

Marquette University

e-Publications@Marquette

Psychology Faculty Research and Publications/College of Arts and Sciences

This paper is NOT THE PUBLISHED VERSION; but the author's final, peer-reviewed manuscript. The published version may be accessed by following the link in the citation below.

Perceptual and Motor Skills, Vol. 41, No. 2 (October 1, 1975): 555-585. [DOI](#). This article is © SAGE Publications and permission has been granted for this version to appear in [e-Publications@Marquette](#). SAGE Publications does not grant permission for this article to be further copied/distributed or hosted elsewhere without the express permission from SAGE Publications.

Use of Mental Imagery in Psychotherapy: A Critical Review

Anees A. Sheikh

Psychology, Marquette University, Milwaukee, WI

Nancy C. Panagiotou

Psychology, Marquette University, Milwaukee, WI

Summary

The paper presents arguments in favor of the use of mental imagery for therapeutic purposes. Several existing imagery approaches to psychotherapy are critically examined and suggestions for future inquiry are offered. The intimate relation between imagery and the affective-somatic processes is stressed.

Mental images, wrote Watson in 1913, are ghosts with no functional significance whatever. Subsequently, experimental psychologists ignored the existence of these images and worked, almost exclusively, with linguistic and behavioral associations. The latter two seemed to provide controllable material for laboratory studies; whereas, images were found to be difficult to manage in empirical work (Deese, 1965).

The emphasis on verbal and behavioral mechanisms persists even in contemporary experimental literature. However, recently the negative attitude toward imagery has been partially replaced by considerable interest on the part of psychologists of varying backgrounds (Paivio, 1971; Richardson, 1969; Segal, 1971; Sheehan, 1972). Paivio (1974), one of the chief researchers in the area, has cogently argued to reestablish the

importance of scientific inquiry in this field. Some psychologists have even ventured to offer image theories to explain the most behavioristic of all phenomena, i.e., classical and instrumental conditioning (Greenwald, 1970; King, 1973). Images have also been regarded as motives and motivators (McMahon, 1973). One can say that the "ostracized" ghosts (Holt, 1964) from "psychology's dead past" (Watson, 1913) have returned to stay.

In the domain of psychotherapy, Freud's belief in the supremacy of rational, verbal, or secondary processes had a profound effect. In this area, a number of scattered instances of the use of imagery did occur, but its development had generally been neglected in favor of verbal techniques. However, the last decade has witnessed a resurgence of interest in mental imagery by psychotherapists of varied persuasions. The importance of the use of mental imagery in psychotherapy is being realized clearly for the first time and a possible supremacy of images over words is being examined (Ahsen, 1968, 1972; Assagioli, 1965; Desoille, 1965; Gendlin & Olsen, 1970; Horowitz, 1967, 1968; Panagiotou & Sheikh, in press; Shapiro, 1970).

The research indicates some distinct advantages in dealing with mental images during therapeutic interaction. The conditioning therapists (Lazarus, 1971; Lazarus & Abramovitz, 1962; Stamfl, 1961; Wolpe, 1969) have demonstrated the surface relations between images and emotional reactions, as well as the power of images to act as stimuli. Lazarus (1973), who no longer subscribes to the traditional behavior therapy approach, considers imagery as one of the important inter-related modalities that must be covered if durable results are to ensue. Bugelski (1968) demonstrates that images, as opposed to other cognitive mediators, produce "greater clarity of perception, stronger resistance to the experimenter's suggestion, and an enormous wealth of detail" (Lazarus, 1972, p. v). Ahsen (1968, 1972), who has explored the use of mental imagery in psychotherapy more extensively than anyone else, demonstrates that an eidetic image is a tripartite unity that consists of visual image, somatic response and affective signification. He believes that the life-like eidetic image is the only event in the psyche which is fundamentally psychosomatic and unites mind and body in a single, undifferentiated whole. Penfield's (1952, 1963) investigations involving recollections evoked through electrical stimulation of the cortex illuminate the new meaning and insight contained in the eidetics. According to Kubie (1952), Penfield's evidence "shed light on one of the critical limiting factors in psychoanalytic therapy: or, to put it in more general terms, it may explain a limiting factor in the psychotherapeutic leverage of any form of psychotherapy which depends upon the use of words to recapture 'memories' in the pursuit of 'insight' " (p. 192). Horowitz (1968) points out that information concerning affect and fantasy may be contained in the image and not be available to the individual in verbal thought. Imagery may be the major access to the important preverbal memories or memories encoded at developmental stages when language is not yet predominant (Kapecs, 1957). It appears that especially vivid or traumatic experiences have a tendency to be encoded in imagery. Furthermore, it seems that the imagic mode is the medium most sympathetic with unconscious organization (Horowitz, 1974). Images are less likely to be filtered through the conscious critical apparatus than is linguistic expression. In most cases, words and phrases must be consciously understood before they are spoken; for in order to assume a grammatical order, they must first pass through a rational censorship. Imagery, perhaps, is not subject to this filtering process, and therefore may have the opportunity to be a more direct expression of the unconscious. Also, images may have a greater capacity than the linguistic mode for the attraction and focusing of emotionally loaded associations in concentrated forms: verbal logic is linear; whereas the image is a simultaneous representation. The quality of simultaneity gives imagery greater isomorphism with the qualities of perception, and, therefore, a greater capacity for descriptive accuracy (Lipkin, 1970). Moreover, since imagery appears to be mediated by the right hemisphere of the brain, it is not surprising if it expresses relationships in certain spheres of experience more elegantly than words do (Ornstein, 1972; Paivio, 1971; Pines, 1974).

Psychologists with widely divergent theoretical backgrounds have employed imagery for therapeutic communication and change. The present writers have attempted a three-fold classification of the available approaches. The *first* section of this paper examines the psychoanalytical and neoanalytical schools' observations and hypotheses regarding spontaneous images during psychotherapy. It also discusses the relation of these images to linguistic-rational cognition and to unconscious organization. A number of behavior therapists, working within the confines of the Pavlovian and Skinnerian models, have employed imagery for deconditioning purposes. Consequently, the *second* part of this article deals with a variety of such attempts and offers alternative cognitive explanations for the deconditioning effects. The *third* segment of this review

examines the "depth" techniques using imagery of such researchers as Ahsen (1968, 1972), Assagioli (1965), Desoille (1965), Fretigny and Virel (1968), Leuner (1966), Leopoldo Rigo (1965, 1968), and Rigo-Uberto (1965, 1968), who have placed "the healing of the psyche" back into the "magical" model which emphasizes a transformation through irrational procedures as opposed to rational or reflex therapies. The last section of this paper presents a few over-all integrative remarks and also stresses the intimate relationship which exists between imagery and the affective-somatic processes.

Spontaneous Imagery

Clinicians of the psychoanalytic orientation have been among the most attentive observers of spontaneous images occurring during psychotherapy (Clark, 1925; Freud, 1955; Kubie, 1943). The functions of these images with respect to unconscious motivation have been regarded in two different ways: traditionally the images arising spontaneously in the course of free association have been treated as resistance; alternatively some therapists consider them to be communications from the unconscious in its own language. Objective observers like Mardi Horowitz (1967, 1968, 1972) indicate that the spontaneous image may have either or both of these functions and that much of the potential value of the image phenomenon (for resistance or uncovering) depends upon the way it is treated by the therapist.

Resistance Hypothesis

It has been observed that spontaneous images occur in many individuals at times of verbal blockage. This phenomenon has commonly been regarded as a regressive shift from the verbal to a more primitive perceptual mode (Goldberger, 1957; Kanzer, 1958). Freud (1955) felt this shift was a form of resistance to free association, defending the patient against the awareness of an unacceptable impulse which was threatening to emerge. He believed that this impulse usually contained elements of transference. Kanzer (1958) and other psychoanalysts, who share the resistance viewpoint, believe spontaneous images represent an innocuous end-product resulting from the transformation of a negatively loaded impulse; as such, they serve to dissipate the attached affect in the very process of representation. Like symptoms, these images are believed simultaneously to conceal and gratify the underlying impulse. The appearance of these images is considered to be stimulated by the weakening of secondary process thinking (rational verbal thinking) in free association.

The idea of a regressive transformation of the impulse into imagoic cognition presupposes that the image is a representation of a latent or unconscious verbal idea. Sensory imagery is thought to represent a phylogenetically and ontogenetically preverbal stage of cognition close to, but not identical with, primary process thinking. It is assumed that an adult's appropriate cognitive mode is linguistic and that the laws of language are the proper expression of constructive thought. Therefore, imagoic cognition is regressive and thus constitutes an evasion of adult communication. Goldberger (1957) has called images "plastic representations of visual thought." Others are not in agreement with giving the linguistic basis this primacy but rather consider imagery as the special language of the unconscious. The major evidence for this latter supposition is treated in a later segment which deals with evoked imagery in 'depth' techniques.

