PROGRAMMING GENERALIZATION: A COMPARISON OF BEHAVIORAL AND COGNITIVE RESPONSE TRANSFER OPERATIONS IN ASSERTIVE TRAINING

DISSERTATION

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By

Richard Craig Lefebvre, M. S.
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The assertive training literature has documented the effectiveness of both behavioral and cognitive methods to increase individual's assertiveness. However, the ability for such methods to enhance the generalization of treatment effects to untrained assertive response classes and the natural environment has been poor. In addition, little notice has been paid to the durability of these changes. Although the past several years have witnessed more intensive efforts by investigators to program generalization as part of their interventions, results have continued to be disappointing. A specific generalization-enhancing treatment strategy, self-directed practice, has been utilized with much success in phobic populations. This strategy, and the theoretical orientation it reflects, has been proposed for use in assertive training. The present study sought to examine the effectiveness of this method as compared to the traditional assertive training procedures and investigate the role of self-efficacy expectations in mediating initial behavior change and its subsequent generalization.
Forty-five female undergraduates received training in either one of eight experimental groups or an expectancy-credibility control treatment. One group session of modeling and rehearsal of either refusal or request behaviors was initially presented to experimental subjects. This was followed by an individual session in which either an "insight-learning" discussion or rational disputation of three specific unassertive ideas was utilized. Following this interaction, four more rehearsal scenes were practiced of the same response class as done in the group session. However, therapist modeling was not given to one-half of the subjects. Assessments of self-reported assertiveness, efficacy and outcome expectancies, ratings of behavior in role-playing tasks, and anxiety and behavior satisfaction ratings were conducted at pretreatment, posttreatment, and at a follow-up session 4-6 weeks after treatment.

Analysis of covariance revealed no significant differences among groups on any of the outcome measures. Several exploratory, post hoc discriminant analyses suggested that the Rational-Emotive intervention decreased behavioral performance, but resulted in more generalization of outcome expectations. However, these groups could not be discriminated from the control condition. Multiple regression analyses found that efficacy expectations could not significantly predict assertive behavior, but did predict satisfaction with one's performance. Microanalysis of efficacy ratings and
performance in the role-play task showed relatively little congruence between efficacy and assertiveness, and high congruence between efficacy and nonassertiveness.

Results were interpreted as demonstrating little evidence for the fading of therapist modeling, or a cognitive intervention, to enhance generalization above that found for an equally credible control group. The role of self-efficacy in mediating assertive behavior likewise received meager support. Methodological questions were raised with regard to the use of a single therapist, and several problems with the assessment procedure which may have biased the results were discussed. It was suggested that future research in the area first address the methodological issues before further clinical trials are conducted.
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The assertive training literature has often documented the efficacy of various treatment strategies that have produced changes in clients' assertive behaviors. The most often used approach has been behavioral skills training. Such an intervention has included one or more of several different techniques: live or videotaped modeling of appropriate assertive behaviors (e.g., Eisler, Hersen, & Miller, 1973), coaching or focused instructions by the therapist as to how one behaves in an assertive manner (e.g., McFall & Twentyman, 1973), behavior rehearsal by the client of assertive behaviors (e.g., McFall & Lillesand, 1971), and performance feedback by the therapist as to the strengths and weaknesses of the client's behavior in the rehearsal situation (e.g., Edelstein & Eisler, 1976). Other strategies have included verbal response training (e.g., Winship & Kelley, 1976), covert modeling (e.g., Kazdin, 1974), self-instructional training (e.g., Carmody, 1978), and rational-emotive therapy (e.g., Wolfe & Fodor, 1977). This research has demonstrated positive changes in clients' self-reported assertiveness (through a variety of assertive inventories) and/or behavior in structured behavioral tasks, regardless
of the treatment method employed. However, one of the most noted deficiencies of this research has been the lack of documented generalization effects. As most reviewers have noted, where transfer of training has been evaluated, the results of such analyses have been generally disappointing (Hersen, Eisler, & Miller, 1973; Rich & Schroeder, 1977; Rimm & Masters, 1979).

The material to follow has been organized into five major sections. The first section has been devoted to the examination of issues in the generalization of treatment effects, and the particular methods that have been used in the assertive training literature to evaluate such effects. The second and third sections are concerned with a review of the generalization-enhancing properties of behavioral skills training and cognitive restructuring methods, respectively. In the fourth section, a method which has been developed in fear-reduction research to enhance generalization, and a conceptual model from which such a process can be applied to assertive training, has been presented. The final section consists of the formulation of several hypotheses which served as the basis for the present study.

**Issues in the Generalization of Treatment Effects**

While a persistent theme in the behavior therapy literature has been that of generalization (Meichenbaum, 1979), many theorists have considered it to be a passive, rather than active, phenomenon (Stokes & Baer, 1977). Thus, while
many researchers have agreed that generalization is a desired, if not necessary, condition for successful behavior change, few have sought specifically to program it into their treatment regimens. Instead, a "Train and Hope" method has been frequently adopted (Stokes & Baer, 1977).

While these comments were initially applied to all of the behavior change literature, when they have been focused on the assertive training literature their validity has been even more apparent. This has not meant that research in assertive training has neglected to investigate generalization effects; rather, it has not been adequately programmed as part of the treatment strategy. Before the findings with regard to the generalization effects of various assertive training techniques are presented, in this section the major methods that have been utilized to evaluate various aspects of the generalization process are reviewed.

In conceptualizing the nature of assertive behavior, four distinct response classes have usually been isolated. These have included (a) the ability to initiate conversations, (b) the ability to make requests of others, (c) the ability to refuse the unreasonable requests of others, and (d) the ability to express positive, as well as negative, emotions (Lazarus, 1973; Rich & Schroeder, 1977). This differentiation of assertive behaviors into specific and discrete classes has led to the investigation of generalization effects both within (intra-) and between (inter-) response classes.
Intra-class generalization has been measured by first having trained clients to respond assertively to a few specific situations in which one response class has been appropriate (e.g., "Refuse a request to borrow money"). After training, these clients have then been asked to respond to scenes on which they were and were not trained, but these latter scenes have belonged to the same response class (e.g., "Turn down a request to borrow your car"). The similarity between a client's behavior in these novel situations and in the trained scenes has been used as an index of intra-class generalization (e.g., Galassi, Galassi, & Litz, 1974; Kazdin, 1974; Kirschner, 1976; McFall & Lillesand, 1971; McFall & Twentyman, 1973; Turner & Adams, 1977; Young, Rimm, & Kennedy, 1973).

For the assessment of inter-class generalization, clients have been trained on situations of one response class (e.g., "Refuse a request to borrow money"). After treatment these clients have then been presented situations which elicit a different response class (e.g., "Tell someone that you like them"), as well as situations similar to those used in training (e.g., "Turn down a request to borrow your car"). Similarities in behavior between the untrained response class scenes and the trained response class scene have been interpreted as the degree of inter-class generalization (e.g., McFall & Lillesand, 1971; Nietzel, Martorano, & Melnick, 1977; Young et al., 1973).
A third measure of generalizability has been that of in vivo generalization, or transfer of training from the laboratory or clinical setting to the client's natural environment. Studies that have assessed this variable have either employed a confederate who immediately after training asked the client to help him/her with some other project (e.g., Carmody, 1978; Nietzel et al., 1977; Winship & Kelley, 1976), or who telephoned the client shortly after training had been completed to request his/her aid, e.g., asking to borrow notes prior to a final examination (McFall & Twentyman, 1973), a plea to volunteer to work in a recently opened, local hospital (Kazdin, 1974). The client's ability to refuse these requests in an assertive manner has been used as an indication of in vivo generalization.

The fourth measure of generalization has been one of the maintenance, or durability, of treatment gains (Galassi & Galassi, 1978). This has been accomplished by the presentation of the same self-report measures and behavioral tasks that were used at the termination of treatment, usually 1 month to 1 year afterwards. The congruence of clients' performances at termination and follow-up have provided some indication of the long-term generalization, or durability, of treatment gains (e.g., Carmody, 1978; Field & Test, 1975; Galassi, Kostka, & Galassi, 1975).

Research in assertive training has devoted disproportionate attention to certain indices of generalization to
the exclusion of others (c.f. Galassi & Galassi, 1978). Intra-class generalization has been the most often employed measure, followed by inter-class, in vivo, and durability measures. In the following two sections, studies which have measured one or more aspects of the generalization process are reviewed. As the research with regard to the effects of behavioral skills training on these measures has been more extensive than the cognitive restructuring literature, these studies have been presented first.

**Behavioral Skills Training and Generalization**

As noted earlier, the skills training approach to enhance assertive behavior has encompassed a wide variety of techniques such as modeling, behavior rehearsal, coaching, and performance feedback. This treatment approach has been based on the rationale that low assertive individuals have lacked the skills required to produce assertive behaviors. Behaviors that have been found to correlate with perceived assertiveness have included pronounced affect, lengthier responses, louder speech, shorter response latencies, a lower frequency of compliant statements, and a higher frequency of refusals and requests (Eisler, 1976). Thus, the low assertive individual has been viewed as having specific skills deficits in one or more of the above areas, and the impetus of training has been to systematically teach the person each of the component skills. The major therapeutic assumption has been that "maladaptive behaviors will gradually
be replaced by the acquisition, performance, and reinforce-
ment of more adaptive social behavior" (Eisler, 1976, p. 370).

Most investigators have chosen to utilize one or more specific techniques to train assertive behaviors, and have compared their treatment packages to control groups. Thus, component analyses of effective therapeutic ingredients that have resulted in behavioral improvement have been rarely attempted (Galassi & Galassi, 1978). In the review to follow, while each study has evaluated different combinations of techniques to teach assertive skills, they have had in common their evaluation of generalization effects.

Intra-class generalization. McFall and Lillesand (1971) compared modeling and coaching techniques plus either overt or covert rehearsal with an assessment-only control group. Based on the data of two untrained judges who viewed videotapes of the subjects' behaviors in the role-playing situations and rated them as to the frequency of "refusal behaviors," they found that both experimental groups showed significant intra-class generalization. However, on other behavioral indices of assertive behavior, specifically response latency, the length of the response, and the number of words used in the response, no generalization of training occurred.

Hersen, Eisler, and Miller (1974) also used modeling and coaching techniques to train assertive behaviors in a psychiatric in-patient setting. In this study, an instructional
set was given to one group of patients after training to "remember what you have learned and apply this to new situations." They then compared the performances of these two modeling and coaching groups with two practice-control groups (one with instructions to generalize) and an assessment only control group on five novel refusal situations. Both modeling groups were found to be significantly different from the control groups on measures of eye-contact, loudness, response duration, and ratings of overall assertiveness.

The only difference between the two modeling conditions was on a measure of affect: the modeling with coaching group showed significantly more pronounced affect on the generalization scenes than the modeling with coaching plus instructions group.

McFall and Twentyman (1973) added a behavior rehearsal component to the modeling and coaching package of McFall and Lillesand (1971) and Hersen et al. (1974). They found significant intra-class generalization on a behavioral test as measured by an overall assertiveness rating for rehearsal and modeling groups regardless of whether they also received coaching. Edelstein and Eisler (1976) reported the results of a single-subject experiment in which these three components (rehearsal, modeling, and coaching) were systematically varied in a multiple-baseline design. They found that initial training which utilized modeling and rehearsal produced unsystematic generalization effects. However, when
coaching was introduced into the training program (defined as focused instructions and performance feedback), the subject showed successful intra-class generalization of training as determined by ratings of overall assertiveness, affect, use of gestures, and eye contact.

Using a verbal response training model, Winship and Kelley (1976) taught subjects through modeling, rehearsal, feedback, and reinforcement methods to respond to refusal situations by (a) beginning with an "empathy statement," (b) presenting a "rationale for action," and (c) stating what they wanted to happen (an "action statement"). Subjects in this assertive group were then compared with subjects in either an attention or no treatment control group. On the basis of how well their written responses to two novel refusal scenes coincided to the verbal response model, and how early in an extended interaction test they could refuse a request, subjects in the assertive group demonstrated significantly better generalization than the control subjects.

Kirschner (1976) utilized behavior rehearsal, feedback, modeling, and reinforcement procedures in two assertive training groups. These groups differed on the amount of times they practiced each scene, as well as the number of scenes on which they received training. Subjects in an extensive training group received one trial on each of 16 different scenes. Those subjects in an intensive group received four trials on each of four different scenes. Both
groups showed significant intra-class generalization effects as compared with an attention control group, but no differences between the two behavioral groups were detected. These results appeared to have supported a conclusion reached earlier by Hersen et al. (1974) that increased practice on training scenes would not enhance generalization.

Carmody (1978) compared a behavioral group in which rehearsal, modeling, and coaching techniques were used with two cognitive treatments and a waiting-list control group. Results of the cognitive treatments have been discussed in the next section of this paper, and in the behavioral group Carmody found no significant differences in performance between the trained and untrained refusal scenes. This was interpreted as showing successful intra-class generalization.

