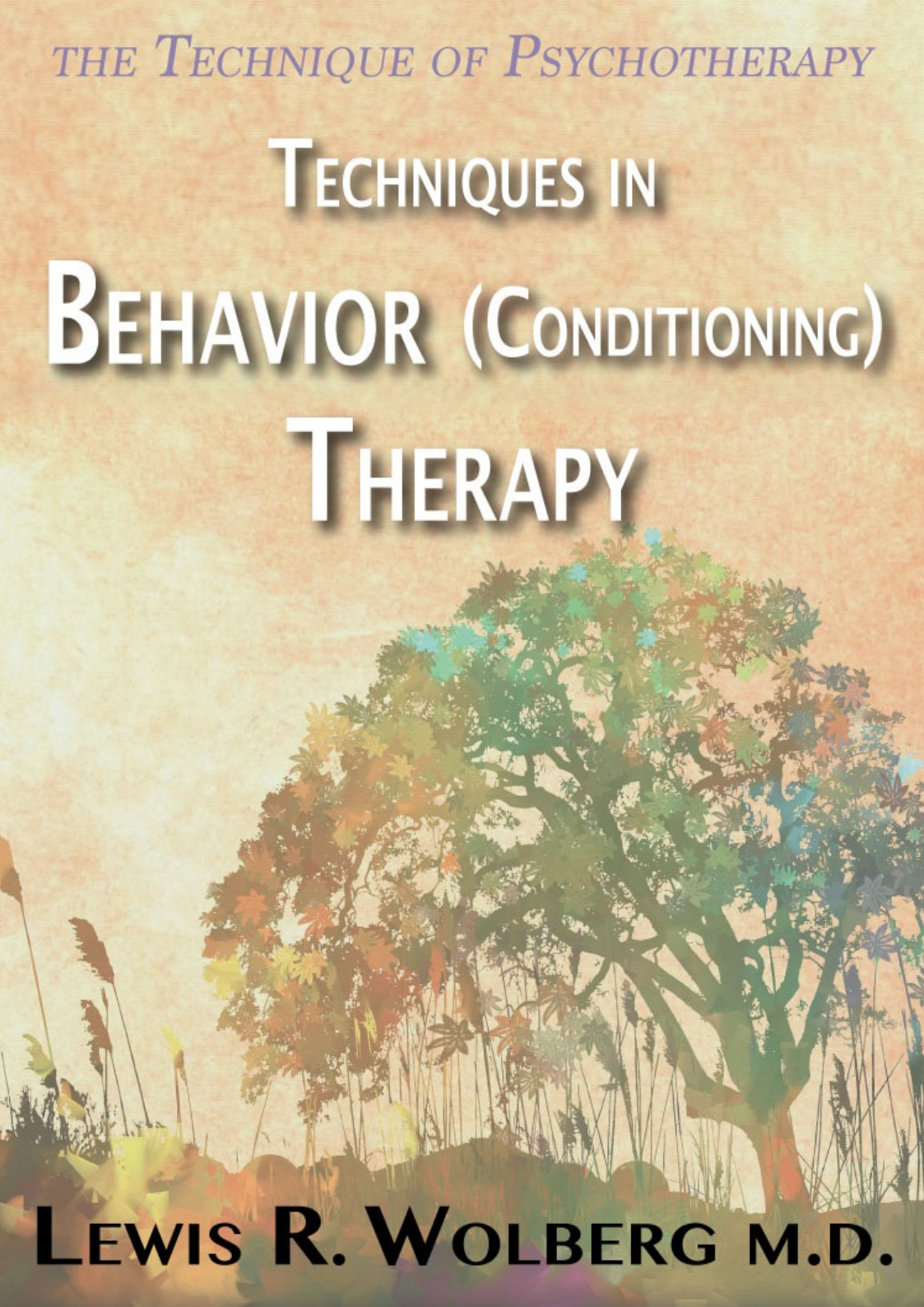
THE TECHNIQUE OF PSYCHOTHERAPY

TECHNIQUES IN BEHAVIOR (CONDITIONING) THERAPY



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Techniques in Behavior (Conditioning) Therapy

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Techniques in Behavior (Conditioning) Therapy

The Freudian economic concept of the personality as a closed energy system sponsored the idea that libido removed from one area must be relocated and that energy released by symptom removal must inevitably wreak its mischief elsewhere. The removal of symptoms, therefore, was considered irrational and the rewards dubious since energy soon displaced itself in other and perhaps more serious symptoms. No myth has survived as tenaciously as has this concept, which continues to be promulgated as dogma despite the fact that in practice symptoms are constantly being lifted with beneficial rather than destructive results.

In its early days behavior therapy was viewed by some clinicians as a viable and powerful means of bringing about symptom relief and removal. The assumption was that, even when effective, the net outcome would be primarily of an adjunctive or patching-up nature that had to be supplemented by more depth-directed, nonbehavioral approaches geared toward the total personality. Contemporary behavior therapy, however, is multidimensional and aims, in systematic fashion, at the modification of every relevant facet of the personality. This will include both maladaptive behavioral excesses (e.g., tics) and/or deficits (e.g., lack of assertion). It will embrace affective and cognitive modes of functioning; it will stress control from within (self-control) rather than control from without. It will take the form of a collaborative project with the patient rather than a *laissez faire,* "leave it to the patient to decide or not to decide," direction, on the one hand, or authoritarian direction, on the other.

Behavior therapy as it developed was rooted in concepts derived from conditioning and learning theory (Hilgard, 1956; Kimble, 1961), particularly from formulations of Pavlov, Skinner, and Hull, as well as from experimental and social psychology (Brady, 1985; Paul & Lentz, 1977; Pomereau & Brady, 1979). It was based on the hypothesis that since neurosis is a product of learning, "its elimination will be a matter of unlearning" (Wolpe, 1958). It gradually embraced a wide and seemingly disparate array of procedures, all of which share certain common attributes: an unswerving allegiance to data and the methodology of the behavioral scientist, a rejection of metaphysical concepts and mentalistic processes, and predilection for what is now known as social learning theory (Wolpe & Lazarus, 1966; Bandura,

1969; Wolpe, 1971; Birk et al, 1973; O'Leary & Wilson, 1975). These techniques may be directly physiological or narrowly S-R (stimulus-response) in nature (e.g., aversive conditioning), highly imaginal (e.g., real-life—graded desensitization of an elevator phobia), stimulus specific (e.g., thought stoppage), stimulus situation complex (e.g., assertion training, behavioral rehearsal), of a contractual nature (e.g., contingency contracting), directly cognitive (e.g., cognitive behavior therapy, rational emotive therapy) conducted with the inpidual or in groups, or utilizing complex interpersonal interactions as in group behavior therapy (not to be confused with behavior therapy in groups), etc. etc. Affects, cognitions, and behavior will all come within the purview of the behavior therapist of the 80s and 90s (as contrasted with the behavior therapist of a decade ago) indicated by the outcome of carefully engineered behavior analysis of the total situation. As more therapists apply themselves to this area of treatment, they introduce their own original procedures and unique interpretations regarding operative learning mechanisms. The rapid growth of behavior therapy and the introduction into its orbit of a profusion of techniques had led to some confusion, although attempts are being made to establish a methodical way of looking at the different approaches (Brady, 1985) as follows: 1. The situations where problem behaviors occur, i.e., which situations exaggerate and which ameliorate the behaviors; 2. the special ways the problem behaviors manifest themselves and the intensity of their manifestations; 3. the effect of the behaviors on the patient and on others, as well as the consequences to the patient, to others, and to the environment; 4. the personal assets and resources available to support anticipated changes, and the areas in the environment on which we may draw for help; and 5. the possible impact on the patient and on others of anticipated improvement or cure. The past life and conditionings that have acted as a seedbed for problem behaviors, and the past and present reinforcements that have initiated and are now sustaining the behavior are also examined. A hierarchy of problem behaviors is composed on paper with the object of establishing a priority regarding which problems to select for immediate focus and which for a possible later focus. Goals in therapy are discussed in terms of what the patient wants from therapy and what changes in behavior are necessary to achieve this. Some behavior therapists recommend a *Behavioral Self Rating Check List* (Cautela & Upper, 1975), which contains 73 kinds of behavior it is possible to change. The therapist must agree that the patient's goals are acceptable and not unreasonable. Next, a definition of the problem includes the situations in which problem behaviors occur, their frequency, the patient's thoughts and feelings that accompany them, the environmental consequences, and their effect on the behaviors. A clinical assessment, including history-taking, follows.

Certain forms may be used, such as a *Reinforcement Survey Schedule* (Cautela & Kastenbaum, 1967) and the *Fear Survey Schedule* (Wolpe & Lang, 1964).

The patient may be asked to write down the reactions during an episode where problem behaviors occur (e.g., a phobic inspiring situation). The patient is also asked to quantify the reactions, to write down the number of times a day the symptoms occur, and to note the circumstances that surround their appearance. What is searched for are the stimuli that set off problem behaviors and their reinforcements. In several interviews sufficient information should have been gained. After presenting the therapist's hypothesis of the patient's difficulty and gaining acceptance of this, a treatment plan is devised and a contract with the patient drawn up. Therapy focuses on set goals. Should the inpidual fail to respond well in relation to the limited selected target, a wider range of targets, perhaps calling for different behavioral techniques, may be required.

The practice of behavior modification is most expediently executed where the therapist and patient both agree on the behaviors to be altered or required, on immediate and ultimate goals, and on the methods to be employed to achieve these objectives. Where the patient is unable to make adequate decisions, these determinations are sometimes made with a relative or other representative, who is kept informed about progress and changes in goals or methods. An assessment of the problem initially (the "behavioral analysis") includes the history of the behavioral difficulty, the circumstances under which it now appears, its frequency, and the consequences following its occurrence. A careful record of the frequency of the distortion is generally kept during therapy by the patient or a member of the family. A search for overt or hidden reinforcements that maintain the noxious behavior is also pursued. The formulation of the treatment plan will depend on many factors, including the type of symptom, the forces that bring it about and maintain it, and the kind of environment in which the patient functions, including the influence of inpiduals with whom the patient is living.