Special Language of the Unconscious Hypothesis

In the continuum of consciousness to unconscious, one can suppose there is a wide penumbral region of partial and vague awareness. Jellinek (1949) and certain other psychoanalytically oriented clinicians believe that the imagoic mode functions specifically in this area to connect the unconscious to the conscious. They further indicate that imagery, because of its primordial forms and syntax, has a special function as the "direct voice of the unconscious." The level of consciousness, at which the imagoic mode functions, is believed to have special properties which allow a therapeutic effect to take place through the manipulation of symbols without accompanying verbal insight. Even though the individual may not understand the pictorial language, he somehow may integrate its message into his life. Jellinek and others also note the intrapsychic prophetic function of imagoic cognition: ideas and responses often occur in imagery and appear only later in verbal cognition and behavior.

Horowitz (1972) believes that there is at least one type of spontaneous imagery which could be considered a direct "eruptive expression of usually repressed ideas and feelings" (p. 119). He calls this *unbidden*

imagery. The unbidden images "intrude" into consciousness and the underlying thought processes are not available to conscious appraisal. The more unpleasant forms of these images appear to occur despite deliberate attempts to avoid or dispel them. Horowitz (1972) cites several examples where the experience of the images leads to "anxiety over the lapse in control in addition to the emotion expressed in, and responsive to, the content of the images" (p. 118).

Reyher and Smeltzer (1968) regard visual imagery as a vehicle for the symbolic representation of unconscious conflicts and have reported experimentation concerning uncovering properties of visual imagery. They employed a method of "free imagery," developed by Reyher (1963). In this procedure, unlike traditional "free association," the patient is asked to describe only visual images, feelings, and bodily sensations that come to his attention. Reyher had found that this technique tended to uncover repressed material where resistances were especially tenacious. The potency of this technique has been demonstrated in several studies (Burns, 1972; Morishige, 1971; Reyher & Morishige, 1969; Reyher & Smeltzer, 1968).

Reyher and Smeltzer's (1968) study compared the amount of primary process and secondary process material represented in "free imagery" and traditional free association. The comparison was made on the basis of remoteness or blatancy of the derivatives (symbolic representation of anxiety-producing drives) obtained in response to the stimulus. Four hypotheses were suggested: (1) visual imagery is accompanied by more anxiety than verbal association, (2) visual imagery shows more signs of primary-process regulation, (3) the expression of drives is more direct in visual imagery, (4) the mechanisms of defenses are less effective during free imagery than during free associations. The stimuli were orally presented words relating to three categories: family relationships, sex, and hostility. The results were positive and significant for all four hypotheses.

Reyher explains the preemption of primary process thinking by the fact that secondary process cues (visual and auditory) are largely screened; thus, the individual cannot effectively orient to normal social demands and is enclosed within his intrapsychic environment. While the screening of social stimuli is not necessary, it may aid some individuals in image formation. In addition to the prevalence of primary process thinking due to the exclusion of social cues, other reasons may exist for the diminished effectiveness of defense during imagery. It is possible that the individual does not understand the contents of his image, is not aware of the revelations contained, and therefore does not censor them. Or it may be, particularly in our heavily language-oriented culture, that less self-blame is attached to expressing something in visual cognition (which one might think of as "imagining it") than in verbal cognition (which one might call "thinking it"). There is less defense, perhaps, because the image carries for the individual an element of surprise. As Horowitz notes, an increase in imaginal cognition is associated with alterations in levels of consciousness and often is associated with increased passivity. Sometimes an increase in imaginal cognition seems to come about as a result of an altered state of consciousness which may include states of deep relaxation (such as the hypnagogic state), sensory deprivation, or chemical induction. It is also evident that continued fixation upon imagery increases passivity, dropping of censorship and loss of orientation to external events.

One can perhaps conclude that whatever may give rise to the imaginal mode, be it verbal blockage, resistance, pre-verbal encoding or an altered state of consciousness, the image itself probably has psychodynamic determinants, and its elements reflect the current motivational state (Horowitz, 1972). In addition, images may combine material from various internal and external sources, and observers (Sheehan, 1972) tend to agree that elements of the images are overdetermined and may well have multiple functions. It seems probable to comprehensive observers that the structure and function of imagery may change with several variables: the attention given to the image, the amount of affect attached to it, and the therapist's understanding and treatment of image phenomena. Imaginal thinking may be thought of as a regressive mode dependent on verbal thought for its form. But it seems more supportable to consider the two modes as separate yet capable of interaction (Bandura, 1971; Paivio, 1974). Imagery appears to have feedback relationships with verbal cognition, affect, and physiological or somatic states.

BEHAVIORISTIC AND COGNITIVE RESTRUCTURING APPROACHES

Numerous behavioristic procedures, based primarily on the Pavlovian or the Skinnerian models, illustrate the surface relations between images and emotional reactions, and demonstrate the power of the

images to act as potent stimuli. These procedures include several variations of counterconditioning and implosive therapy or emotional flooding. In addition to the usual emphasis on associative factors, explanations in cognitive terms have been cogently offered for these phenomena. For example, cognitive modification in reality perception, due to an effect similar to reality-testing, has been hypothesized to be the basis of the behavioral changes that ensue (Beck, 1970; Brown, 1969). This hypothesis appears to agree with Sarbin's (1972) conceptualization of the image as muted role-taking. Actually, any impartial observer can recognize the compatibility between cognitive models and the conditioning procedures. Pavlov (1927) himself commented that humans condition themselves to inner speech, which is of course what is commonly meant by "cognitive mediators."

Systematic Desensitization

This procedure, a prototype of counterconditioning, appears to be the most widely used form of behavioral treatment for any given irrational fear (Smith, Dickson, & Sheppard, 1973). Wolpe (1958, 1969) has generally been given the credit for the development of this technique; however, contrary to common opinion, references to this technique go as far back as 1922, if not farther. I. Getschmer (1922) named it *systematic habituation therapy*; Williams (1923) called it *reconditioning*; and Howard and Patry (1935) referred to it as *corrective habit training*. Salter (1949) was probably the first clinician using this procedure, who relied primarily on the patient's imagery in place of the real feared stimuli. One of his patients referred to this technique as the *anti-claustrophobic vaccination*.

To put it briefly, the procedure is based upon the principle of reciprocal inhibition and aims to expose the patient to anxiety or fear producing stimuli in a graded and progressive manner under anxiety inhibiting condition, such as relaxation. Fear "is relieved by encouraging, through muscle relaxation, responses that are incompatible with those of fear in the presence of fear evoking stimuli. So that these competitors will have maximum response strength relative to the fear response itself" (Lang, 1970, p. 149). The therapist prepares a hierarchically arranged list of internal and external fear-producing situations, and desensitization is begun at the fear response's site of minimum amplitude. Images are used in place of actual stimulus situations when the latter are grossly impractical or when the therapist wishes to have finer control over the elicitation of anxiety than *in vivo* training would permit. One should bear in mind that there is no element of symbolism or distortion in these images as prescribed. However, as Brown (1969) notes, it is not known what the client is actually visualizing: elements of idiosyncratic distortions may conceivably enter into the imagery in important ways.

There are several clinical and laboratory studies that have demonstrated the success of systematic desensitization techniques in alleviating fear and anxiety (Bergin & Garfield, 1971; Davison, 1968; Lang & Lazovik, 1963; Lang, Lazovik, & Reynolds, 1965; Lazarus, 1963; Wolpe, 1958). However, there is a great deal of uncertainty as to the mechanism of change. Several learning, as well as cognitive theory alternatives, have been suggested (Davison & Wilson, 1972; Lang, 1969, 1970).

Emotive Imagery

In a variation of desensitization, Lazarus and Abramowitz (1962) have suggested that emotive imagery be used for counterconditioning anxiety in children because they may not readily learn deep relaxation. In this procedure, the children are encouraged to imagine "stronger and stronger phobic stimuli woven into progressively more enjoyable fantasies" (Lazarus, 1971, p. 211). It is expected that the positive feelings aroused by the fantasy will compete successfully against the anxiety-arousing stimuli until these stimuli become conditioned to feelings incompatible with fear.

It should be noted that emotive imagery used as the reciprocal inhibitor stimulus may be quite fantastic in contrast to imagery used as the fear stimulus in desensitization and may deliberately play upon private meaning to maximize the effect. The image scene, however, is done on completely pragmatic grounds: the desired image is the one that happens to evoke the most positive feelings and no attention is paid to possible symbolism or personal meaning of the preferences.

Lazarus (1971) has used emotive imagery in combination with fantasy imitation in his treatment of an 8-year-old boy who was afraid of visiting the dentist. "The sequence consisted of having the child picture himself accompanying Batman and Robin on various adventures and then imagining his heroes visiting the dentist while

he observed them receiving dental attention. He was asked to picture this scene at least five times daily for one week. Next, he was to imagine himself in the dentist's chair while Batman and Robin stood by and observed. He also practiced this image several times a day for one week. He visited the dentist the following week, and according to his mother he sat through four fillings without flinching" (p. 211).

Cautela (1970) has proposed a covert reinforcement procedure that appears to be very close to the emotive imagery technique. The patient is first trained to have a series of reinforcing images, i.e., images of things he enjoys frequently, that easily come to his mind. Next, he is encouraged to imagine a difficult but desired response sequence, i.e., asking a girl for a date, and immediately after that to see one of the reinforcing images. It is claimed that the covert reinforcement makes it easier to imagine the desired behavior; and, consequently, this effect is gradually transferred to the real-life situation. If such a procedure is actually effective, the results cannot be unequivocally explained in terms of either the classical conditioning or in the operant conditioning model.