Goldsmith and McFall (1974) developed a training program for psychiatric inpatients in which several response classes had been simultaneously targeted for intervention. Results of this program demonstrated significant transfer of training to untrained situations as determined by overall ratings of assertiveness. Turner and Adams (1977) also utilized a comprehensive treatment package to train subjects on one of three response classes: refusing requests, making requests, and expressing positive affect. Only intra-class generalization was evaluated, and in all three groups significant effects were obtained on measures of overall assertiveness.
In contrast to these generally positive findings, Young et al. (1973) found on training scenes at posttest that both modeling and modeling-plus reinforcement groups were significantly different from no treatment and attention control groups. However, on intra-class generalization scenes the modeling group significantly differed from only the no treatment group, while the modeling-plus reinforcement group showed no generalization effects. The authors concluded from this data that "meager evidence" was found for the generalization of assertive training that utilized only modeling and verbal reinforcement procedures.

Research which has investigated the effects of assertive training procedures on intra-class generalization has obtained generally positive results. One conclusion that seems warranted is that modeling procedures used in isolation have generally produced little generalization (e.g., Edelstein & Eisler, 1976; Young et al., 1973). However, the addition of coaching with modeling has appeared to enhance the generalization process (e.g., Edelstein & Eisler, 1976; Hersen et al., 1974), while the use of behavior rehearsal alone has not produced generalizable effects (Hersen et al., 1974). However, when utilized with other techniques, behavior rehearsal has in all but one case (Edelstein & Eisler, 1976) demonstrated generalization-enhancing properties (e.g., Carmody, 1978; Goldsmith & McFall, 1974; Kirschner, 1976; McFall & Lillesand, 1971; McFall & Twentyman, 1973;
Turner & Adams, 1977; Winship & Kelley, 1976). In addition, the number of rehearsals on each particular scene has not seemed to influence the degree of generalization within a response class (e.g., Hersen et al., 1974; Kirschner, 1976). One of the constraints on the research to date has been, however, its targeting of only one specific response class (refusal of requests). In only three cases (Goldsmith & McFall, 1974; Kirschner, 1976; Turner & Adams, 1977) have other response classes been trained. This narrow focus may tend to restrict the generalization of these results to other response classes. The second issue in this research is a methodological one: the use of overall ratings of assertiveness to evaluate outcome. In one-half of the reviewed studies generalization effects were obtained for only this one measure of assertive behavior (i.e., Goldsmith & McFall, 1974; Kirschner, 1976; McFall & Lillesand, 1971; McFall & Twentyman, 1973; Turner & Adams, 1977), and that this was the only discriminating measure serves to reduce the confidence of these authors' observations (c.f. Mahoney, 1978).

Inter-class generalization. There have been few studies which have attempted to assess for inter-class generalization effects. In a single-subject design, Kelly, Frederiksen, Pitts, and Phillips (1978) trained their client on "commendatory" assertive behaviors. After training, the client was then assessed on "refusal" scenes. They found evidence for transfer of training across response classes for the amount
of eye contact the client made with the other person and expressed affect. However, the client had very short response duration, as well as few requests and a high rate of compliance. This latter data was interpreted as showing no evidence for generalization.

In two group studies, both McFall and Lillesand (1971) and Melnick and Stokes (1977) trained subjects to respond to refusal situations. Generalization to nonrefusal assertive situations was then assessed, and in both cases no evidence for generalization was found. Kirschner (1976) trained subjects to express emotions, disagree, or refuse requests. On inter-class generalization measures, no significant effects were detected.

These studies have shown that the use of behavioral skills training has produced very little inter-class generalization of training. Although each investigator utilized a number of techniques which have demonstrated successful intra-class generalization effects, the lack of transfer of training across response classes has highlighted the necessity for more studies to become concerned with programming generalization as part of their treatment strategy (c.f. Hersen et al., 1973).

In vivo generalization. As described earlier, in vivo generalization has been assessed through the use of assertive-provoking situations in which the subject has been unaware that such behavior was being assessed. McFall and Marston
(1970) presented the prototype of such assessment procedures when they had a confederate, who posed as a "high pressure" salesman, call each subject after training and attempted to sell them magazine subscriptions. Judges rated audiotapes of these conversations as to the level of the subject's activity during the call, latency to the first sign of resistance, the subject's "social poise," total time of the conversation, and an overall resistance score. On only one measure, latency to first sign of resistance, were the experimental groups found to significantly differ from the control groups.

McFall and Twentyman (1973) had their confederate call subjects, posing as a student in one of their classes, and ask to borrow their class notes prior to a final examination. Using this assessment, the authors did find that experimental subjects refused this request more quickly and more frequently than the control subjects. In contrast, McFall and Lillesand (1971) found no differences between their experimental and control groups when the telephone request was to volunteer to stuff envelopes for 3 hours.

Hersen et al. (1974) attempted to assess in vivo generalization by "short-changing" their subjects after the completion of training. Subjects had been promised three dollars in canteen coupons for their participation in the study, but were actually given only two dollars to prompt assertive behavior. They discovered no differences between the experimental and control groups.
Winship and Kelley (1976), at the end of treatment, had a confederate ask their subjects to engage in a very time-consuming, second experiment. In this case, the assertive training subjects showed much quicker (shorter latency) refusal of this request than did the control subjects. Carmody (1978) followed a similar procedure by having his confederate make escalated demands of the subjects to help with biofeedback equipment. This test showed no significant differences between the behavior skills training group and a waiting-list control.

Shepherd (1978) reported the results of a study in which he assessed the transfer of behavior of psychiatric patients in an assertive training group to the ward situation. He found that patients in this group who had had modeling, rehearsal, and feedback on individually tailored scenes, as well as homework assignments, cognitive restructuring, and training in local shops and restaurants, received significantly higher ratings from staff members on a "social behavior rating scale" as compared with a no treatment control group.

This research has shown generally weak support for the notion of in vivo generalizability of training. The use of telephone calls by confederates has demonstrated quite variable results, and these results have appeared to be more contingent upon the content of the request than on any therapeutic gains. Recently, Heimberg, Montgomery, Madsen, and Heimberg (1977) have criticized this type of measure of in vivo
generalization as being both deceptive and insensitive, and support its abandonment in future studies. However, the use of the methodology of Winship and Kelley (1976) and Carmody (1978) has seemed to offer just as limited utility, as well as having left unaddressed the issue of the use of deception in psychological research. What remains, ratings by others of the individual's behavior in everyday contexts, has been the most face valid way of assessing in vivo generalization (e.g., Shepherd, 1978). But the severe logistical requirements this places on any investigator not working with a fairly stable inpatient population would cause this type of assessment to be the exception, rather than the rule. While inter-class generalization research has presented the challenge of discovering ways to program generalization effects, in vivo research would appear to require intensive investigation to first develop a technology to assess such effects.

**Durability of treatment gains.** Durability, or maintenance, of gains as a result of assertive training has been another area to which the literature has devoted little attention. Carmody (1978) conducted a 3-month follow-up on his subjects and found no differences between his three experimental groups. Due to the cross-over design he employed, these groups could not be compared with an untreated group. However, on both self-report and behavioral measures, the scores at follow-up were significantly better than the pretest scores within each group. Field and Test (1975)
reported results of a 10-month follow-up on four of five psychiatric outpatients who had received 12 sessions of behavior skills training. On the same scenes as those used at the completion of training, all four subjects were reported to have given "100% assertive responses."

Galassi et al. (1975) did a 1-year follow-up on subjects who had previously received assertive training which utilized behavior rehearsal and video feedback (Galassi et al., 1974). Nine of 16 control subjects, and 11 of 16 experimental subjects, were located and retested with the same role-playing scenes as used at termination and a self-report measure of assertiveness. Experimental subjects were found to have been significantly more assertive than the control subjects based on their scores on the self-report measure, subjective anxiety ratings in the role-playing test, the use of assertive content, and shorter response duration. No differences were detected between the groups on the amount of eye contact or response latency.

Although maintenance of treatment gains has been a particularly salient concern in the evaluation of clinical outcome research (Mahoney, 1978), the few studies in the assertive training literature which have addressed this issue have defined the norm for clinical research, rather than deviated from it. The Galassi et al. study (1975) has been the most rigorous investigation to date, and showed that between-group differences could be detected 1 year after
termination. Carmody's data provided within-group comparisons of pretest to follow-up changes, but left unanswered whether between-group differences were still detectable, and also whether significant gains had been made from posttest to follow-up assessment phases. This latter data in particular would have provided some information as to whether subjects continue to improve once given the requisite training in how to act assertively. While the data for maintenance of assertive training effects have been sparse, what work has been done appears promising. As more research on assertive training procedures accrues, it is expected that more investigators will become sensitive to this issue.

To summarize briefly, research into the effects of various behavioral skills training techniques on aspects of generalization has been quite focused. Most research has been directed towards intra-class generalization of treatment gains, specifically within the response class of "refusing requests." These studies have shown that pure modeling or behavior rehearsal techniques do not result in substantial transfer effects, but that when either coaching or rehearsal components are added, transfer of training has been significant. Inter-class generalization studies have consistently produced poor results. This area in particular has appeared to be prone to an unsuccessful "Train and Hope" method of generalization training, and requires more attention to programming such generalization effects as part of the treatment
package. In vivo generalization research has demonstrated weak and inconsistent effects for assertive training. One of the major problems that has faced this area is a technology for unobstrusively, yet validly and reliably, assessing assertive behavior in the natural environment. Finally, the durability of treatment gains is perhaps the most important question in the assertive training literature, yet only three studies have been directed to it. These studies have shown promising results, yet their number is too few from which to draw any valid conclusions.

Cognitive Restructuring in Assertive Training

"Cognitive restructuring" was a term coined by Lazarus (1971) to describe therapeutic procedures in which the cognitions, or thoughts, of the client have been targeted for change. The most often cited example of this method has been rational-emotive therapy as developed by Ellis (1962), and often these two terms have been used interchangeably (e.g., Heppner, 1978). Others have included the methods of self-instructional training (Meichenbaum, 1977) and cognitive therapy (Beck, 1976) when they have discussed cognitive restructuring techniques (e.g., Mahoney & Arnkoff, 1978). While these three methods of cognitive restructuring have shared the assumption that maladaptive feelings and behaviors are often caused by maladaptive thoughts (or negative self-statements), rational-emotive therapy has been distinguished from the other two techniques on the basis of (a) its
insistence that specific core irrational ideas are at the root of most emotional disturbance, (b) the focus on changing affective states to the relative exclusion of changing behaviors, (c) the use of "rationality" as the criterion for successful adaptation, and (d) its didactic approach to altering maladaptive thought patterns (Mahoney & Arnkoff, 1978). For the purposes of the present study, only the rational-emotive position has been reviewed in detail.

Central to rational-emotive therapy has been the "A-B-C Theory of Behavior." Ellis (1962, 1974, 1977) has argued that in almost all circumstances in which one has experienced an undesirable, or inappropriate, emotion and/or reacted behaviorally in a maladaptive fashion, it has been the idea (or belief) one has had about the antecedent events that has produced these consequences, not the antecedent events themselves. That is, thoughts almost always mediate one's responses to the environment. This assumption has led to a therapeutic strategy in which the client's irrational beliefs (i.e., those that have led to undesirable consequences in the past) have been the focus of change. The approach promulgated by Ellis (1962, 1977) has consisted of the therapist providing direct instruction to the client of the A-B-C premise of his/her problem, a logical examination of the client's beliefs or thought patterns, therapist modeling of a rationalistic approach to evaluate and modify personal thought patterns, and rehearsal tasks in which to improve
the client's performance-relevant cognitions (Mahoney & Arnkoff, 1978).

While there has been substantial evidence garnered for the effects of cognitions, or self-statements, on affective states and behavior as predicted by the "A-B-C" theory (e.g., Goldfried & Sabocinski, 1975; Meichenbaum, 1972; Rimm & Litvak, 1969; Russell & Brandsma, 1974; Schacter & Singer, 1962; Schill, Monroe, Evans, & Ramanaiah, 1978; Velten, 1968), much of the research which has documented the effectiveness of rational-emotive therapy in altering belief systems (e.g., Di Loreto, 1971; D'Zurilla, Wilson, & Nelson, 1973; Goldfried, Decenteceo, & Weinberg, 1974; Holroyd, 1976; Karst & Trexler, 1970; Moleski & Tosi, 1976; Trexler & Karst, 1972; Watts, Powell, & Austin, 1973) has been criticized for the lack of rigorous empirical methodology (e.g., Heppner, 1978; Mahoney, 1974; Mahoney & Arnkoff, 1978). However, other reviewers have staunchly defended the conclusions of these studies (e.g. Sutton-Simon, Di Guiseppe, & Miller, 1978). The interpretation of these results not withstanding, rational-emotive therapy has gained increasing popularity in recent years, with large numbers of clinical psychologists having adopted its assumptions regarding human behavior and its modification (Mahoney, 1977).

The cognitive approach to assertive behavior has not paralleled the behavior skills training method in either the breadth or depth of research due to its relatively recent
begins. The remaining portion of this section will review the several studies which have either investigated the role of cognitions in the production of assertive behaviors, or the use of cognitive restructuring methods to enhance assertive behavior.

