COGNITIVE-BEHAVIORAL APPROACHES TO THE REDUCTION OF ANGER AND AGGRESSION

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CHAPTER I

INTRODUCTION

That aggression has been a problem from the earliest account of man, one need only turn to the initial pages of Genesis to find recorded the murder of Abel by Cain. Or if that is not convincing, then one can inspect early primitive sketches of genocide that have more recently come to light. A cursory scanning of any world history book serves as a reminder that aggression and violence have never known a respite throughout the many ages of man.

While historians have recorded it, ministers damned it, philosophers analyzed it; not until Freud did psychiatrists dare to look it in the face. Even at that his view was so pessimistic that psychologists barely looked up from their mazes to take notice. Not until 1939 with the publication of Frustration and Aggression by the Yale group of Dollard, Doob, Miller, Mowrer, and Sears (1939) did social scientists seriously attack this age old problem. Most of their initial work and the studies that followed were done on animals, with most of the research on human aggression being done in the last ten years (Singer, 1971).

That psychologists now view the study of aggression as well within their province can be attested to by the recent number of conferences being held (e.g., the Center for Studies in Cognition and Affect at the Graduate Center of the City University of New York) and the number of

books being published that have as their aim to inform, guide, and stimulate further research on this topic (e.g., Berkowitz, 1969; Megargee and Hokanson, 1970; Ellis and Gullo, 1971; Singer, 1971). This awakened interest and productivity would suggest that as Singer (1971) has noted, the "denial" of the existence of a crucial problem by social scientists has been ended.

Much of the work on human aggression that followed in the wake of the publication of Frustration and Aggression (Dollard et al., 1939) set about to confirm, deny, modify, or extend the hypotheses articulated by the Yale group. The three formulations that have received the most attention are:

(1) aggression is always a consequence of frustration

(2) frustration always leads to some form of aggression

(3) the occurrence of any act of aggression is assumed to reduce the instigation to aggression (catharsis hypothesis) (Dollard et al., 1939).

Underlying these hypothesis is the concept of aggression as a drive which is a reformulation of Freud's notion of aggression as an instinct which he labeled Thanatos. This is viewed as an inevitable disposition of man which creates a rising pressure needing discharge periodically or diversion to other channels to slow the pressure for discharge. Buss (1961) examines the arguments posed by Freud and other writers for this view and concludes:

> . . . none of the arguments for the presence of an instinct of aggression seems to stand up under analysis. There is a sparsity of evidence for the notion; for the present it seems best to reject the idea of an instinct of aggression.

Berkowitz (1969) has reviewed the experimental literature which has led to a lively controversy over whether aggression is a drive pressing for release as a result of frustration. Despite the fact that

the literature remains inconclusive, the implications of this view, as several writers have noted (Berkowitz, 1962; Dennenberg and Zarrow, 1970) are in the least, disconcerting. In commenting on Freud's analysis (see Freud's letter to Einstein in Megargee and Hokanson, 1970), Berkowitz comments:

> (Freud stated) 'Man's energies must continually seek release. If they did not find any outlet in one turn, they supposedly would be expressed in some other manner. Assertiveness and competition might drain some of his destructive force, but if they did not, less desirable outlets would be found.' Berkowitz responds to this analysis 'If the death instinct directed outward produced wars, a nation which did not fight and had no alternatives must destroy itself. Thus war could be seen as a needed safety valve, a country's attempt at self preservation. A gloomy prospect. . . .'

And in reference to the more biological animal work of geneticists and etologists, Dennenberg and Zarrow (1970) note that for these theorists:

> Man is considered to have an inborn predisposition for aggression; (2) aggression may be as inborn and natural as sex behavior; (3) man is a territorial animal who will fight to take over new territories; (4) because of the genetic basis of aggression, little can be done to modify this behavior in man. A frighteningly simple deduction follows from these few points: since the birth rate is increasing the population density at an exponential rate, . . . since tensions . . . are on the increase . . . and since we have been unable to find ways to control aggression, it therefore follows that an inherited aggressive nature will ultimately lead to the destruction of mankind.

The pessimism engendered by this view, especially as the need has become more pressing to find means to control or reduce aggression has led other theorists and investigators to view "aggressive behavior as an expression of one of man's broad repertory of potential reactions to a variety of external circumstances" (Singer, 1971, p. 4).

In organizing a conference on aggression at the Center for Research in Cognition and Affect at the City University of New York, Singer

(1971, p. 2) states that the purpose was to:

> . . . make some contribution to the question of how aggressive behavior can be controlled, limited, or eliminated by a fuller understanding of its nature in relation to the ways in which man organizes the complex information from his environment and reacts affectively while carrying on this fundamental organismic operation.

Thus, an important conference consisting of major researchers in the field of aggression stressed the importance of "the way in which the interpretation of situations (a cognitive function) interacts with a limited but differentiated affect system in producing an ultimate motor reaction" (Singer, 1971, p. 4).

This approach to the study of anger and aggression might best be characterized as a cognitive-learning view. This view emphasizes that the probability, intensity, and quality of emotion and behavior is determined jointly by predispositional factors, classical and operant conditioning (e.g., Hokanson, Willers, and Koropsak, 1968), cognitive appraisal (Arnold, 1970; Ellis, 1962; Lazarus, 1970) and philosophical beliefs (Peters, 1970; Ellis, 1962). Thus, there is no fixed connection between classes of stimuli, emotions, and behavior (Landau, 1972).

At least three things follow from this general position:

(1) Since a large part of emotion and behavior is shaped and maintained by its consequences, whether an aggressive act reduces tension (produces relief) will depend on whether the source of tension is eliminated or whether the aggressive act produces positive or negative reinforcement, frustration, or punishment. Thus, cognitive-learning theorists would state that aggression may lead to relief, no change, or an increase in physiological and experienced relief.

(2) Aggressive behavior which is reinforced, either by terminating aversive events (for example, frustration) reducing tension, or more positively by attaining a goal or group approval will establish, maintain, and strengthen aggressive habits.

(3) Cognitive beliefs and evaluation processes affect both emotional arousal (anger) and instigations to behavior (aggression).

These three aspects of the cognitive-learning view have already had an impact on applications of psychotherapy procedure. Ellis (1962) articulated his approach to psychotherapy which is known as Rational-Emotive Therapy (RET). He emphasized both the cognitive and behavioral components involved in therapeutic change. With respect to aggression, clients are encouraged to become aware of their anger and their thoughts which relate to their experience, however, clients are not encouraged to express their anger as part of their treatment. They are, rather, strongly encouraged and specifically trained to think a different philosophy, imagine a new feeling, and behave in non-self defeating ways (e.g., assertively, rather than aggressively). The training procedures involve philosophical-logical challenges to the clients' philosophy and ideas, behavioral rehearsal (modeling), aggression-assertion discrimination, as well as homework assignments. It should be emphasized that the client is not encouraged to express his anger in the sense that verbal and behavioral aggression is not modeled, reinforced, or assigned as homework (Landau, 1972).

Rational-Emotive therapy is not alone in applying a cognitive-learning analysis to psychotherapeutic procedures. Murry and Jacobson

(1970) in an extensive review of learning theory and behavior therapy demonstrate that the learning occurring in the behavior therapies involves complex cognitive, emotional, and motivational changes operating in a social context. They conclude that the explanations of behavior therapists do not adequately recognize the importance of cognitive and emotional response systems operating in interpersonal relationships. Meyer and Chesser (1970) in a recent book on behavior therapy devoted a whole chapter to cognitive processes in therapy emphasizing the importance of both a cognitive and a behavioral analysis of client problems. This emphasis is seen even more clearly in recent work by Lazarus (1970) and Meichenbaum (1972) who are attempting to integrate the Rational-Emotive system of Ellis with behavior modification techniques.

While the cognitive-behavioral approach has been shown to be effective with a variety of problems including interpersonal anxiety (Di Loreto, 1968), anticipatory anxiety (Burkhead, 1970), impulsive behavior in children (Meichenbaum, 1971), snake phobias (Meichenbaum, 1971), and smoking (Meichenbaum, 1970), there has been very little direct support to determine whether this approach would also be effective in reducing anger and aggression. The evidence there is comes from one-shot experimental designs that vary pre training conditions (Davitz, 1951), model behavior (Chittenden, 1942; Bandura, 1969, 1971), perceptual sets (Berkowitz, 1968; Geen and Berkowitz, 1967; Burnstein and Worchel, 1962) and reinforcement contingencies (Buss, 1971; Hokanson and Edelman, 1966; Hokanson, Willers, and Koropsak, 1968).

The purpose of this study was to test directly the effectiveness of cognitive-learning procedures derived from Ellis' Rational-Emotive system in their application to the reduction of anger and aggression.

To do this, a training program was developed based on cognitive-linguistic procedures outlined by Ellis or derived from his system.

More specifically, subjects were chosen who evidenced an above-average level of anger and aggressive responding and were given four hours of training aimed at identifying anger producing cognitions and generating new non-anger producing cognitions. After which, they received four hours of assertion-aggression discrimination training with the purpose of increasing their awareness of situations in which they tended to act aggressively and learning assertive rather than aggressive responses to those situations.

CHAPTER II

REVIEW OF THE LITERATURE

In considering the problem under investigation, theoretical as well as empirical literature will be reviewed evaluating cognitive aspects of anger and aggression, learning aspects of anger and aggression, Rational-Emotive theory and analysis of anger and aggression. In addition, studies will be reviewed to assess the efficacy of Rational-Emotive approaches to behavioral change as well as the effectiveness of assertive training techniques in training alternative behaviors.

Cognition and Anger

While there is probably no theorist who would take the radical position that all anger, or any emotion for that matter, is totally determined by cognition, there are those who view the study of anger and emotion in man grossly inadequate without an emphasis on man's perceptual-evaluative processes. Thus, Peters (1970) criticizes behaviorism for its: ". . . methodological puritanism and conceptual confusion . . . of scientific method which has among other historical traditions (e.g., animal work) truly limited the study of emotions." Not denying the importance of studying physiological arousal or emotional expressions, Peters argues that the most important features of emotions (and motives) has been missed by the psychologist; cognitive appraisal and beliefs. Thus, Peters' main thesis is:

> . . . different appraisals are largely constitutive of different emotions. By that I mean that at least a logically necessary condition for the use of the word 'emotion' is that some kind of appraisal should be involved, and that the different emotions must involve different appraisals. In other words, emotions are basically forms of cognitions.

Ewert (1970) differentiates between feelings and emotions assigning the former to a biological basis and the latter to social origins because they refer "to persons or situations relevant to persons." Emotions, then, are attitudes of the individual to his experienced social environment and have their origin in an evaluation of the social situation. In a study of the "negative phase" (restlessness, obstinacy, irritability, hatred of self and society, and hostility toward society) of adolescent girls using a questionnaire that he developed, Ewert found support for this thesis with his data demonstrating that the "negative phase" (heightened emotionality) was correlated with changing evaluations of the social environment and increasing distance between the individual and his reference persons.

In developing a cognitive theory of emotion, Lazarus et al. (1970) draws on recent work in physiology (Douglas, 1967; Pribram, 1960; Leeper, 1965), social psychology (Schachter, 1967), and anthropology (Segall et al., 1966) to demonstrate that evidence from these various disciplines is complementary rather than contradictory to a cognitive analysis of emotion. He states "emotions should be regarded as a function of cognitive activity, each particular emotion presumably associated with a different evaluation" (p. 217).

While Magna Arnold (1960) has emphasized the importance of the appraisal of the situation on emotional arousal, Lazarus (1970) extends her position by also including the importance of the evaluation of the possibilities for action as affecting the resultant emotion. This,

then, suggests two possible points of intervention in changing emotions: (1) a reevaluation of the situation and (2) an evaluation of alternative responses to the situation.

Another line of evidence strongly substantiating the effect of cognitive evaluation on emotion and emotional arousal has been the work of Schachter and his associates (Schachter, 1966, 1964; Schachter and Singer, 1962; Valins, 1966; Valins and Ray, 1967). Through a series of ingenious manipulations of the social context and the beliefs of subjects, they have shown that given the presence of physiological arousal, or the belief of it, that individuals will label or describe this state in terms of the cognitive set that the investigators manipulate. Thus, the same arousal can be interpreted as a variety of emotions (fear, anger, joy, love) depending on the social context in which it occurs.

While transitory emotional experiences are important in the development of theory with cognitions certainly having an effect, of most interest to the concern of the reduction of anger and aggression are the more transituational determinants of anger such that the frequency of cognitive evaluations leading to anger are what pose problems both for the individual and society. With this concern in mind, Buss (1961) considers the overriding attitude which he labels hostility. He defines this "an implicit verbal response involving negative feelings (ill will) and negative evaluations of people and events." He points out that even after an emotional response subsides, the negative evaluation responses remain. These, then, become a more enduring or characteristic way of perceiving classes of stimuli and have the possibility of generalizing to other stimuli.

Ellis (1962) corroborates this view in identifying "philosophical

beliefs" that give rise to emotional disturbance. He differentiates these from perceptions in viewing beliefs as a more enduring tendency which affect an individual in a variety of situations. The major thrust of his theoretical writings has been in the identification of these "philosophical beliefs" which affect the individuals' perceptions in a variety of circumstances and demonstrating how these are related to negative emotions such as anger and anxiety.

Recent experimental work investigating laboratory analogs of aggressive interaction (Pisano and Taylor, 1971; Taylor, 1967; Taylor and Epstein, 1967; Hokanson and Burgess, 1962; Hokanson and Edelman, 1966) have begun to be able to differentiate between individuals who characteristically respond aggressively and those who will respond aggressively only under certain conditions. The work of Megargee (1971) with prisoners in which he poses an underlying hostility model to explain violent crimes is also interesting in this regard. Thus, there is increasing interest and focus on those individuals who have a higher probability of acting aggressively in a number of situations.

Several points can be drawn from this review of the cognitive aspects of emotion relative to the study of anger.

(1) Cognitive appraisal of persons or situations is important to the arousal of anger.

(2) Cognitive evaluation of perceived alternatives effect the experience of anger.

(3) Attitudes and beliefs effect the frequency with which situations will be appraised or evaluated in such a way as to arouse anger.

In order to effect the reduction of anger, there are, then, at least three points of intervention:

(1) Reappraising the situation.

(2) Evaluating alternative actions.

(3) Changing attitudes and beliefs.

Feshbach (1964) and Kaufman (1965) in their reviews on anger and aggression pose similar analyses of intervention points.

Cognitive Aspects of Aggressive Behavior

While a brief rationale has been presented for considering the cognitive aspects of emotion, i.e., anger, it is equally important to consider the cognitive elements of behavior, i.e., aggression. The importance of demonstrating the cognitive links to both emotion and behavior should be self evident. For herein lies an important means of intervention in reducing both anger and aggression-changing attitudes, evaluations, and perceptions.

The evidence pointing to cognitive-perceptual processes effecting behavior comes from a variety of sources. Valins and Ray (1967) in an ingenious experiment manipulated heartbeat feedback to snake phobic subjects. Those who heard what they thought to be their heartbeats were not aroused in the presence of snakes when the feedback they received ("bogus heartbeats") indicated that they were not aroused. Under this condition, they actually decreased their avoidance of snakes. In other words, thinking they were not afraid led the subjects to act as though they were not afraid.

Meichenbaum (1966, 1971) working with impulsive children hypothesized that they would manifest less verbal control over their behavior

and would use internal speech in a less instrumental fashion. Using a paradigm developed by Luria, he developed a training program to enhance their ability to cognitively self-instruct themselves to be task relevant. First E modeled cognitive self-instruction aloud to S, then S instructed himself first overtly then covertly. This training resulted in increased performance on the Porteus Maze test, performance IQ on the WISC, and on a measure of cognitive reflectivity. He also applied this technique to hospitalized schizophrenics and was able to significantly reduce the number of bizarre or inappropriate statements made in interview situations. In this series of experiments, Meichenbaum effectively demonstrates the importance of cognitions in directing behavior. For other work corroborating this same thesis, see also Landau, 1971; Landau and Landau, 1969; and Lovaas, 1961.

Turning more specifically to studies directly relating to aggression, Berkowitz (1969) provides direct support that interpretation or perception of stimuli effects aggression. S's were given information via an "anger meter" to make them believe that they had experienced different degrees of anger. This "bogus" information later effected the magnitude of S aggressive responding in a frustrating situation.

Berkowitz (1963, 1968) has also demonstrated that subjects witnessing a violent film were more aggressive if a cognitive set was employed that justified the violence or if an association was made between the person in the film and the frustrator (confederate). He concluded that violent movies which provide a justification or incentive for violence can under some circumstances increase the likelihood for aggressive behavior. Support for the notion of interpretation and consequence effects on behavior comes from a pair of related experiments

by Lazarus (1964, 1965). He manipulated cognitive set by altering sound tracks and providing orientation passages to S's seeing the "Subincision" film. He found that this same potentially disturbing movie produced varying degrees of stress reaction depending on how S's interpreted it.

Another line of evidence supporting the importance of cognitive-perceptual processes in aggression comes from several studies illuminating what Staub (1971) refers to as "the need for reciprocity." This refers to aggressive behavior motivated by a desire to balance physical or psychological harm and by the perception of unfairness or injustice. Children were shown to be less willing to share with a child who previously had been selfish (Staub and Sherk, 1970). Female subjects were more willing to receive shock when their partner received shocks, even though it was through no fault of their own (Rawlings, 1968). Thus, the concepts of justice and fairness (cognitive constructs) and the perception of these in situations can also effect aggressive behavior.

In addition, the motives of the person inflicting harm determine the victims reactions. If frustration is perceived as arbitrary, there is a greater likelihood that the victim will react aggressively. In a study by Burnstein and Worchel (1962), subjects in a group were prevented from reaching their goal of a unanimous decision by having one member continually interrupt and ask questions. In another condition, the group member acted in the same manner but, in addition, wore a hearing aid attesting to an obvious hearing defect. On measures of aggression, the first group was significantly more aggressive.

In a similar vein, Mallick and McCandless (1966) investigating the effect of intent on subsequent aggression had third grade children

frustrated by older children who interfered with the completion of tasks which deprived the S's of winning money. Subsequent aggression (retaliation) was significantly reduced when the frustrators' behavior was explained to the children as not malicious in intent, but mainly the result of tiredness and clumsiness. For related studies, see also Pastore (1952) and Fishman (1965).

This review has illuminated at least two ways in which cognitive appraisal effects aggressive behavior:

(1) Cognitive perception of the amount of anger experienced in a situation directly effects the amount of aggression expressed.

(2) Cognitive sets can provide a justification for aggression and thereby increase it.

  (a) perceptions and beliefs regarding fairness and justice effect the amount of aggression a person will express in a given situation.

  (b) Beliefs about intention to harm or perceptions of arbitrariness of frustration effect the amount of aggression that will be displayed.

In considering the modification and reduction of aggression, Feshbach (1964) as well as Kaufman (1965) and Pepitone (1964) consider that a reevaluation of the stimulus eliciting hostility is the most effective means of reducing aggression. Feshbach (1964) points out that once the meaning of a particular stimulus has changed, the stimulus situation has changed which evokes a new response. Therefore, the major point of intervention in the above cognitive instigations to aggression would be a reinterpretation of the stimulus to set up

alternative modes of action. Thus, an individual could be taught that his perception of his anger could serve as a cue for alternative behaviors (i.e., assertiveness, problem solving) or could serve as a cue that he is interpreting a situation as more threatening than in actuality it is.

Just as an individual can be provided with a cognitive rationale justifying aggression, it would seem logical to assume that cognitive reappraisal can be used to minimize aggression. Perceptions of unfairness and injustice could provide stimuli for alternative behaviors (assertiveness, problem solving). Finally, perceptions of intent to harm or thwart could be open to other interpretations and courses of action.

Learning Aspects of Anger

It is important for the thesis of this paper to consider at least some of the ways in which learning effects anger. This does not preclude the effect of such physiological factors as hormonal levels, metabolic rates, or inherent reactivity (see Moyer, 1971) but rather focuses on those factors which are often overlooked in theories of emotion which appear to be important both theoretically and clinically. This discussion will attempt to illuminate how cultural perspectives, classical conditioning, and instrumental learning effect anger.

There are three important ways that culture effects anger; through the perception or appraisal of emotional stimuli, the shaping of social relationships, and the influencing of systems of judgment (Lazarus, 1970).

There are numerous anecdotal stories of stimuli being fear inducing

in one culture and anger inducing in another. For example, in India if someone stealthily kills a "sacred cow" in the middle of the night this might set off in him fears of recrimination from the gods; on the other hand, if this same event were to occur in West Texas, it would likely raise the ire of the victimized cattle baron. In addition, Lazarus (1970) reports data that show cultural influences on perception affecting such things as optical illusions and responses to pain! Further, Schachter (1967) has demonstrated the importance of social context on the interpretation of bodily states during arousal. These various reports suggest that there are common culturally shaped perceptions and evaluations of stimuli that give rise to specific emotional responses and that these are learned as a function of being a member of that culture. It would, therefore, be important to identify some of the frequently occurring perceptions or evaluations of situations that give rise to feelings of anger. Preliminary work has been carried out by Doering et al. (1962) on perceptions and Ellis (1962) has articulated a series of evaluations that commonly occur in this culture that elicit feelings of anger. These will be described in detail in a latter section of this chapter.

The shaping of social relationships can be seen by such examples as the caste system in India, permissive sexual attitudes among Polynesian groups, and the Quaker tradition of early separation of the sexes. The values inherent in each of these cultures determine what will be seen as "good" or "bad," "right" or "wrong" behavior. So that having more than one wife in Uganda will elicit a very different response in that culture than the discovery of a man married to more than one woman would in this culture.

This can be seen even more dramatically in Mead's report of the Mundugomor and the Arapesh (Mead, 1935). In the one culture, adults are very hostile toward children and, in general, are vengeful and aggressive in their social relationships. In the other, they are very affectionate toward their children and generally are cooperative and mild mannered. The most parsimonious explanation for these dramtic differences is that the predominant attitudes and values differ in the two cultures and are acquired through a social learning process.

That cultural context effects systems of judgment can be seen clearly in the Japanese concept of amae which has no exact Western translational equivalent. It means approximately a wish to be loved or a need for dependency but carries a positive connotation, not the neurotic meaning often ascribed here. Accordingly, the Japanese view this as a very basic emotion seen even in animals and they react with surprise that Western language is devoid of this concept (Lazarus, 1970).

Taken together then, these three aspects of cultural influence point to the role of learning via cultural norms or values and, in turn, demonstrate the impact of these learned values on emotion.