Aversive Counterconditioning

This procedure aims to condition an aversive response to a stimulus that previously elicited an approach response and is frequently employed with undesirably self-rewarding behaviors such as sexual deviance, smoking, alcoholism, and overeating (Jones, 1969; Rachman & Teasdale, 1969). The basic procedure consists of presenting a painful or unpleasant stimulus in temporal contiguity with the undesired response. Aversive stimuli commonly employed include various kinds of chemicals and electric shocks.

In a variation of aversive counterconditioning, known as covert sensitization, aversive mental images which evoke extreme disgust are used (Cautela, 1967; Davison, 1968; Lazarus, 1958). For example, "the patient while relaxing with his eyes closed is asked to visualize the pleasurable object, e.g., cigarettes, liquor, candy, homosexual companion, and upon picturing himself about to indulge, he is told to imagine that he begins to feel sick and, in imagination, begins to vomit all over the floor, and all over the cigarettes (or food or drink). He is further to imagine vomiting all over his companions and himself. Next he is asked to visualize the entire scene again by himself and try and feel the sensation of nausea" (Lazarus, 1971, p. 237). These aversive procedures are usually complemented by positive imagery of appropriate objects and behaviors.

The covert sensitization technique has a number of advantages: it requires no apparatus, drugs or any other external aversive stimulation; it can be carried out by the subject himself; and it can be easily applied to a wide range of problems. The success of this procedure depends upon the potency of the image in evoking a feeling of disgust strong enough to interfere with the arousal of pleasurable excitation. It is not necessary that idiosyncratic sensibilities be discovered.

Implosive Therapy

Implosion or emotional flooding is a therapeutic method designed to eliminate fear through the principles of extinction and is generally associated with Stampfl's (1961) name. The procedure consists of repeatedly exposing the patient to relevant very intense fear-stimuli expected to arouse maximal anxiety. Images are used exclusively in place of actual stimuli, since only imaginary situations permit the required degree of stimulus control. Anxiety is said first to increase to its full potential and then begin to decrease with repetitions until none is aroused by the fantasy.

It is of interest to note that a number of earlier studies employed the concept of extinction as the basis of therapy: Dunlap (1932) used *negative practice* to remove undesirable motor responses such as tics and stammering. He required his patients to practice these responses continuously in the absence of primary reward; Malleon (1959) employed *reactive inhibition therapy* in which he placed the patient in a real-life or imaginary fear arousing situation. This method appears strikingly similar to that of Stampfl's, but Malleon has seldom been granted any credit for its innovation.

The reported results of this method are equivocal and thus far indicate only the probable complexity of the relationships involved (Hogan, 1968; Morganstern, 1973; Smich, Dickson, & Sheppard, 1973). In addition, "The crucial theoretical underpinnings are still in doubt. Various investigators have suggested explanatory constructs dealing with extinction, adaptation level, fatigue, modeling, habituation, cognitive rehearsal and discrimination" (Smith, *et al.*, 1973, p. 358). Nevertheless, this technique provides one of the more fascinating

areas for speculation, since the procedure is to distort the image in the direction of the client's own distortion and to elaborate it with his morbid details in an attempt to maximize anxiety. The imagined scene is extended far beyond what the client in all likelihood will ever meet in reality, for the imagery represents his wildest dreams. The possibility of the symbolic content of this kind of image must be admitted, and mechanisms other than that of extinction must be considered: abreaction, or other nonconscious transformations or even defenses may be relevant.

Lazarus (1971) has recently described the *blow-up technique* which seems to be very similar to Stampfl's procedure. He gives the example of a patient who had a distressing tendency to keep checking the men's room at a theater or movie for a possible outbreak of fire. Lazarus instructed:

When the urge to check comes over you, do not leave your seat. Instead, I want you to imagine that fire has indeed broken out. First, picture the toilet paper and the toilet seats catching fire and spreading to the doors, then going along the floor, so that eventually the entire men's room is ablaze. Then as you sit in your seat, imagining the crackling flames spreading outside the men's room into the lobby, the carpets quickly catch fire and soon the entire movie house or theater is a roaring inferno. Still sitting in your seat, imagine the entire neighborhood on fire. Firemen battle the blaze unsuccessfully as all neighboring areas catch fire until the entire city is devoured. And still the flames keep spreading. One city after another is demolished in this voracious chain reaction until the entire country is ablaze. The flames even spread across the oceans until the entire world is on fire. Eventually the whole universe is one raging inferno (p. 231).

Although this method appears to be very close to implosive therapy, it is perhaps more similar to Frankl's (1960) technique of *paradoxical intention*. In Frankl's procedure, the patient is encouraged to produce intentionally the troublesome symptom at an exaggerated level which, consequently, evokes humor. This evocation of humor is the central part of Frankl's technique. For example, when a patient with anticipatory anxiety about fainting, deliberately tries to be the greatest "passer-out" in the world "and he finds he cannot, he starts to laugh" (Gerz, 1962, p. 375). Perhaps "the therapeutic impact lies in the fact that when people encourage their anticipatory anxiety to erupt, they nearly always find the opposite reaction coming to the fore--their worst fears subside and when the method is used several times, their dreads eventually disappear" (Lazarus, 1971, p. 232).

Other Variations of Conditioning Techniques

Several therapists familiar with the conditioning techniques have suggested variations which they believe to be effective. For example, Wolpin (1969), unlike Wolpe (1958), prefers not to instruct the subject in anxiety-inhibiting responses. Furthermore, he chooses to advance a continuous image depicting the entire series of responses in which the subject likes to engage rather than the piece-meal hierarchical presentation of the Wolpean fashion. Unlike during systematic desensitization, the imagined scene is not interrupted if the patient begins to feel the anxiety; and unlike in Stampfl's implosive procedure, the imagined situation does not exceed what the client realistically might be forced to face. Essentially, the emphasis is on bringing the person to behave in imagination the way he would like to behave in real life.

Between sessions, Wolpin gathers information about what the client actually did visualize and what his affective responses were. Wolpin mentions that often the subject does not visualize the scenes as instructed. This information can be used by the therapist to correct future visualizations in a "firm supportive manner."

Wolpin offers several alternative explanations for his results. These explanations are based on the concepts of extinction, adaptation, catharsis, imaginary practice, changed self-image, and self-reinforcement or reinforcement by the therapist.

Brown (1969) stresses that the efficiency of Wolpe's desensitization technique would increase if "it is modified to take into account the possibility that a patient's fear of a particular object or situation might be related to the idiosyncratic way he conceptualizes the phobic object" (p. 120). Consequently, he instructs his client to form his own image--"to try to put his ideas and feelings about the object or situation into a mental image, an imagined situation, a fantasy, a caricature, a cartoon or a representation in animal form" (p. 120). Brown cites several examples of the idiosyncratic imagery reported by his patients and remarks that desensitization occurs with repeated visualizations. However, he attributes these effects to a cognitive

correction, involving the reduction or elimination of distortion of external events which brings the client's reactions more in proportion to reality.

Desoille's (1965) Directed Daydream, Assagioli's (1965) Eclectic Method of Psychosynthesis, and Ahsen's (1968) Eidetic Psychotherapy include a variety of induced image procedures, several of which, apparently, involve conditioning models. These methods, however, have their theoretical basis in the unconscious symbolic function of imagery and are, therefore, described in a later segment.

Cognitive Restructuring Approaches

Several therapists believe that images have special effectiveness in providing the client with a clear cognitive understanding of his own perceptual distortion which, although conscious, may be only vaguely sensed. For example, Gendlin and Olsen (1970) use *experimental focusing* to bring the individual from a state of vague but wholistic awareness of his feelings to a clear recognition of all aspects of them. The authors assert that the formation of an image is the turning point at which the individual moves from a "global sense of feeling to a specific crux feeling;" the image appears to aid the cognitive crystallization of experience. An image that comes to represent the "crux feeling" is focused upon to "open up" the specific feeling or sharpen an "experiential shift." "The image, typically becomes quite stable as the feel of it is focussed on and even refuses to change until one comes to know what the feeling it gives one is. Then, one feels not only the characteristic release, but the image then changes. . . both the feeling and the image, refuse to change or shift until its felt meaning has opened up" (Gendlin & Olsen, 1970, p. 221).

Beck (1970) believes that the conditioning effects of repetitive fantasy can be better explained using a cognitive model. His own observations lead him to conclude that the repetition of image fantasies is accompanied by cognitive restructuring: images, spontaneous or induced, may clarify for the individual his cognitive distortions and provide valuable information for the understanding of an inappropriate reaction. Also, repetitive fantasy, Beck suggests, provides an opportunity to examine critically one's own perceptions and to assess actual powers and weaknesses against the demands of a situation. The result is a finer ability to discriminate between actual and irrational threat. "As he is able to appraise the fantasy more realistically, the threat and the accompanying anxiety are reduced. He no longer expects disastrous consequences from entering innocuous situations that he had previously conceptualized as dangerous" (p. 15). In addition, Beck observes, the repetitive therapeutic fantasy appears to lead to mastery of the situation.