Cognitions and assertive behavior. Schwartz and Gottman (1976) conducted the first study designed to evaluate the role cognitions play in assertive and unassertive individuals. In their sample of college students, they discovered that high and low assertive people did not differ in their knowledge of what constituted as assertive response. However, in role-playing situations low assertive subjects were found to engage in more frequent negative (or irrational) thoughts, and this appeared to result in their behaving less assertively. In contrast, highly assertive subjects were discovered to engage in substantially more positive thoughts which served to facilitate their performance on the role-playing tasks.

In a similar study, Eisler, Fredericksen, and Peterson (1978) reported that in a psychiatric inpatient sample high assertive subjects expected more positive consequences for their acting assertively, while low assertive subjects perceived passive action as more likely to be met with favorable outcomes. Fiedler and Beach (1978) provided support for the data of Eisler et al. (1978) with college and professional school students. These investigators found that they could accurately predict whether or not subjects would behave
assertively in a specific situation based on the amount of risk the subjects perceived to be a consequence of assertive behavior. The more risks, or unfavorable consequences, that were believed to result from acting assertively, the less likely the subjects were to act in an assertive manner.

The results of these studies have provided evidence that the nature of a person's cognitions can have a dramatic influence on their assertive behavior. Schwartz and Gottman's data have pointed to the role that concomitant positive or negative self-statements have played in either facilitating or inhibiting assertive behavior. Both Eisler et al. and Fiedler and Beach have noted the importance of a priori expectancies about the consequences of one's behavior in influencing the "decision to be assertive." This evidence has led to some authors' call for assertive training methods which rely less on skills training, and instead are oriented towards changing subjects' expectancies (e.g., Eisler et al., 1978; Fiedler & Beach, 1978). Still others have interpreted this data as suggestive of the reasons why behavior skills training methods have produced limited generalization effects; that is, small transfer of training effects may be due to the lack of attention to cognitive variables. These authors have hypothesized that cognitive methods of assertive training may result in enhanced generalization effects (e.g., Eisler et al., 1978; Schwartz & Gottman, 1976). This latter conclusion regarding the possible role of cognitive methods
in enhancing generalization of assertive training has received indirect support from research with other clinical problems such as snake phobias (Meichenbaum, 1972), impulsivity (Meichenbaum & Goodman, 1971), public speaking anxiety (Fremouw & Harmatz, 1975), and poor dating skills (Glass, Gottman, & Schmurak, 1976). This evidence has led several investigators to focus directly on cognitive methods of generalization training specifically for low assertive individuals.

Cognitive restructuring methods and generalization training. Nietzel, Martorano, and Melnick (1977) followed-up on an earlier study conducted by Kazdin (1974). In his study, Kazdin used a covert modeling procedure in which subjects were to imagine a model engaging in assertive behavior which was met with favorable consequences. Another group of subjects only imagined a model engaging in assertive behavior. Both groups showed significant intra-class generalization effects, but no evidence was found for generalization of behavior outside the treatment setting. Nietzel et al. postulated that poor in vivo generalization occurred because Kazdin's subjects had not received training in how to respond to noncompliance (e.g., the treatment gains were easily extinguished). These investigators had their subjects imagine that the model acted assertively, but rather than having been met with favorable consequences, one group was instructed to imagine that the other person persisted in making their request. The
subjects then had to imagine that the model responded assertively to this second request, and that this time their behavior was successful. The group that was taught to "reply to noncompliance" was found to do better than a simple covert modeling group on both trained and untrained refusal scenes. On measures of both inter-class generalization (i.e., "positive assertion") and in vivo generalization, no differences were detected between the two modeling groups and placebo and no treatment groups. The authors concluded that the generalization-enhancing properties of the covert modeling with reply training procedure were only partially confirmed.

Wolfe and Fodor (1977) compared a skills training group with a combined rational-emotive therapy plus skills training group and two control groups. Their hypothesis was that the addition of rational-emotive therapy to a skills training method would result in more generalization of treatment gains than a skills training method alone. On measures of intra-class generalization, five role-playing scenes not specifically trained in either group, both the skills training and combined treatment groups showed significant, but comparable, generalization. Thus, the hypothesis that a cognitive restructuring method would enhance generalization effects above and beyond that achieved by skills training was not confirmed. In addition, the inclusion of skills training in the rational-emotive treatment prevented the authors from drawing any conclusions with regard to the efficacy of a
strict cognitive procedure to increase generalization effects.

Carmody (1978) attempted to control for the confounded effect of the addition of skills training to a cognitive treatment in the Wolfe and Fodor study. He compared skills training with two cognitive restructuring methods, rational-emotive therapy and self-instructional training, on their ability to facilitate generalization. Measures of intraclass generalization showed significant transfer effects for all three groups, but no differences between them were detected. On an in vivo measure, the rational-emotive therapy group did significantly differ from the self-instructional and waiting-list control groups, but not from the behavioral group. However, as Carmody noted, the significance of this finding was reduced by the narrow focus of the measure employed. On follow-up measures 3 months later, all three experimental groups significantly differed from their respective pretest scores on all dependent measures, but not from each other. No support was found for the contention that cognitive restructuring methods would be superior to behavior skills training methods in facilitating generalization.

As reported in the preceding section, Shepherd (1978) found that a comprehensive treatment regimen which included both skills training and cognitive restructuring methods, among others, resulted in significant transfer of training
to a hospital ward environment. However, it was not possible to attribute to any one training component generalization-enhancing properties.

The results of the studies which have utilized relatively "pure" cognitive restructuring methods have demonstrated significant intra-class generalization effects for refusal of requests (i.e., Carmody, 1978; Nietzel et al., 1977), but there has been essentially weak support for the cognitive methods' ability to enhance intra-class, in vivo, and durability aspects of generalization. These results tend to parallel those reported for behavior skills training methods. More importantly, where such comparisons have been made, cognitive methods have not resulted in significantly more transfer of training than skills training (i.e., Carmody, 1978; Wolfe & Fodor, 1977).

Because of the inability of either behavioral or cognitive methods to result in satisfactory response transfer, many investigators and reviewers in this area have advocated more active programming of generalization within assertive training procedures. These authors have suggested the use of such diverse methods as homework assignments, cognitive restructuring plus skills training, self-monitoring procedures, longer training periods, and more individually tailored interventions (e.g., Hersen et al., 1973; Kelly et al., 1978; Rich & Schroeder, 1977; Rimm & Masters, 1979). However, what these multi-method treatment packages may result in is
excellent transfer of training, but little information as to how the generalization process was instigated (i.e., there could be no attribution of causation to any one treatment element).

Before adopting such an approach to generalization training, one reviewer in particular has advocated utilizing a specific technique to facilitate generalization that has demonstrated its effectiveness in phobic populations—participant modeling with self-directed practice (Rimm & Masters, 1979). In the next section this line of research will be reviewed, and from both the results of this research and the conceptual model in which such results have been interpreted, several hypotheses will be made with regard to the use of such a technique in assertive training.

**Generalization in Fear-Reduction Research**

Concomitant with the growth of interest in the issue of programming generalization in the assertive training literature, fear-reduction research has explored several techniques that have appeared to result in successful generalization of training. These experiments have focused on the treatment method of participant modeling and the generalization technique of self-directed practice (e.g., Bandura, Jeffery, & Gajdos, 1975; Bandura, Jeffery, & Wright, 1974; Smith & Coleman, 1977).

Participant modeling programs have consisted of clients and therapists working together on a graded hierarchy of
tasks that eventually leads to the client's mastery of the targeted activities. At each step in this process the therapist first models the relevant behavior while the client observes, then assists the client during performance until the client gains the skills and a sense of self-assurance to do the task alone. As each situation is mastered by the client, more difficult tasks are introduced and the same strategy applied. This process is continued until all tasks are successfully completed. At this point, self-directed practice is introduced wherein the client is given as little as 1 extra hour of practice on the targeted tasks without the therapist's presence (Rosenthal & Bandura, 1978).

The participant modeling procedure thus consists of two components of the behavior skills training approach: modeling and behavior rehearsal. In several comparative studies, the participant modeling procedure has demonstrated superior results to modeling alone in inducing behavior change (Bandura, Blanchard, & Ritter, 1969; Blanchard, 1970; Lewis, 1974; Ritter, 1969). Research that has investigated the generalizability of treatment gains has shown that participant modeling with self-directed practice has resulted in better generalization than either participant modeling alone (Bandura et al., 1975) or modeling (Bandura, Adams, & Beyer, 1977). This has appeared to be the result of clients in this procedure having enhanced feelings of personal competence through additional successful exposure to the feared stimulus.
Bandura (1977a, 1977b) has formulated an hypothesis based on this line of research that generalization effects are most likely to result from the impact such self-directed practice has on one's expectations of personal efficacy. This hypothesis will be reviewed in detail in the next section.

A conceptual framework for generalization training.

Bandura (1977a, 1977b) has posited that generalization of training is mediated through a central mechanism of self-efficacy. Self-efficacy has been defined as "the conviction that one can successfully execute the behavior required to produce the outcomes" (Bandura, 1977a, p. 1973). A major theoretical distinction he has drawn, and one that has been frequently misinterpreted (Bandura, 1978), has been between response-execution (or self-efficacy) expectancies and response-outcome expectancies. Self-efficacy expectancies have been conceptualized as the belief one has that requisite behaviors can be produced. Outcome expectancies, however, have been concerned with the belief one has that an executed behavior will lead to an expected outcome. The work of Eisler et al. (1978) and Fiedler and Beach (1978) has been directed towards these latter expectancies, and has shown that knowledge of such expectancies can be used to successfully predict subsequent performance. Bandura and his associates, on the other hand, have demonstrated that by using self-efficacy expectancies one could predict whether a
coping behavior was likely to be exhibited in specific situations (Bandura & Adams, 1977; Bandura et al., 1977). At this time, no work has been conducted as to the comparability of predictions of these two types of expectancies for the same behavior, as in many everyday activities, expected outcomes cannot be divorced from efficacy expectancies (Bandura, 1979).

Returning to the self-efficacy theory, four major sources of information believed to enhance efficacy expectancies have been isolated. In descending order of salience these have included (a) performance accomplishments (e.g., participant modeling, performance desensitization, performance exposure, self-instructed performance), (b) vicarious experience (e.g., live and symbolic modeling), (c) verbal persuasion (e.g., suggestion, exhortation, self-instruction, interpretive treatments), and (d) emotional arousal (e.g., attribution, relaxation, biofeedback, symbolic desensitization, symbolic exposure). These induction modes are suggested to effect changes in self-efficacy expectations in three ways. The first is that potent sources of efficacy information increase the strength of such expectancies; that is, even when individuals are faced with disconfirming evidence of their ability to cope with a situation, a strong sense of self-efficacy would increase their persistence to overcome the task. Second, potent sources of efficacy enhancement affect the magnitude of self-efficacy expectancies. This results in individuals' belief that they can initiate coping
behavior with successively more challenging tasks. Finally, salient information sources increase the generality of people's sense of self-efficacy. Such individuals report a sense of confidence that they can cope with situations they have not been specifically taught to handle in the treatment situation (Bandura, 1977a, 1977b). As an example, it was found for snake phobic clients who received participant modeling with self-directed practice that their sense of self-efficacy not only generalized to novel snakes used in the posttreatment assessment, but also to other specific animal fears and stressful social situations (Bandura et al., 1977).

In his review of literature in this area, Bandura (1977a) came to the following conclusions:

Results of recent studies support the thesis that generalized, lasting changes in self-efficacy and behavior can best be achieved by participant methods using powerful induction procedures initially to develop capabilities, then removing external aids to verify personal efficacy, then finally using self-directed mastery to strengthen and generalize expectations of personal efficacy (Bandura et al., 1975). Independent performance enhances efficacy expectations in several ways: (a) It creates additional exposure to former threats, which provides participants with further evidence that they are
no longer aversively aroused by what they previously feared. Reduced emotional arousal confirms increased coping capabilities. (b) Self-directed mastery provides opportunities to perfect coping skills, which lessen personal vulnerability to stress. (c) Independent performance, if well executed, produces success experiences, which further reinforce expectations of self-competency. (p. 202)

**Self-efficacy and assertion training.** The concept of self-efficacy, and the attendant procedures to induce and enhance expectations of personal mastery, have provided a framework in which response transfer operations could be carried out through attention to this mediational mechanism. It has been observed that the failure of assertive training procedures to result in substantial generalization may be based on their lack of provided experiences for subjects to gain a well-developed sense of self-efficacy. Most therapists have typically modeled assertive responses and not encouraged subjects to generate their own responses, or engage in self-directed mastery training. This highly structured format used in most studies may have actually hindered the process of generalization (Rimm & Masters, 1979). These authors have suggested that an assertion training strategy which initially provided subjects with considerable structure (e.g., the therapist modeling assertive responses), but later on gradually faded out this method so that subjects were then
provided the opportunity to spontaneously give assertive behaviors in response to specific scenes, would provide a more potent source of information about their ability to cope with such situations. This should then result in increased inter-class and in vivo generalization, and treatment would be expected to be maintained at follow-up.