Turning to another aspect of learning--classical conditioning, Kaufman (1965) poses this hypothesis regarding anger:

> Initially unlabled emotional arousal has in the past of an individual's experience been conditioned to stimulus situations regardless of subsequent responses. When such a stimulus situation recurs, so should the arousal which is then labeled anger in the manner described by Schacter and Singer (1962) (p. 356).

Because anger may be conditioned in this manner, Kaufman (1965) cautions that it is not to be viewed as permanent or unalterable but becomes established only if it fulfills an instrumental role. As

Spence (1966, 1959) has shown in other classically conditioned responses (e.g., eye blink), these responses can be altered with changes in cognitive awareness (for example, the decision not to blink).

This suggests that while anger may be conditioned to certain classes of stimuli, this response can also be modified if:

(1) it no longer is instrumental,

(2) other responses are equally instrumental,

(3) reevaluated under different cognitive sets.

Another consideration in the learning aspects of anger is the instrumental functions it serves in reaching a goal (Lazarus, 1970). A typical example is the child who wants a piece of candy and may learn that to simply ask is to no avail, but throwing a temper tantrum is highly effective. Therefore, he is reinforced for this behavior because it enables him to get what he wants. An individual who in the past has been rewarded for aggressive behavior may have learned that emotional arousal which he identified as anger facilitated such aggressive behavior so he, therefore, learns to work himself into a rage to energize his aggressive behavior.

Patterson et al. (1967) in his study of aggressive boys noted that initially there was little evidence of anger, the boys learning that certain aggressive acts were successful in securing a goal. However, later, once the behaviors were learned, the evidence of emotional arousal was much more frequent.

Kaufman (1965) poses an additional mechanism whereby anger may be instrumental. He suggests that anger, in some instances, may follow aggression as a guilt-reducing response. A person who feels guilty after having been aggressive rationalizes by producing anger. He

states: "More generally, self stimulation to anger following aggression may have dissonance or anxiety-reducing properties" (p. 356).

In summarizing the various ways that anger can be learned, it becomes important to assess:

(1) The cultural values and perceptions of stimuli that give rise to feelings of anger.

(2) Classes of stimuli that have become conditioned to anger arousal.

(3) The instrumental value of anger responses.

Learning Aspects of Aggressive Behavior

In evaluating the learning aspects of aggression, it is important to identify the various ways that aggression has been demonstrated to be learned. Therefore, considerations will first be given to studies which illuminate reinforcement effects followed by reports of observational learning effects on aggression.

Several studies have demonstrated that aggression can be increased by reinforcing an aggressive response. Children were reinforced for verbal aggression against dolls ("bad doll," "doll should be spanked") in a study by Lovaas (1961) and the number of such responses increased. Walters (Walters and Brown, 1963) reinforced children for striking a Bobo doll and the frequency of hitting rose. Walters (1964) also demonstrated that women gave higher electric shocks to another person when rewarded for doing so. Buss (1971) further showed that college males would increase aggressive responding when rewarded for doing so by a confederate giving a "correct" response when they did so. A study by Doering et al. (1962) showed that both verbal aggression could be

increased and then transferred to a new (but similar) test situation. This was also found in a study of role playing by Wagner (1968).

What these studies suggest is that just as aggression can be learned through direct reinforcement, hypothetically aggression could be unlearned by the reverse process, i.e., reinforcing non-aggressive behaviors. This point will be elaborated in a later section of this chapter.

There is also evidence suggesting other types of reinforcers that operate on the learning of aggressive behavior. Buss (1961) argues that the reward may be internal as well as external, such as a sharp drop in anger levels. Studies by Hokanson and his colleagues provide indirect support for this hypothesis (Hokanson and Burgess, 1962; Hokanson, Willers, and Koropsak, 1968). S thought he was interacting with a fellow subject (experimental accomplice). After S received one of the three responses (shock to finger tips, a light in his booth, or nothing - ignoring response) he was then signaled to respond. In addition to recording how S responded to each signal, vascular patterns (heart rate, blood volume) were also monitored. Thus, Hokanson was able to evaluate the nature of the response to aggression for both male and female subjects and to assess the relationship between the response and vascular arousal reduction. The results of the experiments showed the following:

(1) Male and female subjects showed vascular arousal after being shocked.

(2) Males were more likely to respond to shock with shock and exhibit rapid arousal reduction; furthermore, on those trials where they responded to shock with friendly (reward) responses, arousal reduction was slow.

(3) Females, on the other hand, responded to shock with friendly responses and showed rapid arousal reduction; while ignoring or aggressive responses yielded slow arousal reduction.

(4) When females were punished for responding to shock with reward and rewarded for responding to shock with shock, they increased their number of counter aggressive responses and exhibited rapid arousal reduction.

(5) Similarly, when males were punished for responding to shock with shock and rewarded for responding to shock with friendly responses, they exhibited rapid arousal reduction when they emitted friendly responses but their frequency of counter aggressive responses did not change (although with more trials they may have done so).

In line with Buss's hypothesis, in the first part of the study males dropped in arousal after making an aggressive response which might very well serve as a reinforcer and thereby explain the heightened number of aggressive responses in males. This gains additional support from the female data which did not show either reduction in arousal after an aggressive response or a high frequency of aggressive responses. Hokanson's own thesis is similar and is based on social learning principals. In brief, he speculates that males in this society are rewarded for acting aggressively (get what they want), whereas, females are most often rewarded for passive or docile behavior.

The second part of the study is even more interesting with regard to the reduction of aggression. It clearly shows that aggressive responding can be modified through reinforcement of alternative behaviors.

Related to studies showing direct reinforcement for aggressive behavior have been several studies showing the effects of pretraining on post frustration responding. Davitz (1952) conducted a study with seven to nine year old children who were divided into two groups. One group received aggressive training in which they played "Cover the Spot," Break the Ball," and "Scalp." For example, in "Cover the Spot" a small "x" was placed on a mat and the children were told to cover the spot with some part of their body. It was emphasized that there were no rules limiting the amount of aggression. The other group was provided constructive pretraining tasks such as doing mural drawings or completing jigsaw puzzles. They then watched a film which was interrupted at the climatic point and put in a free play situation. The children who were given the aggressive pretraining experience were significantly more aggressive in the free play period.

Related to this is the work of Bard (1971) with a small group of New York City policemen. A group was selected for training to handle the highly volatile family crisis calls received by the precinct. This program focused on giving information about family life and training on the use of available alternatives for intervening in family disputes. It is interesting to observe that the pretraining given the police produced dramtic reduction of counter aggression on the part of the police in these situations.

The importance of observational or imitative learning on aggression has been explored primarily by Bandura (1969, 1971). He has argued that the operant method of learning (via reinforcement) is an extremely slow way to acquire new behaviors, whereas, observational learning (where subjects observe a model) yields rapid learning rates. Then, depending

on whether the model's behavior is reinforced, the learning is transformed into imitative behavior which becomes maintained, supported, or suppressed depending upon the environmental contingencies (Bandura, 1965, 1969). In reference to aggressive behavior, Bandura et al. (1961, 1963) has shown with children that these behaviors can be increased via a live or film model. Berkowitz (1968) has shown that aggression can be increased for adults by film models. A related study by Hartmann (1969) with juvenile offenders found that both the intensity and duration of shocks rose after exposure to a film showing models expressing aggression.

Other studies have demonstrated that observation learning of alternatives is an equally effective means of lowering aggressive behavior. Chittenden (1942) had children observe a series of doll plays in which dolls served as models in the following sequence: (a) a preschool type conflict (e.g., two dolls beginning to vie for the possession of a wagon), (b) an aggressive solution which led to punishment (e.g., during a fight for possession of the wagon, it was broken), and (c) a cooperative solution and positive reinforcement (e.g., the dolls playing with and enjoying the wagon). Relative to a control group, the children in the observation group showed reductions in aggressive interactions during test situations in nursery school and one month later as well as an increase in cooperative interactions. Modeling and observational learning thereby proved effective in the learning of non-aggressive response styles.

A final consideration that is often overlooked in studies of aggression are social mores, customs, or rules that give or take away sanction to aggressive behavior. In the section on "Learning and Anger,"

the importance of cultural norms, perceptions, and judgments were shown to relate to emotional experience. In the same way in this society, such maxims as "You don't shoot a man in the back" or "All's fair in love and war" do effect how a person behaves. This was clearly demonstrated in two studies (Buss, 1971; Taylor and Epstein, 1967). In both studies, there were male and female subjects as well as male and female aggressors (experimental accomplices). The results showed that males refused to be as aggressive to females as they were to other males even though observation of the male subjects showed that the effects of being shocked by the female aggressor was making them highly angry. It seems as though the males were controlling their aggressive responses by an early learned social dictum that "Males do not hit (aggress against) females." These studies suggest that the learning of certain rules of behavior can be a highly effective means of reducing the probability of aggression even under circumstances where the person is not being externally rewarded for such behavior.

In summary, aggressive behavior:

(1) can be both increased and decreased through reinforcement contingencies,

(2) can be both increased and decreased via observational learning,

(3) is effected by the type of pretraining experiences, and

(4) is, at least in some instances, determined by cultural rules or norms.

The implications for the reduction of aggressive behavior would be:

(1) training in alternative non-aggressive behavior that would be reinforcing,

(2) provide models of alternative non-aggressive behavior,

(3) provide experiences in non-aggressive behavior to situations that would typically elicit aggressive behavior, and

(4) train people to incorporate new rules of non-aggressive responding.

Rational-Emotive Analysis of Anger and Aggression

In the preceding sections, arguments were given and evidence cited that give strong support to the cognitive and learning influences on anger and aggression. Since this thesis is concerned primarily with the development of interventions to reduce anger and aggression that are derived from cognitive-learning theory, a more detailed analysis of Ellis' psychotherapeutic system will now be presented.

With the publication of Reason and Emotion in Psychotherapy in 1962, Ellis presented a system of principals that has come to be known as Rational-Emotive Therapy (RET). The fundamental thesis of RET is "that human thinking is a basic cause of emotion, and that healthy and unhealthy emotional reactions are significantly effected by changes in peoples' cognitions" (Ellis, 1972, p. 36). From this basic premise, Ellis has identified at least twelve irrational beliefs that give rise to unhealthy emotions (among which are anxiety and anger). These he describes as irrational emotions because they are based on false assumptions or illogical beliefs. He further argues that these emotions are not only irrational but also dysfunctional in that they prevent an

individual from achieving his goals and from experiencing pleasure (Ellis, 1972).

Ellis (1962) distinguishes between feelings and emotions. Feelings are seen as "relatively pure sensory states and sensory appraisals" while emotions are seen to include "more wide-ranging cognitive-sensory processes" (p. 52). The main thrust of his approach is aimed at what he terms "sustained negative emotions" such as intense depression, anxiety, anger, and guilt which are maintained by repeated ideas and/or self-verbalizations. Ellis (1962) argues that these emotions are "almost always unnecessary to human living, and that they can be eradicated if people learn consistently to think straight and to follow up their straight thinking with effective action" (p. 56).

From Ellis' position, emotions can be changed or "educated" (Peters, 1970) by:

(1) identifying the beliefs and cognitions underlying emotions,

(2) demonstrating that changes in hypothesized beliefs lead to predicted changes in emotional experience,

(3) and consciously reevaluating events with accurate rather than false beliefs.

With regard to the main concern of this project, anger and aggression, Ellis (1962, 1972, 1973) argues that (a) anger is, for the most part, an inappropriate emotion and aggression an inappropriate behavior, and (b) that it "would be better" if anger and aggression were reduced or eliminated, and (c) it can be done.

Anger is an inappropriate emotion because it comes largely from the following beliefs and cognitions:

"I have to have what I want now."

"I can't stand it" (events, people, feelings).

"It shouldn't be this way."

"It's because of them, they are to blame,"

While it often happens that these ideas occur in a chain, each of these cognitions can be evaluated with respect to what makes it irrational. They will first be analyzed as individual statements and then shown how they could link together to form a chain of ideas.

The first statement, "I have to have what I want now" contains several untenable propositions: (a) a demand that the world operate to suit that particular person, (b) an implied necessity that the demand be granted, and (c) an unrealistic demand that the wish or desire be granted at that moment. Since there are very few needs that an individual requires to be able to survive (air, food, water), this belief is then empirically unverifiable and, therefore, irrational.

"I can't stand it" whether referring to events, people, or feelings is an unrealistic statement because even though events are unpleasant, painful, or difficult people are able to live through them and rarely succomb to them. This, then, becomes an exaggeration of an existing event which makes it both untrue and unverifiable.

"It shouldn't be this way" is another way of saying things should not be the way they are. This type of belief stems from a refusal to accept the fact of being frustrated and again demands that the world operate to satisfy the individual's desires. Even though many good reasons could be advanced for why it would be better if things were different, there are no reasons that can be given for why things should not be as they are. Therefore, this statement is illogical.

The last statement, "It's because of them, they are to blame" is irrational for several reasons:

(1) It assumes that every person has the freedom to act "rightly" or "wrongly" in relation to an absolute standard of truth and justice ordained by "God" or the "natural law" and if anyone uses his "free will" to behave wrongly he is a wicked person. These ideas have no scientific foundation because terms such as "absolute truth," "God," "free will," and "natural law" are definitional and can neither be proven or disproven empirically.

(2) When individuals perform acts that others consider "wrong" they usually do so because they are either stupid, ignorant, or too emotionally disturbed to refrain from doing so. Although they are responsible for what they did, it is unreasonable to blame them for being the way they are.

(3) Because of man's biological makeup and social training, it is unrealistic to expect him to act perfectly, but realistic to expect that he will make errors and make mistakes.

The statements identified above that give rise to anger most frequently occur when an individual experiences frustration. Other writers (Berkowitz, 1962, 1968; Buss, 1961; and Dollard et al., 1939) have also emphasized the correlation between frustration and anger. Landau (1972) has diagrammed an interpretation of Ellis' theory of anger in which frustration is implicated. (See Figure 1.)

From the diagram, the first point in the chain is a set of beliefs or expectancies. When the expectancy is disconfirmed, the cognition becomes part of the experience of frustration. These, in turn, lead to evaluations of the experience of frustration such as "I can't stand it,"

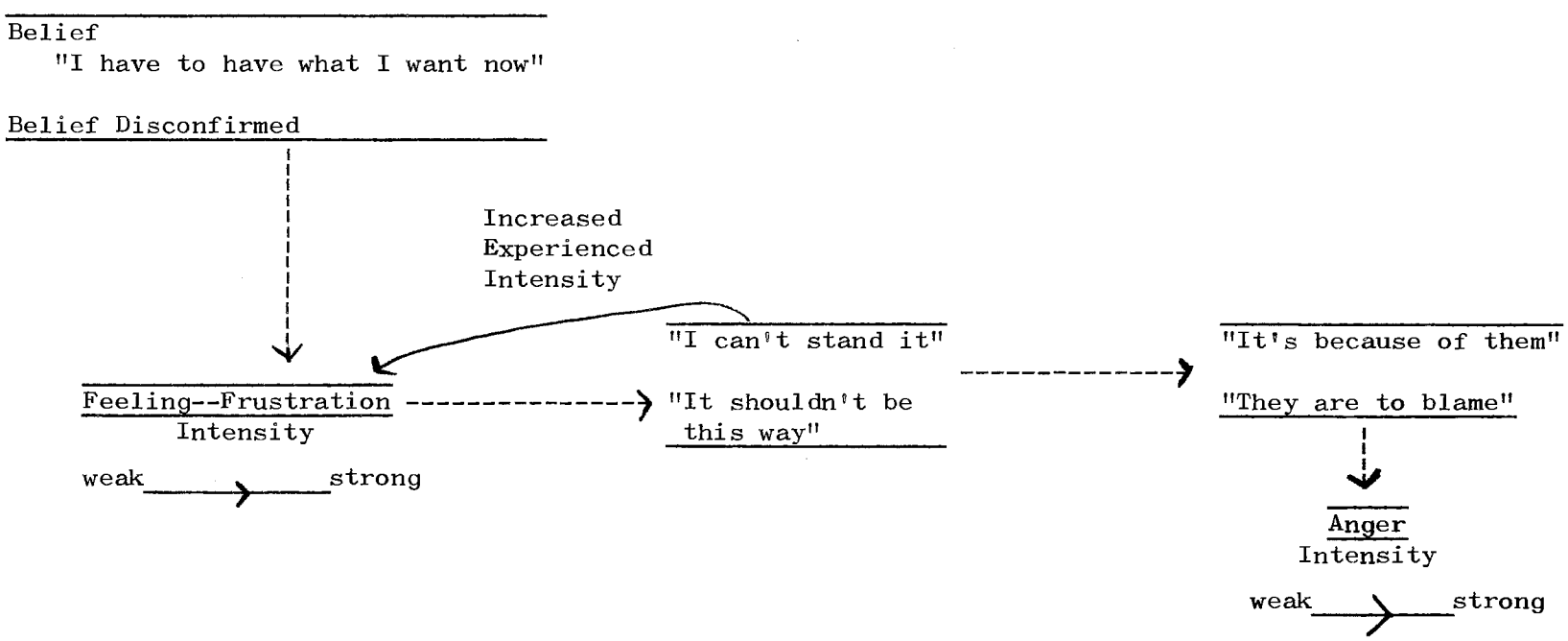


Figure 1. Diagram of Cognitive Statements Leading to Anger

"it shouldn't be this way." These then can, theoretically, feedback and intensify the experience of frustration and increase the probability of blaming cognitions.

The importance of cognitive "self stimulation" in intensifying negative reactions has also been noted by Berkowitz (1962):

> A person's hostile tendencies may also remain in full force if there is a consistent source of stimulation to aggression operating within him . . . . People may stimulate themselves to continued resentment against a frustrator, even after aggressing against him, if they continually remind themselves of the provocations they have received (p. 211).

And later on,

> . . . behavior of young children also illustrates the rapid dissipation of anger. Preschoolers are easily aroused, but their emotional excitement can vanish just as quickly. The children may not stimulate themselves to continued emotionality by thinking of the instigating situation. Once distracted their mood changes rapidly. Adults might also exhibit such shifts in mood if the instigating events did not remain symbolically in their thoughts (p. 222).

Returning then to Landau's diagram of Ellis' theory, there are at least three points of intervention to reduce anger.

(1) "I have to have what I want now." This belief could be changed from a demand to a desire. For example, "I would like to have what I want now." Desires can be seen as goals to achieve with a focus on "how to go about attaining what I want in the future."

(2) Once a person is thwarted and experiences frustration, an intervention at the "I can't stand it" point could prevent the escalation of the experience of frustration. For example, the individual could change his evaluation to "I don't like not getting what I want but I can stand it" or "things are the way they are even if I don't like them."

A person can also be trained to use his experience of frustration as a signal that his goal has not been reached and to then consider alternative ways to reach his goal.

(3) Table I shows some of the deterministic, practical, and philosophical arguments used by Ellis to challenge the blaming cognitions.

Hypothetically, these verbal statements should (a) interfer with statements which intensify negative feelings, (b) reduce the intensity of the frustration experience, (c) reduce the probability of blaming and anger, and (d) predispose the individual toward problem solving or assertive behavior rather than aggressive behavior.

The above analysis demonstrates both why Ellis considers the emotion anger an irrational emotion and various points of intervention to either reduce or eliminate anger. In addition, he points out the irrational aspects of the behavior aggression. He distinguishes between assertiveness and aggression in the following way:

(1) Assertiveness occurs when an individual actively seeks to get what he wants.

(2) Aggression occurs when the individual demands or dictates that he absolutely must get what he wants and/or blames others for his frustrations (Ellis, 1972).

Implied in this differentiation is that assertiveness is a rational behavior, whereas aggression would be viewed as irrational. Assertiveness comes from an individual's desires, while aggressiveness arises from an individual's demands. Assertiveness is related to goal-directed behavior and problem-solving behavior, therefore, the individual when seeking satisfaction can entertain alternatives should he be thwarted. Aggression, on the other hand, involves behaviors that are aimed at putting down or blaming another person when frustrated, expressions of

TABLE I

BLAMING-ANGER ARGUMENTS FROM ELLIS (1962, 1961)

I. Deterministic Arguments

A. Blaming others is based on the theological doctrine of free will. People become conditioned early to act in certain ways and it is most difficult to change. To blame an individual is to unfairly attribute to him a perfect freedom to choose his behavior.

II. Practical Arguments - negative consequences

A. Even when wrong conduct can be agreed upon it is senseless to blame because the person will almost invariably become preoccupied with punishing himself or refuse to admit he is wrong rather than on how to change the incorrect behavior.

B. One who blames himself for his errors will tend to be afraid of making mistakes and will forego experimentation and risk taking.

C. Blaming oneself or others leads to unpleasant feelings and increases the possibility of ulcers and diverts from changing the behavior.

D. If you blame others, this will lead to blaming oneself for errors.

III. Philosophical Arguments

A. Blame assumes that good or bad behavior is easy to define. To exorcise humans for their difficulties in defining and accepting good behavior is unrealistic and unjust.

B. Blaming a person means to confuse his wrong acts with his sinful being. No matter how many evil acts an individual performs, he cannot be intrinsically evil, because he could change his behavior and commit no additional wrong deeds. To blame a person for wrong acts is to say that because he acted wrongly in the past, he must always do so.

C. To blame inevitably means to become angry or hostile to a person-to feel he should not do what he did. Anger is a reflection of one's own grandiosity. One is saying: (a) I do not like Joe's behavior, (b) he should not have done this. The second sentence is a non-sequitur; because there is no reason why Joe should not have acted as he did, merely because I didn't like it. One is being God-like or unrealistic to believe that his preference regarding Joe's behavior should make Joe act differently than he did.

hostility, or angry demands that need be met.

Aggressive behavior is irrational and self defeating according to Ellis (1962) for the following reasons:

(1) Expressing hostility increases rather than decreases negative feelings.

(2) Expressing hostility toward others often elicits recrimination or penalization from others.

(3) Blaming or putting down an individual for his behavior rarely changes it.

(4) Expressing overt hostility absorbs so much time and energy that it diverts one from achieving his goals.

(5) The expression of hostility is disruptive and can lead to psychosomatic reactions and preoccupation with one's own negative feelings rather than more enjoyable pursuits.

For Ellis, much of aggressive behavior arises out of angry emotions and, therefore, major points of intervention to reduce aggressive behavior would be the same as reducing angry emotions as outlined above. In addition, Ellis as well as other RET therapists emphasize the importance of behavioral retraining as well as cognitive restructuring (Ellis, 1971). This is seen most clearly in the emphasis given in RET to homework assignments (Maultsby, 1970; Ellis, 1962). More specifically, the reduction of aggressive behavior would be accomplished by:

(1) Eliminating or replacing anger arousing cognitions and beliefs.