Beck reports that the content of undirected fantasies occasionally changes spontaneously into the direction of reality but that this occurs rarely. When spontaneous changes do occur, it suggests that a form of cognitive reality-testing is taking place. When a change in affective reaction to a given stimulus situation occurs without any modification in the underlying visualization, Beck believes the desensitization or extinction effect represents an attitude shift from a cognitive position of "That would be just terrible" to "So what? That wouldn't be so bad."

Beck cites several examples from his own experience with patients, where he modified the patient's pictorial ideation, and a predictable change in the quality or intensity of the affect occurred. For example, "when an anxious patient was convinced that his pictorial image of having cancer was without basis in reality, his anxiety disappeared." Similarly, when the depressed patient was shown the "illogical aspects of *his* nihilistic ideas or fantasies, *his* depressed feelings dissipated" (p. 14). In several cases, Beck noted that the intrusion of ideational material from 'childhood' caused distortions in present visualization. He asserts that the recognition of this element from the past by the patient led to a change in his fantasies, affect, as well as behavior. Beck also reports that the patient himself can be trained in the task of reality-testing and correcting his pictorial misrepresentation of reality.

Lazarus (1971) also mentions several image techniques where the therapist deliberately and directly tries to bring about a change in the patient's cognitive structure. The most relevant of these, *rational imagery*, is based upon the aphorism "As you think so shall you feel" (Ellis, 1962). Basically, in this approach the patient is encouraged to visualize situations where someone points out the distortions in his reasoning and teaches him to respond rationally. As the cognitive distortions are eliminated through rational imagery, lasting changes are assumed to ensue.

Bandura (1971) has emphasized the importance of symbolic modeling; and more recently Cautela (1972) has made an explicit use of symbolic or *covert* modeling in a psychotherapeutic situation. Cautela constructs specific scenes that portray a pattern of responses that may form an alternative to the troubling behavior of the patient. The patient is instructed to practice these images extensively during his waking hours. For example, a homosexual who was troubled by the desire to have sex with both males and females at the same time was suggested the following image:

I want you to imagine you are watching a movie, and the male has a woman by one arm and a male on the other. He is walking with both of them toward the bedroom. Just as he reaches the bedroom, he pushes the male aside and says, 'Get away from me; I don't want you!' He then takes the girl into the bedroom, puts his arms around her, and kisses her tenderly, and looks very happy (p. 7) .

Although Cautela prefers to interpret the efficacy of these methods in terms of the conditioning model, the possibility of cognitive restructuring occurring cannot be ruled out. The therapeutic image may be nothing more than a way of cognitively familiarizing the patient with an alternative mode of response.

In concluding this segment on behavioristic and cognitive approaches, it is emphasized that many investigators, without positing relations to unconscious organizations, have observed that mental images have evocative power and potency as a vehicle of emotional learning. The potency of the mental imagery seems undoubtedly connected to the observation that mental images are subjectively very much like an actual event, and may function like "experience." At times the image may be subjectively indistinguishable from that event, and emotional reactions may have the full magnitude appropriate to the corresponding event. The conditioning procedures and the cognitive restructuring approaches presented here are quite compatible and are more similar to one another than they are to the analytic or depth techniques. Both approaches have been criticized for their neglect of the symbolic and exclusive emphasis on spatial and temporal associations or reality-testing.

IMAGERY IN "DEPTH" TECHNIQUES

This segment reviews the use of imagery in several depth techniques that employ both spontaneous and induced images, with emphasis upon the latter. Unlike most of the other approaches discussed in the preceding sections, the images here are often treated as replicas of reality as well as symbols and represent collections of interwoven associations highly loaded with emotional energy and are viable at personal concrete levels as well as abstract, aesthetic and universal levels. An individual, beginning with mundane, individual forms, may move along an axis of broadening significance until he experiences mythological and religious meaning. It has been reported that profound emotional experience often accompanies the images in their expanded forms and that symbolism at this level becomes a universal language with some idiosyncratic elaborations (Ahsen, 1968; Assagioli, 1965; Desoille, 1965; Fretigny & Virel, 1968; Leuner, 1969).

It should be noted, however, that symbols in their universally significant forms are far less commonly encountered than are those of the idiosyncratic variety. But it seems justifiable to refer to some idiosyncratic images as symbols for they, too, are condensed and hold meanings broader than their literal significance; for example, a mundane object may represent the contents of a conflict or be the focus of several emotionally charged associations (Ahsen, 1968). In psychotherapy the symbol is not to be distinguished by its content, but by its function. It functions as the focus of emotional energy, and as such, concentrated attention to it may release information, stimulate abreaction, and produce transformations (Panagiotou & Sheikh, in press).

Eidetic Psychotherapy

This technique was originated by Akhter Ahsen (1965, 1968, 1972, 1974) and is based upon the elicitation and manipulation of a type of mental imagery which he has termed "eidetic" (Panagiotou & Sheikh, 1974). Eidetic images according to Ahsen have a perceptual vividness and resemble a cross-section of the image phenomena:

They relate to fantasies, being akin to images which appear in a variety of neurotic phenomena, have a hallucinatory vividness and resemble dreams, daydreams, and literary metaphor. In traumatic memories,

eidetics reproduce actual historical data with detailed exactness. They are spontaneous, interior, demonstrable, repeatable, affect-laden images which appear over the developmental line and influence the mind of the adult in a powerful way. Capable of releasing a real somatic response, following certain lines of symbolic and mechanical operation, a simple eidetic image automatically sets off a complex mental reaction and elaborates the mind's dynamics through its own experiential exposition (Ahsen, 1974, pp. 273-274).

According to Ahsen, every important event in the developmental course of the individual is triadically represented by a visual pattern, a somatic pattern and a meaning or affective signification. A fixed visual image, Ahsen believes, appears to be connected with every event involving psychic conflict, whether the etiological elements of conflict originally existed in external circumstances or were primarily a continuation of childhood fantasies. This image does not change unless the patient has emotionally overcome the situation represented in it. Around the visual image, numerous complex associations may cluster in Pavlovian rather than psychoanalytic fashion. Symptoms result from the extrapolation of inappropriate responses to situations which are somehow conditionally associated with the original. The visual image, the somatic pattern, and the meaning drop their original cohesion and may become "dissociated," i.e., not entirely dissociated, from each other, with the result that these patterns may persist inappropriately and their origin may not be immediately accessible. This is generally typified in phobic, hysteric and psychosomatic illnesses.

Ahsen also discovered that the eidetics are almost always "bipolarly configurated," involving the ego-positive and ego-negative elements of the experience. In pathological conditions there is usually an exaggerated emphasis on one pole, while the other pole has been relatively neglected. Ahsen often works an image representing one pole against an opposite image to create a movement in the psyche in a desired direction and thus activates a synthesizing function or resolution.

Eidetic psychotherapy is an analytical method of its own type, which investigates the patient's psychodynamics through the exploration and direction of the eidetic images. Images rather than words are the medium of analysis and transformation and they are either elicited spontaneously during the interview or by means of special procedure that Ahsen has developed. The therapy may take place on three levels: the first of these is concerned with the recovery of the triadic patterns and the relation between the psychic and physiological response patterns found within a given individual, the second or the developmental level deals with the conflicts involving the parents, and the third level is where the prepared patient may learn to realize the symbolic significance of his parental images and his personal experience transformed into universal symbols.

Much of Ahsen's work deals with cases involving psychosomatic disorders, conversion hysterias as well as schizophrenia. The reported efficacy of Ahsen's methods in such cases is noteworthy. He works with standardized procedures for uncovering the important encoding which underlie symptoms. In psychosomatic disorders, hysterias and phobias, the therapist must first procure an exact and detailed description of the symptomatology in its emotional and somatic aspects; the various eidetic procedures are applied to uncover images underlying poignant themes which are etiologically related to the specific symptoms or have bearing upon heightened levels of anxiety. Using a specific procedure termed the age projection test, an uncovering of relevant themes often occurs within the first interview. By means of the age projection test, the image is discovered, and through concentrated repetition of the image, perhaps over a number of sessions, the traumatic event or dramatic fantasy is reproduced in all its aspects. The image itself may be mnemonic in origin, representing the impressive visual aspect of some important event, or it may be idiosyncratically symbolic, representing a psychic reality or important fantasy theme connected with but not corresponding to an external event.

In preparation for the *age projection test*, the patient is told to relax and attend to the therapist's instruction. The therapist's delivery seems to be important in eliciting eidetic receptivity and a lessening of ego-control. The therapist recapitulates the utterances describing the symptoms and the patient's concern about them, for by repeating them, he intends to bring the patient to experience his symptoms in a full and immediate fashion. When the patient becomes visibly disturbed, the therapist's utterances change in tone and content to contradict the symptoms and relax the tension. Descriptions of the healthy state before the onset of the symptoms are repeated and played upon until the patient begins to relax and experience age regression to a

period prior to symptom formation. When this regression occurs, an image forms, which invariably belongs to a period within a year prior to the onset of the symptom. Ahsen reports that this period usually contains an event which precipitated the symptom or which began a series of events that eventually lead to the symptom formation. Once this image is formed, the patient projects it repeatedly until it becomes clear and detailed and is asked further questions about this critical period. Subsequently, a second procedure, *theme projection*, is administered; in it parental images are introduced in order further to elucidate themes which may have been significant. During the probing of this critical period by theme projection, the origin, character and meaning of the symptoms usually become evident. The therapist then designs a therapeutic image for the patient to project repeatedly. This image may work in a number of ways: the image may function to release repressed responses or to correct the unbalanced ego interpretation of events by focussing on heretofore neglected aspects of the response. Ahsen reports that psychosomatic and hysterical symptoms are frequently dispelled during the first session. However, if this occurs, further analysis of underlying developmental trends may be undertaken.