**Formulation of Research Problem**

The present study was designed to investigate the empirical merits of the self-efficacy analysis of assertion training provided by Rimm and Masters (1979). Along with this was an attempt to examine the utility of response-execution and response-outcome expectancies in predicting subsequent assertive behavior. Finally, the question of whether cognitive restructuring methods would significantly impact on the generalizability of results obtained using a modeling-with-fading method was also investigated. In the design of the study, the following three research hypotheses were formulated:

1. Subjects which received modeling and behavior rehearsal techniques with fading of the modeling component would show significantly more assertive behavior than subjects who received continuous modeling with behavior rehearsal as measured by self-efficacy ratings, behavior in role-playing situations, and generalization measures (i.e., intra-response class, inter-response class, and follow-up).
2. In predicting the performance of assertive behaviors in role-playing tests across all subjects, it was expected that self-efficacy ratings would account for more behavioral variance than response-outcome expectancies, measures of subjective anxiety while role-playing, and past performance during training.

3. Based on an hypothesis advanced by Eisler et al. (1978) and Fielder and Beach (1978), subjects who received a cognitive restructuring method in conjunction with modeling should demonstrate significantly greater assertion than subjects who received no cognitive intervention on a measure of response-outcome expectancies.

To control for the possible confounding effects of the type of response class subjects were trained on, two responses were used for training purposes: "refusing requests" or "making requests." Subjects were to be trained on one or the other response class, and while differential training effects were to be examined, no hypothesis as to the generalization-enhancing properties of either type of scene was formulated. Finally, a control condition was designed so that groups would not differ on initial levels of subject expectancies and treatment credibility. This group served as a referent for between-group comparisons where nonspecific treatment effects may have influenced the results.
Method

Subjects

Female undergraduate students were recruited from Roanoke College and Hollins College for the study. They were initially screened with the Assertion Inventory (Gambrill & Richey, 1976), a 40-item, 5-point scale on which respondents rated the degree of elicited anxiety and probability of response in various interpersonal situations (e.g., "Turn down a request to borrow your car," "Request a meeting or date with a person"). Forty-five subjects were selected on the basis that their score on the response probability scale exceeded one standard deviation below the score considered to be "unassertive" in the normative sample. These subjects were then given an informed consent form (Appendix A) which they completed before the pretreatment assessment.

Procedure

Pretreatment measures. Each subject was first given the Irrational Beliefs Test (Jones, 1969). This was a 100-item, 5-point instrument which has been used to quantify the presence or absence of irrational beliefs in individuals (e.g., "I hate to fail at anything," "I have considerable concern with what people are feeling about me"). A transcript of the Behavioral Role-Playing Test (Appendix B) was then given to the subject to read. This test consisted of descriptions of four situations in which "refusing a request" was appropriate, and four situations in which "making a request" was appropriate.
The subjects were asked to indicate for each scene (a) whether they could refuse or make the request as described in the scene; (b) how confident they were on a 0-100, 10-point interval scale that they could do the behavior (e.g., make the request or refuse it); and (c) their subjective probability on a 0-100, 10-point interval scale of whether the other person in the scene would have acquiesced to their behavior. These questions were designed to assess both the subject's efficacy and outcome expectations for each specific scene. These expectations were recorded privately by the subjects, and remained so during the Behavioral Role-Playing Test, to avoid any motivational incentives to have improved their performances that may have arisen if such expectations had been communicated directly to the therapist (c.f. Bandura et al., 1977). As Bandura (1978) has noted, efficacy and outcome expectancies could only be clearly differentiated when a fixed, minimal performance standard existed. Since such minimal standards were difficult to set in an interpersonal, transactional process (as opposed to simply holding a snake), both types of expectancies were assessed to later determine the relationship of these variables to actual performance.

After these ratings had been completed, the subjects were read the same transcripts, verbal prompts given by the therapist, and the participants asked to respond to each scene as they would have had they actually been confronted with them in real life. Following their behavioral response
to each scene, the subjects were then instructed to indicate on 0-100, 10-point interval scales (a) how anxious they were when they had responded to the scene, and (b) how satisfied they had been with their performance. Responses to these scenes were audiotaped with the subjects' permission. At the conclusion of the study, these tapes were randomly presented to one of two judges who were blind as to the nature of the study and the experimental condition the subject had received.

Subsequent to this assessment, subjects were randomly assigned to either one of eight experimental groups or an expectancy/credibility control group.

Treatment. Five subjects initially met as a group with the therapist. They were first given a written rationale of the treatment they were to receive (Appendices C-E), and were asked on the basis of their reading of the rationale to rate on three 0-100, 10-point interval scales (a) how logical the treatment appeared to be, (b) how effective they thought the treatment would be, and (c) how much they expected the treatment to help them. The first two questions were designed to assess for perceived treatment credibility (adapted from Borkovec, Kaloupek, & Slama, 1975), while the third question was for the assessment of subjects' expectancies of therapeutic gain (Jacobson & Baucom, 1977).

Response-class training. In each of the experimental conditions outlined in the following sections, one-half of the subjects received training on scenes which required
refusal behaviors while the other half of the subjects received training for request behaviors. The therapist utilized a therapist manual (see Appendix F) and conducted one group of five subjects for each response class within each experimental condition. In each response class, two of the scenes used for training purposes appeared on the Behavioral Role-Playing Test; six novel scenes that elicited the same response class were also used during the training sessions (these scenes were included in the therapist manual, Appendix F). This allowed for the assessment of both intra-class and inter-class generalization at the posttreatment assessment (see Appendix G). Subjects had not received direct practice on two of the assessment scenes within the response class targeted for change, and had no exposure to the assessment or novel scenes which elicited the other class of behaviors.

In the first 1½-hour session of all experimental conditions, the therapist initially read one of the training scenes and then modeled an assertive response. The verbal content of these modeled responses was included in the therapist manual. These responses had been previously ranked by 10 doctoral-level clinical psychology students familiar with assertive training procedures as having been the best assertive responses of three alternative responses generated by the experimenter for each scene (averaged range of rankings = 2.2 - 2.9; \( X = 2.5 \)). Each subject then rehearsed the same scene until either they reached the criterion of an assertive
response for that scene (which was outlined in the therapist manual) or completed seven trials. This latter criterion was based on pilot work which had determined that five unassertive female subjects could reach the stated criterion on two randomly selected scenes from each response class within this amount of trials (range 1-6; \( X = 3.2 \)). This procedure was followed for four training scenes during the first session.

Treatment procedures that were implemented during the second session of training constituted the other independent manipulations of the study. These are outlined in the next section.

**Modeling with fading plus discussion.** In the second 1½-hour session, each subject met individually with the therapist. This contact followed within 2 weeks of the first meeting. It consisted of a 45-minute discussion of the historical antecedents to the subject's having become an "unassertive" person, followed by 45 minutes of behavioral rehearsal on four novel scenes in which the therapist provided no modeling of assertive behaviors. The same criteria for successful performance that were used in the first session were also applied in this session.

**Modeling with fading plus rational-emotive therapy.** The treatment in these groups followed that of the other modeling with fading condition except for the content of the first 45 minutes. During this time, three irrational beliefs which Lange and Jakubowski (1976) posited as being "at the core" of unassertive behavior were presented, and six specific
challenges for each of these beliefs was reviewed (an extended discussion of these beliefs and challenges is presented in the therapist manual).

**Continuous modeling plus discussion.** Subjects in this condition also received a second, 1.5-hour individual session with the therapist. The first 45 minutes of this second session consisted of a discussion of antecedents to unassertive behavior. However, in the second 45 minutes of the training, the therapist first modeled an assertive response for each of the same four novel scenes as used in the other modeling groups, and the subject then rehearsed her responses until the criteria for discontinuation were met. The verbal content of the modeled responses was determined in the same manner as for those modeled verbal responses used in the first session (range of averaged rankings = 2.3-2.8; \( \bar{X} = 2.5 \)).

**Continuous modeling plus rational-emotive therapy.** The method in this group paralleled that of the other continuous modeling group. However, rather than a discussion of historical antecedents to unassertive behavior, the therapist presented the rational-emotive therapy component as outlined earlier.

**Expectancy/credibility control group.** This group was designed to control for the possible effects of personal expectations of therapeutic change and the perceived credibility of the treatment the subjects had received. A demonstrated nonactive, but highly credible, treatment was given
to these subjects (c.f. Wolfe & Fodor, 1976). The therapist conducted a group of five subjects for two 1½-hour group meetings. In these groups, the subjects were provided the opportunity to discuss common experiences about situations in which they had perceived themselves to act nonassertively. They were encouraged to examine the historical antecedents of their unassertive behavior, especially with regard to the role of parental and sex-role influences. There was no modeling or behavior rehearsal of assertive responses in these groups, and no exposure to any of the training scenes used in the other groups.

**Treatment measures.** During both the group and individual sessions in the eight experimental groups, the therapist recorded the number of trials it took each subject to reach the criteria of successful execution of an assertive response to each scene.

**Posttreatment measures.** Within 1 week following the completion of training, every subject was asked to complete the same tests as given in the pretreatment assessment. This included the Assertion Inventory, the Irrational Beliefs Test, efficacy and outcome expectancies ratings, the Behavioral Role-Playing Test, and anxiety and self-evaluation ratings.

**Follow-up measures.** One month after the posttreatment assessment, all subjects were contacted and requested to return for a final assessment. This consisted of efficacy
and outcome expectancies ratings, the Behavioral Role-Playing Test, and anxiety and self-evaluation ratings. They were then debriefed as to the nature of the study, and subjects in the expectancy/credibility control groups were offered training as in the modeling with fading plus rational-emotive therapy condition.

**Results**

**Treatment Expectancy and Credibility Ratings**

One-way analyses of variance were computed for each of the three pretreatment questions assessing participants' initial expectancies for change and perceived credibility of the treatment rationale. Global estimates of the treatments' ability to produce positive changes in assertion were uniformly rated as moderate ($\bar{X} = 62, F(8, 36) = 1.35, p > .05$). Estimates of the treatments' ability to enhance one's personal level of assertion were likewise rated as moderate ($\bar{X} = 63, F(8, 36) = 1.94, p > .05$). The credibility of the treatment rationale was highly rated across all conditions ($\bar{X} = 81$).

No significant differences existed among groups on this variable ($F(8, 36) = 0.49, p > .05$).

**Interrater Reliability**

Two judges not familiar with the nature of the study, and blind to the group assignment of participants and assessment condition, were presented either the pretreatment or posttreatment audio recordings of participants' role-playing task performance. Each judge was given three sets of
instructions. The first set of instructions was to rate the verbal content of the participants' responses according to two dichotomous criteria: (a) the participant either clearly refused a request or made an appropriate request (judges were given model assertive responses for each situation as criterion performance); and (b) the participant clearly indicated compliance with the unreasonable request, or made no attempt to make the request. The verbal content score for each participant in each situation could be 1-0 (indicating assertive verbal behavior), 0-1 (indicative of nonassertive verbal behavior), or 0-0 (representing neither a strong assertive behavior or nonassertive behavior; e.g., in a situation requiring the participant to ask a friend for money they had loaned them, a 0-0 response was "Do you remember that money I loaned you last week?").

The second set of instructions was concerned with ratings of paralinguistic behaviors (i.e., speech dysfluencies, hesitations during speaking longer than 3 seconds, overly loud or soft vocal quality). For each occurrence of any of the targeted paralinguistic behaviors, one point was to be deducted from a maximum score of 5 within each scene. Ratings could thus range from a maximum of 5 (highly assertive) to 0 (5 or more unassertive paralinguistic behaviors). The third task for the judges was to time the interval from the end of the verbal prompt to the participants' initial response. Response latency values could range from 0 to 10, in 1-second intervals,
as longer latencies were uncommon and when they did occur were often based on the participant's misunderstanding of the scene. Therefore, latencies greater than 10 seconds were coded as "10 seconds."

Interrater reliability was calculated by having both judges rate follow-up role-play assessments independent of each other and unaware of the reliability check procedure. Reliabilities for response latency and paralinguistic behaviors across all situations were .94 and .88 respectively. Interrater reliability for verbal content was equally high: for assertive content, \( r = .86 \); and for nonassertive content, \( r = .94 \).

**Treatment Effects**

The analysis of treatment effects on the self-report and behavioral measures of assertion was through a one-way analysis of covariance of the posttreatment values, with the respective pretreatment scores serving as covariates. This procedure controlled for between-groups differences on any of these measures prior to treatment. Prior to this analysis, self-report ratings of efficacy, outcome expectancy, anxiety, and satisfaction were averaged across the two request and refusal situations in both the practice and transfer conditions to enhance the stability of the measurements. Judges' ratings of verbal content, paralinguistic behaviors, and response latency were aggregated in a similar manner. The number of practice trials in the second session was also
included in the analysis of covariance, with the number of practice trials in the first session serving as the covariate to determine whether fading of therapist modeling increased practice trials among the treatment groups.