The chief avenues to behavioral therapy are through desensitization modeling and cognitive approaches, and operant (instrumental) conditioning.

There are literally hundreds of techniques currently available to behavior therapists. Superficially, these might seem to share few common elements, ranging, as they do, from the naively simple to the

complex, from the strictly physiological to the totally cognitive, etc. However, at least in principle if not always in fact, all possess certain common characteristics: acceptable only if adequately validated for the contemplated purpose; preceded by behavioral assessment, monitored throughout the ongoing intervention, and outcome evaluation carried out; stemming no matter how loosely from some form of clearly articulated learning theory framework.

SYSTEMATIC DESENSITIZATION

Techniques organized around classical conditioning are tailored for anxiety situations such as phobias, the product of unfortunate associations that continue to burden the inpidual without too much secondary gain or other subversive benefits. Therapy consists of a progressive desensitization to the anxiety situation, either by a slow exposure to gradually increasing increments of the anxiety stimulus, under as pleasurable or otherwise rewarding circumstances as possible, or by a mastery of fantasies of such stimuli in ever increasing intensity in the presence of an induced state of inner relaxation. Even where the anxiety situation is highly symbolized—for instance, phobic projection, which nonbehavioral therapists view as a product of deep inner conflict—it may be possible to overcome the symptom without the formality of insight. However, an understanding of the sources of the problem may be helpful in avoiding a relapse by dealing correctively with some of the core problems that initiate the anxiety. This, too, would be taken into account by modern behavior therapists in their treatment strategy without recourse to concepts such as the unconscious or the achievement of insight. On the other hand, insight alone, without reconditioning, may leave the symptom unrelieved. An understanding and use of behavioral approaches can be helpful even to the practitioner who aims at personality reconstruction. These techniques may be especially valuable during phases of treatment where the patient offers severe resistances to the execution of insight into action.

While increasingly de-emphasized in the armamentarium of the behavior therapist, perhaps the best known approach, and the easiest one to learn, is that of desensitization. In desensitization methods anxiety-provoking cues are presented in a positive or pleasurable climate. These cues must be graduated so that the responses that they evoke are always of lesser intensity than the positive feelings that coexist. In this way the aversive stimuli are gradually mastered in progressively stronger form. The method is most readily applicable to anxiety that is set loose by environmental cues. In the arrangement of stimulus

hierarchies both environmental and response-produced cues are listed to encompass as many complex aversive social stimuli as possible. The most common positive anxiety-reversing stimulus, jointly presented with and calculated to neutralize and eventually extinguish the aversive stimuli, is muscular relaxation, often induced by hypnosis.

To his use of this technique Wolpe (1958) has given the name "reciprocal inhibition." Treatment is initiated by the construction of an "anxiety hierarchy." The patient is given the task to prepare a list of stimuli to which he or she reacts with unadaptive anxiety. The items are ranked in accordance with the intensity of anxiety that they induce. The least anxiety-provoking stimulus is placed at the bottom. The most disturbing stimulus is put at the top. The remainder are placed in accordance with their anxiety-arousing potential. The patient is then hypnotized and relaxed as deeply as is possible. In the trance it is suggested that the patient will imagine the weakest item in the anxiety hierarchy. If the patient is capable of doing this without disturbing the relaxation state, the next item on the list is presented at the following session. With each successive session the succeeding intense anxiety stimulus is employed during relaxation until "at last the phobic stimulus can be presented at maximum intensity without impairing the calm relaxed state." At this point the patient will presumably have ceased to react with the previous anxiety, and to be able to face in life "even the strongest of the once phobic stimuli."

Wolpe denies that his therapy is useful only in simple phobias. He believes that even difficult "character neurosis" can be treated, since they consist of intricate systems of phobias that have been organized in complex units. "This," he says, "is not remarkable, if as will be contended, most neuroses are basically unadaptive conditioned anxiety reactions." Wolpe insists that in contrast to measures of success by all methods of therapy, ranging from traditional counseling to psychoanalysis, of a recorded 50 percent, his special method brings about an "apparently cured" and "much improved" rate of over 90 percent. It is important, however, to stress, as do sophisticated behavior therapists, that the presenting complaint is not necessarily either the one that requires desensitization or, if it is, that it may not be the one that should be given sole, or even primary, attention. For example, to desensitize an attorney to a fear of public speaking (the presenting complaint) may be of far less significance than desensitization to the fear of losing face should the attorney not win the case. Which desensitization strategy to employ, or whether to employ desensitization at all, or what other necessary behavioral techniques to employ in the restructuring of this particular inpidual's life can only be determined by a detailed and comprehensive

behavioral analysis of the total life style of that inpidual and the relevant contingencies operating in the inpidual's life and the lives of meaningful others.

Attempts to standardize Wolpe's procedure have been made by Lazovik and Lang (1960). The pretraining procedure of five sessions includes the construction of an anxiety hierarchy (a series including the phobic object, graded from most to least frightening). Training in deep muscle relaxation after the method of Jacobson (1938) is followed by training in hypnosis, efforts being made to get the patient to learn to visualize hypnotic scenes vividly. Eleven sessions of systematic desensitization follow the pretraining period. During these the patient is instructed to relax deeply, and items on the anxiety hierarchy are presented as scenes that are to be visualized clearly. The least frightening scene is presented first. When this is experienced for about 3 to 10 seconds without anxiety, the next item in the hierarchy is introduced. All scenes are presented at least twice. If any of the scenes make the patient anxious or apprehensive, the patient is instructed to raise the left hand a few inches. Should this happen, the scene is immediately discontinued and not repeated until the next session; rather, the last successfully completed item of the hierarchy is presented. From 2 to 4 scenes are attempted during each session of 45 minutes. The authors confirm Wolpe's method as remarkably effective for treating cases of phobia and insist that there is no substitution of other fears. This has also been my personal experience.

Edward Dengrove has prepared a leaflet for "fearful" patients that introduces them to the technique of systematic desensitization:

(Reprinted here with the permission of Dr. Dengrove)

> The type of treatment that is being offered to you is known as systematic desensitization. It is based upon scientific studies of conditioned reflexes and is particularly helpful to persons who are fearful. It makes little difference what these fears are: whether of closed places, or being alone, walking alone, driving or flying; or whether one fears loss of self-control, criticism by others, and the like.
>
> Kindly list *all* of the fears that disturb you. Make the list as complete as possible. We will go over the list together and reduce it to its basic units. Treatment will be directed to each inpidual fear.
>
> The next step will be to teach you how to relax. There are several methods by which this may be accomplished. The particular method that suits your needs will be chosen. This is very important, for the more relaxed you are, the more rapid your progress to health. You cannot be relaxed and remain anxious or fearful at the same time.
>
> When you are completely relaxed—not partially, but completely—I shall present to your visual imagination a series of situations. These will be based upon your presenting fears. They will be organized in series, graded

from the most mild to the most intense. Each forms a hierarchy.

As you visualize each scene in the relaxed state, you may find yourself unmoved by what you see. Or you may experience an uneasiness or restlessness (anxiety). This is a critical point in treatment, and must be signalled to me. No matter how slight, I must be made aware of it.

I may ask, "Do you feel relaxed? Do you feel at ease?" If you do, then move your head up and down ever so slightly. If you do not, move it from side to side.

This is a critical point, for we can only proceed as fast as you are able to accept these visualized situations with ease. I shall not push or prod you. It is only by the ability to maintain your relaxed state that you are able to overcome these fears.

The desensitization takes place gradually by getting you to cope with small doses of anxiety at first, then gradually increasing the dosage a small amount at a time.

With children, desensitization is done in a less subtle manner. Consider a child who is afraid of dogs. The child is held by a trusted person who allows him to suck on a lollipop and point to a dog on a leash in the distance. A little later, the child, still held, is encouraged to view a dog through a pet-shop window. Still later, he is brought closer to a dog; and later, closer still. With the pleasure of the food and security of being held by a trusted person, the child gradually overcomes his fear. At first there are pictures of dogs, then toy dogs, small, friendly dogs, medium-sized dogs, and so forth. At last, he will be able to reach out and touch a dog.

This gives you a clue to a second part of treatment. You are to do the very things that you fear. One cannot overcome a fear by avoiding it, as you have done in the past, nor by trying to drown it out with continued medication. Medicine is helpful, but only a crutch, to be reduced and gradually thrown away.

The same principles of gradual desensitization must be employed. You are not to attempt any activity that produces overwhelming anxiety. However, you can and should try those tasks that are only mildly upsetting, at the same time attempting to quiet yourself. If the anxiety persists, stop what you are doing, for this will only set you back. Instead, return to doing those things that you can do without getting upset.

With this approach you will find yourself gradually doing more of these tasks that you avoided in the past. One can get used to almost any new situation that is approached gradually.

Interestingly, as the milder fears are overcome, the more strong ones lose their intensity and lessen, much as the contents of a gum machine diminish with the discharge of each piece of gum. The more one attempts with relaxation, the more rapid the improvement. But one must keep in mind that these attempts deal only with those productive of mild anxiety.

A warning: everyone must proceed at his or her own pace. Some slowly, others more rapidly. There is no reason to feel guilt or shame if one's progress is slow. The process of desensitization cannot be hurried by rushing into highly anxious situations. You will not be thrown into the water and made to swim or sink on your own. At times, under the pressure of need or anger, a few of you will make large strides but this is the exception to the rule.