Problems at the developmental level, according to Ahsen, grow mainly out of conflicts pertaining to conscious or unconscious interparental antagonism. Ahsen believes that many neuroses develop out of this basic conflict pattern. He has charted a developmental course based on his investigations with eidetics. Its salient feature, in contrast to other developmental schema, is the importance and specific meaning ascribed to the functions of the father in the development of both male and female children. Ahsen's ideas receive considerable support from recent research in this area (Biller, 1971; Hetherington & Deur, 1972; Mc- Candless, 1967; Popplewell & Sheikh, in press). The therapeutic application of his concepts in the modern technological society where the father's role is being progressively eclipsed is important.

Ahsen has developed a method for eliciting eidetics at the level of developmental conflict and called it the *eidetic parents test*. The test consists of a standard set of image stimuli into which the patient projects his perceptions of interparental dynamics. The rationale of this instrument is intriguing and is available in Ahsen's *Basic Concepts in Eidetic Psychotherapy* (1968) and *Eidetic Parents Test and Analysis* (1972). A few items from the test are presented below :

- Picture your parents in the house where you lived most of the time with them . . . the house which gives you the feeling of home.
- Where do you see them?
- What are they doing?
- Any reactions or memories connected with these pictures?
- Tell me who is standing on your right and who is on your left?
- Who seems to be more active and aggressive in the picture?
- Now picture your parents running in the open countryside. Are they both running?
- Who seems to run faster?
- Look at their eyes as they appear in the picture.
- Do not recollect your parents' real eyes. Whose are more brilliant?
- Whose voice carries more meaning? (Ahsen, 1972)

After analysis at the developmental level, the patient may continue and experience another phase wherein he begins to realize the universal symbolic contents of unconscious fantasy. The latter is often in the form of parental images expanded to the mythological. Experiences at this level may help him attain a deeper understanding and integration of the meanings of psychic contents at all levels. Ahsen claims that there is an essential similarity in the images experienced by his patients and feels that this similarity indicates the existence of another level of psychic reality. He speculates that these mythological images may be a part of the psychic condition of man. It must be noted, however, that, as yet, Ahsen has not discussed this level in detail in his published work.

It is interesting to note that Ahsen's findings concerning the various characteristics of the eidetics, receive a great deal of support from Penfield's work (1952, 1959, 1963) with the recollections of epileptics, that he evoked through electrical stimulation of certain areas of the cerebral cortex. Whereas Penfield was relatively

unconcerned with the psychotherapeutic implications of his research, Ahsen's main discoveries developed out of his psychotherapeutic work. However, at times it appears that they are both speaking about the same phenomenon. The following quotes from Penfield's writings will help bring out these similarities:

There is an area of the surface of the human brain where local electrical stimulation can call back a sequence of past experience. . . . It is as though a wire recorder, or a strip of cinematographic film with sound track, had been set in motion within the brain. The sights and sounds, and the thoughts, of a former day pass through the man's mind again (Penfield, 1959, p. 1719).

The subject feels again the emotions which the situation originally produced in him, and he is aware of the same interpretations, true or false, which he himself gave the experience in the first place. Thus, evoked recollection is not the exact photographic reproduction of the past scenes and events. It is the reproduction of what the patient saw and heard and felt and understood (Penfield, 1952, p. 183).

A song goes through his mind, probably as he heard it on a certain occasion; he finds himself a part of a specific situation, which progresses and evolves just as in the original situation. It is to him the ace of a familiar play, and he is himself both an actor and the audience (Penfield, 1952, p. 108).

In these examples, it makes little difference whether the original experience was fact, dream or fancy . . . (Penfield, 1952, p. 180).

It is evident that both Penfield and Ahsen deal with internally rather than externally evoked experiential pictures; both emphasize the vividness and repeatability of the image; Loch notices that the images have affective or somatic accompaniments and attached meaning or interpretation; both employ repeated evocation for elucidation and progressive involvement of the experience.

Ahsen and Penfield both demonstrate that any experience or interpretation which is unavailable or is problematic at the beginning of an evocation becomes accessible with the progression of the experiential picture. This is especially relevant in the treatment of schizophrenic patients who are known to lack the ability to regenerate experience. A continuous series of developmental eidetics over a fairly long period of time may reconstruct a schizophrenic's emotional life and stop and reverse the general splitting process (Ahsen, 1974).

Ahsen (1968, 1973) clearly mentions that an eidetic need not recall specific objective percepts accurately but it always represents a meaningful psychic reality. He states that the question of what is fact and what is fantasy in the mind cannot be answered by separating fact from fiction on the basis of what is rational or irrational but rather on the basis of its functions. It is noteworthy that Penfield's findings lend support to Ahsen's contentions even in this area.

It must be pointed out that, while Ahsen repeatedly emphasizes the visual aspect of the pictures, Penfield's manipulations elicited more images of the auditory variety. However, one does notice in Penfield's accounts that on repeated application complete visual pictures did finally emerge. It is conceivable that the initial recall favoring the auditory aspect rather than the visual is peculiar to epileptic patients. According to Ahsen's accounts (1973) epileptics, generally, are capable of having visual images "but in specific areas their visual imagery gives the impression of congestion or condensation, as if overly tightly packed, resulting in inability to sustain a visual image clearly in these areas" (p. 22). These areas, Ahsen reports, "invariably pertain to certain activities of the father." This appears to be an intriguing area for future systematic investigations.

It should be noted that this relatively brief discussion of Ahsen's theories and techniques has not done justice to his system that is highly complex and innovative. "Compared to Akhter Ahsen's penetrating analysis of imagery formation and eidetic processes, all other clinical uses of imagery appear singularly embryonic" (Lazarus, 1972, p. v). The interested readers are referred to the original sources.

Rêve Éveillé Dirigé¹

This oneirodramatic technique, also known as the directed daydream, was developed by Desoille (1961, 1965) and is presumably based upon the Pavlovian model. However, the actual procedures employed by Desoille do not bear much resemblance to conditioning techniques and appear to be primarily analytical.

Desoille, like many others (Ahsen, 1968; Leuner, 1969; Horowitz, 1972) believes that the use of images has special efficacy in circumventing resistances. The images perhaps bypass the ego because the conscious

rational thinker does not understand the "unconscious language" or because the hypnoidal state of consciousness loosens ego control. Imagery affords the patient freedom of expression which few may attain in the mode of conventional language.

Desoille takes his patients through a series of symbol-image dramas used for projective psycho-diagnosis to determine the patterns of the patient's perceptions, reactions and areas of distortion, and for psychotherapeutic manipulation and reeducation. He employs standard images as projective stimuli. Six themes are used for starting images; (1) the sword or vessel representing masculine or feminine identity, (2) the ocean representing the repressed personality, (3) the witch representing the mother, (4) the magician representing the father, (5) the cave of the dragon representing social prohibition, (6) the palace of Sleeping Beauty representing the oedipal conflict. The themes are chosen on the basis of observations of universal meaning (at least within a very broad culture) of certain images and are essentially Jungian in character, although Desoille diverts from Jung in some of his interpretations. These themes, according to Desoille, represent "rather precise questions" put to the unconscious, each involving a specific sphere of the personality. They are used as starting images, each to be expanded into an ongoing fluid oneirodrama. Their purpose is to uncover and resolve the patient's habitual patterns and distortions. Desoille (1965) says of his *rêve éveillé*:

The basic procedure of this experiment is quite simple: It consists of having the subject engage in a daydream while he is stretched out on a couch as comfortably as possible. We give the patient a starting image, for example a sword, or possibly, a seashore where the water is very deep. We have him describe this image as thoroughly as possible, and ask him questions so as to evoke details, if necessary. During the course of the first session, it may be necessary at times to remind the subject that in a dream anything is possible (p. 1).

Desoille insists that during the directed daydream the patient must refrain from any critical attitude toward his images and remember everything that goes through his mind

The sequence of six directed daydreams discussed by Desoille is presumed to lead the patient to face every possible kind of life situation and explore his habitual responses in those situations. Desoille considers this sequence to be the first phase of treatment. In the second phase the patient is made aware of new and underdeveloped response possibilities and he is helped to cultivate new habits at an imaginary level. In the last phase of treatment the patient is trained to move from imagination to reality.

Desoille emphasizes the technique of ascent and descent through which the therapist directs the patient's imaginary movement in space. Imaginary change in position on the vertical axis results in the transformation of elements of the images, thus leading to euphoria or dysphoria. These techniques help the patient discover and then develop new dynamic patterns which he later transfers from the realm of imagination to that of reality.