Of the 39 separate analyses, only two variables were found to significantly differ among groups. The number of practice trials in the second session was greater in Groups 4 and 6 —those which included therapist fading on the targeted response class of refusal of requests, \( F(8) = 8.68, p < .001 \). The second obtained difference was that the two discussion groups with targeted refusal behaviors were significantly lower on the Assertion Inventory response probability scale (indicating more self-perceived assertion), while the two Rational-Emotive Therapy groups with request training scored significantly higher than the other groups, \( F(8) = 3.04, p < .02 \).

Given the large number of dependent variables on which analyses of covariance were performed, the finding of only one significant between-groups difference on outcome measures may be more likely due to chance than any actual differential effects of the treatments on this variable. Because of the meager evidence for treatment effectiveness based on individual analyses of dependent measures, several exploratory post hoc analyses of the data were performed to uncover differences when groups were collapsed across levels of an independent variable. The statistical method employed for
these analyses was multiple discriminant analysis. This procedure is particularly appropriate for the simultaneous evaluation of differential effects for several treatments on multiple outcome criteria. One specific advantage of such an approach is its ability to detect group differences that may be obfuscated by univariate comparisons. Such univariate comparisons are sometimes confounded by the intercorrelations of outcome measures often encountered when a large number of dependent variables are to be analyzed. Multivariate procedures, including multiple discriminant analysis, provide a more conservative method to test group differences by the use of linearly weighted composites of two or more variables. This controls for the intercorrelations among measures, as well as maximizes group differences on the derived linear functions. In multiple discriminant analysis, the objective is to maximize the separation of groups through the use of one or more such functions. A step-wise selection procedure was utilized in the current analyses to insure that only the most discriminating variables would be selected for inclusion. The minimal residual variance criteria was selected for derivation of the functions. This criterion selects, combines, and weights variables on their basis to maximally separate the two closest groups on the discriminant functions.

The first discriminant analysis was performed on treatment groups collapsed across the trained response class (request or refusal) within the Rational-Emotive Therapy vs.
Discussion and Continuous Modeling vs. Fading conditions and the expectancy-control group. One significant, five-variable discriminant model was derived which accounted for 37% of the variance among the five groups (Wilks' lambda = .444, $\chi^2 = 20$, $p < .05$). The variables contributing to this model, and their standardized canonical coefficients are presented in Table 1.

### Table 1

<table>
<thead>
<tr>
<th>Variable</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outcome expectancy (request-practice)</td>
<td>-.02847</td>
</tr>
<tr>
<td>Outcome expectancy (refusal-practice)</td>
<td>.77355</td>
</tr>
<tr>
<td>Outcome expectancy (refusal-transfer)</td>
<td>-.82706</td>
</tr>
<tr>
<td>Refusal behavior (practice)</td>
<td>.70626</td>
</tr>
<tr>
<td>Refusal behavior (transfer)</td>
<td>.52231</td>
</tr>
</tbody>
</table>

Univariate F tests performed at each step of the analysis are shown in Table 2. Group centroids on the function appear in Table 3. These data depict the continuous modeling groups (regardless of verbal therapy strategy) as exhibiting more
Table 2

Summary of Step-wise Univariate F Tests for the Multiple Discriminant Analysis of Outcome Measures

<table>
<thead>
<tr>
<th>Step</th>
<th>Variable (Group&lt;sup&gt;a&lt;/sup&gt;)</th>
<th>Group&lt;sup&gt;a&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>1</td>
<td>Refusal behavior (practice)</td>
<td>(2)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(3)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(4)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(5)</td>
</tr>
<tr>
<td>2</td>
<td>Outcome expectancy (refusal-practice)</td>
<td>(2)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(3)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(4)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(5)</td>
</tr>
<tr>
<td>3</td>
<td>Outcome expectancy (refusal-transfer)</td>
<td>(2)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(3)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(4)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(5)</td>
</tr>
<tr>
<td>4</td>
<td>Refusal behavior (transfer)</td>
<td>(2)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(3)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(4)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(5)</td>
</tr>
<tr>
<td>5</td>
<td>Outcome expectancy (request-practice)</td>
<td>(2)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(3)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(4)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(5)</td>
</tr>
</tbody>
</table>

<sup>a</sup>1 = Rational-Emotive Therapy plus Continuous Modeling; 2 = Rational-Emotive Therapy plus Fading; 3 = Discussion plus Continuous Modeling; 4 = Discussion plus Fading; 5 = Control.

* p < .05.

** p < .01.
assertive-refusal behavior in both trained and untrained role-playing scenes, higher expectations of success in trained refusal situations, and less generalization of outcome expectancies than fading or control conditions.

Table 3
Group Centroids on the Function Derived from the Multiple Discriminant Analysis of Outcome Measures

<table>
<thead>
<tr>
<th>Group</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rational-Emotive therapy plus continuous modeling</td>
<td>-.05067</td>
</tr>
<tr>
<td>Rational-Emotive therapy plus fading</td>
<td>-.64461</td>
</tr>
<tr>
<td>Discussion plus continuous modeling</td>
<td>.98339</td>
</tr>
<tr>
<td>Discussion plus fading</td>
<td>.34986</td>
</tr>
<tr>
<td>Control</td>
<td>-1.27591</td>
</tr>
</tbody>
</table>

The control and fading groups were significantly different on outcome expectancies in trained refusal situations, with the fading groups showing higher levels of anticipated success in these situations. Fading groups generally showed more generalization of outcome expectancies and behavior in refusal situations. With regard to the overall model, the modeling with discussion group differed most radically from the control and Rational-Emotive therapy plus modeling groups. The classification index, or percent of correctly grouped cases
based on the discriminant function, was 51.11% after correction for unequal group frequencies through the setting of prior probabilities for random group assignment.

The second discriminant analysis was performed on a further aggregation of the data into just three groups: Rational-Emotive Therapy, Discussion, and Control. Again, one significant function was derived from the outcome data and consisted of seven variables (Wilks' lambda = .4651, $\chi^2 = 29.85$, $df = 14$, $p < .01$). This discriminant model accounted for 43% of the variance among the three groups. Standardized canonical coefficients are presented in Table 4.

### Table 4

Variables and Standardized Canonical Coefficients Included in the Second Multiple Discriminant Analysis of Outcome Measures

<table>
<thead>
<tr>
<th>Variable</th>
<th>Function 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outcome expectancy (refusal-practice)</td>
<td>.64438</td>
</tr>
<tr>
<td>Outcome expectancy (refusal-transfer)</td>
<td>-.66620</td>
</tr>
<tr>
<td>Refusal behavior (practice)</td>
<td>.80077</td>
</tr>
<tr>
<td>Refusal behavior (transfer)</td>
<td>.47070</td>
</tr>
</tbody>
</table>
Group centroids for the second multiple discriminant analysis are shown in Table 5.

Table 5

| Group Centroids on the Function Derived from the Second Multiple Discriminant Analysis of Outcome Measures |
|---|---|
| Group | Function |
| Rational-Emotive therapy | -.35815 |
| Discussion | .66748 |
| Control | -1.23732 |

Table 6 presents the step-wise univariate F tests utilized in the second multiple discriminant analysis.

Table 6

<table>
<thead>
<tr>
<th>Step</th>
<th>Variable (Group)</th>
<th>Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Refusal behavior (transfer) (2) (3)</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>Refusal behavior (practice) (2) (3)</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>Outcome expectancy (refusal-practice) (2) (3)</td>
<td>1</td>
</tr>
</tbody>
</table>
Group 2 (Discussion) was found to be significantly different from Group 3 (Control) on all variables in the model, and from Group 1 (Rational-Emotive Therapy) on all but two variables. The Discussion groups' participants could be described at the end of treatment as having high expectations for success in refusal-practice situations, lower outcome expectancies for novel refusal, and a high frequency of refusal behavior in both situations. Groups 1 and 3 demonstrated greater generalization of outcome expectancies in refusal scenes and lower rates of requests in all refusal scenes. Groups 1 and 2 were similar in their ability to refuse unreasonable requests in generalization situations, and their outcome expectancies in trained refusal scenarios. There were, however, no significant differences between Rational-Emotive Therapy and the control group on any of the variables. The corrected classification index for the discriminant function was 64.44%.
A final discriminant analysis was performed on the data of 20 subjects who returned for follow-up assessment 4-6 weeks after termination of treatment. In five of the groups only two subjects were assessed, two groups had three subjects each, and one group had four subjects. No control group subjects were asked to return for follow-up. Data was aggregated into Rational-Emotive Therapy and Discussion groups. The multiple discriminant analysis could not be executed on the data because the F level for each variable did not surpass the a priori F value for selection and entry into the analysis.

After the posttreatment assessment of the control group participants, they were each individually asked whether they desired further intervention, and an explanation given of the relatively inert therapeutic properties of the intervention they had received. In all cases the participants reported satisfaction with their treatment, and indicated that it had helped them become more assertive by "understanding better" why they acted unassertively. They were advised that further training would be available if they later perceived such a need arising.

Regression analyses of efficacy and outcome expectancies. To evaluate the hypothesis of differential predictive validity of efficacy and outcome expectancies for subsequent assertive behavior, separate regression analyses were performed using the averaged assertive and nonassertive verbal content ratings and behavior satisfaction ratings as the
dependent variables for each set of role-play situations (request-training, refusal-training, request-generalization, and refusal-generalization). The regressions were computed for pretreatment scores only so as to avoid possible confounding of the relationships between these variables introduced by treatment. To predict assertive or nonassertive verbal behavior, efficacy expectancies, outcome expectancies, and anxiety ratings were used as independent variables. A stepwise solution was utilized to obtain the optimal predictors from the variables utilized in the analysis, and to keep the number of independent variables as low as possible. Regression analyses of behavior satisfaction also included assertive and nonassertive verbal content as independent variables. Stepwise selection procedures were used for these regression solutions as well. A summary of all regression analyses is presented in Table 7.

Of the 12 regressions performed on these data, six were found to yield significant predictive models. Four of these models were for behavior satisfaction in each of the four sets of situations. In three of these sets of scenes, self-rated satisfaction with one’s response to the prompt was predicted by initial high ratings of self-efficacy. Efficacy ratings accounted for an average of 26% of the variability observed in satisfaction ratings. Of the other independent variables included in these three models, none were found to contribute more than 5% to the variance, and no relationship
Table 7
Summary of Multiple Regression Analyses of Assertive Behavior, Nonassertive Behavior, and Behavior Satisfaction in Pretreatment Behavioral Role-Playing Tasks Averaged Within Each of Four Scene Categories Across Treatment Conditions

<table>
<thead>
<tr>
<th>Scene Category</th>
<th>Dependent Variable</th>
<th>Independent Variable</th>
<th>R square change</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Request-Practice</td>
<td>Request</td>
<td>Efficacy(5) + Outcome(2)</td>
<td>1.12</td>
<td></td>
</tr>
<tr>
<td></td>
<td>No Request</td>
<td>Efficacy(3) + Anxiety(1)</td>
<td>.52</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Satisfaction</td>
<td>Efficacy(32) + Outcome(5) + Request(5)</td>
<td>3.34*</td>
<td></td>
</tr>
<tr>
<td>Refusal-Practice</td>
<td>Refusal</td>
<td>Efficacy(3)</td>
<td>.13</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Compliance</td>
<td>Anxiety(17)</td>
<td>4.13*</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Satisfaction</td>
<td>No Refusal(23)</td>
<td>12.58*</td>
<td></td>
</tr>
<tr>
<td>Request-Transfer</td>
<td>Request</td>
<td>Outcome(2) + Efficacy(2)</td>
<td>.75</td>
<td></td>
</tr>
<tr>
<td></td>
<td>No Request</td>
<td>Outcome(15) + Efficacy(6)</td>
<td>3.32*</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Satisfaction</td>
<td>Efficacy(43) + Anxiety(5)</td>
<td>5.08*</td>
<td></td>
</tr>
<tr>
<td>Refusal-Transfer</td>
<td>Refusal</td>
<td>Efficacy(43) + Anxiety(5)</td>
<td>.63</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Compliance</td>
<td>Efficacy(8)</td>
<td>1.61</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Satisfaction</td>
<td>Efficacy(11) + Refusal(5)</td>
<td>4.91*</td>
<td></td>
</tr>
</tbody>
</table>

*p < .05.
appeared to exist between their inclusion in a particular analysis and the type of situation. In the fourth set of situations, refusal-training, nonassertive verbal behavior was found to significantly account for 23% of the variance in satisfaction. The inability to refuse a request predicted lower ratings of participants' satisfaction with their behavior in these two scenes.

The two other significant regressions were obtained for the prediction of no assertive response to refusal-training and request-generalization situations. Self-rated anxiety was found to account for 17% of the observed inability to refuse an unreasonable request, while outcome and efficacy expectancies accounted for 15% and 6% respectively of not being able to make an appropriately assertive request. With regard to the hypothesized relationship between efficacy and outcome expectancies and behavior, neither self-efficacy ratings nor estimates of favorable outcomes predicted beyond chance the production of assertive behaviors in any of the situations. In all four cases, less than 5% of the behavioral variance was accounted for by either of these variables.