Consider the woman who is afraid to leave her home. Her first move is to step outside her front door and back again into the house. From there she gradually makes it to the street in front of her home, then around the house—by herself or with someone or while someone trusted is in the house. Each day this is extended until she

is able to walk a house away, then two houses, then half-a-block; with someone, without someone, with someone at home, with no one there. Again, no new step is made until the previous step is mastered, and until it can be accomplished without any anxiety whatsoever. Each fear is attacked inpidually, daily or as frequently as this can be done.

Gradually you find yourself doing things without thinking about them. Sometimes it will be only after you have done something that you realize you have done it without forethought or anxiety. It may be that someone else will point out to you that you have done something you would not have attempted in the past.

A cooperative spouse is not only helpful and understanding but an essential part of this approach. He or she can be tremendously important to this undertaking. Marital problems tend to hold back progress and should be resolved.

It is by doing what we do in the office, and what you do for yourself away from the office, that will lead you to health. One or other of these techniques may be used alone, but when both are employed, progress is so much faster.

Systematic desensitization is sometimes expedited by the use of drugs, like Brevital, 1% solution, in small doses (Brady, 1966; Friedman & Silverstone, 1967). Slow intravenous injections to produce relaxation without drowsiness are particularly valuable for patients who are unable to relax or who are extraordinarily anxious. Pentothal (2% solution) is preferred by some therapists to Brevital.®

IMPLOSIVE THERAPY (FLOODING)

Implosive therapy is a modality utilized to help extinguish avoidance responses (e.g., phobias) as an alternative to relaxation-desensitization treatment (Kirchner & Hogan, 1966; Hogan & Kirchner, 1967; Stampfl, 1967). Exposure to a fear-provoking stimulus with no attempt to escape from it will tend to weaken the strength of the stimulus (Boulougouris & Marks, 1969). The patient here is instructed to approach the phobic situation and to tolerate it (by relaxing the muscles and by trying mentally to change the meaning of the danger imagined to invest the situation).

Eventually it is hoped that the fear will be extinguished. The therapist may model the proper approach behavior as an example of how controls can be established. Experience convinces that in vivo desensitization is superior to desensitization through imagery, as, for example, in systematic desensitization. However, desensitization through imagery may be used as a preliminary therapy in order to reduce the level of an intense anxiety reaction that can prevent the patient from even attempting to expose oneself to a real situation. A trusting relationship with the therapist is of the greatest help to the

patient whose terrors have kept the patient from confronting the phobic situation.

A massive form of in vivo desensitization, *implosive therapy or flooding,* exposes the patient to fear-provoking stimuli, escape from which is not permitted. Induced exaggerated forms of fearful imagery related to the phobia may precede actual immersion in the phobic situation, the therapist purposefully magnifying the sinister nature of the fantasy stimulus. After the patient learns to tolerate the imagery, the real stimulus in force is employed. Remaining in a fearsome position until the anxiety disappears may result in substantial improvement or cure. In some cases where a phobic situation exists outside the office, the therapist accompanies the patient to the site (bus, subway, elevator, funeral parlor, crowded street, etc.) and stays with the patient through the latter's anxiety attack until it is dispelled. In other cases, particularly where the patient for physical reasons cannot endure too strong anxiety, withdrawal from the scene is permitted as soon as the patient feels moderately uncomfortable. In obsessive-compulsive reactions the exposure is to the stimuli that produce the rituals and the patient is discouraged or blocked from engaging in them. For example, in hand-washing compulsions produced by touching dirt, the therapist first models rubbing the hands on the shoes or the floor and then enjoins the patient to do the same. The therapist sits with the patient, encouraging the patient not to go to the bathroom to scrub the hands. The results with this kind of therapy have been encouraging; however, "The therapist must not back away from the elicitation of anxiety, no matter how uncomfortable the patient becomes, and must not terminate the session before the extinction of anxiety is complete" (Seligman, 1979). Agreement must be reached with the patient in advance of using this technique that the patient will be willing to tolerate a certain amount of discomfort in overcoming the handicap, the advantages in time-saving being pointed out. It cannot be emphasized enough that the therapeutic alliance must be a firm one in order for the patient to trust the massive exposure to flooding techniques. Time may have to be spent consolidating the relationship prior to suggesting the technique to the patient.

The exact way flooding works is not entirely known. There are so many variables in therapy that one cannot credit results exclusively to the methods employed, since the skill of the therapist, personality, case selection, etc. crucially influence results. Be this as it may, implosive therapy in the hands of a skilled operator may dramatically cure certain phobias.

Some patients reject implosive therapy out of panic, or they may not physically be able to tolerate

the great anxiety release because of cardiac illness or a vulnerable ego structure that may shatter with resultant psychosis. Here systematic desensitization is best or *graded* exposure, where approach to the phobic object or situation in small steps is employed (Wilson, GT, 1980). In both flooding or graded exposure, the therapist or empathic assistant may accompany the phobic patient to the situation that requires mastery and this can have great reassurance value. It is important here that the therapist withdraws from the therapy gradually to avoid a dependency stalemate.

In extremely upset patients intravenous infusions of a short-acting barbiturate are sometimes helpful. The patient at the start of therapy may be given a slow intravenous injection of Pentothal® (thiopental sodium) in dilution of 2%, sufficient to produce relaxation without drowsiness. Pentothal® is available in 500 mg vials in combination packages with diluent of 20 mL vial of sterile water. Some therapists utilize a 1.25% concentration (Hussain, MZ, 1971), but the diluent here should be sterile sodium chloride to prevent hemolysis. Convenient sterile prefilled cartridge-needle units (Tubex, Wyeth Laboratories) are also available with 1½ grains of Pentothal.® A very slow injection of the drug is essential to avoid sleepiness. Once relaxation is obtained, the patient is shown pictures related to the phobic object or phobic situation and asked to picture himself or herself touching or holding the object or being involved in the situation. This continues throughout the session, the patient being asked to continue to imagine being immersed in the scene. Where artificial objects similar to the phobic object can be obtained (snakes, worms, mice, roaches, etc.), the patient is enjoined to handle these. The session is brought to an end with the patient in a drug-relaxed state. As mastery occurs, sessions are conducted with lesser and lesser amounts of the drug and finally without it. Some therapists prefer a *1%* solution of Brevital® (methohexital sodium) to Pentothal.®

Home practice sessions may be valuable for some patients. These can cover a wide range of themes. A paradoxical technique that I have found valuable for some phobias is illustrated by the following directions given to patients:

> Running away from fearful situations or trying to crowd out of your mind a fearsome thought only reinforces your fear. If you practice producing the fearful situation deliberately in your mind as completely as possible, while studying your bodily reactions, you will begin extinguishing the fear. If when you are not practicing the fear comes upon you, do not push it aside; try to exaggerate it, experiencing the fear as fully as possible. Practice bringing on the fear at least three times daily. If you have a sympathetic friend whom you can talk to about your reactions while practicing, this can help.

OPERANT CONDITIONING

Techniques of operant (instrumental) conditioning, in which the subject is active in bringing about a situation toward achieving reward or avoiding punishment, supplement classical Pavlovian conditioning procedures (Krasner, L, 1971). Essentially, these techniques consist of reinforcements in the form of rewards or the withdrawal of an aversive (punishing) stimulus or event as soon as the subject executes a desired act. The subject is free to respond or not to respond instead of, as in classical conditioning, being passively subjected to events over which there was no control. The techniques are designed to strengthen existing constructive responses and to initiate new ones.

Operant approaches depend on the fact that human beings like other animals are influenced toward specific kinds of behavior by the reinforcers they receive for this behavior. Where a desired behavior is sought, the patient must first be able to accept the desirability of this behavior in terms of the rewards that will accrue from it. Many patients are confused regarding appropriate courses of action. The therapist's positive attention and approval following a remark that indicates a willingness to try a tactic, or the execution of the desired behavior itself, or approximations of this behavior, may be reinforced through nodding, utterances of approval, or paying rapt attention to these desirable responses, or by granting material rewards. However, when the patient repeats a pathological pattern or verbally indicates nonproductive choices, the therapist may act disinterested and fail to respond to this behavior.

Operant conditioning works best in an environment that can be controlled. It is indicated in nonmotivated patients in institutions whose behavior must be modified to enable them to adjust more appropriately. The "token economy" of Ayllon and Azrin (1968), established in a state institution, illustrates an imaginative use of substitutive reinforcers. Since the desired reinforcers (ground passes, TV, cigarettes, canteen purchases, trips to town, and ordering items from a mail order catalogue) would not in all cases be immediately produced, tokens to exchange for these when available were found to be effective. Tokens were earned for better self-care and for work on and off the ward. The results in terms of morale and behavioral improvement, which in some cases led to recovery, were astonishing.

Bachrach (1962) provides an example of anorexia nervosa treated by operant conditioning techniques. Since food obviously did not have its expected reinforcing characteristics, a study was made of the stimuli that could act as reinforcers. Because the subjects enjoyed visits from people, music,

reading, and television, they were at first deprived of these by being put in a barren room. Being visited by people, listening to records, seeing television, or reading books were made contingent upon eating and weight gain. In a little over a year of such operant conditioning, the patients' weight increased twofold.

Ayllon and Michael (1959) describe an experiment in operant-conditioning therapy done on the ward of a mental hospital by the nursing staff working under the supervision of a clinical psychologist. The patient sample consisted of 14 schizophrenics and 5 mentally defective patients. The kind of disturbing behavior (psychotic talk, acts, etc.) in each patient was recorded along with the nature and frequency of the naturally occurring reinforcements (giving the patient attention, social approval, candy, ciagrettes). Then the nurses were instructed to observe the patients for about 1 to 3 minutes at regular intervals, to give them reinforcements only during desirable behavior, and to ignore undesirable behavior. Nonsocial behavior was to be reinforced temporarily if it replaced violent behavior. For instance, two patients who refused to eat unless spoon fed had a penchant for neat and meticulous appearance of their clothing. The nurses were instructed to spill food on their clothing during periods when they resisted feeding and to present social reinforcements when the patients fed themselves. The patients soon spontaneously began to reach for their spoons and eventually were feeding themselves. In a group of mentally defective patients who were collecting papers, rubbish, and magazines in their clothing next to their skin, the nurses were instructed not to pay attention (i.e., not to reinforce) this behavior, while flooding the ward with magazines to overcome the shortage. The hoarding tendency was overcome.