(2) Training an individual to assertively seek his desires rather than aggressively demanding them.

(3) Training an individual to express his displeasure rather than hostility or blame.

(4) Training an individual to express his dislike of acts and

behaviors of others rather than disapproval or hostility toward the whole person.

(5) Having the individual practice assertive behavior in instances where he is usually aggressive.

Empirical Review of RET

An equally important consideration in Ellis' analysis of anger and aggression is not only that it would be better if both were reduced but that it can be done. There appears to be no direct experimental confirmation of the effect of cognitive approaches to the reduction of anger and aggressive behavior. However, clinical and theoretical analysis of Murder and Assassination (Ellis and Gullo, 1972) as well as careful experimental tests of Rational-Emotive Therapy with respect to anxiety support the hypothesis that Ellis' analyses and procedures are important. Other work has shown that procedures that are effective with anxiety are also effective with anger (Rimm et al., 1971; Hokanson, 1962, 1968; Bandura, 1961). With regard to the effectiveness of Ellis' methods, studies will be described that have used RET in their research designs.

Meichenbaum et al. (1971) observed:

> In two large reviews of the psychotherapy literature, Eysenck . . . concluded that only three studies offered even meager evidence for the existence of psychotherapy effectiveness. Two of these three studies used the "semantic" psychotherapies of Phillips . . . and Ellis . . .; the third approach to yield evidence of effectiveness was the desensitization therapy of Wolpe. Much recent work has seemed to confirm the efficacy of desensitization treatment . . . yet little research has been conducted to discover what might determine the effectiveness of semantic psychotherapies (p. 410).

The major comparisons in Meichenbaum's experiment were among four treatment groups for speech anxiety: (a) a desensitization condition

(which previous research had shown to be effective), (b) an Ellis Rational-Emotive procedure in which it was emphasized that:

> . . . speech anxiety is the result of self verbalizations and internalized sentences which are emitted while thinking about the speech situation . . . (the goal of therapy) was to become aware of . . . the self verbalizations and self instructions . . . and . . . to produce incompatible self instructions and incompatible behavior. . . . no behavioral rehearsal or assertive training . . . was conducted,

(c) a combined desensitization and Rational-Emotive procedure, and (d) a speech discussion placebo group. Each group met for eight weekly one-hour sessions.

The results were as follows: (a) on a variety of measures (subjective fear, judged fear, and behavioral anxiety) both the desensitization and the Rational-Emotive groups showed marked improvements, (b) the combined desensitization and Rational-Emotive group was less successful than either group alone (Meichenbaum notes that since this group received only the last four sessions of insight training "sufficient time was not left to explore incompatible self instructions and behaviors"), and (c) the relationships were maintained among the groups after a three-month follow-up. The authors note "that modification of both the 'autonomic arousal' as well as the accompanying cognitive determinents . . . should provide maximum change." In agreement with the writers, it would seem that "variations of the present combination of desensitization and self-instructional insight therapy . . . may still prove to be the most effective treatment for reducing anxiety."

Another important finding was reported in a post-hoc analysis. It was observed that two types of subjects within each treatment group could be differentiated; one type appeared shy in many interpersonal situations while the other appeared anxious, specifically in the speech

situation. A treatment by subject interaction was found which indicated that the generalized anxiety subject was significantly improved over the specific fear subject in the Rational-Emotive treatment and combined Rational desensitization group, whereas the specific fear subject was most improved with desensitization treatment.

In a similar study (Meichenbaum, 1972) with test anxious subjects, the cognitive modification group (which combined awareness of anxiety producing thoughts, coping imagery, and self instruction to attend to the task) was more effective than the desensitization group at post-treatment and one-month follow-up. It was further found that the cognitive modification group did not differ from a control group of low test anxious subjects.

Other work by Meichenbaum and his associates have consistently demonstrated the importance of cognitive modification to behavior change (Meichenbaum and Goodman, 1971; Steffy and Meichenbaum, 1970; Wine, 1971; Meichenbaum, 1971).

Di Loreto (1968) in an important doctoral dissertation specifically investigated interpersonal anxiety reduction as a function of client type (introvert-extrovert) and type of therapy (Rational-Emotive Therapy, RT; Client Centered, CC; and Systematic Desensitization, SD). Each group (5-6) met for nine weeks in one to one and one-half hour sessions. The major results were as follows: (a) with respect to introverts RT was more effective than CC and equally as effective as SD on most self report and behavioral measures. On the "daily logs" of outside interpersonal contact, RT was twice as effective in increasing outside contact than CC and thirty percent more effective than SD, (b) RT was less effective with extroverts. This finding is in agreement

with Meichenbaum's results that RET was most effective with subjects who evidenced generalized anxiety. This seemed in part due to the differences in the two RT counselors with extroverts. One was able to produce significant reduction in anxiety relative to the controls and the other was no more effective than simple attention or no treatment at all.

Burkhead (1970), also in a doctoral dissertation, investigated the effectiveness of RET on anxiety. Anxiety was induced in subjects by the expectancy of an electric shock. To determine the effectiveness of personal contact, one group received RET by a tape recording and another group received RET through personal contact with a therapist. A third group listened to a tape designed to reinforce irrational beliefs and the control group read magazines during the treatment. Using GSR and Multiple Affect Adjective Check List both groups receiving RET showed a significant reduction in anxiety. An increase in anxiety was found in the group reinforced for irrational beliefs. The fact that subjects receiving RET by tape showed as much anxiety reduction as those who received RET with a therapist suggests two things: (a) that Ellis' analysis of anxiety is useful and (b) it is easy to understand and apply his concepts.

In support of these hypotheses, Maultsby (1971) conducted a study with outpatients in which the primary treatment was systematic written homework based on the theory of RET. Patients identified irrational beliefs, challenged them, and replaced them with rational beliefs. Analysis of variance revealed that ratings of improvement (by independent judges) varied with patients' use of the homework exercise.

Further support for the effectiveness of RET in reducing anxiety

comes from a study by Karst and Trexler (1970). They compared two cognitive therapies (Kelly's fixed role and Ellis' Rational-Emotive Therapy) with no treatment for speech anxious subjects. Even with brief treatment (three sessions spaced several days apart) both therapy treatments were superior to no treatment on both self report and behavioral measures. At posttest several measures showed a slight superiority of fixed role therapy over RET but at six month follow-up these differences disappeared.

In his new book Humanistic Psychotherapy (1973), Ellis also cites the following studies demonstrating the effectiveness of RET techniques (Maultsby, 1970; Baker, 1966; Sharma, 1970; Zingle, 1965; Shapiro et al., 1959, 1962). In addition, several studies have been undertaken to evaluate Ellis' basic thesis of the relationship between irrational thinking and emotional disturbance (Rimm, 1969; Davies, 1970, 1971; Mac Donald and Games, 1972; Jones, 1968; Taft, 1965).

Reviewing the results of this section, several points have been demonstrated:

(1) Cognitive-linguistic procedures are effective in reducing subjective as well as behavioral indices of anxiety.

(2) Cognitive-linguistic procedures are especially effective with generalized anxiety.

(3) Cognitive-linguistic procedures are effective even without the intervention of a therapist.

(4) Irrational beliefs are related to emotional responding.

Empirical Review of Assertive Training

In evaluating Ellis' approach to the reduction of anger and

aggression, it is important to consider behavioral retraining as well as cognitive education. In this regard, Ellis (1973) states that RET:

> . . . not only shows the client what his maladjustment-creating philosophies are, but . . . induces him to attack, challenge, and work against these philosophies and to retrain himself to think and behave more efficiently (italics added) (p. 37),

and in another article (1971),

> . . . it (RET) not only employs cognitive and evocative-expressive methods but it also includes some of the main elements of behavior therapy, especially our desensitizing homework assignments . . . (p. 13),

and later on,

> All therapy . . . includes cognitive, emotive, and behavioral methods; and RET consciously and specifically does so (p. 13).

As was noted above, Ellis distinguishes between assertiveness, in which the individual actively seeks to get what he wants and aggressiveness, in which the individual angrily demands that he be satisfied or blames others for his frustrations. This definition of assertiveness is similar to the one given by Fensterhein: "an open and direct, honest, and appropriate expression of what a person feels and thinks" (Fensterhein, 1972, p. 21). Alberti and Emmons (1970) also define assertiveness as "Behavior which enables a person to act in his own best interests, to stand up for himself without undue anxiety, and to exercise his rights without denying the rights of others" (p. 7).

Assertive training as conceptualized by recent theorists (Kelly, 1955; Wolpe, 1958; Lazarus, 1965; Salter, 1961) involves direct training for individuals who have difficulties in interpersonal situations through the use of such techniques as behavioral rehearsal, modeling, and coaching. These techniques may involve any of the following procedures: hierarchical presentation of stimulus situations, operant

shaping by the therapist, constructive criticism, role playing, role reversal, repeated playbacks of tape recorded responses, homework assignments, postural and vocal analysis, therapist lecturing, relaxation, or exaggerated-role therapy (Wolpe and Lazarus, 1966).

While there has been an increased interest in assertive training techniques as evidenced by the large number of papers presented at the 1973 meeting of the Association for the Advancement of Behavior Therapy, this author has been unable to locate any studies using assertive training to reduce aggressive behavior. The studies that have been reported have been, for the most part, designed to train anxious and inhibited persons to be able to express themselves in anxiety-producing situations. However, it should be noted that in nearly all of the studies reviewed some aspects of the training procedure were to instruct individuals on how to be assertive in situations where they were confronted with an aggressive individual.

One hypothesis that could be plausible is that the inhibited individuals in at least some of the cases were highly angry and experienced anxiety because of fear of expressing their anger. Support for this hypothesis comes from a recent study by Berkowitz (1969) in which subjects who were made to think they were either low or high in anger were less aggressive (shock administered) than those who thought they were moderate in anger. There was also evidence that the high anger subjects had inhibited strong aggressive responses because the knowledge that they were angry made them highly anxious. Since the studies which report assertive training did not measure for anger levels, this will have to remain as only an interesting hypothesis. A review of the studies using assertive training procedures will be presented to assess

the effectiveness of this approach in producing behavioral change.

Lazarus (1966) claims to have reported the first objective study of behavioral rehearsal in which he compared it to direct advice and non-directive therapies in training patients to be more assertive. He found behavioral rehearsal effective with 86% of his patients with the other two falling clearly behind (44% and 32%, respectively).

This study is only suggestive of the value of assertive training and would hardly be convincing because Lazarus is no doubt more committed to behavioral rehearsal as a technique than the other methods and because his procedures were not very explicit or objectively defined.

These objections have been overcome in two related studies by McFall and his associates (McFall and Marston, 1970; McFall and Lillesand, 1971). In the first study, a semiautomated and standardized procedure was developed paralleling behavioral rehearsal procedures. Subjects responded to tape recorded situations and either heard a tape replay of his response (Experimental Group I) or was told to think about his response (Experimental Group II) after which he gave a verbal evaluation of how he did based on an outline of acceptable performance variables. Each subject received four one-hour training experiences with increasingly difficult situations that they were required to respond to. On behavioral, self report, and physiological measures, subjects receiving behavioral rehearsal improved more than placebo-therapy or untreated controls. The response feedback (Experimental Group I) tended to be more effective than no feedback (Experimental Group II).

In the second experiment, modeling and coaching were added to the basic procedure. After the subject responded to the taped situation, he heard taped responses of an assertive response (modeling) and then heard

a narrator describe what makes a good assertive response (coaching). Subjects received two twenty-minute training sessions. With only forty minutes of training, the behavioral rehearsal-modeling-coaching group improved significantly more than the controls on both self report and behavioral measures.

An interesting side light to these studies is that the training procedures were effective with much fewer sessions involved (four and two, respectively) than the often used design which is one hour per week for eight weeks (e.g., Meichenbaum, 1971; Paul, 1965).

Behavioral rehearsal was investigated as to its effectiveness in a small group counseling setting with unassertive college students (Hedquist and Weinhold, 1970). This procedure was compared with another behaviorally oriented procedure (Mainard's Social Learning Approach) and an untreated control. The groups met for six sessions and kept diaries of their outside assertive responses. The first three weeks showed highly significant differences. The two experimental groups did not differ from each other. This study demonstrates that behavioral rehearsal training can be adapted to a small group ($N = 10$) and that subjects charting of their own assertive behavior outside the group was a reliable procedure (reliability was partially checked by comparing subjects' reports to class diaries that were required for a course all subjects were enrolled in).

Bandura (1971) reports a doctoral study by Friedman (1968) in which he investigated the effects of verbal modeling, behavioral modeling, and behavioral rehearsal with non-assertive college students.

One group received verbal modeling (subjects read a script of assertive responses) and behavioral rehearsal (practiced assertive

responses). A second group received behavioral modeling (model demonstrated assertive responses) and behavioral rehearsal. Another group generated their own examples of assertiveness and then rehearsed. Other groups received either behavioral modeling alone, verbal modeling alone, or served as controls. On self report and behavioral measures, the behavioral modeling plus rehearsal group increased their assertiveness threefold. The other treatment groups doubled their assertive responding and were significantly more assertive than the control group (unchanged) but did not differ from each other. It can be seen from this study that modeling and rehearsal clearly are effective techniques in increasing assertive responding and in combination (at least in the use of behavioral modeling and rehearsal) are impressively effective.

Eisler (1973) looked at the effect of giving assertive training to one partner in a marital dyad. Three couples were videotaped discussing their marital conflicts before and after the husband received assertive training. Training consisted of rehearsal of specific behaviors (e.g., response latency, duration of speech, loudness of voice, and duration of looking) which previous work (Eisler, 1973) had shown to be related to judgments of overall assertiveness. Rehearsal was carried out with a female research assistant who attempted to role play the subject's wife. The subject was instructed to increase the specific behaviors that were observed to be deficient from the first videotaped interaction. Results from the post treatment interaction (with wives) tape revealed that all three subjects' assertive behavior was increased while the wives' assertive behavior remained unchanged. However, there were some qualitative changes on the wives' part (more positive responses, less critical responding, and more smiling).

While this is essentially a pilot study, it further corroborates the effectiveness of even brief assertive training (45 minutes). This study further suggests that training one partner of a dyad can be effective in an intimate relationship and can be transferred and maintained under difficult circumstances (discussion of marital conflicts).

From the studies reviewed on assertive training, several techniques have been demonstrated to effect increased assertive responding. Most prominent has been behavioral rehearsal. Other techniques include feedback, coaching, behavioral modeling, verbal modeling. From these studies, the following points can be drawn:

(1) Assertive behavior can be trained.

(2) Practicing assertive responses seems to be the most effective variable.

(3) A variety of methods can be used to assure that a person understands what is meant by an assertive response.

(4) Increased assertive responding can occur with relatively brief and few training sessions.

(5) Assertive training can be effectively learned in a small group.

CHAPTER III

RATIONALE FOR STUDY

On the basis of the review of the literature, a cognitive-behavioral approach to the reduction of anger and aggression based on Ellis' cognitive-linguistic analysis and the behavior therapy approach to assertive training seems important both theoretically and clinically.

If, as the evidence cited suggests, anger and aggressive behavior are to a large extent under cognitive control and both the cognitions and the behaviors are learned, then an optimism toward the reduction of aggression and violence is warranted. This position is in direct contrast to the drive notion of aggression postulated by Freud and the frustration-aggression hypothesis articulated by the Yale group (Dollard, Doob, Miller, Mowrer, and Sears, 1939) in which aggression is viewed as necessary to relieve tension. The pessimism engendered by this view has been demonstrated (Berkowitz, 1962; Dennenberg and Zarrow, 1970).

The cognitive-learning approach views aggression as neither a drive nor a necessity, posing instead the alternative position that both anger and aggression are learned and, therefore, can be unlearned. It would seem, therefore, that clinical positions based in their theoretical position would offer the most to efforts aimed at eliminating or reducing anger and aggressive behavior.

Ellis' Rational-Emotive Therapy system is predicated on the

cognitive-learning view of emotion and behavior (Ellis, 1962). His system, thereby, offers a direct translation of theory into clinical practice. Ellis' system has the further advantage of having a fully developed philosophical system, a set of statements regarding beliefs and cognitions hypothesized to underlie emotional experience, and rational-empirical procedures which appear useful in producing change. In relation to anger, he specifies several philosophical beliefs (cognitions) which give rise to anger, presents logical arguments as to why these are irrational, gives examples of rational beliefs, and describes the resultant emotions. He further argues that these beliefs have been learned and can, therefore, be unlearned. He makes clear how the unlearning and new learning of beliefs would take place. The process of reducing anger would, then, involve the identification of the anger-producing cognitions (irrational beliefs) and substituting alternative cognitions (rational beliefs) that are non-anger producing. Since Ellis' system is clearly rooted in cognitive-learning theory and his cognitive beliefs and rationales for reducing anger are clearly spelled out, the decision was made to incorporate his procedures into a training program designed to reduce anger and aggression.

For Ellis, aggressive behavior is also a function of learning and cognitive evaluation. The individual believes that he must have what he wants now and learns to be demanding, hostile, or vengeful as a means of trying to insure that his demands are met. Ellis articulates the irrationality of aggressive behavior and views assertive behavior as the most appropriate alternative. His strategy for the reduction of aggressive behavior would be twofold. The first part would consist of convincing a person of the irrationality and self-defeating aspects of

aggressive behavior. The second would be trying to instruct the person to act assertively in situations that he would typically act aggressively. The first part of his strategy is clearly discernible from his writings but the second part is vague and unclear.

Since his description of assertive behavior is compatible with that presented by the behavior therapists, this literature was reviewed and found to give clearer training procedures and highly convincing results. For this study it was, therefore, decided to include both the arguments against aggressive behavior presented by Ellis and some of the assertive training techniques demonstrated to be effective in the behavioral literature.

This study, then, was an attempt to look at the effectiveness of a training program based on Ellis' Rational-Emotive system of therapy and certain behavioral techniques and to assess their effectiveness on the reduction of anger and aggressive behavior. The cognitive-linguistic arguments and techniques developed by Ellis to demonstrate the irrationality of both anger and aggressive behavior were used as well as behavioral rehearsal, modeling, and coaching techniques for increasing assertive behavior.

To test the effectiveness of the training program four groups of female subjects were selected who evidenced above average levels of anger and aggression. There were two experimental groups which received the cognitive-behavioral training procedures. Two groups were run to determine whether the effects would replicate. In addition, there were two control groups. One group met and discussed problems relative to anger and aggression with men but received no formal training. Another

group did not meet and served as a control for taking tests and filling out daily logs.

The cognitive-behavioral training procedures consisted of identifying irrational statements leading to anger, replacing these with rational statements, identifying situations where aggressive behavior occurred and practicing assertive responses to these situations. In addition, the experimental groups kept daily logs of their anger responses and behavioral responses in interactions with men.

The design for the study was a 2 x 4 factorial design. A 2 x 4 analysis of variance with repeated measures was used to assess the results of this study. A .05 confidence level was set to determine acceptance of the hypotheses.

Specifically, the hypotheses being tested were:

(1) The training groups receiving cognitive-behavioral training would significantly reduce their aggressiveness relative to the control groups (discussion control, minimum contact).

(2) The training groups receiving cognitive-behavioral training would significantly increase their assertive behavior relative to the control groups (discussion control, minimum contact).

(3) The training groups receiving cognitive-behavioral training would reduce their anger relative to the control groups (discussion control, minimum contact).

CHAPTER IV

METHOD

Subjects

The subjects for this study were 30 female freshman and sophomore students enrolled in introductory psychology courses for undergraduate credit at the University of Maryland. All subjects who participated in the study were volunteers who had high self-reported feelings of anger or aggressiveness and indicated a desire for inclusions in the groups. Subjects were given maximum extra credit for participating in the experiment. S's were randomly assigned to two experimental groups and two control groups. The randomization was limited to some degree by the subject's availability for the time that the groups met.

Selection Process

The following announcement was posted on the board designated for psychological experiments:

> As part of a research project, groups are being formed for women who would like help in dealing with their feelings of anger or hostility in their relationships to men. To see if you are interested or qualify, an orientation meeting is scheduled to explain the project and to administer a battery of tests.

At the orientation meeting, the project was explained in the following way:

> Many women are finding that they are experiencing many more negative and hostile feelings as they become increasingly aware of their secondary position as women. Women are reporting that this is especially affecting their interactions and relationships with men. This project was conceived to look at various ways which women could become more effective in dealing with their feelings and their relationships to men.
>
> In order to do this, we will be meeting in small groups two hours a week for four weeks. In order to determine whether the groups we are forming would be of help to you, a small assessment battery will now be given and approximately an hour of individual testing will be scheduled next week. At the end of the four group meetings, there will be another assessment which will take about one to two hours. In addition, part of the program will involve keeping daily records of your behavior which will probably take about 15 minutes.
>
> I am an experienced psychotherapist and will be leading the groups, however, these are <u>not</u> therapy groups, but groups in which we will try to understand the nature of our feelings and look at alternative ways of relating and responding to men.

After this explanation was given, there was an opportunity for those who were either not interested or did not have the time to leave before the assessment battery was given. Of those who attended the orientation sessions, approximately 10 chose not to participate.

The Buss-Durkee Inventory, The Attitudes Toward Women Scale, the

Irrational Belief Inventory, and the Scrambled Sentences were administered. After these were completed, each S was given a packet of 15 3 x 5 cards with the following instructions read aloud:

> Think of experiences or situations with men that have occurred in the past six months in which you have had feelings ranging from mildly annoyed to extremely angry. On the cards briefly describe these situations. Try to think of at least ten situations and put one situation on each card.

After this was done, they were instructed:

> Look at your cards again and see if you can rank order them from least to most angry, with least angry being the first card.

When this was completed, they received the following instructions:

> Now, I want you to imagine a scale from 1-100 like this (a ruler like scale with points marked off was shown) marked off in 10 point intervals, much like a thermometer scale. Now, think of a situation with a man where you felt very mild displeasure. Describe that situation briefly on one of your blank cards. Assign that card a number 1.

After this was done, the instructions continued:

> Now, imagine a situation with a man in which you would feel your most intense anger or rage. Briefly write down that situation. Assign that a number 100. (pause) Note that 50 is the midpoint intensity. Look over your cards and assign numbers to them. If you do not have an item at one of the intensities, use one of your blank cards to describe either a situation that has occurred or one in which you could

imagine a feeling at that intensity. So that when you finish you will have at least one situation at each intensity.