A second set of regression analyses were performed which used the posttreatment assertive verbal behavior in each set of situations as the dependent variable, and pretreatment efficacy ratings in the same situations, treatment expectancy ratings, and treatment credibility ratings as independent variables. These analyses were done to ascertain whether
posttreatment behavior could be predicted by initial confidence in the specific situations and/or treatment expectancy and credibility effects. The summary of these regressions is shown in Table 8. No significant predictive models were generated for assertion in the four situations by initial self-confidence in these situations or perceived benefits of participating in an assertion training group.

Microanalysis of self-efficacy. To enhance the comparison of the present results to results obtained in different populations, several procedures for analyzing the congruence of self-efficacy ratings and overt behavior established by Bandura et al. (1977) were followed for efficacy ratings and subsequent assertive behavior. Congruence of self-efficacy with individual assertive performance, regardless of group membership and across all situations, was found in the pretreatment condition to be 23%, 40% at posttreatment, and 56% at follow-up assessment. Congruence of low self-efficacy (ratings of 10 or less) with subsequent nonassertive behavior was much higher—pretreatment congruence was 80%, and at posttreatment this increased to 88%. Judgements of low self-efficacy were not made in the follow-up condition.

A second type of microanalysis was concerned with the strength of self-efficacy ratings. In the preceding analytic procedure, no regard was given as to whether self-efficacy ratings were low or high, but simply as to whether participants exhibited no certitude or some degree of
Table 8

Summary of Multiple Regression Analyses of Predicted Posttreatment Assertive Behavior in Each of Four Role-Playing Task Categories by Pretreatment Efficacy Ratings, Treatment Credibility, Therapeutic Expectancies, and Rehearsal Trials During Treatment

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Independent Variable (R square change)</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Request-practice</td>
<td>Expectancy(5%) + Credibility(5%)</td>
<td>2.41</td>
</tr>
<tr>
<td>Refusal-practice</td>
<td>Expectancy(10%) + Practice/2nd session(2%)</td>
<td>2.84</td>
</tr>
<tr>
<td>Request-transfer</td>
<td>Efficacy(6%) + Practice/1st session(3%)</td>
<td>1.93</td>
</tr>
<tr>
<td>Refusal-transfer</td>
<td>Expectancy(3%) + Efficacy(4%)</td>
<td>1.35</td>
</tr>
</tbody>
</table>
certainty (10-100) in their ability to produce an assertive behavior. According to self-efficacy theory (Bandura, 1977a, 1977b), the level of performance should be higher with strong self-efficacy as opposed to weak expectancies of performance.

To test these predicted differential effects, the magnitude of efficacy expectations were averaged for each set of situations across all groups within each assessment condition. Ratings of assertive verbal content were similarly averaged. Figure 1 graphically presents the probability of successful performance in each of the four sets of situations as a function of strength of self-efficacy. These data showed moderate concordance between the level of efficacy expectancies and subsequent assertive verbal behavior, and that both the levels of these variables and their concordance increased across assessment phases. However, as noted earlier, these increases in expectancies and performance were not statistically significant. One exception to the increased congruence of self-efficacy and assertion across assessments was in request-training scenes. Although the strength of efficacy expectations continued to increase across time, the level of performance remained the same from posttreatment to follow-up assessments.

Discussion

Three major hypotheses are the impetus of the present investigation. Each one will be evaluated separately in light of the obtained data. The results of the microanalysis
Figure 1. Probability of assertive behavior as a function of the strength of efficacy ratings in each of four categories of role-playing tasks for each assessment condition.
of self-efficacy ratings will then be addressed. The remainder of the discussion will focus on methodological limitations of the current study and proposals for future research in this area.

The first research hypothesis is that participants exposed to modeling therapy with fading of therapist activity will have higher ratings of self-efficacy, more assertive behavior, and greater generalization of both components of assertion within and across response classes than participants in continuous modeling groups. Results of the analysis of covariance indicate the only difference between groups on this factor is the greater number of practice trials necessary for criterion performance in the two therapist-fading groups which targeted the response class "refusal-of-requests." No outcome measures are found to differ significantly between groups across levels of this independent variable. An exploratory post hoc analysis of the posttreatment data through multiple discriminant analysis produces some suggestion of group differences which may be attributable to manipulation of the modeling factor. Such effects appear to be that fading groups produce less refusal behavior and lower expectations of success in familiar situations than those groups in which continuous modeling is applied. However, at follow-up no differences between groups were obtained.

The second research hypothesis is that assertive behaviors will be better predicted by knowledge of self-efficacy
ratings than estimates of response-outcome expectancies or anxiety. Multiple regression analyses demonstrate this to hold true only with regard to one's not making an appropriate assertive request, and in this instance the self-efficacy expectancies account for only 15% of the behavioral variance. For complying with an unreasonable request, self-reported anxiety is shown to be a significant predictor. Neither efficacy nor outcome expectations are significantly predictive of assertive behavior. Self-efficacy estimates are, however, shown to be quite predictive of subsequent satisfaction of one's performance in the various role-playing tasks, accounting for an average of 26% of the variability in ratings.

The third hypothesis is concerned with the effects of an adjunctive cognitive restructuring method on self-efficacy ratings and assertiveness, positing that such a method would strengthen self-efficacy expectancies beyond the level achieved by a purely behavioral induction method. The major test of this hypothesis via analysis of covariance shows no significant differences among groups on these or any other dependent measures. Post hoc analyses, however, suggest several possible discriminations subject to further investigation.

A multiple discriminant analysis performed on the Modeling-Fading and Cognitive Restructuring-Discussion factors demonstrates a moderating effect of Rational-Emotive methods
on outcome measures in both continuous modeling and fading groups. Rational-Emotive Therapy groups are found to be less assertive in refusal situations, have lower expectations of success in familiar refusal situations, yet greater generalization of outcome expectations within this response class. These effects are most pronounced in the fading condition with Rational-Emotive Therapy, and similar to those found for the control group. This latter relationship suggests that Rational-Emotive methods may have actually prevented more pronounced deviations of the experimental groups from the control condition. This inference is supported by the results of univariate F tests between groups during the discriminant solution. Group 3 (modeling plus discussion) is significantly different from the control group on all five outcome measures included in the discriminant function. Group 4 (fading plus discussion) differs from the control group on one outcome measure. No significant differences between the control condition and Rational-Emotive Therapy with fading or continuous modeling are noted.

A second discriminant analysis supports these conclusions. When groups are collapsed across factors into Rational-Emotive Therapy, Discussion, and Control groups, no significant between-groups differences are uncovered for Rational-Emotive Therapy and the control condition. In contrast, Discussion and Rational-Emotive Therapy groups are found to differ on assertive-refusal behavior (Discussion
group participants being more assertive in trained situations) and generalized outcome expectancies in refusal situations (Rational-Emotive Therapy members having greater anticipation of success). Discussion and control participants differ on each of the four discriminating variables. Discussion group participants are more assertive in both trained and untrained refusal situations, have higher expectations of success in trained refusal situations, and lower outcome expectancies in refusal generalization scenes.

To summarize the preceding discussion, no evidence is found to support any of the three research hypotheses. Post hoc analyses do suggest that some differential treatment effects may occur, but because of small group size or intercorrelations among outcome measures, these results are not detected in the analysis of covariance. In the exploratory analyses, the fading component of training does not appear to result in superior performance relative to continuous modeling groups. A suggestion derived from the data is that cognitive restructuring methods may serve to detract from the overall impact of either modeling therapy on assertive-refusal behavior, but enhance the generalizability of outcome expectancies in refusal situations. In no analysis are self-efficacy expectations found to discriminate groups, and in subsequent regression analyses they do not predict the exhibition of assertive behavior. However, self-efficacy expectancies are found to predict inhibition of request
behavior and satisfaction with one's response in refusal and request situations.

A separate analysis reported in the Results section is concerned with the microanalysis of self-efficacy and assertive behavior. Congruence of self-efficacy ratings and ratings of assertive verbal behavior are found to be modest, and increase across assessment conditions. Bandura et al. (1977) noted with snake phobic clients that congruence between self-efficacy and performance on a behavioral avoidance test ranged from 79% to 90%, regardless of whether the client received treatment or was in a control condition. Averaged across all groups, in the present study a concordance rate of 23%-56% is achieved. Two possible reasons for the disparate judgements are: (a) participants' ability to more accurately evaluate their performance capability in situations in which there are clear distinctions between appropriate and inappropriate coping responses (e.g., you touch a snake or you do not); and (b) the level of analysis in the assessment of assertion in role-playing situations is not commensurate with that used in the decision-making process of the individual (e.g., what an experimenter defines as appropriate responses may not match with the participants' ideas). These suggestions will be returned to later.

The second microanalytic procedure evaluates the differential predictiveness of the strength of efficacy assessments of subsequent assertiveness. Moderate concordance is
established, but when compared to Bandura et al. (1977),
levels of self-efficacy are skewed to the higher ranges,
while performance success is truncated at the higher ranges.
That is, in rating self-competence in assertive situations,
individuals in the present study rarely rate themselves as
incompetent, or very low in ability. On the other hand,
rarely does the probability of successful performance range
above .70. In spite of these shortcomings, a trend for
increased success to be found with higher levels of self-
efficacy is apparent on inspection of Figure 1. This trend
does not, however, reflect the dramatic results depicted by
Bandura et al. (1977).

These results do indicate some support for the applica-
bility of self-efficacy theory to the assertiveness litera-
ture. However, it should be noted again that in the present
study self-efficacy is not a discriminating variable among
treatment groups, nor is it differentially effected by
active treatment versus a theoretically nonactive interven-
tion. Before self-efficacy is introduced into assertion
training research on a large-scale basis, several questions
appear to require closer scrutiny.

The first is concerned with the two issues raised earli-
er—the participant's discrimination of appropriate and
inappropriate assertive responses, and the comparability of
this judgement with that of the investigator. One particular
aspect of the present data underscores the need to clarify
these points. The finding of self-efficacy and assertive performance congruence of 23-56% suggests that the participants' and investigator's definitions of assertive responding may have initially been quite different, but as a function of treatment (information) became more comparable. In addition, the finding of an 80-88% congruence between nonassertion and self-efficacy indicates that the participants and investigator may have shared very common definitions of nonassertive behavior prior to any intervention. This suggests two possible avenues to pursue to rectify these disparities of views. The first is research directed towards obtaining the man-in-the-street's conception of assertive behavior, and developing assessment and scoring procedures which reflect this orientation (c.f. Lefebvre & Weeks, 1977). The second possibility is that prior to making estimates of self-efficacy in assertive situations, participants may need to be exposed to information as to what constitutes, in the investigator's opinion (or as reflected in his scoring protocol), assertive responses in a variety of situations.

The second major question raised in regard to self-efficacy and assertion is concerned with high estimates of the strength of self-efficacy and low performance success. This effect may be due to the incongruent definitions of assertive behavior as noted above, or perhaps because the length of treatment did not allow enough time for participants to completely master the requisite skills necessary for
them to perform up to their own expectations (this latter point will be returned to again). To obtain an accurate picture of the relationship between efficacy and performance levels, however, the entire range of efficacy predictions needs to be represented. The inability of the current study to do so may be because participants overestimate their ability, or the situations selected for the role-play assessment are not variable enough in their level of difficulty to elicit a broader range of efficacy estimates. No research has focused on assessing perceived difficulty of assertive situations. In contrast, Bandura and his associates have spent considerable effort to standardize and rank-order the items in their behavioral avoidance test for just this purpose, and this no doubt contributes to their elicitation of the entire range of efficacy judgements. Future research in self-efficacy and assertiveness will most likely need to look first at this technological issue before results comparable to those found in the phobia treatment literature will be obtained.

Although few significant findings are obtained from the present investigation, several methodological questions can be raised regarding its adequacy of design and consequential effects on the validity and generalizability of findings. The small group size for each cell may be a primary contributor to the lack of significant group differences. Such small groups appear to be subject to a great deal of
intersubject variability which serves to decrease the power of the analysis of covariance. Larger group membership seems to be necessary in future outcome studies conducted in this area.

The use of only one therapist, the experimenter, would raise obvious questions regarding biases in outcome if significant between-groups differences had arisen. Within the present context, issues about whether treatments had been faithfully executed according to the treatment manual, and the generalizability of finding no significant group differences, can still be raised. In addition, having the experimenter function as both therapist and assessor raises the issue of the introduction of systematic biasing of the results at posttreatment through the enhancement of already powerful demand characteristics. Such biasing of judgments and behavior by the participants in an effort to "prove" to the therapist the efficacy of his treatment would be better controlled if a naive assistant is employed to administer all assessments. Given the present data, such a confounding variable may explain the lack of differences among groups on the dependent measures. In future studies, not only the use of assistants to administer assessments, but multiple therapists for each treatment and methods to assess their conformity to the therapist manual should be included.