Desoille classifies the images described by the patients into three categories: (1) images of reality and images of nocturnal dreams; (2) images from fables and myths, that include witches, magicians, wisemen, fairies, Christ, the Virgin, etc.; (3) mystical images that do not represent any familiar object but rather are composed of somewhat "vibrant impressions of light." "They can be understood only in terms of the feelings the subject has while 'seeing' them" (p. 9). Desoille collaborates with the patients in interpreting their images on the basis of all available data. It is his belief that the patient's assent is necessary for the corroboration of the validity of the interpretation; he does not accept an interpretation to which the patient fails to agree fully.

Desoille's influence is apparent in the writings of a number of other European researchers (Fretigny & Virel, 1968; Leuner, 1969; Rigo, 1968; Rigo-Uberto, 1968). For example, Rigo (1968) has developed an analytical technique based upon Desoille's *rêve éveillé*. According to him, neuroses are conditioned by unconscious fantasy formations to which he gives the term "phantasms." The latter manifest themselves in the images and are subject to modification through the same; this modification is the goal of therapeutic imagery. Rigo uses what he calls "I-imaginary" on a horizontal plane, with left, right, and straight ahead directions. The I-imaginary is the principal character and serves as the center of the dramatic events, and it is only with reference to I-imaginary that an image has any feeling-tone or meaning. Rigo's therapeutic strategy is to take the I-imaginary from a position of ultimate threat and despair, through a dramatic sequence to a final position of "omnipotent control of the inner world."

Fretigny and Virel's (1968) *Oneirotherapy* is also based primarily on Desoille's work. The major aim of their oneirodramas, as of Desoille's, is to confront the patient with his critical problems, through vivid and dramatic images. Although Fretigny and Virel believe in guiding the patient's imagery, as Desoille does, they appear to be much more concerned with allowing freedom to the patient's imagery after having given the initial direction. They would rather play the role of an "operator" who monitors the unfolding of imagery rather than that of a "guide" who is constantly suggesting directions. Also, Fretigny and Virel have defined the oneiric thought in a much more extended sense: it is the process which unfolds all apparent liberty inside of us during sleep, in reverie, in those moments when we are vacant, or in which circumstances or psychosis isolate LIS from the world. Furthermore, they seem to take symbols much more seriously and almost go to the extent of committing themselves to the idea of universal symbolism.

Guided Affective Imagery

This procedure which uses induced imagery was developed by Leuner (1969) and is very similar to Desoille's method. It is "a method of intensive psychotherapy which can be used in conjunction with any theoretical view of personality dynamics that acknowledge subconscious motivation, the significance of symbols, resistance, and the therapeutic importance of the mobilization of affect. Under suggestions of relaxation the recumbent patient is encouraged to daydream on specific themes which are offered by the therapist. The daydream process typically takes on an autonomous direction. It evokes intense latent feelings that are relevant to the patient's problem. Techniques for the guiding and transformation of imagery lead to desirable changes in both affect and attitude toward life situations" (Leuner, 1969, p. 21).

Leuner attaches much importance to the catathymic nature of imagery. The term catathymic refers to its experiential quasi-reality and concomitant feelings and associated affect within the hypnoidal state of the oneirodrama. According to Leuner, a close correspondence of the images to even minor fluctuations in emotional states permits "micro-diagnosis" which is the observance of the process of emotional reaction and change in minute detail.

Leuner uses 10 stimuli as starting points for the oneirodrama. These, like Desoille's, correspond both to broad and fine spheres of the personality. The oneirodrama always begins in a meadow which may represent a fresh start, the Garden of Eden, or the mother-child relationship signifying the ground of emotional life. Next, the patient is asked to imagine himself climbing a mountain and describe the view. This imagery is meant to tap the patient's feelings concerning his ability to master various important situations in his life. "It may also evoke any repressed wishes for extraordinary achievement and fame." Kornadt (1960) has demonstrated a correspondence between the altitude of one's imaginary mountain and one's level of aspiration. In the third standard situation, the patient is encouraged to follow a brook upstream to its source or down to the ocean. The brook, Leuner believes, symbolizes the "flow of psychic energy" and the "potential for emotional development."

Leuner considers the first three stimuli, the meadow, the mountain, and the brook to be the basic working tools. The remaining seven stimuli are somewhat more specific and include visualizing a house, a close relative, a lion confronting its enemies, a person representing the ego-ideal, a situation arousing sexual feelings, a swamp in the corner of a meadow, and a dark forest or cave. All 10 standard situations may be explored rapidly for diagnostic purposes. During diagnosis the images proceed too rapidly for intense emotional reactions to develop; but the diagnostic material may proceed into therapeutic imagery or may be used as data for a psychoanalytic procedure. In the actual therapeutic procedure, the enhancement of emotion is the most important component.

Leuner believes that the efficacy of imagery lies in the juxtaposition of "repressed aspects associated with the regressive mode to the mature ego." This juxtaposition results in the integrative interaction of these repressed aspects. For this interaction, Leuner has six techniques of symbolic transformation, to which he refers collectively as symbol drama. The symbol dramatic procedures represent various ways for the ego to deal with the repressed elements of the personality which come to its attention.

Leuner sometimes permits the patient's imagery to develop freely with no direction from the therapist: he does not interfere even when the development of the image is accompanied by extreme anxiety; he merely helps to see the patient through his experience. Vivid oneirodramas of spontaneous development reportedly occur only in patients with a particular propensity for fantasy or to those who have participated in therapeutic

imagery for a long time. During free imagery, spontaneous age-regression phenomena are observed to occur, sometimes leading back to periods as early as the first year of life. Leuner believes these age-regressions occur because two or more images from different periods of the patient's life are linked to one another by a common "feeling-tone." This linkage is also recognized and systematically exploited by Ahsen (1968) to reach eidetics, which he believes are central to the persistence of maladaptive patterns.

Psychosynthesis

Psychosynthesis, as developed by Assagioli (1965), is an open and eclectic system that borrows from Jung, Freud, existential and humanistic psychology, conditioning approaches, and philosophies of the East. Assagioli emphasizes a wholistic or integral approach to treatment which entails work in many levels simultaneously, using a repertoire of varied techniques. His stress on the multifaceted therapy appears to be a forerunner of the recently advocated broadspectrum approach in psychotherapy (Lazarus, 1971, 1973).

Mental imagery is only one among a variety of methods employed in psychosynthesis. Assagioli draws upon many image techniques which represent the principles of Desoille (1965), Leuner (1969), and Jung (1954) as well as the cognitive restructuring and conditioning approaches. Application of the methods is selective and most often less extensive and less intensive than it is in the context of its origin. The methods of symbolic visualization, initiated symbol projection, guided daydream, spontaneous imagery, active imagination, meditation on positive symbols and a number of other "transcendence techniques" (Gerard, 1964) have received a great deal of attention in psychosynthesis (Assagioli, 1965). An example of these techniques is Assagioli's (1965) *Dissolution of the Body* exercise: in it the patient is asked to imagine that his body is consumed in flames; subsequently, the patient is expected to experience a great sense of freedom and release, and an awareness that his "spiritual essence" exists independently of the body. In the Temple of *Silence* exercise (Assagioli, 1965), "the subject is asked to imagine himself slowly climbing a mountain, on top of which is a temple of silence and in which he allows all the cells in his body, his heart, and his mind to be filled with silence which he then brings down the mountain with him and radiates to the world around" (Crampton, 1969, p. 149).

Crampton (1969), a follower of Assagioli, has clearly brought out the role of imagery in psychosynthesis. She describes the elicitation of undirected images which one uses for projective diagnosis as well as for therapeutic purposes. There is no structured stimulus; often the therapist simply requests the patient to "picture" what he is trying to describe. If a patient needs encouragement before images readily come, the therapist gradually approaches the use of images by first focusing upon a dream or a drawing produced by the patient. The therapist deals with the images interpretively on the basis of other available data and verbal associations accompanying the images. Sometimes an image speaks quite clearly for itself:

One patient . . . described her problem in the first session as having a dominating husband who pushes her around. She was asked to visualize the way she felt about this relationship and saw herself as a little bird being tightly held in a clenched hand. The bird was frightened and helpless and couldn't get away. It was suggested that she imagine the hand opening, and she saw the bird fly away to a nearby branch. She was surprised to note, however, that the bird would not go far away from the hand and that it was a 'sugar-bird' that fed on sugar provided by humans, having forgotten how to get food for itself in the natural way and, thus, having to depend upon people to live. The patient was able to see through this visualization that she had allowed her husband to dominate her because she felt more secure being taken care of like a child (Crampton, 1969, pp. 140-141).

An assumption of primary importance in the analytic interpretation of the images is that every element of the image represents, at one level or another, a characteristic of the personality, albeit projected, distorted or displaced. Thus, the entire image, in addition to reflecting interpersonal responses, reveals dynamic relationships between elements of the personality or the psyche. Figures which may represent actual persons and express the quality of the individual's relationship with them still ultimately characterize projections of the individual's own needs and motives. It is upon this assumption that the therapeutic principle of the assimilation of these elements finds basis. This identification with all elements of the image drama becomes a way of assimilating repressed elements, in socialized form, and expanding the boundaries of the self.