In this way, the anger hierarchies were developed and S's received training in discriminating various intensities of subjective anger. This procedure is patterned after the hierarchies Wolpe (1958) described in discriminating levels of anxiety. Rimm et al. (1971) also used a hierarchy of anger producing situations in a study of systematic desensitization of anger responses.

Once the hierarchies were completed, the instructions were given for the Daily Logs (Index of Anger and Aggressive Behavior).

> In order to get further practice in rating your feelings in situations with men, each of you will be asked to keep a daily log of your interactions with men in which you feel some degree of anger from mild displeasure to extreme anger. You also will indicate how you responded to that situation. That is, whether you were passive - said very little or did not say what you thought or felt; assertive - said what you thought or felt or stated what you wanted; aggressive - said what you thought or felt but in a hostile manner or made put down statements.

Each person was given a packet of Daily Logs and the instructions continued:

> You have seven sheets, use one sheet for each day for the next week, starting tomorrow. You will bring these sheets with you to your first group meeting. It is very important that these sheets be filled in each day and that you record each situation in which you feel some degree of

anger. This will both give you practice in recording your feelings and your reactions and also something to compare your feelings now with what your feelings will be later.

The orientation was given several times and the groups varied in size from 6 to 15. The purpose of the orientation meeting was twofold, (a) one was to inform the potential S's of what was involved in the study and how much time would be required if they decided to participate and (b) to administer the pre treatment battery to determine which women met the criterion for participation.

S's were selected for inclusion based (a) on their desire for inclusion and willingness to come to all group meetings and (b) a score above 25 on the Buss-Durkee Inventory. This combined score on the Buss-Durkee indicated they were above the mean on anger and hostility. This was determined by averaging the norms for three samples of college females (Buss, 1961). On the basis of these criteria, 10 women chose not to participate because of scheduling difficulties and three were eliminated because they did not score high enough on the Buss-Durkee Inventory.

All women who came to the orientation were contacted by telephone to (a) inform S's of the time of their individual testing; (b) inform S's of the time and place of their group meeting; (c) for those that did not meet the criterion, they were told that a group would not be meeting at the times they indicated they were available; and (d) the minimum contact control group was told it was not necessary that they should meet in a group but were asked to complete the Daily Logs each week and mail them to E.

Research Procedure

After the orientation session in which part of the pre assessment battery was administered, each S was contacted and scheduled for individual testing. During this time S's played the Man-Woman game with one of two confederates. All pre testing was concluded before spring semester break. Groups began immediately after spring break, one week later. All S's met in small groups (6-8) with the exception of the minimum contact group which did not meet at all.

Each group met at the same time each week for four weeks. E conducted all of the groups. At the end of the four-week training period, S's met in their respective groups (except the minimum contact group which was tested individually because of scheduling difficulties). At this meeting, the groups were administered the Buss-Durkee, List B of the Scrambled Sentences, the Irrational Belief Inventory, and were scheduled to again play the Man-Woman game. Each S played the game with a different confederate than at pre testing. A brief questionnaire was given at the conclusion of the game to evaluate the effects of participating in the project (see Appendix).

Daily Logs were collected from all S's each week (by mail from the minimum contact control group) and a new one given.

Research Instruments

The main battery of scales administered were designed to assess (a) self-reported levels of anger and aggression (Buss-Durkee Inventory, Buss and Durkee, 1957), (b) baseline anger and aggressive responding (Scrambled Sentence Technique, Watson, Pritzker and Madison, 1955; Index of Anger and Aggressive Behavior, author), (c) general level of

irrationality (Irrational Belief Scale, Fox and Davies, 1971), and (d) situational assessment of anger, aggressive, and assertive behaviors (Man-Woman interaction game, Psychology Today, 1971 modified by author). In addition, the Attitudes Toward Women Scale (Spence and Helmreich, 1972) was administered to assess the degree of identification of the female S's with current feminist values.

The Buss-Durkee Inventory (Buss and Durkee, 1957) has several advantages for research purposes. It provides seven subscales of hostility-aggression (assault, indirect, irritability, negativism, resentment, suspicion, verbal) and thereby allows for an analysis of patterning scores. The items are written to minimize social desirability. In a factor analytic study of the subscales, the results indicate that the various scales are tapping at least partially independent classes of behavior (Buss and Durkee, 1957). There is data to suggest moderate stability for most of the scales. Buss (1961) reports several sets of norms on college and psychiatric populations. The test also yields two factors that are consistent with the division between aggression and hostility. This scale was administered at both pre and post testing (Appendix B).

The Scrambled Sentence Technique (Watson, Pritzker and Madison, 1955) involves a neutral and hostile solution in unscrambling four words. Thus, "take arm his break" can be unscrambled to form "take his arm" or "break his arm." There are two equivalent lists of thirty items which can be used for pre and post testing (Appendix B). In this study, List A was administered at pre testing and List B at post testing. Buss et al. (Buss, Fischer, and Simmons, 1962) state that scores on this test represent a base level of aggressive or hostile responding and also

found it to significantly correlate with the Buss-Durkee Inventory, especially for females.

For group administration, the items were placed on slides with three second exposure time and five second intervals (pilot work had suggested these as appropriate intervals). S's were instructed to drop one word from the list and write down a sentence as quickly as possible. They were given two practice items.

The Index of Anger and Aggression (author) was developed to provide both baseline information and to assess weekly changes in the levels of experienced anger and the frequency of assertive and aggressive behaviors. The use of a similar technique has been reported by other authors (Di Loreto, 1968; Hedquist and Weinhold, 1970).

Subjects were instructed to keep daily records of interactions with men in which they felt any degree of anger or annoyance. They were told to briefly describe the situation, rate their level of anger from 1-100 (1 being the least possible, 100 being extreme anger or rage), and then indicate whether their response was passive (said nothing or did not say what they thought or felt), assertive (told person what they thought or felt), or aggressive (told person what they thought but in a hostile manner or made put down statements). This index was returned to E each week and a new one given (Appendix B). Logs were collected one week prior to the beginning of training for each week during training, and one week after training had concluded.

The Irrational Belief Scale (Fox and Davies, 1971) is a set of sixty items based on the irrational beliefs and ideas outlined by Ellis (1962). The subject responds to the items on a five point scale, from strongly agree to strongly disagree, with higher scores reflecting

higher levels of irrationality. This test was included to assess whether (a) the general level of irrational idea was affected by the training program and (b) whether training on one set of irrational beliefs transferred to other irrational beliefs. S's completed the inventory during pre and post testing (Appendix B).

The Man-Woman Interaction Game (Psychology Today modified by the author) was used to assess assertive and aggressive behaviors and feelings of anger during competitive play under high motivation ($10 to winner if 100 points were accumulated or $2 to winner independent of gained points) with a male (confederate).

This game was felt to offer several advantages for this study: (a) pilot work had shown the game to be absorbing and interesting to the players; (b) it is set up so that the female player is at a distinct disadvantage; (c) the wording on the spaces and cards are aimed at illuminating women's disadvantaged position in society and in relationship to men (e.g., one space reads for the Woman "Rare skills make you executive assistant. Ahead 2." For the Man "Same skill makes you executive. Ahead 4.") and, thereby, facilitating identification with the types of situations that were likely to arouse their anger; (d) the game is specifically designed for a male and female player and focuses on various male-female relationships (e.g., husband-wife, employer-employee, male-female colleagues); and (e) it is easy to administer, takes little space and equipment (a table and a game board), and can be played in a short time (20 minutes average).

The game was modified to further insure that the female player role (Woman) would be at a disadvantage. Cards were ordered such that the Woman would always lose, only cards were used in which the Woman would

gain a small number of points or more often would lose points. Cards were used or modified so that the Man would more often gain points than the Woman (a complete explanation of the game and the modifications appears in Appendix A).

One major change in the game was providing a set of 20 blocking cards to each player with the instructions that "the blocking cards could be used at any time in the game to cause your opponent to lose a turn" (the confederate was instructed to use only one blocking card on either his first or second turn).

The subjects played the game under the following guise:

> It is commonly assumed that men and women feel and act differently in competitive situations. Since there is an opportunity for one of you to win as much as $10, I want to know how fairly each of you play the game and how you felt during the game. (Read to players by E.)

Each player was handed a Fairness Rating Scale (with fairness ratings from 1 (fair) to 5 (extremely unfair), and feelings ratings from 1 (calm) to 100 (extremely angry). They rated how they were feeling and the fairness of their opponent when a tone sounded periodically throughout the game (every three minutes). This was done to assess S's feelings throughout the game and to make it appear that the confederate was angry (he was instructed to mark high angry feelings between 75 and 95 and to indicate that he thought she was playing unfairly with ratings of 4 or 5 and to make his ratings where she could observe them).

This measure provides an index of how much anger S is experiencing during the game. The average was taken of all the ratings to indicate an overall measure of the amount of anger experienced. This procedure

is similar to the "fear thermometer" ratings of anxiety reported by Lang (1963). This measure was included, as was Lang's, to enable pre and post comparisons of S's self reported affect level (in this study anger, in Lang's study anxiety) in the behavioral test situation.

The players were given instructions by E for playing the game (moving number of spaces on a rolled dice, reading instructions on spaces, drawing cards, keeping points). The complete instructions appear in Appendix A. Special emphasis was given to the Special Bonus Space (SBS) "The player who reaches or passes this space first, draws one of the cards from his Special Bonus pile. This is a very important card and can dramatically alter the game. This is especially important if you are behind in the game."

This is another major alteration in the basic game with the clearly marked space occurring halfway through the game. It was emphasized as important to provide an extra incentive for S to try to reach it. The only way S can reach SBS is to use blocking cards to cause C to lose a turn. The game is set up (unknown to S) so that no matter which player reaches the SBS first, the roles are switched and S takes the advantageous Man role. This modification was done for several reasons:

(1) It provides a measure of assertive behavior. The number of blocking cards that S used in an effort to reach SBS out of the number of opportunities available was the measure of assertiveness. The rationale for this being that this behavior is appropriate to achieving what she wants (i.e., to win the game, to win $10) and this is the only available alternative for doing so (the Woman role putting her at a distinct disadvantage).

(2) It also provides a measure of aggressive behavior. The number of blocking cards that S used out of the number of opportunities available once she had switched to the Man (after one player reached SBS) was the aggressive score. The rationale for this was that since S is now in the Man role, she has all the advantages and will win the game and efforts to thwart her opponent are punitive and unnecessary to the goal of winning the game.

(3) It enables S to win the game and to win $2 (100 points are impossible to achieve) and hopefully dissipate any negative feelings aroused by the game because of the positive outcome. Since this game was administered both prior to and after treatment, explanations of procedures and the deceptions were not given. It was, therefore, felt to be important to try to minimize any negative effects.

In brief, the game is set up for two players, the Man and the Woman. Initially S plays as the Woman and C as the Man. Halfway through the game, after one of the players reaches the SBS, roles are switched. S plays the remainder of the game as the Man and C plays the rest of the game as the Woman.

The game is played on a board with 76 spaces. Each player takes turns rolling a single die and moving the number of spaces rolled on the die. When spaces so instruct, they draw cards (there are separate cards for the Woman and for the Man) and follow out the instructions on the cards (move ahead, move back, add points, lose points). S keeps score of the number of points gained by each player and C keeps track of the

number of times S throws the die. This is done with a small hand adding machine and enables calculation of the number of blocking cards S used per the number of opportunities S had to use a card (used to calculate the assertive and aggressive scores). C covertly counted the number of blocking cards S used in each half of the game. He also noted which player reached the SBS first. Thus, with the exception of the anger ratings, C was responsible for collecting the measures from the game.

Two C's were used in the experiment. Both were advanced male undergraduates in psychology and both had had previous experience conducting experiments. They were both paid for their participation. Two C's were used to facilitate testing and to enable testing each subject twice with a different person. S was led to believe that C was an undergraduate participating in the game for "extra credit." Every effort was made to keep this guise (writing out bogus credit slips, having C arrive a couple of minutes later than S, having C ask for instructions to be repeated, to appear unclear about the game).

While this procedure offered certain advantages in trying to assess a behavioral measure of assertiveness and aggressive behavior, there were some limitations in the use of this game situation.

(1) The measure of assertive behavior derived from the number of blocking cards used in the first half of the game is confounded with aggressive behavior. Even though the instructions strongly urge S to try to reach SBS first, it would be impossible to determine whether her behavior was motivated by a desire to win (assertiveness) or a desire to attack her opponent (aggressiveness).

(2) The game as set up allows for only limited behavioral analysis (number of blocking cards used) and does not assess other types of assertive or aggressive responding (e.g., verbal behavior).

(3) The value of the measurements depends on S's involvement and identification and her "belief" that C is a naive subject.

(4) As was set up, S plays with a stranger rather than someone that she has a relationship with which, to some degree, probably affected her involvement and "real life" type of responses.

(5) Recording of S's responses was left entirely up to C with no opportunity for cross validation.

The Attitude Toward Women Scale (AWS) (Spence and Helmreich, 1972) was used to assess the degree of feminist identification of the female subjects in the study. This is a 55 item questionnaire with four response alternatives (Agree Strongly, Agree Mildly, Disagree Mildly, and Disagree Strongly) with lower scores representing more traditional or conservative attitudes and higher scores reflecting liberal or pro-feminist attitudes (Appendix B). Norms are provided for both male and female college students. This was included as a descriptive measure to better understand the type of female that participated in the study and to determine whether there was any relationship between type of attitude (conservative or feminist) and interest in participation in the study. Or stated another way, were women who were concerned about anger or aggression in their relationships to men more traditional or liberal in their attitudes toward women?

Testing for the study consisted of the following:

Pre Treatment Battery: The battery of scales administered prior to treatment included the Buss-Durkee Inventory, Scrambled Sentence Technique (List A), Index of Anger and Aggressive Behavior, Irrational Belief Scale, the Attitudes Toward Women Scale, and the Man-Woman interaction game.

In Treatment Battery: The Index of Anger and Aggressive Behavior (Daily Log) was completed each week during treatment.

Post Treatment Battery: The battery of scales administered after treatment was identical to the pre treatment battery with the exception of the Attitudes Toward Women Scale which was omitted and List B of the Scrambled Sentence Technique was given.

Treatments

Experimental Groups

Experimental Group I and Experimental Group II consisted of eight and seven S's, respectively. These groups received the same treatment, the only difference being that one group met in the morning and the other the afternoon of the same day. The groups each met for two hours per week for four weeks. Experimenter (E) lead all the group sessions and all sessions were taped with the knowledge of the S's. The first two sessions were focused on identifying anger producing cognitions and teaching alternative rational statements. S's practiced relating these concepts to their own hierarchies (anger hierarchies produced in orientation session and explained in the procedure section), identifying the irrational cognitions and practicing the rational statements.

The following is an outline of the first two sessions. A more

complete transcript appears in Appendix C.

Session 1:

(1) Orientation to group and purpose of meetings ("The purpose of our meetings will be to understand how we may be unnecessarily upsetting ourselves because of these situations and how we can approach them with less stress to ourselves and with more self control and determination.").

(2) Rationale for viewing emotions as learned ("Since most or many of our emotions are learned, it is, therefore, possible to unlearn them or to learn to experience new or different emotions.").

(3) How emotions are learned ("Emotions are for the most part a result of how we have learned to perceive or evaluate something.").

(4) How feelings of anger arise. Examples of the perception of the event gave rise to anger. S selected items from her hierarchy and was asked to give examples of how other emotions could have been generated in the same situation.

(5) Relations between feeling anger and acting aggressively. (Anger increases probability of acting aggressively, acting aggressively increases the experience of anger, even if angry not necessary to act aggressively.)

(6) Advantages and disadvantages of anger and aggressive behavior.

(7) Analysis of cognitive statements leading to anger. Diagram used (Landau, 1972) with "I have to have what I want now," "I can't stand it," "It shouldn't be this way," and

"It's because of them, they are to blame" statements.

Session 2

(1) Diagram with irrational beliefs was reviewed.

(2) Alternative rational beliefs were presented at each point. S's practiced the new rational statements at each point of the diagram.

(3) S's selected items from their own hierarchies and identified the irrational beliefs and generated rational cognitions.

The third and fourth session focused on differentiating assertive, aggressive, and passive behavior; E modeled several examples of each type of response and S's rehearsed assertive responses to their hierarchy items. The following is an outline of Session 3 and 4 with a more detailed transcript appearing in Appendix C.

Session 3

(1) Differentiation of aggressive, passive, and assertive behaviors.

(2) Presented chart developed by Alberti and Emmons (1970) spelling out differences in assertiveness, passiveness, and aggressiveness. E modeled several examples.

(3) Each S identified an assertive, an aggressive, and a passive response to one of their lower hierarchy items.

(4) Homework assignment. Choose one event this week where you might typically become angry and practice challening old thoughts and think new thoughts and act assertively rather than aggressively. Report to group.

Session 4

(1) Reviewed assertion and aggression distinctions.

(2) Each S chose two or three high level items from hierarchy and analyzed rational and irrational statements and practiced assertive responses. The group gave feedback.

(3) S's reported on homework assignment.

Discussion Control Group

This group was included to control for the effects of meeting and attention. They met the same number of sessions as the experimental groups (two hours per week for four weeks). They not only had pre and post testing, but they also kept Daily Logs of their interaction with men. There were seven subjects assigned to this group but one dropped out leaving only six. E met with the group and acted as a discussion facilitator. They were given the same orientation and rationale as the experiental groups but, in addition, they were told: "Women are finding that when they get together in small groups to share their feelings they come to a better understanding of themselves and other women." Each week they discussed items from their weekly logs and from their hierarchies. They were encouraged to discuss their feelings of anger and asked to explore where they thought their anger came from and the relation between anger and aggressive behavior. E tried to facilitate discussion by asking questions and starting each of the sessions. E also tried to encourage the participation of all group members. E gave out no specific information nor did any formal training.

Minimal Contact Control Group

Nine S's participated in this control group. They were each contacted by phone and told "Your scores on the initial testing indicate that you do not need to participate in an ongoing group but we feel that it would be helpful for you to keep track of your interactions with men for a few weeks." If S's agreed to fill in the Daily Logs each week and come in for the post testing, they were told they would still receive maximum credit for participation in the study. This group then was involved in both the pre and post testing and filled in the Daily Logs and returned them to E by mail each week. All S's in this group faithfully completed their Daily Logs and returned them to E.

CHAPTER V

RESULTS

The analysis of results will be presented in two parts. First, consideration will be given to the relationship among the dependent variables. Then, each of the dependent variables will be evaluated with respect to treatment effects and pre post changes.

Correlation of Dependent Variables

In order to determine the relative independence of the dependent variables, a multiple correlation was run. The dependent variables are as follows: Buss-Durkee Total (BD T), Buss-Durkee Factor I (F I), Buss-Durkee Factor II (F II), Assertiveness-Game (Ass-g), Aggressiveness-Game (Agg-g), Feelings-Game (Feel-g), Unfairness-Game (Unfair), Feelings-Log (Feel-l), Assertiveness-Log (Ass-l), and Aggressiveness-Log (Agg-l). The results are presented in Table II.

Buss-Durkee Total and Factor II of the Buss-Durkee are significantly ($p < .01$) correlated. This correlation is not surprising since Factor II represents a combination of five of the seven subscales of the Buss-Durkee. There were no other significant correlations. It is, therefore, reasonable to assume that the dependent measures are relatively independent. The analysis of variance on these ten variables was, thereby, felt to be justified.

TABLE II

CORRELATION OF DEPENDENT VARIABLES AT PRE TEST ONLY

	BD T	F I	F II	Ass-g	Agg-g	Feel-g	Unfair	Feel-l	Ass-l	Agg-l
BD T	X	.54	.86**	-.08	-.13	.02	.36	.19	.15	.46
F I		X	.03	.01	-.10	.17	.40	.41	-.04	.23
F II			X	-.11	-.12	-.10	.17	.00	-.13	.41
Ass-g				X	.50	.20	-.03	-.08	-.15	-.18
Agg-g					X	.33	-.16	-.14	-.39	-.12
Feel-g						X	.27	.00	-.40	-.22
Unfair							X	-.17	-.02	-.22
Feel-l								X	.05	.55
Ass-l									X	-.34
Agg-l										X

**p < .01

Analysis of Variance

Pre and post test mean scores for all treatment groups are presented in Table III. These scores were subjected to an analysis of variance, multiple factor design, with repeated measures (Winer, 1962). There were four treatments considered at both pre test and post test, resulting in a 4 x 2 design with unequal group size. The necessary assumptions for this type of analysis were tested by means of F max tests (Winer, 1962). None of the F max values was significant at the $p < .01$ level. The assumptions were supported. The summary of the analysis of variance on all ten dependent measures is presented in Table IV.

Each of the ten dependent variables will be considered separately. Where the F statistic is significant, individual comparison were made by F probes (Winer, 1962).

Buss-Durkee Total

Analysis of variance revealed no significant main effect of treatment. There was no main effect of pre vs. post differences. Interaction effects were not significant.

