Self-Respect Effectiveness Generalization Across Behavior Scene 1
SRBEH2 - Self-Respect Effectiveness Generalization Across Behavior Scene 2
SUCCESS1 - Pre-test Success Rating
LOGIC1 - Pre-test Logic Rating
CONFID1 - Pre-test Confidence Rating
LIKREC1 - Pre-test Likely to Recommend Rating
THRFDBK - Post-test Importance of Therapist Feedback Rating
TALK - Post-test Importance of Talk Rating
RLPLAY - Post-test Importance of Role-playing Rating
FEELTLK - Post-test Imporatnce of Talking about Feelings Rating
SUCCESS2 - Post-test Success Rating
LOGIC2 - Post-test Logic Rating
LIKREC2 - Post-test Likely to Recommend Rating
PRESSURE - Post-test Pressure Felt in Therapy Rating
ATTRIB - Post-test Attribution of Success Rating
NUMRPLY - Number of Scenes Role-played in Therapy
AGE - Age of Subject
SEX - Sex of Subject (1=male; 2=female)
INCOME - Income of Subject (see Table 2 for code)
EDUC - Level of Education of Subject
MARSTAT - Marital Status of Subject (1=single; 2=married; 3=divorced or separated)
PREVTHER - Subject's Previous Therapy Experience (1=yes; 2=no)