If the significance of an image is not readily apparent because the image is inadequately elaborated or superficial, a method based on directed association from the image appears to be effective in expanding

information and thus clarifying the significance of the image. When necessary, a more academic approach is taken to the interpretation of symbolic material which is difficult to decipher in accordance with overt content and personal data. Jung (cited in Crampton, 1969) approached interpretation through amplification of the symbol. To amplify the symbol is to expand upon its significance through a detailed rational analysis of the function and nature of the elements (Crampton, 1969). This method, used in the interpretation of dreams, drawings, and literary material, appears to be equally applicable to images.

The approaches discussed in this section represent only the major ones; many others have been advanced (Bachelard, 1971; Gerard, 1964; Johnsgard, 1969; Kelley, 1972; Mizushima, 1968; Schultz, 1967; Shorr, 1972; Singer, 1974). However, the works of these other writers do not represent any major departures from the ideas already presented in this paper.

It should be pointed out that with the exception of Ahsen's Eidetic Psychotherapy, which was initially developed in Pakistan, all the other theories and techniques discussed in this segment have their origin in Europe. Also, it is quite obvious that all of these approaches, including Ahsen's, have been influenced to varying degrees by Jung's ideas. To Jung, the image represented "material coming from the most varied sources . . . a concentrated expression of the total psychic situation, not merely, nor even preeminently of unconscious contents pure and simple . . . not a conglomerate, but an integral product of its own autonomous purpose" (Gordon, 1972). He considered imagery to be an essential part of man's reality and seemed to believe that the progressive unfolding of imagery was intrinsically therapeutic.

In the face of extensive claims concerning the potential of "deep" imagery for therapeutic benefit, it is difficult to ignore all of these techniques. Nevertheless, it would not be untrue to say that the claims, so far, are largely based on the reports of the therapists and are not substantially backed by systematic and well-controlled research. Ahsen's system is somewhat different from others in this respect. He deals with developmentally determined, relatively stable, and repeatable images that easily lend themselves to scientific scrutiny. While others have more or less stayed at the general and somewhat vague level, Ahsen has made serious attempts to become specific, by following a systematic developmental approach; and Penfield's neurological work lends a good deal of support to Ahsen's ideas.

OVERVIEW AND CONCLUSION

A review of the history of psychology would make it quite evident that the concept of the mental image has been repeatedly criticized, but the critics have never been successful in "burying the image" (Paivio, 1974). Now, more than ever before, it appears that the fundamental importance of imagery has been convincingly demonstrated.

Although mental imagery was used for clinical purposes already in the early part of this century, its extensive application in this area is very recent. Psychoanalysts have the longest history of investigation and utilization of spontaneous images. Two 'schools of thought concerning the function of the images exist among them. One group holds that the essential function of the image is similar to that of the symptom, which is the expression, disguise and mitigation of the impulse; the other holds that images represent the emergence of material from the unconscious. Horowitz and other theorists have shown that it is possible to bridge the disagreement between the two psychoanalytic schools. Imagery is multiple in determination and function, and the methodology applied to images is among the determinants of their function.

While psychoanalytically oriented therapists were perhaps the first to pay attention to spontaneous images, the extensive use of induced imagery for therapeutic change has come from behavioristically and analytically oriented clinicians. Most behavioristic procedures employ induced imagery very narrowly in order to remain within the confines of the Pavlovian or Skinnerian models. Several investigators suggest that a cognitive theory can account for the results of behavioral procedures with images. The most cogent of cognitive explanation. Of the efficacy of deconditioning with images represents the image to be a variant of role-taking and reality-testing. Neither the cognitive nor the conditioning models appear to explain all that has been observed during the practice of image therapy in depth. The analytically oriented therapists who employ induced images on a wide scale, attribute to images special properties which make them more appropriate than

verbalization for the expression of unconscious functioning. Some depth therapists have shown an essential methodological compatibility between analytic and conditioning models.

One can perhaps generalize that all available image techniques, irrespective of their theoretical basis, have attempted to attain one or more of the following goals: (a) gaining information which includes diagnosis, (b) establishing empathic understanding, (c) releasing emotional experience and progressively working through the emotionally charged content, (d) transforming either emotions or ideas or behavior (Horowitz, 1974). While psychoanalysts have been using images primarily for gaining information, and behaviorists for modifying behavior, the analytically oriented depth therapists have been concerned with all four goals to varying degrees. It should be noted that the therapists employing non-imagery techniques have also been attempting to attain roughly the same goals. Whether or not images offer a better alternative for achieving these objectives, still remains to be clearly demonstrated through experimental studies. Several authors, however, on the basis of their clinical experience, have cogently argued in favor of the use of imagery (Ahsen, 1968; Horowitz, 1972, 1974; Singer, 1974).

The observations of these theorists suggest that images do not function uniformly but rather have characteristics and tendencies which allow them to be used in different ways ranging from analytic interpretation to operational control of bodily states. Furthermore, it seems possible that images may be meaningfully classified, according to varying properties. Another source of variance, perhaps a powerful one, is individual differences in cognitive style, which includes the number and character of the images which typify the individual's normal thought sequence in both problem-solving and fantasy life. Most therapists who use images seem convinced that almost everyone can be taught to experience them in the required way, though some subjects learn faster than others. However, no systematic observations of individual differences and their relationship to the, therapeutically successful use of images have been made. One further consideration is whether the use of images frees the therapist rather than the patient from verbal logic. It may be that the patient's communication via the description of visual images leads the therapist to be more creative in his interpretations and quicker to establish empathy. The images may appeal to his own primary process thinking, helping him to "regress in the service of the ego" (Kris, 1952) ; or the use of images may simply be more comfortable for therapists who have a preference for dealing with the concrete. All of these procedural variables associated with patient and therapist are largely unexplored in the therapeutic use of imagery. Yet, all must be considered before an assessment can be made of the extensive use of imagery as a psychotherapeutic method (Panagiotou & Sheikh, in press).

It needs to be pointed out that a significant body of experimental literature dealing with mental imagery has developed over the last decade. Some of it probably has important implications for therapeutic situations. However, so far it has been largely ignored by the clinicians. Perhaps the time is ripe for a closer interaction between the scientists and the clinicians (Singer, 1974).

A great deal of experimental and clinical data point toward an important connection between images and affective processes. Images have been observed to uncover very intense affective charges or generate emotional reaction (Goldberger, 1957; Horowitz, 1972; Jellinek, 1949; Shapiro, 1970). Reyher (1963) believes that anxiety occurs as the symbolism of the image breaks down., Reyher and Smeltzer (1968) obtained higher physiological measures of anxiety for free imagery than for free association. Sheehan (1968) finds evidence in the literature that intensity of affect is one of the most important variables influencing phenomena of imagery. Goldberger (1957) suggests that elements distorted by the image are related to areas of strong affect. Also, the practitioners who extensively use induced images notice that the image, in one way or another, is capable of being the focal of strong affect (Ahsen, 1968; Desoille, 1965; Leuner, 1969).

The power of imagery to produce physiological changes has also been demonstrated in a number of studies. For example, Simpson and Paivio (1966) observed changes in pupillary size during imagery. May and Johnson (1973) noticed an increase in heart rate related to arousing images. Barber, Chauncey, and Winer (1964) reported that the request to imagine that a solution of tap water was sour led to increased salivation. Increases in electromyograms (EMGs) have also been noted by several researchers (Craig, 1969; Jacobsen, 1929, 1930; McGuigan, 1971).

It appears that the images hold an important potential for application in psychosomatic medicine (Ahsen, 1968; Euner, 1969; Nemiah & Sifneos, 1970). This application involves the release of affect represented by the psychosomatic symptoms and the possible facilitation of psychological control of physiological responses. Ahsen cogently explains how certain mental images are points of connection between the psychological, emotional, and physical responses. Numerous other clinicians have seriously remarked about the suitability of mental imagery for dealing with psychosomatic problems. Perhaps, a major promise of therapeutic imagery lies in the area of psychosomatic medicine.