In the experimental control of behavior the specification of the response is usually simple to describe, but the identification of the stimulus that brings on the response may be obscure. Hence, one must work toward the desired response employing appropriate scheduled reinforcements in terms of what the subject considers to be significant rewards. At first, the most that can be expected are approximations of the final response. Reinforcement is restricted progressively to responses that are closer and closer to the end response. In this way behavior is shaped. Complex behavior patterns may be evolved by developing a series of coordinated responses, linking them together like a chain. Thus, employing food as the reinforcing stimulus, Ayllon and Michael (1959, 1964), as described above, brought chronic schizophrenics out of their disturbed behavior and psychotic isolation. Lindsley (1960)

has also written about the operant conditioning of severely sick patients, and N. R. Ellis and his colleagues (1960) have had some interesting experience in retraining disturbed mental defectives.

Operant conditioning is suited for the removal of habits and patterns that serve a neurotic function from which people derive some immediate benefit (such as delinquent behavior, temper tantrums, etc.) at the expense of their total adjustment. It is also helpful in developing new constructive patterns that are not in the inpidual's current repertoire. In the main, the treatment procedure consists of an identification of the untoward patterns and a careful delineation of the stimuli that bring them about. Next, the nature of the reinforcements to be employed are determined (attention, food, bribes, etc.) as well as the nature of any aversive stimuli that may help to interrupt the pattern to be corrected. In general, reinforcements are withheld (or aversive stimuli applied) when the behavior to be corrected is manifested, but reinforcements are given (or aversive stimuli removed) when substitutive and more adaptive behavior is displayed. In this way the inpidual is helped to develop more frustration tolerance and to control untoward behavior in favor of acts for which rewards are forthcoming.

Ferster (1964), in an article that details the tactics of operant conditioning, describes the treatment of autistic children. As is known, tantrums and destructive behavior in autistic children are usually reinforced by the persons with whom the children are in contact by their yielding to the children and satisfying their whims. Thus, the children may have learned that they can get candy if they scream loud enough or bang their head on the floor. Much of the child's behavior is operant, being contingent on reactions from the social environment. Ferster found that food was the most effective reinforcing agent. The sound of the candy dispenser prior to the release of candy acted as a secondary reinforcer. With some training, coins became the conditioned reinforcer, the coins operating devices within the room that could deliver the candy reward. Later, the coins were to be held for a period prior to their use before the reward was allotted. Then five coins were to be accumulated. Delays were increased by introducing a towel or lifejacket that later could be used in swimming or water play (another reinforcer) following the experimental session. While the repertory of the autistic child was limited, it was possible for the child to develop some frustration tolerance and controls.

Next, Ferster examined the circumstances in the early life of the child that originally had brought about, and still could bring about, behavioral disorders. The parental environment was also put under

surveillance to see what factors weakened the child's performance, the resultant behavior, and the effect of this behavior on the people surrounding the child. This was done to determine what reinforcements were operating and the possible ways of discouraging such reinforcements. It is likely that the atavistic and uncontrollable behavior of the autistic child starts with the reinforcement of small magnitudes of behavior such as whining. A shaping into violent responses occurs by differential reinforcement. By refusing to provide reinforcements of the child's behavior, we may expect the child gradually to abandon the behavior (extinction). Changing the environment gradually may be helpful in this respect, since the habitual reinforcing agencies on whom and which the child depends on are no longer present. By withholding positive reinforcements and rewarding conduct that slowly approximates adaptive behavior, it may be possible to effectuate behavioral change not only in psychotic children but also in psychotic adults without using aversive stimuli.

The techniques of operant conditioning are particularly suited for patients who are not accessible for traditional interviewing techniques, e.g., delinquents, psychopaths, drug addicts, psychotics, and mental defectives. The results may be rewarding where the reinforcements stem from objective environmental sources, such as reasonable and relatively nonneurotic inpiduals with whom the patient is in contact. The results are not so good where the agencies, such as parents, participate in the family neurosis and support the patient's acting-out as a way of satisfying their own needs. It is indeed difficult to prevent reinforcement of the patient's untoward behavior in many families since the inspiring motives are usually unrecognized and subject to conscious denial. Thus parents may become frustrated when their child begins to get better. Subtly the child may be maneuvered back to the old way of behavior with restoration of the defensive protesting of the parent.

Where the reinforcements are of an inner, perhaps unconscious nature, such as sexual excitation and a masochistic desire for punishment, operant conditioning may be of little use. For example, where shoplifting in a well-to-do matron occurs against all reason, it is difficult to find external reinforcements to put this antisocial behavior to halt in case stealing serves to gratify unsatisfied urgent unconscious orality with needs for compulsive acquisition.

In intelligent patients, however, a recognition of some of their unconscious motivations may enable them to execute the principles of operant conditioning for themselves. An executive in a large business

firm, presumably happily married and adjusted, periodically would involve himself with prostitutes, whom he enjoined to strap him down to a bed and beat him unmercifully. Struggling to escape from this humiliation, he responded with a strong orgasm. After this experience his shame and guilt feelings, as well as his fears of being discovered, overwhelmed him to the point of depression and suicidal impulses. Although he pursued every device at his command, including exercise, prayer, and involvement in charitable activities to counteract his desire, his intervals of abstinence from flagellant desires would, without reason, be interrupted and he would go forth again toward another beating orgy.

In studying this case it was determined that what particularly delighted this man was sailing in Long Island Sound, where he had a boat. This, it was felt, could be employed as a reinforcement for the ability to control his masochism. It was first necessary, however, to add to the leverage of his will power some understanding of the meaning of his peculiar deviation. This, it was determined from dreams and free associations, related particularly to spankings from his mother during his childhood when he masturbated or was otherwise "bad." A fusion of orgiastic feelings with punishment apparently was the conditioning underlying his symptom. The origins of this affiliation were blunted but memories were activated through analytic techniques. This provided him with a new motivation to decondition himself. A plan was organized so that sailing was to be indulged only in the intervals of control. If a relapse occurred and he acted out his masochism, sailing was to be avoided for a month thereafter. If the impulse appeared and he could control it, he was rewarded by taking a short sea voyage (which he enjoyed as much as sailing) to Bermuda. During the winter, if he had been able to vanquish his symptom, he was to take a sailing vacation in southern waters. Within a year of this regime the patient's symptom was arrested, and whenever the desire returned minimally, he was able to overcome it by reviewing the history of the original development of the symptom. Coordinate with symptom improvement was a better personal and sexual relationship with his wife.

The problem in utilizing operant conditioning as an adjunctive technique consists in finding external reinforcements that are sufficiently interesting and important for patients to induce them to challenge patterns that have open and subversive values. However, if the therapist reviews areas of interest with a patient who is willing to cooperate, a sufficiently provocative reward or persion that will help incite the patient to change may be uncovered.

The schedules of reinforcement may preferably be arranged at varying intervals and at unpredictable times. This is to produce an anticipatory set and to help prevent the extinguishing of a response that may come about if the patient expected reinforcement uniformally as a consequence of a new behavior. It may so happen that circumstances make it impossible to reward new behaviors each time. If the patient does not envision fulfillment without fail, the patient will not be too disappointed and angry when reinforcements do not appear. Rather, the patient will anticipate their arrival at some point.

Other conditioning techniques have been employed. For instance, Efron (1964) helped a patient stop uncinate seizures by inhaling from a vial odors of various aromatic chemicals (these had been proven effective in controlling the seizures) that were conditioned to a nonspecific visual stimulus, namely an inexpensive silvered bracelet. This was done by presenting simultaneously every 15 minutes, for a period of 8 days, the concentrated odor of essence of jasmine and the bracelet. The instructions were to stare intently for 15 to 30 seconds at the bracelet while sniffing a vial of jasmine. Except for 7 hours of sleep at night, the conditioning continued during the rest of the 17-hour period. At the end of 8 days of conditioning, the bracelet alone presented to the patient produced the effects of jasmine, which receded in a few seconds when the bracelet was removed from the patient's sight. The patient was exposed to reinforcements twice a day for the next week. A spontaneous seizure developing during the second week was stopped by the patient's merely staring at the bracelet for a few seconds. Thereafter the bracelet continued without fail to arrest seizures.

An excellent account of conditioning techniques toward painless childbirth is given by Bonstein (1958). Contained in the article are general suggestions for pain control.

Conditioning techniques have been utilized as diagnostic aids. Gantt (1964), employing the methods of Krasnogorsky and of Ivanov-Smolensky, has described a method for the study of motor conditional reflexes that can be applied to psychiatric diagnosis. Through the use of his technique he claims to be able to distinguish psychogenic from organic psychoses. This is because in psychogenic problems patients inhibit the expression of the elaborated conditional reflex, while in organic psychoses they fail absolutely in the function of forming new adaptive responses. L. Alexander (1964), employing a conditional psychogalvanic reflex technique, has developed a test for the differentiation of physical from psychogenic pain. Ban and Levy (1964) describe a diagnostic test based on conditioned-reflex therapy

that measures evidence of change in patients exposed to any treatment regime. Conditioned-reflex techniques have also been employed to investigate the effectiveness of drugs in psychiatry (Alexander, L, 1964). How conditioning may enter into the genesis of attacks of asthma is discussed by Dekker, Pelser, and Groen (1964).