A reason mentioned earlier for the poor differential effects of treatments is that treatment duration is too
short to allow for participants' mastery of the assertive behaviors and rational ideas presented to them. The finding of relatively few differences between treatments and controls in the post hoc analyses suggests that in 3 hours of training very little information is incorporated into an individual's assertive repertoire beyond that found in people who merely talk about unassertive behavior. The duration of treatment chosen for the current research was based on data presented by Wolfe and Fodor (1977) that significant between-groups differences could be obtained with 3 hours of treatment, even with a combined Rational-Emotive Therapy and behavior rehearsal training group. Outcome measures of their study were more global than those in the present investigation, and it may be that as more sensitive assessments such as efficacy and outcome expectancies are taken, more intervention time is required to impact on them beyond that achieved by a credible control group. Again, the notion of temporal influences on therapeutic interventions in assertiveness training has received little attention in the literature.

The last methodological note reflects the ideas presented earlier in the discussion of the microanalysis of efficacy expectations. Although the procedure for estimating self-efficacy and assessing appropriate coping behavior is well established in phobic populations, these strategies are not directly applicable to assertive situations. Particular inadequacies of the methodology utilized in the present study
include: (a) an apparent restriction of the range of difficulty of assertive situations which resulted in a skewed distribution of self-efficacy ratings; and (b) the possibility that criteria for successful performance used by judges in making their behavior ratings may have been overly strict, or at least not isomorphic, with participants' notions of assertion. This would serve to both reduce the overall performance ratings and produce disconcordance between self-efficacy ratings and subsequent assertion.

A third consideration in analyzing the assessment procedure is that all participants were aware of the general characteristics of the assertive responses prior to efficacy ratings or performance (i.e., "Ask a friend for money you had loaned him"). This raises the possibility that such information may have presented an instructional set to the participants to behave in that manner—-not as they "normally" would in their own environment. The results would then be expected to be little difference among groups on behavior ratings. The paradox of presenting descriptions of behavior to be assessed is that while on one hand it may artificially increase assertion, without such knowledge of the response to be evaluated participants cannot rate their competence in executing the response. Though this assessment protocol appears viable in a phobic population, its applicability in assertive role-play tasks may be limited. A potential reason for this lack of suitability may be that with a phobic
client, variables such as anxiety, fear, or low self-efficacy may be more salient in inhibiting coping responses, while with a low-assertive client, efficacy may be higher but other variables such as fear of negative reactions or simply the lack of knowledge of what constitutes an assertive response may predominate. The issues raised here are quite complex, and perhaps form the nucleus of the problems encountered in the present investigation. The development and validation of a behavior role-playing test which addresses these concerns is of paramount importance before research can more accurately assess self-efficacy and performance congruence in this population.

In the next few years, self-efficacy will most likely occupy an increasingly dominant role in behavior therapy research. Studies designed to test its' generalizability across clinical populations, and intervention protocols which target this mediational mechanism for change, will no doubt proliferate. In the methodological review of the present investigation, several areas are outlined that are important to increasing the viability of the self-efficacy analysis in assertive situations. More circumscribed research protocols with narrower foci are particularly important at the early stages of application. Basic research needs to be done at developing a representative collection of assertion-eliciting scenarios which will adequately assess the full range of efficacy judgements and performance. Assessment criteria for
successful assertive performance need to be developed which are dichotomous in their ability to evaluate successful (assertive) and unsuccessful (nonassertive or aggressive) coping behavior, as opposed to the 5-point scales typically used at present. Such criteria also need to be validated as indicants of assertive behavior for the population under study.

A final note should be made of the relationship between outcome and efficacy expectations. Although these expectancies have been subject to misconstrual by theoreticians in the field of psychology (c.f. Bandura, 1978), the present investigation documents that, at least in a population of college females, distinctions between confidence in one's ability to act in a prescribed manner versus the anticipated consequences of acting accordingly can be easily made. Though little data was obtained in support of the research hypothesis that they would differentially contribute to the prediction of assertive behavior, this area is one in which much more data needs to be collected to clarify the relationship between these two expectancies and their predictive validity and utility.
Appendix A

Informed Consent Form for Subjects to Complete
Prior to Their Participation in the Study

Participant's Consent Form

1. I hereby give my consent to Craig Lefebvre and Dr. David Rimm to perform or supervise an experimental procedure and treatment which will involve my completing two questionnaires which will ask me about how I normally act in interpersonal situations and what I usually think about in everyday activities. In addition, I consent to having Craig Lefebvre, or someone else he designates, present me with several hypothetical situations to which I am to respond as I would in everyday life, and also conduct an interview as to how I think and feel in those specific situations. Finally, I also agree to participate in assertive training procedures, both in a group and individually. I understand that the assertive training procedures may help me become more assertive with other people; however, I also understand that such training may on occasion result in some disruption of my interpersonal relationships. If I so choose, I may discontinue my participation in the study at any time with no penalty.

2. I understand the discomforts or risks involved in such training, and also have a clear understanding of the benefits my participation in this study may afford to me. With my understanding of these risks and benefits, having
received this information and satisfactory answers to the
questions I have asked, I voluntarily consent to the proce-
dures and treatment outlined in paragraph 1.

Date:_________________ Signed:_________________ Participant*

*Note to participant: Before signing this consent form,
be sure that you have asked all questions of the experimenter
which will enable you to make an informed decision.
Appendix B

Transcript of Behavioral Role-Playing Test Scenes
Used for Pretreatment, Posttreatment, and Follow-up Assessments

1. A friend of yours borrowed ten dollars from you about 2 weeks ago. Now you find yourself a little low on money, and see your friend walking down the street. He/she says, "Hi, how are you doing?"

2. You are in a restaurant and have ordered a steak "medium-rare." The waiter brings you the steak which looks burnt. He places the steak in front of you and says, "There you are--one steak well-done."

3. You have taken your car to a garage to have a new tire put on. When you return, you find that not only has the mechanic put on the new tire, but has also given you car a major tune-up. He says, "That will be forty dollars--cash or charge?"

4. You have volunteered to help a friend do some charity work. He/she really needs your help, but when he/she calls to ask you to do it tonight, you have already planned to go out. He/she says, "Would about 8 o'clock be alright?"

5. You are in a movie theatre watching a movie that you have waited months to see. A couple in front of you begin talking quite loudly so that you cannot hear what is being said in the movie. The man turns around to you and says, "This certainly is a lousy movie. Don't you think so?"
6. You have been working with a group of people on a project that is due next week. The chairman, a person you do not know very well, comments about how little work some members are doing. He/she says, "I know you've done all of your work, but how about doing some of the others' work so that we can finish this by next week?"

7. A friend of your is chronically late for appointments, and several times has kept you waiting for him/her for up to an hour. You are again waiting for him/her and he/she is 30 minutes late. He/she finally appears and says, "Sorry I'm late."

8. You have not been feeling very well, but a good friend of yours is having a party. You feel that you should attend, but have decided not to drink any alcohol. When you get to the party, your friend greets you and says, "What'll it be--beer, wine, or liquor?"
Appendix C

Treatment Rationale for Modeling Groups with Discussion

Assertive training is designed for people who see themselves as having some degree of difficulty in interpersonal relationships. Usually these difficulties center around feelings of being taken advantage of by others and/or not standing up for their own rights. One of the treatment procedures to be used in this group is that of role-playing. Role-playing is designed to help people learn how to act more assertively, as well as feel more comfortable when asserting oneself. This technique is based on research that has shown that many people with problems of not being assertive do not know how to act or say something "assertively." Through role-playing, one can learn how to do these things better than before.

However, simply learning how to act assertively does not solve the whole problem. People need to know why, or have some insight into how, they act unassertively. Through individual discussion with the therapist, some of these reasons may be discovered, and this knowledge, along with the new skills learned during role-playing, can lead to positive changes in your interpersonal behavior.
Appendix D

Treatment Rationale for Modeling Groups with Rational-Emotive Therapy

Assertive training is designed for people who see themselves as having some degree of difficulty in interpersonal relationships. Usually these difficulties center around feelings of being taken advantage of by others and/or not standing up for their own rights. One of the treatment procedures to be used in this group is that of role-playing. Role-playing is designed to help people learn how to act more assertively, as well as feel more comfortable when asserting oneself. This technique is based on research that has shown that many people with problems of not being assertive do not know how to act or say something "assertively." Through role-playing, one can learn how to do these things better than before.

However, simply learning how to act assertively does not solve the whole problem. People with problems being assertive typically think in a way that interferes with their acting assertively by making them very anxious or angry. Through an individual session with the therapist, some of these thoughts can be examined in detail, and new ways of "thinking assertively" can be learned. This, along with the new skills learned during role-playing, can lead to positive changes in your interpersonal behavior.
Appendix E

Treatment Rationale for Expectancy/Credibility
Control Groups

Assertive training is designed for people who see themselves as having some degree of difficulty in interpersonal relationships. Usually these difficulties center around feelings of being taken advantage of by others and/or not standing up for their own rights. The treatment technique to be used in this group is that of insight-learning. Insight-learning is designed to help people learn how they have come to act in an unassertive manner. This technique is based on research that has shown that many people with problems of not being assertive have learned not to act assertively. Through insight-learning, one can discover the reasons why one acts the way one does.

However, simply discovering these reasons for not acting assertively does not solve the whole problem. People need to know how other people handle situations in which they would like to be assertive. Through group discussion with the therapist and the other members, you can discover how other people handle these situations. This knowledge, along with the knowledge learned during insight-learning, can lead to positive changes in your interpersonal behavior.
Appendix F

Treatment Manual for Experimental Conditions

Session 1

Begin the group with introductions of the therapist and have each participant introduce herself. Present the written rationale for the specific group to each participant; ask her to read it and answer the questions at the bottom of the page. Answer any questions they may have about the rationale in a way that is consistent with the one they received! After they complete the questions and return the forms, continue as follows:

"As the description of the training mentioned, we will be involved in role-playing scenes in which we could be assertive, but oftentimes are not. What I mean by role-playing is that I will read a scene description much like that which was done in the assessment you went through earlier. Each of us will respond to the scene as assertively as we can, remembering that being assertive means standing up for our rights while not infringing on the rights of others. I will role-play each scene first so that you can watch how I do it. After I do it, I would like each of you to do the same scene as close as possible to the way I do it. Before we begin the first scene, however, I want you to be familiar with some of the behaviors that are typically considered to be assertive."
At this point, the therapist should present briefly, but completely, the following points in a style that is comprehensible to the participants. Ask questions to be sure they understand each of the following points.

(1) Assertive people respond quickly—they do not "think" about what they are going to say for a long period of time. Aggressive people go to the extreme of interrupting the other person, unassertive people "think all day."

(2) Assertive people say what they have to say briefly. They do not drag out a point or "beat around the bush." Aggressive people may tend to be very short and snappy, or very long and condescending. Unassertive people typically say very little, or else say "much about nothing."

(3) Assertive people use eye-contact when speaking. This conveys both self-confidence and a lack of anxiety. Unassertive people display little eye-contact; aggressive people glare or try to "stare someone down."

(4) Assertive people use gestures that help them express the way they feel. Unassertive people usually either hide their hands (e.g., in their pockets, held together in front of them) or else engage in behaviors that reflect anxiety (e.g., shifting their weight back and forth from one leg to the other, playing with their hair). Aggressive people use gestures that infringe on another person's "personal space" and are perceived by that person as threatening (e.g., grabbing someone by the arm, standing very close to them).
(5) Assertive people talk in ways that are different from unassertive or aggressive people. This includes making points that are relevant to the conversation (i.e., "stating facts, not fictions"), not asking questions of the other person, and expressing their feelings. Unassertive and aggressive people will generally ask many questions, make irrelevant conversation, and either not express their emotions or else express one that is not true to what they really feel.

Following this presentation, the therapist continues:

"These are the basic five types of behavior we teach in assertive training. For each scene we work on, I will demonstrate how all five of these elements are combined in a response. As each one of you then tries the same scene, the rest of us will be looking for these five behaviors. If any of us think that one or two things are missing, or that they are not as good as they could be, we will point this out and help you learn to do it better. By this method, even though only one of us gets to do the scene at any one moment, the rest of us get to learn by watching and helping."

If there are no questions to this point, begin with scene 1 for the response class that is being trained. Read them as they appear below.

A. Response class--making requests.

Scene 1. A friend of yours borrowed ten dollars from you about 2 weeks ago. Now you find yourself a
little low on money, and see your friend walking down the street. He/she says, "Hi, how are you doing?"

**Modeling response:** Pretty good. I'd like to get the money you owe me, though, because I could really use it now.

**Scene 2.** You are in a restaurant and have ordered a steak "medium-rare." The waiter brings you the steak which looks burnt. He places the steak in front of you and says, "There you are--one steak well-done."

**Modeling response:** I ordered a steak "medium-rare." Would you return this and bring me one the way I ordered it.

**Scene 3.** You get on a bus feeling very tired and have a half-hour ride home. The bus is full except for one seat on which a lady has placed her shopping bag. You approach her and she looks out the window.