Factor I

Factor I of the Buss-Durkee represents a combination of two subscales of the Buss-Durkee and is considered a factor equivalent to anger (Buss and Durkee, 1957). The analysis of variance showed a significant ($p < .05$) main effect of treatment. The four treatment means averaged over pre and post resulted in the following means: Experimental I, 7.0; Experimental II, 4.9; Control I, 9.2; and Control II, 5.4. From Table

TABLE III

MEANS FOR ALL TREATMENT GROUPS
AT PRE AND POST TEST

	Exp Grp I		Exp Grp II		Control I		Control II	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post
BD T	39.4	33.0	32.3	31.7	37.5	39.2	32.3	33.3
F I	8.5	5.4	5.3	4.4	9.3	9.2	4.9	5.8
F II	30.9	27.6	26.7	27.3	28.3	30.0	27.3	27.6
Ass-g	23.5	20.1	51.1	45.6	25.3	26.8	23.7	17.2
Agg-g	9.9	16.0	34.4	6.6	16.3	7.7	5.1	6.7
Feel-g	20.3	18.4	24.7	23.0	20.0	38.0	14.8	9.8
Unfair	32.8	20.3	22.6	14.0	21.3	22.0	22.2	19.1
Feel-l	39.4	35.1	33.4	42.9	31.8	38.8	46.9	49.8
Ass-l	34.4	42.5	23.3	57.0	33.0	20.2	50.4	31.2
Agg-l	10.1	15.6	11.4	8.1	17.8	8.3	21.6	26.4

TABLE IV

SUMMARY OF ANALYSIS OF VARIANCE FOR TEN DEPENDENT VARIABLES

Buss-Durkee Total

Source	DF	MS	F
Between S's			
A (Trmts)	3	137.38	1.31
Error bet.	26	105.14	
Within S's			
B (Pre-Post)	1	48.36	1.77
AB	3	41.48	1.76
Error	26	27.36	

Factor I

Source	MS	F
Between S's		
A (Trmts)	61.53	3.53*
Error bet.	17.42	
Within S's		
B (Pre-Post)	29.52	5.89*
AB	5.84	.83
Error	5.01	

Factor II

Source	MS	F
Between S's		
A (Trmts)	19.73	.29
Error	66.59	
Within S's		
B (Pre-Post)	5.60	.28
AB	17.04	.83
Error	20.31	

Assertive-game

Source	MS	F
Between S's		
A (Trmts)	1907.33	2.74
Error	695.18	
Within S's		
B (Pre-Post)	134.35	.32
AB	252.00	.81
Error	305.17	

Aggressive-game

Source	MS	F
Between S's		
A (Trmts)	677.44	2.27
Error	298.52	
Within S's		
B (Pre-Post)	525.40	4.36*
AB	1077.44	8.93**
Error	120.61	

Feelings-game

Source	MS	F
Between S's		
A (Trmts)	391.15	.72
Error	547.10	
Within S's		
B (Pre-Post)	70.37	.80
AB	28.04	.33
Error	84.36	

TABLE IV (Continued)

Unfairness-game

Source	MS	F
Between S's		
A (Trmts)	173.27	1.03
Error	168.94	
Within S's		
B (Pre-Post)	502.28	7.51**
AB	123.15	1.84
Error	66.92	

Feelings-log

Source	MS	F
Between S's		
A (Trmts)	494.55	.66
Error	749.48	
Within S's		
B (Pre-Post)	206.40	3.18*
AB	130.30	2.01
Error	64.81	

Assertive-log

Source	MS	F
Between S's		
A (Trmts)	604.19	.84
Error	708.90	
Within S's		
B (Pre-Post)	49.00	.01
AB	2208.36	3.75*
Error	589.41	

Aggressive-log

Source	MS	F
Between S's		
A (Trmts)	563.98	.84
Error	672.81	
Within S's		
B (Pre-Post)	5.31	.01
AB	186.18	.49
Error	389.03	

*$p < .05$

**$p < .01$

III a look at the pre and post test means reveals that the greatest absolute change occurs in Experimental I and Experimental II with both decreasing. Control II shows an increase at post test.

The analysis of variance also revealed a main effect of pre vs. post testing. All treatments summed over pre were 7.0. All treatments summed over post were 6.2. Even though the interaction effect is not significant, most of the significant pre-post effect seems to be the result of a decrease in Experimental I and Experimental II, since Control I shows a minimum decrement and Control II shows an increment.

Factor II

There was no significant main effect of treatment. Pre vs. post changes were not significant. Interaction effects were not significant.

Assertiveness-Game

There was a non-significant ($p < .10$) trend in main effect of treatments. The four treatment means averaged over pre and post are Experimental I, 21.8; Experimental II, 48.35; Control I, 26.00; and Control II, 20.45. An inspection of the pre and post test means in Table III shows that the greatest absolute change occurs in Experimental II and Control II.

There was no significant main effect of pre vs. post treatment. There was no significant interaction effect.

Aggressiveness-Game

Analysis of variance revealed no main effect of treatments. There was a significant ($p < .05$) main effect of pre vs. post. All treatments

summed over pre equaled 16.43. All treatments summed over post equaled 9.25. This suggests that all treatments are having an effect in lowering the aggressive game score. There was, however, a significant ($p < .01$) interaction effect. F probes of the interaction showed that at pre testing Experimental II was significantly ($p < .01$) greater than the other three treatments. Control I was significantly ($p < .01$) greater than Control I and Experimental II. These initial group differences suggest a sampling bias. At post testing Experimental I was significantly ($p < .05$) greater than at pre testing. Experimental II and Control I significantly ($p < .01$) decreased from pre to post testing. Control II remained unchanged. The interaction effect was, therefore, the result of Experimental I significantly ($p < .05$) increasing from pre to post test while Experimental II and Control I significantly ($p < .01$) decreased. The rank order of the treatment means in absolute drop in aggression were Experimental II, Control I, and Control II.

Feelings-Game

There was no significant main effect of treatment. There was no significant main effect of pre vs. post. Interaction effects were not significant.

Unfairness-Game

Unfairness was considered an indirect measure of S's anger in the game. She was asked to evaluate how fairly she thought C was playing the game. Since it was the game and not C that was unfair for S, this measure was thought to indirectly reflect S's anger.

There was no significant main effect of treatment shown by the

analysis of variance. Main effect of pre vs. post differences was significantly ($p < .01$). Summed over pre testing, treatments were equal to 98.9. Summed over post testing, treatments equaled 75.4. In terms of absolute drop from pre to post testing, a rank order of treatment means with amount of drop in parentheses is as follows: Experimental I (12.5), Experimental II (8.6), Control II (3.1), and Control I which showed a small increase (.07). It appears that the main effect of pre vs. post is largely accounted for by the drops in Experimental I and Experimental II. Interaction effects were not significant.

Feelings-Log

There was no main effect of treatment. There was a significant ($p < .05$) main effect of pre vs. post testing. All treatment means summed over pre testing equaled 37.9. All treatment means summed over post testing equaled 41.7. This suggests that all treatment groups increased their number of anger responses from pre to post testing.

Assertiveness-Log

Analysis of variance revealed no main effect of treatment. Pre vs. post testing main effect was not significant. There was a significant ($p < .05$) interaction effect. F probes revealed that at pre testing Control II was significantly ($p < .01$) larger than all other treatments. This finding suggests a sampling bias. Considering pre to post test changes for all treatment groups, it was found that Experimental I did not significantly change from pre to post test, Experimental II significantly ($p < .01$) increased in assertive-log responses, Control I significantly ($p < .05$) decreased in assertive-log responses, and Control II

significantly ($p < .01$) decreased from pre to post testing. The interaction, therefore, is the result of Experimental II increasing while Control I and Control II decreased assertive-log responses.

Aggressiveness-Log

There was no significant main effect of treatment. There was no significant main effect of pre *vs.* post test changes. Interaction effects were not significant.

Supplementary Analyses

In addition to measures relating to assertiveness, aggressiveness, and anger, data was collected on two supplemental dimensions. They were concerned with attitudes toward women and irrational beliefs.

Attitudes Toward Women

Subjects completed the Attitudes Toward Women questionnaire prior to receiving treatment. This was given to assess the amount of feminist identification of the subjects in the study. Since this was a study related to feelings of anger in relationships to men, the question was: What type of woman chose to and/or met the criteria for inclusion in the study?

Means were calculated for the combined experimental group (131.13) and for the combined control group (127.93), and the means were found to be statistically non-significant (*t* .434). The overall mean for all subjects was found to be 129.53.

Spence and Helmreich (1972) report normative data on 768 females collected at the University of Texas. The mean for their data was 98.21

with a standard deviation of 23.16. Only ten percent of their sample scored 129 or higher.

The sample of women in this study were almost one and one-half standard deviations above the norm reported by Spence and Helmreich. From this data, it is concluded that women in this study had a very strong feminist identification.

Irrational Beliefs

Subjects completed the Adult Irrational Ideas scale (Inventory of Irrational Beliefs) at both pre and post testing. This was to determine whether training on one irrational set of beliefs (anger) led to a reduction in irrational responding in general. To answer this question, means and t tests were computed for the combined experimental and combined control at pre and post testing. Results are presented in Table V.

TABLE V

MEANS AND t TESTS FOR EXPERIMENTAL AND CONTROL GROUPS AT PRE AND POST TEST ON ADULT IRRATIONAL IDEAS

	Pre	Post	t
Experimental	175.9	165.7	1.22
Control	175.7	173.5	.34
t	.03		1.00

1.70 $p < .05$ 2.46 $p < .01$

The results in Table V show that at pre testing the experimental and control group are essentially the same. At post testing, there is a trend though non significant ($p < .16$) showing a reduction in irrational responding for the experimental group relative to the control group. Considering the experimental group alone, there is a strong but non significant ($p < .11$) trend showing a reduced amount of irrational responding at post test. For the control group, the pre-post differences are not significant.

Therefore, the data shows that training on one set of irrational beliefs (anger) produces a strong tendency to lower irrational responding in general.

CHAPTER VI

DISCUSSION

In the first part of the discussion, the three hypotheses derived from Ellis' Rational-Emotive system will be evaluated with regard to the analysis of the results. Then will follow a critique of the experimental procedures and an evaluation of the treatment groups. Finally, suggestions for further research will be considered.

Aggressiveness

The first hypothesis predicted that subjects receiving cognitive-behavioral training would reduce their aggressiveness relative to the discussion control and the minimal contact control groups. This was evaluated by Factor II on the Buss-Durkee scale, Aggressive-Game responses, and Aggressive-Log responses.

Support for this hypothesis is reflected in one of the cognitive-behavioral training groups (Experimental II). On the Aggressive-Game measure, Experimental II showed a decrement in aggressive responding following treatment. Experimental II also showed a decrement in Aggressive-Log responses following treatment even though this decrease was not statistically significant.

On the Aggressive-Game measure, Experimental I showed an increment in aggressive behavior which was not in the predicted direction. On this same measure, Control I showed a decrement in aggressive responding

after treatment. These findings do not support hypothesis one.

An inspection of the pre test means in Table III reveals that Experimental II and Control I both had a large number of Aggressive-Game responses initially. Since both groups showed a decrement following treatment, this raises a question of whether the treatment procedures are most effective with individuals who are initially higher in aggressive responding. Or looked at in another way, these two groups are the only ones that had an opportunity to change since there is little possibility of changing unless the initial scores are high. It is also possible that the decrements observed in Experimental II and Control I are a result of regression toward the mean.

The results on both Factor II and Aggressive-Log did not support hypothesis one. Therefore, the results for hypothesis one that the cognitive-behavioral training groups would reduce their aggressive responding relative to the discussion control and the minimum contact control are inconclusive. On the Aggressive-Game measure, the cognitive-behavioral training procedures were effective in reducing aggressive behavior for one of the training groups. In addition, the discussion control group was equally effective in reducing Aggressive-Game responding.

Assertiveness

The second hypothesis predicted that the cognitive-behavioral training groups would increase their assertiveness relative to the discussion control and the minimum contact control groups. This hypothesis was evaluated by the Assertive-Game measure and the Assertive-Log measure.

Support for this hypothesis is found in the Assertive-Log but not in the Assertive-Game responses. On the Assertive-Log measure, one of the cognitive-behavioral training groups (Experimental II) showed an increment in assertive responding while the two control groups showed a decrement in assertive responses following treatment. Experimental I showed a nonsignificant pre to post test change.

The Assertive-Game responses did not support hypothesis two. It is possible that the method of determining assertive responses in the game was masking any treatment effects. As was discussed in Chapter IV on "Method," the assertive response measure is probably confounded with aggressiveness. While S's were instructed to try to reach the Special Bonus Space first, the use of blocking cards to do so might have been perceived by them as an aggressive response. While this was intended to be a measure of assertiveness, it remains unclear exactly what was being measured. In addition, the assertive measure was always assessed at the beginning of the game and, thereby, subject to novelty effects and "warm-up" effects.

The results for hypothesis two that the cognitive-behavioral training groups would increase assertive responding relative to the discussion control group and the minimum contact control group are inconclusive. On the Assertive-Log measure, one cognitive-behavioral group and the two control groups were in the predicted direction. On the same measure, the other cognitive-behavioral training group did not increase assertive responding.

Anger

The third hypothesis predicted that the cognitive-behavioral

training groups would reduce anger responses relative to the discussion control and the minimum contact control groups. This hypothesis was evaluated by Factor I of the Buss-Durkee, Feelings-Game, Unfairness-Game, and Feelings-Log responses.

Support for this hypothesis is found on two out of the four measures of anger. On Factor I of the Buss Durkee scale, Experimental I and Experimental II both showed large absolute decreases from pre to post test relative to Control I which showed a slight decrease and Control II which showed a small increase. Even though the interaction was not significant, the main effect of treatment and of pre vs. post appears to be largely accounted for by the changes in Experimental I and Experimental II.

The Unfairness measure from the game revealed that the pre post differences in Experimental I and Experimental II largely contributed to the main effect of pre vs. post differences. Control II also showed a slight decrement and Control I showed a slight increment.

The Feelings-Game measure revealed no effect of treatment. This is an interesting finding in light of the Unfairness measure which, as discussed in the Results section (Chapter V), was considered an indirect measure of anger. There are several possibilities that might explain this result. One, is that since the Unfairness measure asked S to rate C's behavior, she may have been more willing to reveal negative feelings. In line with this are the demand characteristics of the experiment. S's volunteered on the basis of "difficulties with hostility in interactions with men" and may have perceived that they were supposed to get "better," that is, experience less hostility in interaction with men. If this effect was operating, S's may very well have minimized

their report of anger feelings especially in a situation where they may have thought they were being observed (game). Another possibility is that the subjects actually did not experience much anger since they were playing the game with a stranger viewing it as a "game" and, thereby, not becoming very emotionally involved.

A third possibility is that the ten level discrimination of feelings that the Feelings-Game rating required was more difficult for S to make than the five level discrimination required by the Unfairness rating. Even though S had training in the orientation session in making these discriminations, it is still possible that a ten level discrimination was difficult.

The Feelings-log measure also did not support the hypothesis. The pre vs. post main effect revealed that S's increased in their number of anger feelings. This finding would seem to contradict the argument on demand characteristics discussed above. If the same demand, that is, to decrease hostility were operating it would be expected that the groups would decrease rather than increase their report of angry feelings. Possibly another demand was operating on the logs. Since S's were instructed to fill in the logs each day, recording any interaction in which they experienced negative feelings, the demand may have been perceived that it is "good" to record negative feelings but the "best" behavior to report is assertiveness rather than aggressiveness. Another possibility to explain the increase in reported anger feelings is that with practice S's became better able to discriminate different levels of anger. Therefore, the initial ratings may reflect some random rating whereas the latter ratings might reflect a more accurate estimate of what S experienced. This rating also required a ten level

discrimination of feelings, similar to the Feelings-Game rating. As discussed above, this rating may have been too difficult to make, resulting in an inaccurate estimate of what S was experiencing.

The results for hypothesis three that the cognitive-behavioral training groups would decrease their anger feelings relative to the discussion control and the minimum contact control are, therefore, inconclusive. On two of the four measures of anger, the results were in the predicted direction.

Critique of Procedures

Since each of the hypotheses tested resulted in ambiguous results, an overall examination of the procedures will be presented to evaluate the part they might have played in contributing to the inconclusive findings.

The demand characteristics of the experiment in general and in relation to some of the measures has been alluded to briefly in the discussion of the results. The procedures of this study will be evaluated using Orne's (1962) definition of demand characteristics as the "totality of cues which convey an experimental hypothesis to the subject." The general announcement to recruit subjects suggested that the study was to "help" women to deal more effectively with hostility in relationships. Also, the orientation given to all subjects indicated that the purpose was to consider other ways of relating other than with hostility. Both of these statements probably convey quite clearly to subjects that they are "expected" to reduce their hostility and relate differently to men. There are several instances where this demand may have affected the results in the study.

While playing the game both at pre test and post test, subjects were asked to rate their feelings of anger during the situation. If the subjects perceived that the "expectation" was that they were to reduce their hostility, this may very well have affected how they made their rating. Since the experimentor was present to give instructions for the game, the subjects may have thought that they were being observed which could have added to any desire the subjects had to "appear to do well." This effect might have operated to conceal any effects of treatment.

Each of the subjects was required to report daily interactions with men in which they felt any degree of annoyance up to and including feelings of rage. They were to rate both their feelings and their behavior in these instances. The instructions to the Daily Log give a brief description of the kind of situation in which they are to report and give a definition of assertive, aggressive, and passive behavior (see Appendix B). With regard to reporting their feelings in situations, subjects may have perceived that it was "expected" that they give frequent reports of their feelings of anger in interactions with men but that it was more desirable to behave assertively rather than aggressively. This may partly account for the result that there were no significant treatment effects revealed on the Feelings-Log measure and may have contributed to an increment in anger feelings from pre to post testing. With regard to the reporting of their behavior in the situations, subjects in the cognitive-behavioral training groups (Experimental I and Experimental II) may very well have "learned" that one of the purposes of the training groups was to increase assertive responses. This demand may have been operating in the logs for the experimental groups but not the control groups.

Another aspect of the procedures that probably contributed to the ambiguous results has to do with the measures used in the experiment. The measures of assertiveness and aggressiveness developed by the author in the game situation were derived logically and not subjected to cross validation studies with other measures of assertiveness and aggressiveness used in the experiment (e.g., Buss-Durkee Factor I, Factor II, Assertiveness and Aggressiveness-Log responses). This raises questions as to whether the measures of assertiveness and aggressiveness in the game were at all related to the other measures of assertiveness and aggressiveness in the study. If the measures were unrelated, this could produce the kind of results found in this study where some measures showed an effect of treatment and others did not. For example, if assertiveness on the game was measuring something different from assertiveness on the log, this might partially explain why the Assertive-Log responses revealed an effect of treatment while Assertive-Game responses did not. The same would hold true for the measures of aggressiveness and anger.

Another consideration closely related to the problem of cross validation has to do with how closely the measures were able to evaluate the effects of treatment. It might be argued that the measures of assertiveness and aggressiveness on the game may not have been able to accurately assess the effects of the training program. The training program focused primarily on verbal behavior wheras the game measures were of non-verbal behavior.

In addition to the above considerations of the measures, there is also the problem of reliability and accuracy of self-report measures. The Feelings-Game measure has already been discussed describing how the

demand characteristics of the experiment may have contributed to inaccuracy in reporting. The Daily Log measures are open to question as to how accurately they measure the subjects responses. These were also discussed in relation to the demand characteristics of the experiment. The Daily Logs also are subject to variability in how soon after the event the responses were recorded. Orne (1970) discusses the problems with this type of measure that relies on immediacy of recording. Since there was no opportunity to validate either the immediacy or accuracy of the subject's recordings, the results on this measure are open to question.

A final procedural issue concerns subject selection. Subjects were included based only on the results of the Buss-Durkee Total score. As a result, two measures (Aggressiveness-Game, Assertiveness-Log) revealed initial group differences. An inspection of the pre-treatment means in Table III suggests that the treatment groups may have been initially different on several other variables (e.g., Assertiveness-Game, Feelings-Log, and Aggressiveness-Log). This raises two possibilities. One, that pre treatment differences could have been minimized if subjects were chosen on the basis of more than one criterion. Also, the possibility is raised that initial group variability might have been operating to cover up any effects of treatment.

Evaluation of Treatments

Initially the discussion group and the minimum contact group were conceived as control groups for the two experimental groups. The discussion group was to control for the effects of meeting together and discussing interactions with men. The minimum contact group was

considered a control for repeated testing and daily recordings of feelings and behavior. Upon further consideration, these groups might be thought of as additional treatment groups.

The discussion control group might more appropriately be viewed as a focused discussion treatment group. Even though this group was not given the specific training experiences as the cognitive-behavioral training groups, they met each week and discussed their interactions with men and gave each other feedback and suggestions. They often discussed the instances of interactions with men that they recorded on their Daily Logs. Many of the suggestions they made to each other were in effect "act assertively rather than aggressively." On at least one measure, Aggressiveness-Game, this group was as effective in reducing aggressiveness as one of the cognitive-behavioral training groups.

The minimum contact group did not meet together but was told, "Your scores on the initial testing indicate that you do not need to participate in an ongoing group, but we feel that it would be helpful for you to keep track of your interaction with men for a few weeks." This instruction could have been perceived as an "expectation" that their behavior would change if they recorded their interactions with men. With this type of set, this group might better be thought of as a self-monitoring treatment group. McFall (1970) has clearly demonstrated that self recording of behavior can in, and of, itself modify behavior. On one measure of the Daily Log (Assertiveness) the minimum contact group showed a decrement from pre to post test. Since this change is not in the expected direction, it is difficult to interpret whether this is a random fluctuation or whether recording the behavior effected it.

Both Experimental I and Experimental II received the same cognitive-behavioral training procedures. On two measures (Assertive-Log and Aggressive-Game), these groups did not replicate. On the Aggressive-Game measure, this may be partly the result of initial differences between the groups. In addition, in the instances where the groups did not replicate, Experimental II was in the predicted direction, whereas, Experimental I was not.

Even though both the training groups received the same treatment, there were two factors which may have contributed to some differences. Experimental I always met in the morning and Experimental II met in the afternoon of the same day. As a result, sometimes group members in Experimental I were late arriving for the group which either delayed the start of the group or interrupted the group when members came late. This combined with the early morning hour and its effects on both the subjects and the experimenter may have introduced an uncontrolled difference in the two groups.

Another factor, which probably affected Experimental I, relates to the charismatic qualities of one group's member. She was very proud of her "aggressive" behavior and resisted any suggestions from the group or experimenter that she could be more effective if she were more "assertive" rather than "aggressive". She often would dominate the group and spend most of the meeting describing her various "aggressive" interactions with men. She elicited laughter from the group and seemed to be approved by the group. She probably emerged as the most effective leader in that group modeling aggressive rather than assertive behavior.

Implications for Future Research

Even though the results of this study are inconclusive, this study does point to the fruitfulness of using Ellis' rational-emotive procedures in reducing anger and aggressiveness. Other studies are needed to clarify and extend the results of this study. For example, a larger more representative sample of both males and females is needed to determine how much the strong pro feminist bias of the female subjects affected the outcomes in the study. Other types of behavioral measures, for example, those described by McFall and his associates (McFall and Marston, 1970; McFall and Lillesand, 1971) would help to remove the confounding of assertive and aggressive scores found in the Man-Woman game and lead to more clear results. In addition, the use of both behavioral as well as self-report criterion measures would reduce the initial between group variability and make the results more interpretable.

The findings in this report suggest that assertive training may have an effect on reducing aggressive behavior. More research is needed to clarify the results in this study. This appears to be a much needed area of research which would have direct application to both theory and clinical practice.

Since demand characteristics are so often a problem in a therapy analog type of experiment, efforts should be made to obtain covert measures of behavior when the subject does not "know" that he is being observed. McFall (1970) presents a design in which an experimental accomplice rates a subject's behavior in a "natural" setting. This design helps to diminish the effects of demand characteristics and also gives an opportunity to evaluate in what ways this effect is operating.