PUNISHMENT AND DEPRIVATION

Behavior therapists now recognize that punishment rarely works as a means of halting undesirable behavior. It is usually temporary in its effect and likely to exaggerate rather than solve problems. Getting inpiduals to stop hurtful activities because they get adequate rewards in exchange is much more effective. The patients may not be able to anticipate the rewards that accrue from constructive behavior until they have yielded their destructive activities, and it will be necessary for the therapist to provide interim reinforcements.

A child who consistently misbehaves, who refuses to eat, sleep, or give up childish habits like thumb-sucking and bedwetting will frustrate the parents and provoke angry responses. The parent will be tempted to punish the child for refusing to cooperate. This may do little other than to mobilize the child's guilt feelings and lead to self-punitive activities (masochism) or to stimulate retaliating anger and defiance. Logic has little to do with these reactions. Or the parent may be tempted to remove certain privileges, such as taking away something that the child enjoys (e.g., allowance, desserts, or TV viewing). The consequences of such deprivation are usually the same as punishment. Yet punishment and deprivation may rarely be an expedient in temporarily stopping destructive behavior that the child refuses to halt. For instance, of their own accord, older children who are mercilessly beating a younger sibling may be forcefully required to retire to their rooms until they feel they can control themselves. But the expedient of punishment or deprivation must be used only in emergencies to put a stop to immediate destructive outbursts that do not yield to reason, verbal reprimand, or the ignoring of the behavior. In any event, the punishment or deprivation should be reasonable and never so drastic as to leave an enduring residue of anger and desire for revenge. It should always be used in conjunction with positive reinforcement for constructive behavior.

Far more effective are actions that tend to *extinguish* improper behavior. This may require little

more than refusal to reinforce the behavior by paying too much attention to it or being ostensibly provoked by it. Thus, a parent may interrupt an undesirable activity by perting a child's attention and substituting another activity for the disturbing one. Reinforcing the substitute activity by providing a proper reward for its indulgence will help extinguish the unwanted activity.

AVERSIVE CONTROL

There are times when all methods employed to halt disturbing behavior, particularly those that are life threatening or destructive, may fail, and the therapist may, with the consent and cooperation of the patient, have to resort to measures of blocking the behavior by associating it with unpleasant stimuli (Cautela, 1967; Rachman & Teasdale, 1969; Lovibond, 1970; Meletsky, 1980).

Aversive conditioning is sometimes employed to overcome certain undesirable behavioral components. Emetic drugs (apomorphine or emetine hydrochloride) were used for years in the treatment of alcholism by conditioning methods. Miller, Dvorak, and Turner (1964) have described a technique of establishing aversion to alcohol through the employment of emetics in a group setting. A unique form of aversive stimulus-paralysis and suppression of respiration through intravenous injection of succinylcholine-chloride dihydrate has been reported by Sanderson et al. (1964). In addition to drugs, electric shock has been employed as an aversive stimulus for a variety of syndromes (McGuire & Vallance, 1964). Needless to say, unless one has an excellent working relationship with a patient, aversive conditioning poses some risk and may play into a patient's masochistic need. And, as noted in the preceding section, punitive conditioning is never employed in isolation by the modern behavior therapist; nowhere is this more evident than in the behavioral treatment of the alcoholic (Franks & Wilson, 1975). Hypnosis may be induced, if desired, and the aversive conditioning, if it is essential to use it, employed in the trance state.

In certain cases self-induced aversive conditioning may be helpful in controlling violently upsetting thoughts or impulses, such as occur in compulsive-obsessive reactions. The patient is supplied with a toy "shocking machine." This may be purchased in a store that sells tricks for the practical joker. It consists of a simulated book with a spicy title or a pack of cards, which, when opened, delivers a shock from a battery within. The shock (buzz) is harmless, yet annoying and even frightening. The patient,

with the contraption in the hands, is requested to shut his or her eyes and then bring offensive thoughts to mind. As soon as they appear, the patient is to open the book or cards and keep it open until the thoughts completely disappear. After six to ten trials patients are usually surprised to find themselves unable to bring obsessive ideas to their minds, even when they try to force themselves to do so. The patient may be asked to practice this "exercise in thought control" two times daily, with as many trials as are necessary to eliminate the obsessions or impulses, even when the patient tries to bring them on.

Aversive conditioning may give patients confidence in their ability to occupy themselves with useful rather than self-destructive concerns. Carrying the device in their pocket may become a conditioned reassuring stimulus even though it is not used. Should the patients complain that the shock is too strong, they may reduce its intensity by interposing a piece of facial tissue between their fingers and the box. An alternative pain stimulus may be provided by a rubber band around the wrist that is snapped whenever an aversive measure is required.

A typewritten form such as the following may be given to the patient to be practiced at home:

HUMAN AVOIDANCE OR AVERSIVE CONDITIONING (HOMEWORK)*

You can help yourself to get rid of undesirable, torturesome thoughts and habits after you and the doctor or his associates have agreed that these thoughts or habits are damaging to you. Repeated practice is necessary for most people at least one or more times per day in the beginning and then at gradually decreasing intervals until the thought or habit is gone. The doctor or his associates may help prescribe the intervals and amount of time most helpful to you as well as other helpful ideas.

I. Repetitive, self-damaging thoughts (thought-stopping)**

a. Close your eyes, hypnotize, or *relax yourself* and force the repetitive thought or the picture of the undesirable habit to be *visualized* in your mind for at least 2-3 seconds.

b. Almost immediately, shout *STOP* or if this is not possible, *think* STOP or if this is not possible, *think* STOP emphatically and promptly give yourself an unpleasant buzz with the buzzer at the same moment. Holding your breath can be used with the buzzer, or something unobtrusive for you, e.g., a clenched fist can be used at the same time in place of "STOP." (*It is important that during the pleasant and restful time after you have stopped*

the shock, visualize a successful, positive, helpful image or valuable substitute activity.) As soon as these secondary things (breath holding, fist, etc.) work, use buzzer less and less frequently.

Repeat this entire procedure at the same sitting until you can no longer get the thought at that time or until at least 20 satisfactory repetitions have occurred. The entire procedure is to be repeated up to six times per day for 1 to 15 weeks. This will be prescribed in accordance with the severity of your problem and the length of time you have had it. Make a note each day on the back of an appointment card or some other record such as a homework sheet of how frequently and for what number of repetitions you have been using the buzzer, or the word STOP, breath holding, fist, etc. A list of possible pleasant thoughts, activities, assets should be available.

II. Modification

In addition, you can carry the buzzer, or special pen if you prefer, with you and use it whenever you find yourself thinking repetitively or continuing your undesirable habit. If circumstances are such that it is impossible for you to use the buzzer during the larger part of the day, think the word STOP, etc. and imagine the uncomfortable buzz when you find yourself going back to the thought or habit. This will gradually become more successful after actual practice when practice is possible. Unless good success is being maintained with the STOP, breath holding, or other simultaneous gesture, and the pleasant thought or activity substitution, report to doctor.

Note: The buzzer should be held firmly with two fingers and the buzz should not be pleasant. If it seems too much to endure, however, even though it contains only a single pen-light type of battery, a single thickness of Kleenex placed under the fingers will modify the buzz sufficiently.

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** Modified by Rothman after J. Wolpe.

Another form of aversive control is the withholding of positive reinforcements, such as the loss of certain privileges or the levying of fines, as a consequence of certain behaviors. Even though the effects of aversive control may be limited, it may have to be resorted to where self-injurious behavior cannot be stopped by any other method. For example, I have had referrals of patients with hair plucking that had

failed to respond to years of insight therapy. They stopped their self-denuding habit after several sessions with a small shocking machine, which they carried with them thereafter. Obviously, desirable behavior that opposes the noxious habit should be rewarded. A variation of aversive control is "overcorrection," whereby inpiduals are obliged not only to restore the original situation disrupted by their behavior, but also to engage in other corrective tasks that can prove tedious (Foxx & Azrin, 1972; Webster & Azrin, 1973).

IMAGERY TECHNIQUES

In desensitization through imagery it has been shown that the pairing of fear and relaxation responses reduces the intensity of phobic reactions. Following Wolpe's method of systematic desensitization ("reciprocal inhibition") a hierarchy of fearful situations is constructed. The overcoming of lower level fear images encourages a progressive ascension in the hierarchical scale until the top level fearful situation is mastered in fantasy. A state of muscle relaxation is first produced, along with the image of a relaxing scene. The subject is then asked to visualize the lowest level fearful image. When this is tolerated with comfort, the next higher image is introduced. Should fear arise at any point, the scene is shifted away from the hierarchy to the relaxing image, and the relaxing muscle exercises are repeated. The scene prior to the one that produced fear is then reintroduced and progression up the scale continued. As fear reduction in imagery continues, patients are encouraged to actually expose themselves to graduations of the phobic situation that brought them to therapy. It is assumed, of course, that in the initial "behavioral assessment" a study has been made of the various reinforcement contingencies and that these are considered as part of the total treatment plan. Some patients are unable to learn relaxation procedures, or cannot use imagery successfully, or hesitate to report sensations of anxiety, or are unwilling to practice for weeks without immediate relief (which is sometimes what it takes for a proper response to develop), and hence will not be able to utilize this technique.

The patient may also practice self-imagery for purposes of ego building. The patient can be given instructions that may be easily followed at home. A mimeographed or typed sheet, such as the one that follows, will enable the patient to select that which is best. A small shocking machine or snapping a rubber band on the wrists is used to deliver an unpleasant stimulus in indicated sections of the sheet. A number of useful fantasies for self-imagery are detailed in the book by Kroger and Fezler (1976). See also

Chapter 12 (Guided Imagery).

ASSERTIVE TRAINING

Among the most annoying deficits are not being able to stand up for one's rights, rejecting criticism even of a constructive nature, acceding to being coerced or manipulated by others, expressing one's desires and preferences only with guilt or embarrassment, and countenancing rejection as a sign of being worthless and debased. These deficits are usually associated with a devalued self-image and a hypertrophied and punitive conscience. Related as they are to such basic personality distortions, it is difficult to see how they can be altered without self-understanding.