**Modeling response:** Excuse me, but I would like to sit down here.

**Scene 4.** You are at work and notice that one of your coworkers is taking another of what appears to be many "breaks." This had annoyed you in the past as it creates more work for everyone else, and today you want to say something about it. You approach him/her and he/she says, "I'll be back in a few minutes."

**Modeling response:** I am getting upset with your taking so many breaks as it makes the rest of us have to do
more work. I would appreciate it if you would not take a break now and help us with the work.

B. **Response class--refusing requests.**

**Scene 1.** You have taken your car to a garage to have a new tire put on. When you return, you find that not only has the mechanic put on the new tire, but has also given your car a major tune-up. He says, "That will be forty-dollars--cash or charge?"

*Modeling response:* I did not ask you to do a tune-up and don't expect to have to pay for it.

**Scene 2.** You have volunteered to help a friend do some charity work. He/she really needs your help, but when he/she calls to ask you to do it tonight, you have already planned to go out. He/she says, "Would about 8 o'clock be alright?"

*Modeling response:* I'd really like to help you out but I've made other plans. How about another time?

**Scene 3.** A man calls you on the phone and identifies himself as an insurance agent. He then asks, "Could I come over some evening this week and show you how our policies work?"

*Modeling response:* No, I'm not interested.

**Scene 4.** A friend of yours owes you five dollars. He/she comes up to you on the street and says, "I know I already owe you five dollars, but lend me just five more dollars and I'll pay you back all of it as soon as I can."
Modeling response: No, I really can't afford it. I'm low on cash myself.

Note: For each scene, either the therapist or another participant should serve as the "antagonist," and repeat the words or behavior provided in the scene description. If the antagonist must be a male (e.g., waiter, mechanic), the therapist should be the antagonist. In scenes with "he/she" designations, other participants can serve as the antagonist.

Regardless of the response class being trained, be sure that each participant role-plays the scene. Use the following check list to evaluate the participant's performance, and provide immediate feedback as to the strengths and weaknesses of her performance based on this checklist. Each participant should continue role-playing the scene until all of the criteria are met in one performance, or a maximum of seven trials. Indicate on a separate page when each participant reaches the criterion for each scene (e.g., "Jane Doe-Scene 1-Trial 4").

Assertive checklist:

1. Short response latencies (less than 3 seconds)
2. Short response duration
3. No speech disfluencies (e.g., "Umms," "ahs")
4. Eye-contact with antagonist made and continued throughout the scene
5. Appropriate gesturing
6. Verbal content as specified for each scene
At the end of the session in each group, the therapist should explain that the second session will be conducted in individual session, "That is so that we can work more specifically and intensely on your particular troubles with behaving assertively." Individual appointments should be made that fall within 2 weeks of the first session.

Session 2

In all groups, the second session will be administered on an individual basis for 1½ hours. The session will consist of various combinations of the following sections, depending on the experimental condition. The therapist should be familiar with each section he is to use in the specific session, and understand the temporal sequence of presentation.

A. **Adjunctive rational-emotive therapy**

At the beginning of the second session, the therapist should present the following statement:

"During the first session we noted the importance of learning assertive behaviors. However, many times even though we know how to act assertively, anxiety or other emotions prevent us from doing so. In this session, along with practicing behaviors, you will also learn how to minimize the detrimental effects of your emotional responses to situations in which you want to be assertive."

Following this introduction, the therapist should present the A-B-C theory of emotions (Note: Prior to this session,
The therapist should be quite familiar with "The basic clinical theory of rational-emotive therapy" by Ellis, 1977. This presentation should focus on its particular application to problems of acting nonassertively. Three irrational ideas that are thought to be at the core of unassertive behavior are to be stressed as the essential irrational beliefs that are in need of change: (1) the idea that you must have sincere love and approval almost all the time from all the people you find significant; (2) the idea that you must prove yourself thoroughly competent, adequate, and achieving, or that you must at least have real competence or talent at something important; and (3) the idea that life proves awful, terrible, horrible, or catastrophic when things do not go the way you would like them to go (from Lange & Jakubowski, 1976).

After this brief presentation, the therapist should then attempt to elicit from the participant specific irrational, or negative, beliefs that she has in assertive situations. Be supportive and note that many people have such thoughts at one time or another, but that in order to act assertively, she must also reduce the number of times she does think in this manner. The therapist should then continue with the following:

"Challenging these irrational beliefs is perhaps the most important step in changing the way we think. As we ask questions, look for evidence, and apply some logic to these ideas, we quite quickly discover their
illogical and unrealistic nature. After this, it is usually easy to replace them with more logical thoughts that will enable us to act more assertively. Let's go through each of the three irrational ideas I talked about earlier and see how this can be done."

For the remainder of the first 45 minutes of the session, the therapist and the participant should both become focused on the following material. It is very important that the client take an active role in the presentation, with the therapist eliciting from her personal thoughts and experiences in which these three ideas have occurred. Using specific situations in which she was not assertive is strongly recommended, and allowing the participant to actively challenge and dispute the illogical character of these beliefs is equally important. Be sure to present each of the six challenges.

Idea 1: It is a dire necessity to be loved by everyone for everything one does.

A. There is no existing evidence that one needs the love of everyone, even anyone, to survive.

B. There are actually very few needs that I have (i.e., food, water, shelter), but thinking in terms of a need implies "life and death" consequences. When faced with "life and death" circumstances one tends to behave irrationally and in a self-defeating manner. Assertive situations are rarely "life-and-death" matters.
C. It is impossible to please all of the people all of the time since what will please one person may displease another.

D. I may be more well liked when I assertively go after what I want.

E. I have survived the disapproval and even hate of other individuals.

F. If I always spent my time trying to get love and approval from everyone, I would have to do what they wanted me to do, and that would leave me no time to do what I like.

*Idea 2*: One should be thoroughly competent, intelligent, and achieving in all possible respects.

A. I am an imperfect person and might as well accept this reality.

B. I am not what I do; I can evaluate my performances and traits, but not myself. Because I act wormily does not mean I am a worm.

C. No matter how hard one tries, perfection means by definition that it is unattainable.

D. If something is worth doing, it is worth doing poorly.

E. The best way to learn to do things better is to practice them and risk a less than perfect performance—even failure.

F. If I fail at something, I failed at some-thing. I am not a failure as a person because of it.
Idea 3: It is horrible when things are not the way one thinks they should be.

A. Nothing is awful; things are or are not and I am the one who gives them labels which do not change their reality, but which can lead me to feel quite upset.

B. I have little or no control over many things that happen to me, and have even less over what happens to others.

C. Who am I to think that things should turn out one way as opposed to another?

D. I may have preferences for what I would like to happen, but I do not need them to happen.

E. There is very little evidence that I can run the world, so I'd better accept it.

F. No one can hurt my feelings, upset me, or make me angry. They are negative states that I create myself through my own irrational thinking. The more I realize that only I am responsible for my emotions, the more I can have them work for me rather than against me. (Adapted from Criddle, 1974.)

After this material has been worked-through and discussed, the remaining 45 minutes of the session should follow the outline of either the modeling-fading or continuous modeling condition. However, during each scene, the therapist should probe for the presence of irrational ideas following each enactment by the participant and dispute it if necessary. More rational thinking should be modeled by the therapist and rehearsed by the participant prior to the next trial of the
scene. This procedure should be followed for each participant for each of the four training scenes.

B. **Adjunctive discussion therapy.**

This treatment will be given to all participants in the experimental conditions who do not receive rational-emotive therapy. In addition, the therapist should be aware that the outline of this 45-minute session will be followed throughout the course of the expectancy/credibility control group he will lead. As in the rational-emotive therapy condition, this "discussion" will comprise the first 45 minutes of the second session. The rationale to be presented should be as follows:

"One of the major reasons why people act unassertively is because they have learned not to act assertively. This learning takes place quite frequently, and is reinforced by parents, friends, spouses, and social norms. For instance, parents may often take the approach that 'children should be seen and not heard.' Even though we are nominally adults, a rule like this often stays with us and influences our behavior today; in assertive situations, having been taught to be 'seen, not heard' often results in our saying nothing. As important, especially with females, are social norms which tend to pressure females into taking nonactive, passive roles in interpersonal relationships. These sex-role stereotypes play a major role in explaining why females have such difficulty acting in an assertive manner."
What I want to explore today are your perceptions of why you tend to act unassertively. It is a rule of thumb in doing assertive training that insight into why we act in a particular fashion can lead to significant changes in our behavior. If we can begin to understand some of the reasons why you act unassertively, that insight, along with the role-playing we will do later, can help you become a more assertive person."

After this, the therapist should conduct himself in a directive, insight-oriented manner. That is, actively keeping the client on her own analysis of the historical antecedents to her acting nonassertively by the use of questions, clarifications, and suggestions. The content of the discussion should remain focused on assertive behavior; do not allow the participant to begin associating to other problems (e.g., difficulties in school, with boyfriends, parents, etc.). Within these limits, however, allow the participant to dictate the level and intensity of self-evaluation. Do not force interpretations or insights onto the participant; if they occur, they should be self-generated. After 45 minutes of discussion, state that you will now present the training scenes to her, and follow the outline for the appropriate modeling group.

C. Modeling-fading condition

The procedure to be following in this condition is to first present the rationale that by learning how to cope with
assertive situations without the help of the therapist, one can then develop her own assertive style. Make it clear at the beginning of this phase of training that the therapist will not provide any modeling, but will provide feedback based on the "assertive checklist" used in the first session. The therapist will describe each scene, act as the antagonist and deliver the prompt, and ask the participant to role-play her response. Each participant should be given the opportunity to evaluate both the positive and negative aspects of her performance prior to the therapist. The participant should role-play the scene until both she and the therapist agree that it was done assertively, or else perform it a total of seven times. In terms of verbal content, the therapist should be aware of what the modeling response is for each scene, and attempt to reinforce approximations of these responses. Do not provide the participant with the modeling response at any time during the role-playing, and there should also be no modeling of more appropriate phrasing. Each participant should generate her own responses. This procedure is to be followed for each participant in each of the four scenes of the response class targeted for intervention (see Sections E and F for the scene transcripts). Be sure to record the number of the trial on which successful performance is attained.

D. Continuous-modeling condition

The procedures in this phase will be those as outlined for the first session. The therapist should present each
scene, model the appropriate assertive response, have each participant role-play the same scene, and encourage each participant to critique her own performance prior to the therapist's doing so. The same criteria for assertive behavior apply for these scenes as outlined earlier. The trial on which the participant meets the criteria should be recorded. See sections E and F for the scene transcripts and the modeling responses.

E. Response class—making requests.

Scene 1. You are trying to go to sleep, but your neighbors are playing very loud music. You are finding it impossible to sleep. You get up and go knock on their door. They answer and say, "What can I do for you?"

Modeling response: Would you mind turning down the music? I'm trying to get some sleep and have to get up early in the morning.

Scene 2. You are flying out of town for the weekend, but the time you are leaving is the same time as most of your friends are at work. You see one of your neighbors, whom you know only slightly, and begin talking with him/her. He/she says, "I hear you are going out of town for the weekend."

Modeling response: Yeah, and I'm having trouble getting to the airport. Would you give me a ride out there?

Scene 3. You have finished eating at a restaurant and have received the check from the waitress. You look at the
total and see that it is about two dollars more than you expected. The waitress returns and says, "You can pay me rather than the cashier."

**Modeling response:** I'd like you to explain the check to me. It's more than I expected it to be.

**Scene 4.** You are late getting to an appointment, but have had to stop at the store to pick up one item. All the check-out counters have two or three people in line with full shopping carts. You get into a line just as the cashier finishes with a customer. The next person turns and says to you, "This will only take a few minutes."

**Modeling response:** Would you mind if I went ahead of you—I'm late for an appointment and only have one thing.

**F. Response class—refusing requests.**

**Scene 1.** A high school student comes to your door selling magazine subscriptions. He says it would really help if you would buy one since he is competing for a college scholarship. You cannot find any especially interesting magazines on his list, and in any case, you feel that they are overpriced. He says, "Oh, come on. Buying one won't hurt you!"

**Modeling response:** I'd like to help you, but there's nothing here I really need. Thank you.

**Scene 2.** You have been standing in line at the theatre for about 15 minutes. As you get close to the box office, four people, who you do not know, come up to you and ask, "Can we 'cut-in' in front of you?"
Modeling response: No. I don't think that's fair to everyone else who's been waiting.

Scene 3. You are in a store trying on some shoes. You know what style and color you want, but the only size the salesperson has is a half-size too small for you. The salesperson asks you to try them on, and when you say that they are too tight, he/she says, "They'll stretch some after you have worn them a few times. Can I wrap them up?"

Modeling response: No, I'd rather not buy shoes that don't fit.

Scene 4. You are approached on the street by a person dressed in Oriental attire who gives you a small plastic flower and says, "A small donation for the temple?"

Modeling response: No.
### Appendix G

#### Table 9

Scene Selection for Pretest Assessment, Training, and Posttest Generalization Assessment

<table>
<thead>
<tr>
<th>Scene</th>
<th>Response Class</th>
<th>Pretest</th>
<th>Training</th>
<th>Posttest</th>
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