CHAPTER VII

SUMMARY

This study investigated the effects of cognitive-behavioral training procedures on the reduction of anger and aggression. Analyses and procedures based on Ellis' Rational-Emotive Therapy system were used. In addition, assertive training techniques developed by behavior therapists were employed. Ellis' Rational-Emotive system which is derived from cognitive-learning theory led to the following predictions: (a) subjects in the cognitive-behavioral training groups would decrease their amount of aggressive behavior, (b) subjects in the cognitive-behavioral training groups would increase their assertive behavior, and (c) subjects in the cognitive-behavioral training groups would reduce their angry feelings. The results for each of these hypotheses were inconclusive.

The two cognitive-behavioral groups met in training groups for two hours per week for four weeks. The discussion control group also met in a group for two hours per week for four weeks but did not receive training. The minimum contact control group did not meet but was involved in both pre and post testing and filling out daily logs of their behavior. All subjects were evaluated at both pre treatment and post treatment on a variety of measures designed to assess aggressiveness, assertiveness, and anger responses.

The two cognitive-behavioral training groups were evaluated

separately to determine whether they would replicate. On two measures, Aggressiveness-Game and Assertiveness-Log, these groups failed to replicate. In both instances, this was the result of one group (Experimental I) not being in the predicted direction. Differences between the two groups were discussed that may have contributed to these results.

With regard to the hypothesis on aggressions, one measure out of three revealed a change in the predicted direction. This, however, was true for only one of the cognitive-behavioral groups. In addition, the discussion control group was equally as effective on this measure as the cognitive-behavioral group.

On the two measures of assertiveness, one revealed results in the predicted direction. The interaction effect was significant ($p < .05$) which was the result of one cognitive-behavioral training group showing an increment in assertive responding and the two control groups showing a decrement. The other cognitive-behavioral training group remained unchanged.

There were three measures of anger in this study. On only one measure did the cognitive-behavioral training seem effective in reducing anger. This was found for only one of the training groups.

Because of the inconclusive findings in this study, a careful critique of the procedures was presented. The discussion focused on the demand characteristics of the experiment, problems in cross validation, and reliability and accuracy of subject recording. In addition, the control groups were considered in light of the types of treatment that may have been occurring in these groups. Suggestions for further research were presented.

REFERENCES

Alberti, R. E., and Emmons, M. L. Your perfect right. San Luis Obispo, California: Impact, 1970.

Arnold, M. Emotion and personality, New York: Columbia University Press, 1960.

Arnold, M. (Ed.) Feelings and emotions. New York: Academic Press, 1970.

Baker, J. N. Reason versus reinforcement in behavior modification. Doctoral dissertation, University of Illinois, 1966.

Bandura, A., Ross, D., and S. A. Transmission of aggression through imitation of aggressive models. Journal of Abnormal and Social Psychology, 1961, 63, 575-582.

Bandura, A., Ross, D., and Ross, S. A. Vicarious reinforcement and imitative learning. Journal of Abnormal and Social Psychology, 1963, 67, 601-607.

Bandura, A. Influence of models' reinforcement contingencies on the acquisition of imitative responses. Journal of Personality and Social Psychology, 1965, 1, 589-595.

Bandura, A. Principles of behavior modification. New York: Holt, Rinehart, and Winston, 1969.

Bandura, A. Psychotherapy based on modeling principles. In A. E. Bergin and S. L. Garfield (Eds.) Handbook of psychotherapy and behavior change. New York: Wiley and Sons, 1971.

Bard, M. The study and modification of intra-familial violence. In J. L. Singer (Ed.) The control of aggression and violence: Cognitive and physiological factors. New York: Academic Press, 1971.

Berkowitz, L. Aggression: A social psychological analysis. New York: McGraw-Hill, 1962.

Berkowitz, L., and Rawlings, E. Effects of film violence on inhibitions against subsequent aggression. Journal of Abnormal and Social Psychology, 1963, 66, 405-412.

Berkowitz, L. Impulse, aggression and the gun. Psychology Today. 1968, 2, 18-23.

Berkowitz, L. Roots of aggression. New York: Atherton Press, 1969.

Berkowitz, L., Lipinski, J. P., and Angulo, E. J. Awareness of own anger level and subsequent aggression. Journal of Personality and Social Psychology, 1969, 11, 293-300.

Burkhead, D. E. The reduction of negative affect in human subjects: A laboratory investigation of rational-emotive psychotherapy. Doctoral dissertation, Western Michigan Universtiy, 1970.

Burnstein, E., and Worchel, P. Arbitrariness of frustration and its consequences for aggression in a social situation. Journal of Personality, 1962, 30, 528-541.

Buss, A. H., and Durkee, A. An inventory for assessing different kinds of hostility. Journal of Consulting Psychology, 1957, 21, 343-349.

Buss, A. H. The psychology of aggression. New York: Wiley and Son, 1961.

Buss, A. H., Fischer, H., and Simmons, A. J. Aggression and hostility in psychiatric patients. Journal of Consulting Psychology, 1962, 26, 84-89.

Buss, A. Aggression pays. In J. L. Singer (Ed.) The control of aggression and violence. Cognitive and physiological factors. New York: Academic Press, 1971.

Chittenden, G. E. An experimental study in measuring modifying assertive behavior in young children. Monographs of the Society for Research in Child Development, 1942, 7, (1, Serial No. 31).

Davies, R. L. Relationship of irrational ideas to emotional disturbance. Master's thesis, University of Alberta, 1970.

Davitz, J. R. The effects of previous training on post frustration behavior. Journal of Abnormal and Social Psychology, 1952, 47, 309-315.

Dennenberg, V. H., and Zarrow, M. X. Rat pax. Psychology Today, 1970, 3, 24-28.

Di Loreto, A. O. A comparison of the relative effectiveness of systematic desensitization, rational-emotive and client centered group psychotherapy in the reduction of interpersonal anxiety in introverts and extroverts. Doctoral dissertation, Michigan State University, 1969.

Doering, M. P., Hamlin, R. M., Everstine, L., Eigenbrode, C., Chambers, G., Wolpin, M., and Lackner, F. M. The use of training to increase intensity of angry verbalization. Psychology Monographs, 1962, 76, No. 37.

Dollard, J., Doob, L. W., Miller, N. E., Mowrer, O. H., and Sears, R. Frustration and aggression. New Haven: Yale University Press, 1939.

Douglas, R. J. The hippocampus and behavior. Psychological Bulletin, 1967, 67, 416-442.

Eisler, R. M., and Hersen, M. Behavioral techniques in family oriented crisis intervention. Archives of General Psychiatry, 1973, 28, 111-116.

Eisler, R. M., Miller, P. M., and Hersen, M. Components of assertive behavior. Journal of Clinical Psychology, in press.

Eisler, R. M., Miller, P. M., and Hersen, M. Effects of assertive training on marital interaction. Archives of General Psychiatry, in press.

Ellis, A., and Harper, R. A guide to rational living. Hollywood, California: Wilshire Book Company, 1961.

Ellis, A. Reason and emotion in psychotherapy. New York: Lyle Stuart, 1962.

Ellis, A., and Gullo, J. Murder and assassination. New York: Lyle Stuart, 1971.

Ellis, A. Growth through reason. Palo Alto, California: Science and Behavior Books, 1971.

Ellis, A., and Casriel, D. Debate: Albert Ellis vs Daniel Casriel on anger. Rational Living, 1971, 6, 2-22.

Ellis, A. Humanistic psychotherapy. New York: Julian Press, 1973.

Ewert, O. The attitudinal character of emotion. In M. Arnold (Ed.) Feelings and emotions. New York: Academic Press, 1970.

Fensterheim, H. The initial interview. In A. Lazarus (Ed.) Clinical behavior therapy. New York: Brunner/Mazel, 1972.

Feshbach, S. The function of aggression and the regulation of aggressive drive. Psychological Review, 1964, 71, 257-272.

Fishman, C. Need for approval and the expression of aggression under varying conditions of frustration. Journal of Personality and Social Psychology, 1965, 2, 809-815.

Fox, E. E., and Davies, R. L. Test your rationality, Rational Living, 1971, 5, 23-26.

Friedman, P. H. The effects of modeling and role playing on assertive behavior. Doctoral dissertation, University of Wisconsin, 1968.

Geen, R. G., and Berkowitz, L. Some conditions facilitating the occurrence of aggression after the observance of violence. Journal of Personality, 1967, 25, 666-676.

Hartmann, D. P. Anger and modeling as sources of aggression. Journal of Personality and Social Psychology, 1969, 11, 280-285.

Hedquist, F. J., and Weinhold, B. K. Behavioral group counseling with socially anxious and unassertive college students. Journal of Counseling Psychology, 1970, 17, 237-242.

Hokanson, J. E., and Burgess, M. The effects of status, type of frustration and aggression on vascular processes. Journal of Abnormal and Social Psychology, 1962, 65, 232-237.

Hokanson, J. E., and Edelman, R. Effects of three social responses on vascular processes. Journal of Personality and Social Psychology, 1966, 3, 442-447.

Hokanson, J. E., Willers, K. R., and Koropsak, E. The modification of autonomic responses during aggressive interchange. Journal of Personality, 1968, 36, 386-404.

Jones, R. G. A factored measure of Ellis' irrational belief system with personality and maladjustment correlates. Doctoral dissertation, Texas Technological College, 1968.

Karst, T. O., and Trexler, L. D. Initial study using fixed-role and rational-emotive therapy in treating public-speaking anxiety. Journal of Counseling and Clinical Psychology, 1970, 34, 360-366.

Kaufman, H. Definitions and methodology in the study of aggression. Psychological Bulletin, 1965, 64, 351-364.

Kelly, G. A. The psychology of personal constructs. New York: Norton, 1955.

Landau, J. S., and Landau, B. The effects of cue-relevant labels on the line-orientation generalization patterns of preschool children. Paper presented at the meeting of the Eastern Psychological Association, 1970.

Landau, J. S. A developmental analysis of the role of perceptual pretraining on learning and utilization. Paper presented at the meeting of the Eastern Psychological Association, 1971.

Landau, J. S. unpublished manuscript, Institute for Advanced Study in Rational Psychotherapy, 1972.

Lang, P. J., and Lazovik, A. D. The experimental desensitization of a phobia. Journal of Abnormal and Social Psychology, 1963, 66 519-525.

Lazarus, A. A. Behavior therapy, incomplete treatment, and symptom substitution. Journal of Nervous and Mental Disease, 1965, 140 80-86.

Lazarus, A. A. Behavior rehearsal vs non-directive therapy vs advice in effecting behavior change. Behavior Research and Therapy, 1966, 4, 209-212.

Lazarus, A. A. Behavior therapy and beyond. New York: McGraw-Hill, 1971.

Lazarus, R. S., and Alfert, E. The short circuiting of threat. Journal of Abnormal and Social Psychology, 1964, 69, 195-205.

Lazarus, R. S., Opton, E. M., Jr, Nomikow, M. S., and Rakin, N. O. The principle of short-circuiting of threat: Further evidence. Journal of Personality, 1965, 33, 622-635.

Lazarus, R. S. Toward a cognitive theory of emotion. In M. Arnold (Ed.) Feelings and emotions. New York: Academic Press, 1970.

Leeper, R. W. Some needed developments in the motivational theory of emotions. In D. Levine (Ed.) Nebraska symposium on motivation. Lincoln, Nebraska: University of Nebraska Press, 1965.

Lovaas, O. I. Interaction between verbal and non verbal behavior. Child Development, 1961, 32, 329-336.

MacDonald, A. P., Jr., and Games, R. G. Ellis' irrational values: A validation study. Rational Living, 1972, 7, 25-29.

Mallick, S., and McCandless, B. A study of catharsis of aggression. Journal of Personality and Social Psychology, 1966, 4, 591-596.

Millet, K. Sexual politics. New York: Avon Books, 1971.

Morgan, R. (Ed.) Sisterhood is powerful. New York: Random House, 1971.

Maultsby, M. Systematic written homework in psychotherapy. Rational Living, 1970, 5, 8-23.

McFall, R. M., and Marston, A. R. Experimental investigation of behavior rehearsal in assertive training. Journal of Abnormal Psychology, 1970, 76, 295-303.

McFall, R. M., and Lillesand, D. B. Behavior rehearsal with modeling and coaching in assertion training. Journal of Abnormal Psychology, 1971, 77, 313-323.

Mead, M. Sex and temperament. New York: William Morrow and Company, 1935.

Megargee, E. I., and Hokanson, J. E. The dynamics of aggression. New York: Harper and Row, 1970.

Megargee, E. The role of inhibition in the assessment and understanding of violence. In J. L. Singer (Ed.) The control of aggression and violence: Cognitive and physiological factors. New York: Academic Press, 1971.

Meichenbaum, D. Examination of model characteristics in reducing avoidance behavior. Journal of Personality and Social Psychology, 1971, 17, 298-307.

Meichenbaum, D., and Goodman, J. Training impulsive children to talk to themselves: A means of developing self control. Journal of Abnormal Psychology, 1971, 77, 115-126.

Meichenbaum, D., Gilmore, J., and Fedoravicius, A. Group insight vs group desensitization in treating speech anxiety. Journal of Consulting and Clinical Psychology, 1971, 36, 410-421.

Meichenbaum, D. Ways of modifying what clients say to themselves. Rational Living, 1972, 7, 23-28.

Meichenbaum, D. Cognitive modification of test anxious college students. Journal of Consulting and Clinical Psychology, 1972, 39, 370-380.

Meyer, V., and Chesser, E. S. Behavior therapy in clinical psychiatry. New York: Science House, 1970.

Moyer, K. E. The physiology of aggression and the implications for aggression control. In J. L. Singer (Ed.) The control of aggression and violence: Cognitive and physiological factors. New York: Academic Press, 1971.

Murray, E. J., and Jacobson, L. I. The nature of learning in traditional and behavioral psychotherapy. In A. E. Bergin and S. L. Garfield (Eds.) Handbook of psychotherapy and behavior change. New York: Wiley and Son, 1971.

Nisbett, R. E., and Schachter, S. The cognitive manipulation of pain. Journal of Experimental Social Psychology, 1966, 2, 227-236.

Olson, D. H. The measurement of family power by self report and behavioral methods. Journal of Marriage and Family, 1969, 31, 545-550.

Olson, D. H., and Rabunsky, C. Validity of four measures of family power. Journal of Marriage and Family, 1972, 34, 224-234.

Pastore, N. The role of arbitrariness in the frustration-aggression hypothesis. Journal of Abnormal and Social Psychology, 1952, 47, 728-731.

Patterson, G. R., Littman, R. A., and Bricker, W. Assertive behavior in children: A step toward a theory of aggression. Monographs of the Society for Research in Child Development, 1967, 32, (5, Serial No. 113).

Paul, G. L. Insight vs desensitization in psychotherapy. Stanford: Stanford University Press, 1966.

Pepitone, A. L. Attraction and hostility. New York: Atherton Press, 1964.

Peters, H. The education of the emotions. In M. Arnold (Ed.) Feelings and emotions. New York: Academic Press, 1970.

Pisano, R., and Taylor, S. P. Reduction of physical aggression: The effects of four strategies. Journal of Personality and Social Psychology, 1971, 19, 237-242.

Pribram, K. H. A review of theory in physiological psychology. Annual Review of Psychology, 1960, 11, 1-40.

Rawlings, E. Witnessing harm to others: A reassessment of the role of guilt in altruistic behavior. Journal of Personality and Social Psychology, 1968, 10, 337-350.

Rimm, D. C., and Litvak, S. B. Self-verbalization and emotional arousal. Journal of Abnormal Psychology, 1969, 74, 181-187.

Rimm, D. C., DeGroot, J. C., Boord, P., Heiman, J., and Dillow, P. V. Systematic desensitization of an anger response. Behavior Research and Therapy, 1971, 9, 273-280.

Salter, A. Conditioned reflex therapy. New York: Capricorn Books, 1961.

Schachter, S., and Singer, J. E. Cognitive, social, and physiological determinants of emotional state. Psychological Review, 1962, 69, 379-399.

Schachter, S. The interaction of cognitive and physiological determinants of emotional state. In L. Berkowitz (Ed.) Advances in experimental social psychology. Volume 1. New York: Academic Press, 1964.

Schachter, S. Cognitive effects on bodily functioning. Studies of obesity and eating. In D. C. Glass (Ed.) Neurophysiology and emotion. New York: Rockefeller University Press, 1967.

Segall, M. H., Campbell, D., and Herskovits, M. J. The influence of culture on visual perception. Indianapolis, Indiana: Bobbs-Merrill, 1966.

Shapiro, M. B., and Ravenette, E. T. A preliminary experiment on paranoid delusions. Journal of Mental Science, 1959, 103, 295-312.

Shaprio, M. B., Newfield, I., and Post, T. Experimental study of depressive illness. Psychological Reports, 1962, 10, 590.

Sharma, K. L. A rational group therapy approach to counseling anxious underachievers. Doctoral dissertation, University of Alberta, 1970.

Singer, J. L. (Ed.) The control of aggression and violence: Cognitive and physiological factors. New York: Academic Press, 1971.

Spence, J. T., and Helmreich, R. The attitudes toward women scale: An objective instrument to measure attitudes toward the rights and roles of women in contemporay society. Journal Supplement Abstract Service Catalog of Selected Documents in Psychology, 1972, 1, 1-52.

Spence, K. W., and Ross, L. E. A methodological study of the form and latency of eyelid responses in conditioning. Journal of Experimental Psychology, 1959, 58, 376-381.

Spence, K. W. Cognitive and drive factors in the extinction of the conditioned eye blink in human subjects. Psychological Review, 1966, 73, 445-458.

Staples, F. R., and Walters, R. H. Influence of positive reinforcement of aggression on subjects' differing in initial aggression level. Journal of Consulting Psychology, 1964, 28, 547-552.

Staub, E., and Sherk, L. The relationship between need approval and children's sharing behavior. Child Development, 1970, 41, 243-253.

Staub, E. The learning and unlearning of aggression. In J. L. Singer (Ed.) The control of aggression and violence: Cognitive and physiological factors. New York: Academic Press, 1971.

Steffy, R., Meichenbaum, D., and Best, A. Aversive and cognitive factors in the modification of smoking behavior. Behavior Research and Therapy, 1970, 8, 115-125.

Taft, G. L. A study of the relationship of anxiety and irrational beliefs. Doctoral dissertation, University of Alberta, 1965.

Taylor, S. Aggressive behavior and physiological arousal as a function of provocation and the tendency to inhibit aggression. Journal of Personality, 1967, 35, 297-310.

Taylor, S., and Epstein, S. Aggression as a function of the interaction of the sex of the aggressor and the sex of the victim. Journal of Personality, 1967, 11, 474-485.

Valins, S. Cognitive effects of false heartrate feedback. Journal of Personality and Social Psychology, 1966, 4, 400-408.

Valins, S., and Ray, A. A. Effects of cognitive desensitization on avoidance behavior. Journal of Personality and Social Psychology, 1967, 7, 345-350.

Wagner, M. K. Reinforcement of the expression of aggression through role playing. Behavior Research and Therapy, 1968, 6, 91-95.

Walters, R. H., and Brown, M. Studies of reinforcement of aggression: III. Transfer of responses to an interpersonal situation. Child Development, 1963, 34, 563-571.

Watson, R. E., Pritzker, L., and Madison, P. Hostility in neurotics and normals. Journal of Abnormal and Social Psychology, 1955, 50, 36-40.

Wine, J. An attentional approach to the treatment of test anxiety. Unpublished manuscript, University of Waterloo, 1971.

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

Wolpe, J., and Lazarus, A. A. Behavior therapy techniques. Oxford: Pergamon Press, 1966.

Zingle, H. W. A rational therapy approach to counseling underachievers. Doctoral dissertation, University of Alberta, 1965.

APPENDIX A

MAN-WOMAN GAME INSTRUCTIONS AND MODIFICATIONS

INSTRUCTIONS FOR MAN-WOMAN GAME

After the S and the C are seated at the playing board they are both read the following instructions:

> It is commonly assumed that men and women feel and act differently in competitive situations. Since there is an opportunity for one of you to win as much as $10, I want to know how fairly each of you play the game and how you felt during the game.

Both are handed the Fairness Rating Scale (with fairness ratings ranging from 1 (fair) to 5 (extremely unfair), and feelings ratings from 0 (calm) to 100 (extremely angry). They are then instructed:

> At least five times during the game, rate your opponent's fairness in playing the game. You may give as many ratings as you want, but at least give five. In order to determine how you are feeling throughout the game, a beep will sound periodically. When you hear the beep indicated here (points to feelings column on Fairness Rating Sheet) what you are feeling right then. The object of the game is to reach space 76 first. The one to reach this point first will win $2 but if in addition you accumulate 100 points you will win a total of $10. To play, select a token and roll a dice to determine who moves first. Then take turns rolling a dice and moving the number of spaces on the dice. Each space that you land on has an instruction, read it aloud and do what it says. If you move as a result of carrying out an instruction, ignore the instruction on the space that you land on. Here are three sets of cards you will draw from (pointing to each), the Power cards, the Confrontation cards, and the Status cards. You (S) draw from the female deck and you (C) draw from the male deck. Read the card aloud and follow the instructions. If you land on a space requiring you to answer a question, select a number from 1 to 200 and your opponent will read the question. If you land on a Confrontation space, each of you draw a card, the one with the highest number advances 3 spaces. In addition each of you have 20 blocking cards which can be used at anytime throughout the game to cause your opponent to lose a turn. If you want to block your opponent, put one of your cards beside his/her token before the dice is rolled. To give time to use blocking cards, pause a few seconds before tossing the dice. After your opponent

has missed a turn, remove your blocking card to a discard pile. You will notice that spce 38 is marked Special Bonus. The player who reaches or passes this space first, draws one of the cards from his Special Bonus pile. This is a very important card and can dramatically alter the game and is especially important if you are behind in the game. Someone needs to keep track of the number of turns in the game. (looking to C) Will you do this? (to S) Will you keep track of the number of points each of you make by keeping a running total? Are there any questions? Let me know when you have finished playing.

Man-Woman Game Spaces With Modifications

The following is a listing of the instructions on each of the 76 spaces on the board. Modifications are noted in parentheses.

1. blank

2. WOMAN Caution will get you nowhere. Back 2.
   MAN Caution rewarded in young men. Ahead 5.

3. WOMAN Career Counselor convinces you to go to typing school. -5 pts.
   MAN You're advised of your best college bet. +5

4. WOMAN Ladies don't compete. Start over!

5. WOMAN Draw Status card.
   MAN Draw Power card.

6. Draw Status card.

7. WOMAN Husband wants you at home. Lose 1 turn for working.
   MAN Wife stops working. Ahead 5.

8. Confrontation.

9. Draw Power card.

10. Answer question. WOMAN Right, no points. Wrong, -5.
    MAN Right, +5. Wrong, no loss.

11. Draw Status card.

12. Confrontation.

13. New lover renders you powerless. Give unto her or him 1 Power card.

14. Confrontation.

15. Back 1 space.

16. Draw Power card.

17. WOMAN It's that time of the month again. Lose 5 points.
    MAN Convince secretary "cramps" are no excuse for poor work. Take 5 points.