A way of facilitating self-understanding, important to enduring change, is to bring patients to awareness of their anxieties, evasions, and other defenses through plunging them into situations where they must assert themselves. Whether thinking and acting in ways consonant with a positive self-concept can in themselves correct a devalued self-image is debatable, although some therapists assume "that if a patient behaves and thinks in a manner indicating a positive self concept, he has, in fact, acquired one" (Seligman, 1979). In my opinion, some cognitive alteration is essential.

A format that is often used for assertiveness training is a time-limited group of eight to ten patients led by a man/woman therapist team. A questionnaire rating reactions to certain situations may be found helpful (Gambrill & Richey, 1975). Patients are taught to differentiate acting assertive (expressing one's rights) from acting aggressive (putting others down). Discussions involve self-assessment of assertiveness by the group members. Modest goals are then set for each at first. The actual training procedures include such techniques as behavior rehearsal, role-playing, imagery and cognitive behavior therapy (relabeling certain acts). etc. (Smith, MJ, 1975) Homework is assigned with the object of increasing assertive responses and lowering non-assertive ones. A diary is kept of experiences. Modeling by the therapist is often employed. Patients set up problem situations in which there is practice in asking for a favor, saying "no" to an unreasonable request, making a date with a person of the opposite sex, etc. The ability to accept rejection without anger, shame, or feelings of being inferior is developed by role-playing and discussion of feelings.

IMPROVING HUMAN SELF-IMAGES RAPIDLY

(some newer and some experimental methods)

INTRODUCTION: You and the doctor or his associates have agreed that a less self-critical self-image of yourself is desirable; or a self-concept in which you feel less inferior and more self-confident, or less childlike, more active at finding a new job—remedying a situation—doing more housework—getting more exercise—or more comfortable physical and social activity—or some other changes in your innermost self-concept are necessary or desirable.

Method I: *Ego Building*. Under self-hypnosis or relaxation leave yourself with the self-image of pleasant feelings and times in your life you, and possibly others, thought you were at least somewhat successful. Tell yourself, "I promise to act in accordance with this image."

Method II: A gradual stepladder of improved self-images can be used under self-hypnosis or relaxation, and you can move up this imaginary ladder of improved self-images until you feel a tinge of anxiety. Step down to the last comfortable self-image you could get. As soon as possible, act in daily life according to this improved image—as if it is now you.

Method III: Visualize your "lazy" or passive self-image as perhaps you have looked after avoiding some important work—a picture that we have agreed should be changed. After imagining this picture for 2-3 seconds, give yourself a buzz, usually until the image stops. Repeat as prescribed, usually for about 20 pictures at a sitting, with at least daily repetition. Substitute an image of a time when you were slightly more pleased with yourself each time you relax from the buzz.

Method IV: This can be used if you have been taught self-hypnosis with body imagery changes, (a) Hypnotize yourself to picture how some of your character (expressed as face and body) looks to you. Usually the doctor or his associates will have agreed with you on a given signal or word for this unconscious image to appear clearly. If you find difficulty in separating "bad mother or bad father" (or other image previously discussed with the therapist) from *your* image, i.e., they stick, then try using the buzzer to break up the fusion and leave you with an *independent self-image*, or with "good" mother and father's love. (b) Then you may attempt to modify by fusing your image with someone who has, as you

and your therapist have agreed, some desirable traits you'd gradually like to work toward in a *realistic* fashion. (c) If the old image is stubborn in leaving, or fusing with the image you and your therapist have agreed upon, use the buzzer as described in Method III and #1 under AVERSIVE CONDITIONING to modify the old image by buzzing it and thereby speeding up the desired fused image. Report changes to your therapist, and keep your goals practical and within easy steps forward.

NOTE: It is most important that you keep careful records of frequency of use, and just what happens with the images, and discuss this with the therapist. These methods are not the same as daydreaming. Homework time is limited to approved and improved images as prescribed and should be tried out in reality.

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Coincident with such assertive performances, analytically trained therapists may explore inpidually or in a group format each inpidual's underlying conflicts that have been responsible for and that are sustaining devalued self-image. This combination of behavioral and dynamic therapy is offered for the purpose of giving the patient the best opportunity for correcting problems in assertiveness on a permanent level. Dynamic therapy alone over a long-term period may get at the core of the responsible personality distortions, but the treatment may bog down when, after insight is gained, the patients resist putting their insights into action. Starting off with assertive training, on the other hand, almost immediately puts the patients in a position where they are confronted by their anxiety and the defenses that prevent them from resolving their problem. They have to deal with these as realities, not as theories.

It is interesting that in the face of this confrontation and in breaking through the resistance by practicing assertive exercises, many patients acquire insight into the dynamics of their problem. A dynamically oriented therapist will be able to expedite insight by examining and interpreting the patient's dreams, behavioral acting-out, and transference reactions. Past sources of trouble and early conflicts may surface; by working on these the therapist may connect them with the patient's current personality problems and more pointedly with the self-image pathology that expresses itself in symptoms. Even where the therapist is not dynamically oriented, some patients will put the pieces together by themselves.

Generally, in assertiveness training the patient is first taught to distinguish between assertiveness and aggressiveness. Too often they are considered identical. Assertiveness implies the need to stand up for one's rights and to refuse to relinquish one's rights. Aggression means a violation of another person's rights.

The ideal setting for assertive training is a group, although where a group is not available inpidual sessions can be productive. Patients keep a diary in which they record situations where they wanted or needed to act assertively, or to deny a request they felt was unreasonable, along with a notation of their feelings, their actual behavior, and their reactions to their behavior. A hierarchy of situations is constructed on paper, ranging from low level situations that are slightly difficult to handle to high level situations that the patient has found it impossible to manage. In role-playing one starts with low level situations, gradually working up to high level ones as mastery progresses. Some therapists advise the patient's utilizing a scale *(Subjective Units of Distress Scale*—SUDS) developed by Wolpe and Lazarus (1966) for record-keeping and role-playing. Other therapists employ biofeedback (EMG) to coordinate the items on the SUDS scale with subjective feelings of tension.

After role-playing promotes some confidence, the patients are encouraged to attempt low level assertive tasks in life itself, such as requesting things from people that are not too difficult for them to give. Should failure occur, the patients are told they are not yet ready for the assignment rather than that they failed at it. Discussions of the tasks and reactions are carried on in the group, who cheer successes but do not castigate the patient for failures. Videotape feedback can be helpful in providing the patients with data on visible defenses. Progressively more demanding requests are encouraged until the patients gain confidence in asserting themselves without hesitation. A variety of other programs to enhance assertiveness may be set up, such as those of Eisler et al. (1973b; 1974), Hersen et al. (1973a, b), Whiteley & Flowers, 1977), Flowers & Booraem (1980).

The following outline, modified after J. Wolpe and prepared by I. Rothman and M.L. Carroll, provides examples of practice exercises in assertiveness:

*SELF-DESENSITIZATION OR ANXIETY REDUCTION TECHNIQUES IN MAN**

A. Frequently you will be given a choice of self-relaxation or self-hypnotic techniques described in

a booklet or in instructions given to you by the doctor. Practice the method you choose. Other types of training for self-help may also be shown you.

B. Make a written stepladder of situations which disturb you or are problems to you. Arrange these in order from the *most disturbing* to the *least*, or from least to most if you prefer. Please provide a clear copy of your stepladder for the doctor.

C. During your 70% successful relaxation periods, visualize dramatically (get a vivid mental picture of) yourself successfully handling the situations (going up your stepladder) from the least to slightly disturbing until you feel slightly tense, then stop. Relax until you are again at ease. This procedure should be done daily, usually for not more than 10 minutes at bedtime, or some other convenient time. This visualization should be about things you actually want and intend to do and not just daydreaming. Make it a practice to try the things you have successfully pictured yourself doing whenever possible. After a few days, longer or more frequent practice periods or several separate stepladders may be prescribed.

D. Try to record where you are on the list daily. The faithfulness with which you practice daily visualization is an indication of how much your healthy self is willing to cooperate in the treatment against your self-destructive side. If your mind wanders from successful picturing, repeat the last successful picture. Remember that the mind can only concentrate on one thing at a time, although it may skip quickly. Bring back the thought you wish to work with for at least 2-3 seconds at a time. Your visualization will improve with practice. Stop when you feel anxiety at the same step on the stepladder more than three times, go back to a comfortable relaxation, and later add extra smaller steps between the worrisome ones.

E. The situations listed below are merely suggestions of areas which *may* be problems to you and how to handle them with this method. If any of the examples do apply to you, include them in your own stepladder (s), along with any other problem areas not listed here. Each area can be pided into *as many as 20 or more gradual steps* to visualize *and to conquer in actuality. If you* do not experience any anxiety while first visualizing situations which you find much too difficult to accomplish in real daily life, consult the doctor or his associates concerning this.

EXAMPLES:

(The first example is broken down to give you an idea of how to place situations on your own list.)

I. ASSERTION EXAMPLES:

Asserting yourself with other people without guilt, listing different types of people in order of decreasing difficulty from the boss (possible #1) to the office boy (possible #9) to the janitor (possible #15). This is a most important category for people with depression, strong self-damaging tendencies, and anxieties in dealing with other people.

Picture yourself:

(a) expressing affection openly for (1) pets, (2) children, (3) immediate family, (4) more distant relatives, (5) friends, (6) acquaintances—possibly in that order of difficulty for you.

(b) being assertive with your family, clerks, waitresses, policemen, and authority figures in the degree and order of difficulty fitting you.

(c) Discussing topics which are of interest to you with your family, other relatives, and close friends.

(d) Making an effort and succeeding in discussing their interests.

(e) Stating your wishes without guilt to family, relatives, and close friends.