18. WOMAN Bonus for looking pretty. +5 points.
    MAN Bonus for working hard. +10 points.

19. WOMAN You do the dishes. Lose 1 turn.
    MAN You have after dinner brandy with guests. Ahead 3.

20. Draw Power card.

21. Draw Status card.

22. Confrontation.

23. WOMAN Back 1.
MAN Ahead 7 (Ahead 2)

24. Answer question. If right, +5, wrong, -5.

25. Draw Power card.

26. WOMAN You feel guilty leaving kids while you work. Lose 5 points.
MAN It's not your problem. Get 5 points.

27. Draw Status card.

28. Draw Status card.

29. WOMAN Affair with boss. Ahead 3.
MAN Affair with boss's wife. Ahead 5.

30. Confrontation.

31. WOMAN Draw Status card.
MAN Draw Power card.

32. Take Power card.

33. Initiate Confrontation. Opponent chooses method. (Initiate Confrontation)

34. WOMAN Rare skills make you executive assistant. Up 2.
MAN Same skills make you executive. Up 4. (Up 3)

35. WOMAN Back 2.
MAN Ahead 6.

36. Draw Status card.

37. Draw Power card.

38. Hold. Answer question. If correct, +15, Wrong, back to start. (Special Bonus)

39. WOMAN Boss's wife find out about your affair with boss. Back 2.
MAN Boss's wife gets boss to promote you. Ahead 1.

40. Confrontation.

41. WOMAN Boss gets you pregnant, lose job. Back 1.
MAN You convince her that it's her fault. Ahead 1.

42. Confrontation.

43. WOMAN Your instinctive compassion gives 5 pts. to low male.
MAN Remember your pregnant secretary? 5 pts. to any lady for your guilt.

44. Draw Status card.

45. Draw Status card.

46. Draw Power card.

47. Ahead 1 space. (MAN Ahead 1 space)

48. Confrontation.

49. WOMAN Women in your office organize. Ahead 4.
MAN No woman's group affects YOU.

50. Draw Status card.

51. Draw Power card.

52. Sexy opponent freezes you. A 5 or 9 will thaw you. So will giving him or her 5 pts.

53. Draw Power card.

54. WOMAN If teaming move up 5, if not tough.
MAN You're outnumbered. Admit women are equal, -5 or stay put until you roll 3 or 4.

55. Draw Power card.

56. WOMAN Go make coffee and lose turn.
MAN Pat all the ladies condescendingly as you move them Back 1.

57. WOMAN If team, draw power; otherwise status.
MAN Draw Status card.

58. Kiss hand and/or feet of an opposite, as you take his or her blocking card.

59. Draw Power card.

60. Draw Status card.

61. Confrontation.

62. Answer question. WOMAN Right, +5, wrong, lose no points.
MAN Right, no points, wrong, -5.

63. Back 2 spaces (WOMAN Back 2 spaces)

64. WOMAN Take Power card.
MAN Take Status card.

65. Promotion! Do not advance unless you have points to win otherwise back to hold. (MAN Ahead 5; WOMAN Back 5)

66. Your grip slips, lose one power card.

67. Draw Status card.

68. Answer question. Right, no points. Wrong, back 3.

69. WOMAN Hire a male secretary, +5 points.
MAN Your secretary adopts hands off policy. -5 points.

70. Draw Power card.

71. Men say you are overly competitive. Back 4. Women admire your aggressiveness. Ahead 1. (WOMAN Men say you are overly competitive. Back 4. Women admire your aggressiveness.)

72. WOMAN Boss says you're pretty smart for a "woman." Ahead 1.
MAN Too late in the game for that sort of crack. Lose turn (lose 5 points)

73. Draw Status card.

74. Confrontation.

75. WOMAN Is a career what you really want? Back up 8 and think it over.
MAN What price glory? Back 2.

76. Blank.

Man-Woman Game Power Cards With Modifications

The following is a list of the Power cards used with the instructions. There are separate decks of cards for the MAN and for the WOMAN. Modifications are noted in parentheses.

MAN

As a handsome young professor, you have made hundreds of female students adore you. They obey your every word, even when you tell all female players to move 5 spaces back and give you 5 points.

As a man, you feel that you have the right to dominate any woman in the game. Your self-confidence allows you to take 10 points from any female player and add them to your own score.

You are a male boss who takes pleasure in bullying his female employees. All women in game, shaking in fear, lose 5 points; you get them.

As a man of power and prestige, you find that women cower in your presence. Arrogantly, take 5 points from every female player for being so weak.

As family breadwinner, you get to choose where family lives. Outvote wife and move to Arizona. Any female in game must give you 10 points or 1 stumbling block (1 stumbling block omitted) to get back to her job in New York.

Practice saying, "Honey, how can you be so dumb?" until a woman wonders the same thing. You may take 5 points from any female player for your automatically perfect performance.

You are such a brilliant and witty speaker that women are incapable of arguing with you. Talk any female player into the joys of moving back 7 steps.

Your deep resonant voice gives you instant authority in groups. Interrupt any blathering female player and move her back 4 spaces.

WOMAN

When you flutter your eyelashes, strong men crumble. Your smile melts the iciest hearts. Defrost any man out of 10 pts (5 pts), and add them to your score.

Mother told you that the way to a man's heart was through his stomach, and you took her advice. Men will pay anything for one of your home-cooked meals. Take 10 points (5 points) from the male dinner guest of your choice.

WOMAN (Continued)

You are a strikingly beautiful woman, and men let you get away with murder. Also points. Take 5 pts. from each man and add them to your score.

You are a pathologically dependent woman. The male object of your affections moves back 8 spaces (2 spaces) because you are clinging to his leg.

You are every man's favorite Dumb Blonde; gorgeous but idiotic. All men in game move 2 steps ahead to be near you, and 6 steps back when you try to explain Darwinian theory.

You are a woman with an IQ of 175, and that makes you smarter than any man around. Outthink 10 pts (5 pts) from any male player and add them to your score.

You are a woman who dominates any situation by screaming until you get your way. All male players take 2 steps backwards to get away from you, and give you 5 points each to shut you up.

Man-Woman Status Cards With Modifications

The following is a list of the Status cards used and their instructions. There are separate decks of cards for the MAN and for the WOMAN. Modifications are noted in parentheses.

MAN

You convince your female colleagues that they really wouldn't be happy disrupting an all-male professional group. Gain 10 STATUS QUO points.

You become the new sales manager, even though a woman was more qualified. Gain 5 STATUS QUO points.

You have a wife who does what you tell her, never contradicts you in public, impresses your clients with perfect dinner parties, and runs her life around you. Gain 10 STATUS QUO points while you can.

In conversation, you get a woman to admit that men are better leaders and decision maker than women. Gain 5 STATUS QUO points.

When a bright woman chemist applies for a research job on your staff, you hire her as a lab technician. Gain 5 STATUS QUO points.

As a college counselor, you have just convinced another girl undergrad that she shouldn't go to medical school (she'll become too masculine). Gain 10 STATUS QUO points.

You've just divorced your wife of 30 years for a sweet young 22-year-old who makes you feel young again. Gain 10 STATUS QUO points.

You are hired as an associate professor at a good college, while your equally talented wife becomes an instructor at the local girl's school. Gain 5 STATUS QUO points.

You teach your son to get lots of "experience" (heh heh) in his youth, and your daughter that she damn well stay a virgin till marriage. Gain 5 STATUS QUO points.

Your wife drops out of college to support you through medical school. Gain 5 STATUS QUO points.

You tell a "dumb woman" joke at a party and everyone, even your wife, laughs, gain 5 STATUS QUO POINTS.

Your parents were so delighted to have a male child that you got 5 STATUS QUO points at birth. Cash them in for points now.

You are paid more than the women in your company who do the same work as you. They get less impressive titles, you get 5 STATUS QUO points.

MAN (Continued)

You've convinced the bright Ph.D. you just married that she shouldn't be competing with you. Gain 10 STATUS QUO points.

WOMAN

You are paid less than the men in your company who do the same work. Lose 5 STATUS points.

You are a woman. Automatically lose 5 STATUS points.

Your college adviser convinces you that women make better nurses than doctors. When you change majors from pre-med to English, you lose 10 STATUS points.

You have an M.A. in biology. When you apply for a research job, you are told there is a nice secretarial position open. You accept, losing 5 STATUS points.

You are passed over for a better position by a man who is less qualified than you are. Lose 10 STATUS points.

You stop going to your Women's Liberation group meetings when your husband calls the women a "bunch of frustrated dykes." Lose 5 STATUS points.

You are the only woman psychologist on your research team. At staff meetings, the men assign you the tasks of taking notes and serving coffee. You agree losing 5 STATUS points.

You always do what your husband says when it comes to politics and business. Lose 5 STATUS points.

Having just gotten your Ph.D. you get married and drop career plans forever. For shame! Lose 15 STATUS points.

You want an abortion. The state legislature is all male. You lose 10 STATUS points.

You drop out of school to support your husband through graduate school. Lose 5 STATUS points.

You play dumb on an exam so you won't surpass your boyfriend, even though you know more than he does. Lose 5 STATUS points.

Your husband is so slow to do his chores around the house ("but nothing's dirty, dear") that you give in and do them yourself. Lose 5 STATUS points.

APPENDIX B

MEASUREMENTS USED IN THE STUDY

Buss-Durkee Inventory

1. I seldom strike back, even if someone hits me first.
2. I sometimes spread gossip about people I don't like.
3. Unless somebody asks me in a nice way, I won't do what they want.
4. I lose my temper easily but get over it quickly.
5. I don't seem to get what's coming to me.
6. I know that people tend to talk about me behind my back.
7. When I disapprove of my friends' behavior, I let them know it.
8. The few times I have cheated, I have suffered unbearable feelings of remorse.
9. Once in a while I cannot control my urge to harm others.
10. I never become mad enough to throw things.
11. Sometimes people bother me just by being around.
12. When someone makes a rule I don't like I am tempted to break it.
13. Other people always seem to get the breaks.
14. I tend to be on my guard with people who are somewhat more friendly than I expected.
15. I often find myself disagreeing with people.
16. I sometimes have bad thoughts which make me feel ashamed of myself.
17. I can think of no good reason for ever hitting anyone.
18. When I am angry, I sometimes sulk.
19. When someone is bossy, I do the opposite of what he wants.
20. I am irritated a great deal more than people are aware of.
21. I don't know any people that I downright hate.
22. There are a number of people who seem to be jealous of me.
23. I can't help getting into arguments when people disagree with me.
24. People who shirk on the job must feel very guilty.
25. If somebody hits me first, I let him have it.

26. When I am mad, I sometimes slam doors.

27. I am alw ys patient with others.

28. Occasionally when I am mad at someone I will give him the silent treatment.

29. When I look back on what's happened to me, I can't help feeling mildly resentful.

30. There are a number of people who seem to dislike me very much.

31. I demand that people respect my rights.

32. It depresses me that I did not do more for my parents.

33. Whoever insults me or my family is asking for a fight.

34. I never play practical jokes.

35. It makes my blood boil to have somebody make fun of me.

36. When people are bossy, I take my time just to show them.

37. Almost every week I see someone I dislike.

38. I sometimes have the feeling that others are laughing at me.

39. Even when my anger is aroused, I don't use "strong language."

40. I am concerned about being forgiven for my sins.

41. People who continually pester you are asking for a punch in the nose.

42. I sometimes pout when I don't get my way.

43. If somebody annoys me, I am apt to tell him what I think of him.

44. I often feel like a powder keg ready to explode.

45. Although I don't show it, I am sometimes eaten up with jealousy.

46. My motto is "Never trust strangers."

47. Whe people yell at me, I yell back.

48. I do many things that make me feel remorseful afterward.

49. When I really lose my temper, I am capable of slapping someone.

50. Since the age of ten, I have never had a temper tantrum.

51. When I get mad, I say nasty things.

52. I sometimes carry a chip on my shoulder.

53. If I let people see the way I feel, I'd be considered a hard person to get along with.

54. I commonly wonder what hidden reason another person may have for doing something nice for me.

55. I could not put someone in his place, even if he needed it.

56. Failure gives me a feeling of remorse.

57. I get into fights about as often as the next person.

58. I can remember being so angry that I picked up the nearest thing and broke it.

59. I often make threats I don't really mean to carry out.

60. I can't help being a little rude to people I don't like.

61. At times I feel I get a raw deal out of life.

62. I used to think that most people told the truth, but now I know other.

63. I generally cover up my poor opinion of others.

64. When I do wrong, my conscience punishes me severely.

65. If I have to resort to physical violence to defend my rights, I will.

66. If someone doesn't treat me right, I don't let it annoy me.

67. I have no enemies who really wish me harm.

68. When arguing, I tend to raise my voice.

69. I often feel that I have not lived the right kind of life.

70. I have known people who pushed me so far that we came to blows.

71. I don't let a lot of unimportant things irritate me.

72. I seldom feel that people are trying to anger or insult me.

73. Lately, I have been kind of grouchy.

74. I would rather concede a point than get into an argument about it.

75. I sometimes show my anger by banging on the table.

Adult Irrational Ideas Scale

1. Jeers humiliate me even when I know I am right.
2. I worry about situations where I am being tested.
3. The best way to teach a child right from wrong is to spank him when he is wrong.
4. I must learn to "keep my head" when things go wrong.
5. I think I am getting a fair deal in life.
6. I worry about eternity.
7. I am happiest when I am sitting around doing little or nothing.
8. I prefer to be independent of others in making decisions.
9. If a person is ill-tempered and moody, he will probably never change.
10. I get very upset when I hear of people (not close relatives or close friends) who are very ill.
11. Crime never pays.
12. My family and close friends do not take enough time to become acquainted with my problems.
13. People who do not achieve competency in at least one area are worthless.
14. We are justified in refusing to forgive our enemies.
15. I frequently feel unhappy with my appearance.
16. I feel that life has a great deal more happiness than trouble.
17. I worry over possible misfortunes.
18. I often spend more time in trying to think of ways of getting out of something than it would take me to do it.
19. I tend to look to others for the kind of behavior they approve as right and wrong.
20. Some people are dull and unimaginative because of defective training as a child.
21. Helping others is the very basis of life.
22. School promotions should be for intellectual merit alone.

23. It is very important to me when I do a good job to be praised.

24. I find it difficult to take criticism without feeling hurt.

25. It is terribly upsetting the way some students seem to be constantly protesting about one thing or another.

26. It is impossible at any given time to change one's emotions.

27. I tend to worry about possible accidents and disasters.

28. I need to learn how to keep from being too assertive or too bold.

29. To cooperate with others is better than doing what you feel should be done.

30. Sympathy is the most beautiful emotion of man.

31. People who criticize the government are either ignorant or foolish.

32. I wish that more affection were shown by members of my family.

33. When a person is no longer interested in doing his best, he is done for.

34. I get very angry when I miss a bus which passes only a few feet away from me.

35. My place of employment and/or my neighborhood provide adequate opportunity for me to meet and make friends.

36. I can walk past a grave yard alone at night without feeling uneasy.

37. I avoid inviting others to my home because it is not as nice as theirs.

38. I prefer to have someone with me when I receive bad news.

39. It is necessary to be especially friendly to new co-workers and neighbors.

40. The good person is usually right.

41. Sometimes I feel that no one loves me.

42. I worry about little things.

43. Riches are a sure basis for happiness in the home.

44. I can face a difficult task without fear.

45. I usually try to avoid doing chores which I dislike doing.

46. I like to bear responsibilities alone.

47. Other people's problems frequently cause me great concern.

48. It is sinful to doubt the Bible.

49. It makes me very uncomfortable to be different.

50. I get terribly upset and miserable when things are not the way I would like them to be.

51. I find that my occupation and social life tends to make me unhappy.

52. I am afraid in the dark.

53. Many people that I know are so unkind or unfriendly that I avoid them.

54. It is better to take risks and to commit possible errors, than to seek unnecessary aid of others.

55. I get disturbed when neighbors are very harsh with their little children.

56. I find it very upsetting when important people are indifferent to me.

57. I have sometimes crossed the street to avoid meeting some person.

58. I have sometimes had a nickname which upset me.

59. When a friend ignores me, I become extremely upset.

60. My feelings are easily hurt.

Project Assessment

	Not at All	Some	Very Much
1. Were you glad that you participated in this project?			
2. Were your intensities of anger lessened in relation to men?			
3. Were you able to act assertively more often than before participating in the project?			
4. Did keeping the logs increase your awareness of your feelings and reactions in relation to men?			

5. Other comments:

Daily Log Instructions

Every day you have many interactions with men, possibly with teachers, relatives, employers, and with friends. Some of these interactions elicit feelings in you ranging from very mild annoyance to extreme anger. You also respond to these situations in a number of ways from saying very little to becoming hostile and telling the person off.

The enclosed sheets will provide a log for each day describing the situation, what you were feeling, and how you responded. It is very important that you fill in these sheets each day and return them at the end of the week.

Situation: Briefly describe the situation and who it was with (teacher, boyfriend, parent, etc.). For example: Spoke to teacher about grade.

Degree of Anger: Put a mark in the column that best describes how you were feeling.

1 (very mildly annoyed) 10, 20, 30, 40, 50 (average amount of anger), 60, 70, 80, 90, 100 (extreme anger or rage).

Reaction: Put a mark in the column that best describes how you responded.

Passive: Said very little. Did not say what you thought or felt or what you wanted.

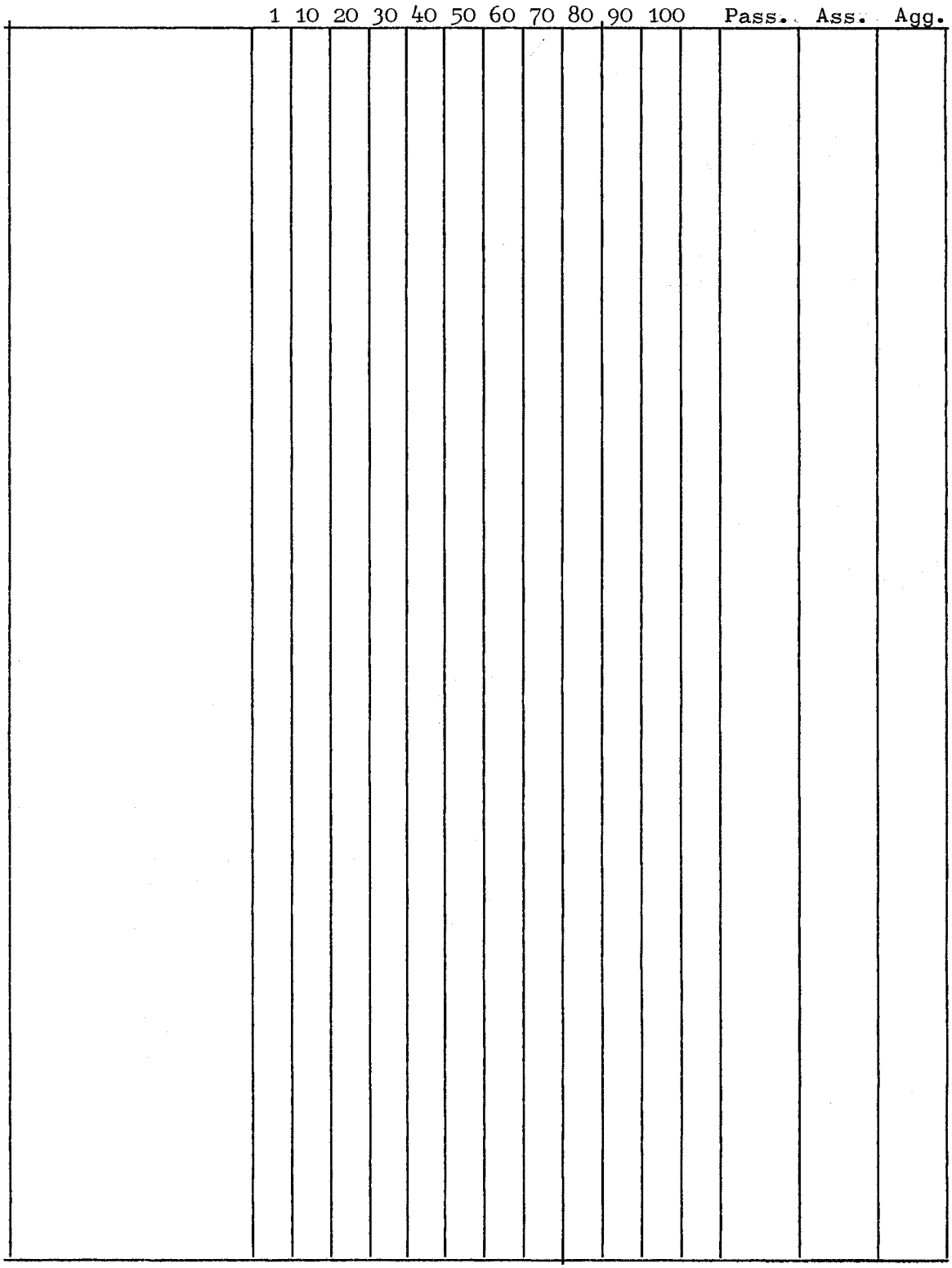
Assertive: Said what you thought or felt or stated what you wanted.

Aggressive: Said what you thought or felt but in a hostile manner. Made put down statements.

Name:
Date:

DAILY LOG

SITUATION (BRIEF) DEGREE OF ANGER REACTION



Scrambled Sentences

The numbers in parentheses indicate neutral solution.