(f) Expressing disagreement without guilt to family, friends, other relatives.

(g) Following the same steps with casual friends and acquaintances.

(h) Requesting firmly that clerks, janitors, or any subordinates do their jobs promptly and properly.

(i) Expressing disagreement or your feeling of annoyance with those who do not fulfill their duties correctly.

(j) Talking about your job with fellow workers or firmly requesting that they do their share of any mutual job.

(k) Giving a report and expressing disagreement if necessary with your immediate superior in a tactful way.

(l) Giving a report and expressing disagreement if necessary to the highest superior with whom you must deal in a tactful way.

Other problem areas which can be broken down may include:

II. FEAR OF CRITICISM, REJECTION, DISAPPROVAL, OR HEALTHY DISAGREEMENT:

(a) Successfully facing sarcasm from family, friends, or associates

(b) Successfully facing direct disapproval or criticism from family, friends, or associates

(c) Successfully arguing and being unafraid of arguments

(d) Successfully facing feelings of being excluded by others

(e) Successfully facing being ignored or reprimanded

(f) Successfully dealing with persons you feel dislike you, etc

III. MEDICAL SYMPTOMS: Symptoms you have been told have no medical importance: getting busy with activities and ignoring symptoms such as rapid heartbeat, buzzing in ears, constant or intermittent pain from rheumatism, or similar symptoms if you know that they are not medically important. Arrange a stepladder of increasing time for enduring them and carrying on despite them.

IV. STAGE FRIGHT: successfully speaking to a group. Perhaps start with an empty room and gradually increase the number of people present to 100.

V. SOCIAL FRIGHT: enjoying entertaining and parties of increasing size from one friendly couple to any number of relative strangers.

VI. CROWDS: At ease in crowds of increasing size (elevators, trains, cramped quarters, open spaces, etc.).

VII. JOB SEEKING: Being at ease in applying for a job, starting with one you do not really want. Actually having several interviews before taking a job.

VIII. OPPOSITE SEX: Being at ease with members of the opposite sex, starting with someone unimportant to you and increasing periods of time and difficulty.

IX. DECISION MAKING: Being at ease in making your own decisions, without regrets and afterthought. Start with small decisions and increase importance.

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MODELING

Modeling can serve as a valuable means of social learning and personality development (Perry & Furukawa, 1980). The process involves both observational and performance aspects, theories of which have been adequately explicated in the literature (Bandura, 1977). By acting as a model, the therapist strives to provide cues for the patient that will help develop new behavioral skills, halt aberrant attitudes, and aid in problem-solving (Bandura, 1969). Both symbolic modeling (use of videotapes, films, audiotapes, written scripts) and live modeling (the therapist performing a certain exemplary behavior like facing a phobic situation) may be employed. Multiple models have an advantage over single models since the opportunities for identification are greater. For example, a child fearful of dogs, observing other children petting a puppy may be induced to experiment with approach behaviors.

To reduce anxiety that may be aroused in the patient, relaxation exercises can be used in advance of the modeling activity. Thus, if patients have a great fear of having their blood pressure taken, the therapist may initially utilize systematic desensitization with the patients to calm them down, demonstrating the use of the blood pressure apparatus on himself or herself. Priming the patient by explaining what the patient will see in the modeling activity is also useful. Once the patient executes the modeled behavior, active rehearsal of the behavior along with reinforcements (comments of approval, material rewards) will tend to establish it more firmly.

Graded participant modeling consists of the setting up of a hierarchy of activities related to a feared object or situation. For example in a phobia of airplanes, flying is at the top of the list, and calling the airline for information about a special flight at the bottom. In between are driving to the airport, going to the counter to talk to the attendant, sitting in the waiting room, walking to the gates, watching planes landing and taking off. The therapist may model the behavior for all of these gradients, then repeat the least anxiety provoking and ask the patient to execute this. As anxiety is completely resolved, the patient is enjoined to try progressively difficult tasks until actual flying occurs.

New behaviors must of course be transferred by the patients to the settings in which they live, work and function, and here the patients may not get the same reactions and reinforcements they receive in the training settings. Preparing the patients for the trials of performance generalization and reviewing with them their experiences in the transfer of learning to different settings are an integral part of the

training process.

Recommended readings that give examples of the actual modeling process itself are: Bandura et al. (1969) in relation to overcoming phobias; Melamed and Siegel (1975) in anxiety reduction for children facing hospitalization and surgery; Csapo (1972) for correcting disturbed classroom behavior in withdrawn or disturbed children; Perry and Cerreto (1977) for training of living skills in mentally retarded persons; Hingtgen et al. (1967) for working with autistic children; Gutride et al. (1974) for helping psychotic patients reinstate adaptive behaviors; Sarason and Ganzer (1973) for rehabilitating juvenile delinquents; and Reeder and Kunce (1976) for preparing heroin addicts for adjustment following treatment. Modeling may also be used in professional training programs for counselors and therapists, e.g., to develop greater capacities for empathy (Perry, 1975).

COGNITIVE BEHAVIOR THERAPY

Recognizing that complex human behavior cannot be explained solely by conditioning paradigms, behaviorists since 1970 have turned to higher level processes, exploring what they have called "cognitive behavior therapy." As we might expect, different authorities have experimented with and developed innovative ways of implementing this new dimension. For example, some have focused on illogical thought patterns that in the past have forced the patient to draw false inferences from certain events, to overgeneralize from solitary incidents, and to fail to correct distortions even though life experience has pointed to the falsity of their assumptions (Beck, AT, 1976). Others have advocated more active training procedures, working with patients toward employing positive, constructive self-statements along with practicing relaxation techniques (Meichenbaum, 1977). Still others continue to use Ellis' (1962) technique of actively presenting rational solutions to replace the patient's maladaptive ones ("rational emotional imagery").

Instead of attempting to win patients over toward adopting a new philosophy toward life, or different attitudes toward themselves and others, as in persuasion *(q.v.)* the patients are given daily relearning exercises to change their thinking habits toward rational goals that they are trying to achieve. First, the patients are trained for several sessions in rational self-analysis to get at the basis of their problem. Next they are enjoined to practice rational emotive imagery for a minimum of 3 10-minute

periods each day during which the patients see themselves acting in constructive ways in relation to the upsetting or challenging situations in their lives (Maultsby, 1970).

Social learning precepts are prominently employed in training procedures with the object of rational restructuring of thought processes; of altering mental sets in line with optimistic rather than pessimistic expectations; of liberating oneself from the tyranny of conventional beliefs; of abandoning the notion that one has always to be right, loved, perfect, important, and happy; and of relinquishing the idea that one's past indelibly stamps out one's destiny.

Patients are aided in acquiring coping skills by (1) putting themselves into challenging or upsetting situations in fantasy and verbalizing their feelings, and (2) role-playing constructive solutions. There is accumulating experimental evidence that these techniques help to reduce anxiety and to change attitudes that create pathologic feelings and behavior. Skill in problem-solving is encouraged by showing the patient that attitudes, positive or negative, will definitely influence the outcomes; that it is essential to define and formulate the problem at hand for which a solution is needed; that alternative approaches should be designed in the event a chosen solution proves to be inadvisable; that a definite decision of a course of action must be made; and that verification of the validity of this choice in terms of achievement of set goals must finalize the process (Goldfried &Davison, 1976).

An example of how cognitive therapy is executed is provided by the treatment of depressive disorders. The cognitive theory of depression assumes that a cognitive triad exists (Beck &Young, 1985). Depressed patients have a starkly negative view of themselves, conceiving of themselves as worthless, unlovable, and deficient. They see the environment as overwhelming and believe they cannot cope with the pressures around them. They regard the future as hopeless. Events are distorted and twisted through illogical thinking to confirm these apprehensions with unjustifiable arbitrary inferences, overgeneralization, selective obstruction, and magnification. Early negative schemas, evolved during early childhood and operative outside of awareness, act as predisposing factors and are activated by later life events. These cognitive distortions always contribute to depression with its physiological effects.

Cognitive therapy, which may be done on an inpidual or couples format, draws upon a number of techniques to change depressive thinking. The most difficult patients for either kind of format are severe

endogenous depressions, bipolar depressions, organic brain syndromes, psychotic depression, schizoaffective disorders, and borderline personalities. Neurotic and mild endogenous depressions do best. But even in the severer depressions, cognitive therapy can be useful in combination with pharmacotherapy, milieu therapy, and supportive therapy. Apart from the usual empathic qualities essential in a therapist, considerable skill is needed along with the ability to communicate confidence and hopefulness. Goals, the specific problems to be focused on, and the agenda for each session are set collaboratively. Since patients may not understand a therapist's formulations yet avow that they do out of a need to please, the therapist should encourage feedback to make sure the meaning of the communications has been grasped. At the end of each session the therapist summarizes what has been done and asks the patient to write down the main points of the discussion. Homework assignments are important including readings, self-relaxation, and persionary activities.

Cognitive techniques involve a search for automatic thoughts and maladaptive assumptions through questioning, imagery, and role playing. Once an automatic thought is elicited in the form of interpretations of an event, an analysis of the thought is jointly embarked on to test its validity. Here the patient's use of words may come up for study. Rectification of the habit of self-accusation necessitates reattribution of blame. Alternative solutions are encouraged, maladaptive assumptions are challenged. Faulty beliefs are analyzed. Behavioral techniques are utilized especially when a patient is highly passive and withdrawn. These include activities to improve mastery and enhance pleasure, training in self-reliance and assertiveness, role playing, and persion techniques.