List A	List B
the swat (hear) fly	the (see) slap mosquito
(busy) he stupid is	foolish he (working) is
are his break (tape)	hand his (shake) break
the (bounce) slam ball	the hit (bring) ball
liar a (woman) she's	(man) a cheat he's
(hear) I you hate	hit I'll you (take)
ticket the punch (take)	note a (play) strike
window the (open) break	lock the smash (fix)
the brain (cake) cut	the (bread) heart slice
grapes the (pack) crush	orange the squash (taste)
me you disgust (convince)	you me (tell) annoy
the (car) knife drive	the plunge (change) blade
paper cut the (bring)	wood (pile) the split
the (chance) devil give him	him hell (time) give
shoot I'll you (ask)	(see) I'll you stab
egg (cook) the beat	cream whip the (drink)
out blast (give) them	alive (find) burn them
him bring (here) death	him make die (eat)
snobs dislike (meet) I	whiners (meet) dislike I
out him (let) knock	him I punch (bring)
you I'll kill (call)	you I'll (tell) murder
cloth (sell) tear the	seam rip (sew) the
your use fist (pencil)	a give him (seat) slap
child the (question) torture	(boy) the brain train
bargain a drive (find)	price the cut (learn)
out (sort) bawl them	them down (here) call
the man (clothes) hang	his (pay) head cut off
nails the (count) hit	tacks the pound (sort)
go hell (sleep) to	them (see) damn all
your (pen) gun use	your pistol (pencil) use

Attitudes Toward Women

The statements listed below describe attitudes toward the role of women in society which different people have. There are no right or wrong answers, only opinions. You are asked to express your feelings about each statement by indicating whether you (A) Agree strongly, (B) Agree mildly, (C) Disagree mildly, or (D) Disagree strongly. Please indicate your opinion by marking the column on the answer sheet which corresponds to the alternative which best describes your personal attitude. Please respond to every item.

(A) Agree strongly (B) Agree mildly (C) Disagree mildly (D) Disagree strongly

1. Women have an obligation to be faithful to their husbands.

2. Swearing and obscenity is more repulsive in the speech of a woman than a man.

3. The satisfaction of her husband's sexual desires is a fundamental obligation of every wife.

4. Divorced men should help support their children but should not be required to pay alimony if their wives are capable of working.

5. Under ordinary circumstances, men should be expected to pay all the expenses while they're out on a date.

6. Women should take increasing responsibility for leadership in solving the intellectual and social problems of the day.

7. It is all right for wives to have an occasional, casual, extra-marital affair.

8. Special attentions like standing up for a woman who comes into a room or giving her a seat on a crowded bus are outmoded and should be discontinued.

9. Vocational and professional schools should admit the best qualified students, independent of sex.

10. Both husband and wife should be allowed the same grounds for divorce.

11. Telling dirty jokes should be mostly a masculine prerogative.

12. Husbands and wives should be equal partners in planning the family budget.

13. Men should continue to show courtesies to women such as holding open the door or helping them on with their coats.

14. Women should claim alimony not as persons incapable of self-support but only when there are children to provide for or when the burden of starting life anew after the divorce is obviously heavier for the woman.

15. Intoxication among women is worse than intoxication among men.

16. The initiative in dating should come from the man.

17. Under modern economic conditions with women being active outside the home, men should share in household tasks such as washing dishes and doing the laundry.

18. It is insulting to women to have the "obey" clause remain in the marriage service.

19. There should be a strict merit system in job appointment and promotion without regard to sex.

20. A woman should be as feee as a man to propose marriage.

21. Parental authority and responsibility for discipline of the children should be equally divided between husband and wife.

22. Women should worry less about their rights and more about becoming good wives and mothers.

23. Women earning as much as their dates should bear equally the expense when they go out together.

24. Women should assume their rightful place in business and all the professions along with men.

25. A woman should not expect to go to exactly the same places or to have quite the same freedom of action as a man.

26. Sons in a family should be given more encouragement to go to college than daughters.

27. It is ridiculous for a woman to run a locomotive and for a man to darn socks.

28. It is childish for a woman to assert herself by retaining her maiden name after marriage.

29. Society should regard the services rendered by the women workers as valuable as those of men.

30. It is only fair that male workers should receive more pay than women even for identical work.

31. In general, the father should have greater authority than the mother in the bringing up of children.

32. Women should be encouraged not to become sexually intimate with anyone before marriage, even their fiances.

33. Women should demand money for household and personal expenses as a right rather than as a gift.

34. The husband should not be favored by law over the wife in the disposal of family property or income.

35. Wifely submission is an outworn virtue.

36. There are some professions and types of businesses that are more suitable for men than women.

37. Women should be concerned with their duties of childrearing and housetending, rather than with desires for professional and business careers.

38. The intellectual leadership of a community should be largely in the hands of men.

39. A wife should make every effort to minimize irritation and inconveniences to the male head of the family.

40. There should be no greater barrier to an unmarried woman having sex with a casual acquaintance than having dinner with him.

41. Economic and social freedom is worth far more to women than acceptance of the ideal of feminity which has been set by men.

42. Women should take the passive role in courtship.

43. On the average, women should be regarded as less capable of contribution to economic production than are men.

44. The intellectual equality of woman with man is perfectly obvious.

45. Women should have full control of their persons and give or withhold sex intimacy as they choose.

46. The husband has in general no obligation to inform his wife of his financial plans.

47. There are many jobs in which men should be given preference over women in being hired or promoted.

48. Women with children should not work outside the home if they don't have to financially.

49. Women should be given equal opportunity with men for apprenticeship in the various trades.

50. The relative amounts of time and energy to be devoted to household duties on the one hand and to a career on the other should be determined by personal desires and interests rather than by sex.

51. As head of the household, the husband should have more responsibility for the family's financial plans than his wife.

52. If both husband and wife agree that sexual fidelity isn't important, there's no reason why both shouldn't have extramarital affairs if they want to.

53. Most women need and want the kind of protection and support that men have traditionally given them.

INDEX OF FAIRNESS

FAIRNESS RATING						FEELINGS										
Fair				Very Unfair							Avg.					Extreme
1	2	3	4	5		Calm	Annoyed				Anger					Anger
						0	10	20	30	40	50	60	70	80	90	100

APPENDIX C

TRANSCRIPTS OF TRAINING GROUPS

Training Group I and II Transcript

Session I

Orientation: For the next few weeks we will be focusing on situations and experiences in which you feel very angry and tend to become verbally aggressive. Each of you have indicated that this often creates problems for you personally because you feel a lot of upsetness and makes dealing with some people difficult for you.

Many of you may be finding that you are at times feeling hostility, resentment, and bitterness as you become aware of the sexism in our society but maybe even more often when you feel frustrated personally or responded to as a sex object or talked down to because you are a woman. I think we can all agree that these are highly annoying and unpleasant situations for all of us. The purpose of our meetings will be to understand how we may be unnecessarily upsetting ourselves because of these situations and how we can approach them with less stress to ourselves and with more self control and determination.

Each of you has completed a hierarchy of situations in which you become angry. For purposes of discussion and training we will be using these situations to analyze and understand feelings of anger and to practice new approaches to these situations.

In order for us to feel as free as possible to share our feelings and experiences, it is important that nothing that is discussed or shared in our group be talked about either among ourselves or other people outside this group.

Emotions and their intensities are learned: To begin to understand our feelings of anger, let's consider first where our emotions come from. Even though our emotional reactions to physical pain and pleasure appear to be innate-that is they occur in the newborn without much evidence of learning, most of the emotions we experience are a result of our learning to perceive something as good or bad, desirable or undesirable. The anthropological studies of Margret Mead and Ruth Benedict have dramatically demonstrated the cultural or learning basis of much of emotional expression and intensity. For example,

societies such as the Arapesh are very affectionate and love children and are as a tribe unaggressive, cooperative, and mild while the Mundugumor, on the other hand, are very hostile toward children, have much conflict in their relationships and as a whole are violent, vengeful, and aggressive.

Even within our own culture and life experience we can see how learning affects our emotions and emotional experience. Most of you when you were young children were afraid of loud noises or were afraid of the dark. But probably most of you as you grew older realized that these fears were groundless and were no longer afraid of these things.

Since most or many of our emotions are learned, it is, therefore, possible to unlearn them or to learn to experience new or different emotions.

How then are emotions learned?: Emotions are for the most part a result of how we have learned to perceive or evaluate something. If we have been taught or have experienced something as pleasurable we tend to evaluate or perceive that as good which is followed by a pleasant emotional reaction or experience. The same, for unpleasant emotions. If we are taught that something is harmful to us (Don't ride with strangers) we evaluate or perceive that as dangerous and feel anxious or afraid. If we are taught that something is evil or bad (Men shouldn't molest little children) we would perceive this as wrong and feel angry.

For example, many of us were taught as children that policemen are our friends and will be helpful so many times when we saw a policeman we felt good or if one approached us we were glad. To demonstrate how new perceptions or evaluations can effect emotions, many people as a result of campus demonstrations, Kent State, and the Knapp commission view policemen quite differently and have a decidedly different reaction to seeing one or being approached by one.

Anger, more specifically: Just as emotions in general arise from the way we perceive or think about someone or something, so more specifically, does the emotion of anger. Most often when people describe feelings of anger, they are not talking about an experience arising from physical pain, such as someone hitting them over the head with

a baseball bat, but are describing a feeling arising out of a perception or evaluation of an event, such as "I'm angry because he stood me up". Because it is our perceptions or views that give rise to our feelings of anger, the same event may be viewed and therefore experienced differently by different people. So that a professor announcing a pop quiz can give rise to a variety of feelings in the class. Now if you stayed out all night and feel you deserve a medal for even making it to class and the last thing you expected to await you was a test, you might sit there doing a slow burn, screaming inwardly "How can he do this to me, it's not fair". On the other hand, if you were so bored last night that you decided to study since there was nothing better to do and you need a chance to boost up your tenuous B you might sit there feeling pretty smug, thinking "What luck, boy am I glad I studied". So the event is the same, an unexpected exam, but the reactions are different depending on how it is seen.

Here's another example. Suppose you are in a hurry to get to class and you are driving down the street and just as the light turns green, someone starts across the street. How might you feel? But just as you are about to yell something out the window you notice that he's carrying a white cane. How might you feel then? In both instances you are frustrated (which means you have to wait a couple of seconds longer) but the feelings experienced as a result of perceiving the situation differently are entirely different.

Take the earlier illustration of a person getting angry over being stood up. Can you think of instances where this might happen and the person would feel differently? (The group brought up examples and discussed this point.)

Hierarchy examples: Each look at hierarchy items and identify how situations that led to anger might give rise to other feelings. (Each group member discussed this in relation to her hierarchy items.)

Relation between feeling angry and acting aggressively: Let's consider the relationship between how we feel and how we act or behave. What then is the relation between feeling angry and acting aggressively either directly or indirectly, physically or verbally.

1. There is a greater chance that you will act aggressively if you feel angry, and the chances increase as the intensity of anger increases. If in the example given earlier of someone walking across the street as the light changes, you are on your way to school and have plenty of time, you might feel midly annoyed as you sit there waiting for the man to cross, if however, you are already late for class and a major exam is being given, you probably would feel more intensely angry (60-70) and would more likely yell at the person, or honk your horn.

Look at your own hierarchies and pick an item that is low and one that is high and see if the probability increases that you will do something aggressive, the higher the item is. (Each member discussed this with items from her hierarchy.)

2. Acting aggressively often increases the experience of anger. Experimental work has shown that when people are encouraged to act aggressively, in many situations this is followed by increased levels of emotions and also by increased aggressive behavior. In other words, the more anger that you express, the more angry you feel and the more likely you are to react to situations with anger.

Suppose your boyfriend constantly referred to you as "his chick". This was something that really annoyed you and pissed you off. You didn't say anything until finally one day after the tenth time, you really blew your stack and told him off. After you let him have it, so to speak, your feelings of anger would go up 30 points on your anger scale, and ever after when he referred to you as "his chick" again, you would feel more angry and would more likely tell him off again.

Women frequently report that they become annoyed when a man whistles or makes some snide remark when they are walking down the street. Imagine this happening to you. (pause) Now imagine yourself turning to the man and saying something like "lay off you dirty son of a bitch". (pause) Notice how you are feeling. (pause) Now again imagine the same thing happening but this time you ignore the man and walk straight ahead. Notice how you are feeling. (pause) The events are the same and initially you feel the same, very annoyed. But depending on how

you react to the situation you might feel rising levels of anger or continued annoyance. (Each member discussed how she felt during the exercise.)

3. Even though you feel angry, it is not necessary to act aggressively. This example also illustrates a third relationship between how you feel and how you act-that is, that even if you are feeling angry, it is not necessary to act aggressively-that is make put down statements or attack the person aggressively. Even though you may have felt annoyed or angry at a man making such remarks, you can either respond to him with hostile remarks or coolly ignore him. Therefore, even though the probability of acting aggressively increases as the level of anger increases, it is not necessary to act aggressively even if you are very angry.

Advantages and disadvantages of anger and aggression:

Advantages

1. Since people have a tendency to become angry, letting out internalized feelings gets them in the open and the person often will temporarily feel better about having expressed them.

2. Expression of hostility can be very pleasurable and it may cover up or release feelings of depression. Anger may not be the best way of expressing oneself but if one has a choice between being angry or depressed, one would be better off expressing anger rather than being depressed.

3. Expressing almost any feeling, the individual tends to learn something about himself. If a person is overly inhibited or constricted he is not open to the experiences of living. If he allows himself to become angry and upset he will sometimes become less inhibited, and more open to risks and to new experiences.

4. The expression of anger puts you honestly in touch with some of your important and real feelings. If you keep suppressing or repressing your anger you tend to refuse to acknowledge that you are displeased with another's behavior and that you do very much want them to change.

5. The expression of anger can sometimes serve as a deconditioning or desensitizing process.

In encounter groups clients are encouraged to explode angrily, this can lead to the client getting used to letting his feelings out and giving them less importance than before or else he may realize that he is making much ado about nothing and may make himself less angry.

6. Expressing yourself angrily can sometimes have the effect of getting someone to do or not do something that you don't like.

Disadvantages

1. It is invariably, when looked at closely, a form of demandingness. The angry person believes two things, (a) I don't like what you are doing and I wish you would change it, and (b) Because I don't like what you are doing, you should not, must not do it. I need to have you act better and if you don't, you are a total bastard. The second statement is unrealistic for several reasons: (a) the person does not run the universe and is foolish to command ot doctate that it must change, (b) he does not need, even though he may prefer others to act better and he can still live a relatively happy life if they don't, and (c) people who act poorly to you are not total bastards, but merely human beings who are behaving in a way you don't like.

2. Although there is a little evidence that anger subsides as you give vent to it, the opposite is even truer. In most instances, the more you express your anger, the angrier and more vindicative you become.

3. Anger is one of the main manifestations and reinforcers of low frustration tolerance. When you are angry at another person you are not only saying that you don't like what he is doing but also that you can't stand it, that is you will be utterly miserable until he stops.

4. Anger usually leads to some form of recrimination and penalization by the individuals at whom you are angry. In a therapeutic situation such as an encounter group, this might be very accepted and even encouraged, but in real life conditions are hardly the same. Tell a neighbor or a friend off and you have a quarrel on your hands. Tell a boss off and you may be out of a job, tell your boyfriend off and you might be spending Saturday nights alone.

5. Overt hostility tends to absorb so much time and energy and to get you into difficulty with individuals that it diverts you from perceiving and understanding or planning effective ways to get what you want.

6. The expression of hostility is disruptive in several ways. It can literally give you a pain in the stomach and help bring on psychosomatic reaxtions including gastrointestinal upsets, skin disorders, and heart palpitations. It intensely involves you in your head and sometimes in vindictive actions with people who you really do not care about. It detracts from the time you could spend in more constructive, creative, and enjoyable pursuits.

Analysis of cognitive statements leading to anger: A chart of the cognitive statements leading to anger was presented (See Figure I). It was briefly demonstrated how each of these statements could generate anger.

Session II

Review of anger model: The chart of cognitive statements leading to anger (Figure I) was again presented. Each of the statements was gone over with respect to how they could generate anger.

The irrational or unrealistic aspect of each statement: Each statement was examined carefully and these points were made.

"I have to have what I want now" is irrational for several reasons: (a) a demand that the world operate to suit that particular person, (b) an implied necessity that the demand be granted, and (c) an unrealistic demand that the wish or desire be granted at that moment.

"I can't stand it" whether referring to events, people, or feelings is an unrealistic statement because even though events are unpleasant, painful, or difficult people are able to live through them and rarely succomb to them. This is an exaggeration of the situation.

"It shouldn't be this way". This is another way of saying things shouldn't be the way they are. This stems from a refusal to accept the fact of being frustrated and again demands that the world operate to satisfy the individual's desires. Even though many reasons could be

stated for why it would be better if things were different, there are no reasons that can be given for why things shouldn't be as they are.

"It's because of them, they are to blame". Subjects were handed copies of Table I. Each statement was read aloud and discussed.

Rational beliefs and corresponding emotions: Each of the statements in Figure I (chart) were then looked at to demonstrate what the rational statement would be and the emotion that would follow this belief. The following points were made.

For statement one, the rational belief would be "I want what I want but I don't have to have it now". The emotion would be mild frustration.

For the second statement, the rational belief would be "I don't like being frustrated but I can stand it". The emotion would be annoyance or frustration.

For the third statement, the rational belief would be "Things are the way they are and there's no reason why they shouldn't be even though there are reasons why it would be better if they weren't" and the corresponding emotion would be frustration or annoyance.

For the last statement, the rational belief would be "Even though I don't like what he did, that doesn't make him a total bastard" and the emotion would be annoyance or frustration.

Identifying anger generating beliefs from hierarchies: Each S practiced identifying anger generating beliefs from her own hierarchy.

A B C's of emotion: They were then taught Ellis' ABC model of emotions.

A-event
BI-irrational belief
BR-rational belief
C-emotion

Each S practiced identifying A, BI, BR, and C in her own hierarchy items and rehearsed more rational beliefs to hierarchy items.

Homework: It is important that you begin to actively practice what you are learning in this group in your

everyday lives. The first assignment will be to select one anger instigating event which occurs during the week and practice identifying A, BI, BR, and C. Also challenge BI, thinking new thoughts. Write this down to discuss at next group meeting.

Session III

Report on homework assignment: Each S discussed her homework assignment and corrections were made by E when not correct.

Introduction to assertive, aggressive, and passive behavior: Our Western way of life cultivates conflicting ways of behaving in interpersonal areas. A typical example is found in the common attitudes and teachings about human sexuality. Sexual restraint is the societal norm of the American middle class family, school, and church. The popular media, however, virtually bombards audiences with a different view of sexuality. on the one hand, women are expectedto be sweet and innocently non-assertive, whereas, on the other hand, they are rewarded for being sultry, vampish, and sensual. Or further, if they act sweetly passive they often get ignored or taken advantage of. Further examples of this contrast between "recommended" and "rewarded" behavior are also evident. Even though it is typically understood that one should respect the rights of others, all too often we observe parents, teachers, and churches contradict these values by their own action.

We believe that each person should be able to choose for herself how she will act in a given circumstance. If your polite restraint response is too well developed, you may be unable to make the choice to act as you would like to. If your aggressive response is overdeveloped, you may not be able to achieve your own goals without hurting others. This freedom of choice and exercise of self control is made possible by the development of assertive responses for situations which have previously produced non-assertive or aggressive behavior.

Chart of non-assertive (passive), assertive, and aggressive behavior:

The chart of non-assertive (passive), assertive, and aggressive behavior was shown (See Table VI) and the following comments were made.

It may be seen in the chart that in the case of a non-assertive response in a given situation, the actor is typically denying herself and is inhibited from expressing her actual feelings. She seldom achieves her own desired goals, allowing others to choose for her instead. She often feels hurt and anxious as a result of her inadequate behavior.

If you carry your desire for self assertion to the extreme of aggressive behavior, you accomplish your ends at the expense of others. Although you frequently find your behavior self-enhancing and expressive of your feelings in the situation, you usually hurt others in the process by making choices for them and minimizing their feelings of worth as persons.

Aggressive behavior commonly results in a "put down" of the other person. His rights have been denied and he feels hurt, defensive, and humiliated. His goals in the situation, of course, are not achieved.

In contrast, appropriately assertive behavior in the same situation would be self-enhancing for the individual and an honest expression of her feelings. You would usually achieve your goals, having chosen for yourself how you would act. A good feeling about yourself would usually follow an assertive response.

Similarly, when the consequences of these three contrasting behaviors are viewed from the perspective of the person "acted upon" (the person toward whom the behavior is directed) a parallel pattern emerges. Non-assertive behavior often produces feelings ranging from sympathy to outright contempt. Also the person may feel guilt or anger at having achieved his own goals at the others expense. In contrast, a transaction involving assertion enhances feelings of self worth. In addition, while you achieve your goals, the goals of the individual acted upon may also be achieved.

In summary, then, it is clear that you are hurt by your own self denial in non-assertive behavior, the person toward whom you are acting may be hurt in aggressive behavior, neither person is hurt in the case of assertive behavior. Unless the goals are mutually exclusive, both may succeed.

TABLE VI

NON-ASSERTIVE, AGGRESSIVE, AND PASSIVE BEHAVIOR*

Non-Assertive Behavior	Assertive Behavior	Aggressive Behavior
Actor	Actor	Actor
Self-denying	Self-enhancing	Self-enhancing at expense of another
Inhibited	Expressive	Expressive
Does not achieve desired goal (s)	May achieve desired goal (s)	Achieves desired goal (s) by hurting others
Allows others to choose for him	Chooses for self	Chooses for others
Hurt, anxious	Feels good about self	Depreciates others
Acted Upon	Acted Upon	Acted Upon
Guilty or angry	Self-enhancing	Self-denying
Depreciates actor	Expressive	Hurt, defensive, humiliated
Achieves desired goal at actor's expense	May achieve desired goal (s)	Does not achieve desired goal (s)

*Source: Alberti and Emmons, 1970

Assertive, aggressive, and non-assertive behavior in hierarchies:

Each subject identified an assertive, an aggressive, and a non-assertive response to one hierarchy item.

Homework assignment: Choose one event this week where you might typically become angry and practice challenging old thoughts and think new thoughts and act assertively rather than aggressively. Report to group.

Session IV

Review of chart: The chart presented in Session III was reviewed with emphasis on differentiation of assertive, aggressive, and passive behavior.

Review of anger cognitions: Anger cognitions were reviewed with appropriate rational statements.

Hierarchies: Each S chose 2 or 3 high level items from hierarchy and analyzed rational and irrational statements and practiced assertive responses. The group and E gave feedback.

Homework report: Each S reported on homework assignment given in Session III.

VITA

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"Research Related to RET." Rational Living, 6 (1971), 38-40.

"New Developments and Techniques in RET." Rational Living, 7 (1972), 34-36. Authored with A. Ellis.

"Cognitive Factors in Anger and Aggression." Rational Living, 7 (1972), 40-44.

"Overcoming Boredom." Rational Living, 7 (1972), 40-42.

"Practical Applications of RET Technique: Group Techniques." Rational Living, 8 (1973), 32-37.

"Assertive Training in Women: Implications for Marriage and Family Therapy." In D. Olson (Ed.) System Analysis of Marital and Family Therapy (in press).

Books:

Communication and Intimacy (in press). Authored with J. Berlin, J. Moyer, and D. Olson.