Some cognitive therapists utilize psychological inventories as part of the assessment procedure. Among these are the Beck Depression Inventory (BDI) that scores the degree of depression, the Young Loneliness Inventory Score (Young, 1982) that reveals the degree of distress due to lack of intimate ties, and other tests. Interviewing is conducting mainly by a therapist focussing on the most distressing problem that concerns the patient and probing the "automatic thoughts" through questioning in order to understand the patient's perspective. A good area to explore at first is the inactivity and withdrawal that highlight and characterize depressive symptomology. Instead of criticizing, blaming, condemning, and reassuring the patient, the therapist continues to enjoin the patient to examine the immediate assumptions ("collaborative empiricist"). The therapist may ask the patient to select a small problem to work on together. Any suggested activity the patient brings up that can possibly bring the patient out of

preoccupation with hopelessness is selected for "graded tasks" in the form of questions to break down resistance to following through with its execution. The patient may be asked to write out an activity schedule for the week. Some therapists routinely have their patients fill out the Beck Depressive Interview before each session so that progress can be monitored. Negative thoughts are chosen for questioning and probing of ways of coping with these and finding constructive alternatives. The therapist is alerted for dominant schema that control the patient's attitudes and relationships. Periodically, summaries are given to the patient of the themes that may be operating in the automatic thoughts. If the patient is planning a major decision, postponement may be recommended until a more realistic perspective is obtained.

Obviously, as one works with a patient character patterns will display themselves as reflected in the relationship to the therapist and to the therapeutic process itself. Distortions in the way the patient appraises things are clarified with the hope that through questioning and a "guided discovery" approach there will be a more realistic appraisal ("reattribution"). Continuing homework assignments may include keeping a daily record of dysfunctional thoughts by listing situations that lead to unpleasant thoughts and the stream of automatic daydreams or recollections that produce unpleasant emotions. A diary or *Weekly Activity Schedule* may also be kept to list and grade the degree of instances of mastery and pleasure. In therapy, maladaptive assumptions are continuously explored especially "in the context of a concrete event" with the object of replacing automatic thoughts with rational thoughts. A technique *Point Counterpoint* is sometimes utilized to help such a replacement. Here in role playing, the therapist plays the devil's advocate by expressing the patient's own negative thinking while the patient defends a more rational stance. Hopefully, underlying destructive assumptions will be undermined with practice in and out of therapy. Other strategies may be devised to test the validity of one's assumptions that lead to depressive thinking and feeling. Patients are enjoined to test other hypotheses on which their assumptions, early schemas, and automatic thoughts are based. In vivo experiments within the patient's life situation are set up to test habitual beliefs and, during therapy, successes and failures are reviewed. Self-help homework assignments aid the patient in facing problems more realistically, and correcting thinking patterns that can lead to resolution of depression and to adaptive behavior.

CONTINGENCY CONTRACTING

Some behavior therapists try to direct the patient toward productive change through reinforcements in *contingency contracting.* It is agreed that the execution of desired behaviors (socialization, assertiveness, dietary abstinence, etc.) will result in certain positive rewards. The contract is drawn up between the patient and the therapist, or in couples therapy between the two partners. The selection of appropriate reinforcements may be aided by use of a *Reinforcement Survey Schedule* (Cautela &Kastenbaum, 1967). The contract is time-limited and specifies the behavior patients are to perform (e.g., smoking control, weight loss, assertive behaviors, etc.) and the rewards they are to receive for such behavior. The patients collect data in writing on the daily frequency of such behaviors and their reactions to their execution. The rewards must be reasonable, but must be sufficiently intense and meaningful for the patients to compensate them for whatever deprivations they undergo in performance of assigned tasks. The patients, for example, must feel that they are attaining a previously denied or absent prize and that they have earned it through their own efforts. If money is the reward, paid by a third party, this should not be accumulated but should be spent as soon as possible since saving may dilute the effort put into performance. Thus, a child who is rewarded with money for certain socializing behaviors should not be requested to save the money for college. Rewards to adults may consist of vacations, trips, and various kinds of entertainment. Sometimes when patients reward themselves with money, they deposit money with the therapist, who then distributes it in accordance with a patient's compliance with the contract. In contracts between couples (contingency or exchange contracts), the desired behaviors on the part of one member are rewarded with specified behaviors on the part of the other member.

Do sought-for behaviors continue after the contract ends? The claim made by behavior therapists is that in well-conducted therapies the patient begins to enjoy the behaviors for their own sake and for what they do to self-image and self-respect.

A GENERAL OUTLINE OF BEHAVIOR THERAPY PRACTICE

There are many designs for the practice of behavioral modification. One that I have found useful follows:

1. Ask patients which behaviors they wish to strengthen and which they wish to diminish or

extinguish.

2. Find out the situations under which undesirable traits or symptoms lessen or increase. Do not be concerned with explaining why the problem developed except insofar as the positive and aversive reinforcements that maintain it can be detected.

3. Select jointly with the patient (on the basis of the patient's priorities) which behaviors or reactions are to be altered first, leaning toward those that, in your opinion, are most modifiable.

4. Explore the degree of motivation of the patient for therapy, the consequences of present demeanor and the rewards anticipated from newly developed behavior. Challenge and work on the patient's motivation until it is certain that the patient unequivocally wishes to change for himself or herself and not to please others.

5. Examine in depth the behavioral constellation to be altered or strengthened, going into past history to determine the reinforcements that have maintained the problem. Can patients clearly define what it is that they desire to change? Do they accept your formulation of the problem? If not, you, the therapist, assume an educational role to teach the patient the full implications and complete description of the behaviors that are appropriate for the desired change. Do patients clearly understand what is expected of them?

6. Identify the rewards (reinforcers) if any that are to be employed making sure that they have value for the patient. These reinforcers are made contingent on the desired behavior. A contract—verbal or, better, written— is drawn stating what is expected of the patient and the rewards for maintenance of the contract. The contract time should be made short, say a few days, with the idea of renewing the contract at the end of the contract time.

Sometimes contingency contracting is utilized, the patient and therapist deciding mutually not only on the kind of reinforcements that the patient is to receive on controlling problem behaviors or substituting constructive alternatives, but also the penalties to be imposed, if any, for perpetuation of disturbed behaviors. We, the therapists, may also impose penalties on ourselves should we not live up to our contract (appearing late for appointments, missing appointments, etc.), for example, reducing or cancelling fees. Token reinforcement systems may be set up, the patients receiving tokens for constructive behavior that they can exchange for luxuries, privileges, etc. (Ayllon &Azrin, 1968; O'Leary &Drabman, 1971). Token economies have been found to work well in some institutions and classrooms (Paul &Lentz, 1977).

7. Work out a planned schedule with patients to begin to approach their new behaviors under the least traumatic circumstances possible. If interpersonal relations are involved in the plan, the least challenging inpiduals are selected so that the patient may be minimally uncomfortable. In the shaping of a difficult behavior, the start should strive for minimal gains and immediate reinforcements, with the object of approximating the desired change, more and more reinforcements being given step by step as changes progress.

8. Ask the patient to keep a diary that lists each day the frequencies of new behaviors practiced. Praise is preferred for each success, but no criticism is given for failure. If no progress occurs, explore with the patient the reasons for failure. Encourage the patient to try again and make suggestions as to new assignments that the patient is prepared to execute. Explore attitudes, beliefs, systems and other cognitions that may be acting as resistances to progress.

Behavior modeling by the therapist and role playing are introduced when necessary. If anxiety prevents the patient from following through on behavioral assignments, systematic desensitization may be tried and/or a mild tranquilizer suggested such as Xanax for a brief period of time only, recognizing its addictive potential. At each session the patient is given homework to expand on skills.

9. Where it is obvious that the patient is confused in acting in a constructive way, try behavior rehearsal (Casey, GA, 1973).

Here the therapist rehearses the patient in what to say and how to say it, covering a broad zone of interpersonal behavior, with both real and fantasied authorities and peer figures. The gestures to make, the words to say, the facial expressions to exhibit are all acted out. The rehearsal will bring out feelings in the patient that will need discussion. Sometimes it is helpful to make a recording (audio and video if available) to play responses back for the patient after each rehearsal. The therapist advantageously can play dual roles: first, that of the inpidual with whom the patient cannot seem to deal with in real life, and then, by changing chairs with the patient (role reversal), that of the patient with appropriate comments and gestures to indicate preferred reactions (modeling) while the patient is asked to put himself or herself in the position of the adversary. The patient may need constant or periodic coaching while this role playing goes on.

10. Inpidual sessions may later be complimented with family and group sessions where these are deemed helpful.

In family therapy sessions the attendant members are apprised of the circumstances that create and maintain behavioral difficulties. Appropriate ways of reacting with each other are suggested. Group sessions are usually conducted with the object of allowing each member about 10 minutes of time to describe what each has accomplished since the last session and the reactions. The members then make suggestions to each other as to how difficulties may be overcome or progress increased.

11. Should a relapse occur, the best way to manage it is not to reward it with too much attention. Ignoring the relapse must be followed by adequate reinforcement when improvement resumes. Punishment should assiduously be avoided.

12. In the event resistance is obdurate and no progress occurs, explore frankly and openly the relationship with the patient. You as the therapist may very well look into your own feelings about the patient (countertransference) to see if you can perceive deleterious effects on the relationship.

There is, in my opinion, no reason why behavioral therapy cannot be practiced in a dynamic framework, although this may horrify some behavioral purists. Often dreams will reveal the nature of the resistance more readily than any other communication. Once the resistance is detected and explored, clarification or interpretation may turn the tide toward success in the behavioral effort.

A great deal of ingenuity is required to set up the design that will govern behavior therapy in a particular case. The treatment undergoes continued modifications in line with the observed behavioral change. Wide differences exist in the susceptibility of subjects to conditioning. However, the greater the quantum of anxiety, the more easily are conditioned responses established and the more difficult are these to extinguish. Generalized anxiety does not respond too well to behavior therapy unless it is possible to differentiate the conditioned stimuli that sponsor anxiety. It may be possible to break down anxiety or disturbed behavior into a number of phobic hierarchies and to deal with each hierarchy as a separate unit.