REFERENCES

- AHSEN, A. *Eidetic psychotherapy: a short introduction*. Lahore: Nai Matboat, 1965.
- AHSEN, A. *Basic concepts in eidetic psychotherapy*. New York: Brandon House, 1968.
- AHSBN, A. *Eidetic parents test and analysis*. New York: Brandon House, 1972.
- AHSEN, A. Eidetics: a visual psychology. Invited address, American Psychological Association, 81st Annual Convention, Montreal, Canada, 1973.
- AHSEN, A. Anna O.-patient or therapist? an eidetic view. In V. Franks & V. Burtle (Eds.), *Women in therapy*. New York: Bruner/Mazel, 1974. Pp. 263-283.
- AHSEN, A., & LAZARUS, A. A. Eidetics: an internal behavior approach. In A. A. Lazarus (Ed.), *Clinical behavior therapy*. New York: Bruner/Mazel, 1972. Pp. 87-99.
- ASSAGIOLI, R. *Psychosynthesis: a collection of basic writings*. New York: Viking, 1965.
- BACHÉLARG, D. *On poetic imagination and reverie*. New York: Bobbs-Merrill, 1971.
- BANDURA, A. *Psychological modeling*. New York: Atherton, 1971.
- BARBER, T. X., CHAUNCEYH. H., & WINERR, . A. Effect of hypnotic and non-hypnotic suggestions on parotid gland response to gustatory stimuli. *Psychosomatic Medicine*, 1964, 26, 374-380
- BECK, A. T. Role of fantasies in psychotherapy and psychopathology. *Journal of Nervous and Mental Diseases*, 1970, 150, 3-17.
- BERGIN, A. E., & GARFIELDS, . L. (Eds.) *Handbook of psychotherapy and behavior change*. New York: Wiley, 1971.
- BILLER, H. B. *Father, child, and sex role: paternal determinants of personality development*. Lexington, Mass. : Heath Lexington Books, 1971.
- BROWN, B. M. The use of induced imagery in psychotherapy. *Psychotherapy: Theory, Research and Practice*, 1969, 6, 120-121.
- BUGELSKI, B. R. Images as mediators in one-trial paired-associate learning. 11: Self-timing in successive lists. *Journal of Experimental Psychology*, 1968, 77, 328-334.
- BURNS, B. P. The activation of posthypnotic conflict via free imagery: a study of repression and psychopathology. *International Dissertation Abstracts*, 1972, 33, 911.
- CAUTELA, J. R. Covert sensitization. *Psychological Record*, 1967, 20, 459-468.
- CAUTELA, J. R. Covert reinforcement. *Behavior Therapy*, 1970, 1, 33-50.
- CAUTELA, J. R. Reinforcement survey schedule: evaluation and current applications. *Psychological Reports*, 1972, 30, 683-690.
- CLARK, P. The phantasy method of analyzing narcissistic neurosis. *Psychoanalytic Review*, 1925, 13, 225-232.
- CRAIG, K. D. Physiological arousal as a function of imagined, vicarious, and direct stress experiences. *Journal of Abnormal Psychology*, 1969, 73, 513-520.
- CRAMPTON, M. The use of mental imagery in psychosynthesis. *Journal of Humanistic Psychology*, 1969, 9, 139-153.
- DAVISON, G. C. Systematic desensitization as a counterconditioning process. *Journal of Abnormal Psychology*, 1968, 73, 91-99.
- DAVISON, G. C., & WILSON, G. T. Critique of "Desensitization": social and cognitive factors underlying the effectiveness of Wolpe's procedure." *Psychological Bulletin*, 1972, 78, 28-31.
- DEESE, J. *The structure of associations in language and thought*. Baltimore: Johns Hopkins Press, 1965.
- DESOILLE, R. *Theorie et pratique du rêve éveillé dirigé*. Geneva: Editions du Mont Blanc, 1961.

- DESOILLE, R. *The directed daydream*. New York: Psychosynthesis Research Found., 1965.
- DUNLAP, K. *Habits: their making and unmaking*. New York: Liveright, 1932.
- ELLIS, A. *Reason and emotion in psychotherapy*. New York: Lyle Stuart, 1962.
- FRANKL, V. E. Paradoxical intention: a logotherapeutic technique. *American Journal of Psychotherapy*, 1960, 14, 520-535.
- FRETIGNY, R., & VIREL, A. *L'imagerie mentale*. Geneva: Mont-Blanc, 1968.
- FREUD, S. *The standard edition of the complete psychological works of Sigmund Freud*. London: Hogarth, 1955.
- GBNDLIN, E. T., & OLSEN, L. The use of imagery in experiential focusing. *Psychotherapy Theory, Research and Practice*, 1970, 7, 221-223.
- GERARD, R. Psychosynthesis: a psychotherapy for the whole man. *Psychosynthesis Research Foundation*, Issue No. 14, 1964.
- GERZ, H. O. The treatment of the phobic and the obsessive-compulsive patient using paradoxical intention. *Journal of Neuropsychiatry*, 1962, 3, 375-387.
- GOLDBERGER, E. Simple method of producing dreamlike visual images in the waking state. *Psychosomatic Medicine*, 1957, 19, 127-133.
- GORDON, R. A very private world. In P. Sheehan (Ed.). *The function and nature of imagery*. New York: Academic Press, 1972. Pp. 63-80.
- GREENWALD, A. G. Sensory feedback mechanisms in erformance control: with special reference to the idiomotor mechanism. *Psychological Review*, 1970, 77, 73-79.
- HETHERINGTON, M., & DEUR, J. The effects of father absence on child development. In W. W. Harmp (Ed.), *The young child: reviews of research*. Vol. 2. Washington, D.C.: National Association for the Education of Young Children, 1972. Pp. 303-319.
- HOGAN, R. A. The implosive technique. *Behavior Research and Therapy*, 1968, 6, 423-431.
- HOLT, R. R. Imagery: the rerurn of the ostracized. *American Psychologist*, 1964, 19, 254-264.
- HOROWITZ, M. J. Visual imagery and cognitive organization. *American Journal of Psychiatry*, 1967, 123, 938-946.
- HOROWITZ, M. J. Visual thought images in psychotherapy. *American Journal of Psychotherapy*, 1968, 22, 55-57.
- HOROWITZ, M. J. Image formation: clinical observations and a cognitive model. In P. Sheehan (Ed.), *The function and ndure of imagezy*. New York: Academic Press, 1972. Pp. 281-309.
- HOROWITZ, M. J. *Image techniques in psychotherapy*. New York: Behavioral Science Tape Library, 1974.
- HOWARD, F. E., & PATRY, F. L. *Mental heabh*. New York: Harper, 1935.
- JACOBSEN, E. Electrical measurements of neuromuscular states during mental activities: I. Imagination of movement involving skeletal muscle. *American Journal of Physiology*, 1929, 91, 567-608.
- JACOBSEN, E. Electrical measurements of neuromuscular states during mental activities: 11. Imagination and recollection of various muscular acts. *American Journal of Physiology*, 1930, 94, 22-34.
- JELLINEK, A. Spontaneous imagery: a new psychotherapeutic approach. *American loma1 of Psychotherapy*, 1949, 3, 372-391.
- JOHNSGARD, K. W. Symbol confrontation in a recurrent nightmare. *Psychotherapy: Theory, Research and Practice*, 1969, 6, 177-187.
- JONES, M. R. (Ed.) *Aversive stimulation*. Coral Gables: Univer. of Miami Press, 1969.
- JUNG, C. G. *Psychological types*. London: Routledge & Kegan Paul, 1923.
- JUNG, C. G. *The development of personality. Collected works*. Vol. 17. Princeton: Princeton Univer. Press. 1954.
- KANZER, M. Image formation during free association. *Psychoanalytic Quarterly*, 1958, 27, 465-484.
- KAPECS, J. G. Observations on screens and barriers in the mind. *Psychoanalytic Quarterly*, 1957, 28, 62-77.
- KBLLEY, G. F. Guided fantasy as a counseling technique with youth. *Journal of Counseling Psychology*, 1972, 19, 355-361.
- KING, D. L. An image theory of classical conditioning. *Psychological Reports*, 1973, 33, 403-411.
- KORNADT, H. J. Der Zusammnenhang zwischen allegemainen Anspruchsniveau und bestimmten Merkmalen bildhafter Verstellungeo. *Referat von Internationah Kongress fiir Psychologie*, Bonn, 1960.
- KRBTSCHMBR, E. *Kretschmdr Textbook of medical psychology*. London: Oxford Univer. Press, 1934.
- KRIS, E. *Psychological explorations in art*. New York: International Univer. Press, 1952.

- KUBIE, L. The use of induced hypnotic reveries in the recovery of repressed amnesic dam. *Bulletin of the Menninger Clinic*, 1943, 7, 172-183.
- KUBIE, L. Discussion. In W. Penfield (Ed.), *Memory mechanisms. A.M.A. Archives of Neurology and Psychiatry*, 1952, 67, 178-191.
- LANG, P. I. The mechanics of desensitization and the laboratory study of human fear. In -c. M. Franks (Ed.), *Assessment and status of the behavior; therapies*. New York: McGraw-Hill, 1969. Pp. 160-191.
- LANG, P. J. Stimulus control, response control, and the desensitization of fear. In D. J. Levis (Ed.), *Learning approaches to therapeutic behavior*. Chicago: Aldine, 1970. Pp. 148-173.
- LANG, P. J., & LAZOVIK, A. D. Experimental desensitization of a phobia. *Journal of Abnormal and Social Psychology*, 1963, 66, 519-525.
- LANG, P. J., LAZOVIK, A. D., & REYNOLDS, D. J. Desensitization, suggestibility, and pseudotherapy. *Journal of Abnormal Psychology*, 1965, 70, 395-402.
- LAZARUS, A. A. New methods in psychotherapy: a case study. *South African Medical Journal*, 1958, 32, 660-664.
- LAZARUS, A. A. The results of behavior therapy in 126 cases of severe neurosis. *Behavior Research and Therapy*, 1963, 1, 69-79.
- LAZARUS, A. A. *Behavior therapy and beyond*. New York: McGraw-Hill, 1971.
- LAZARUS, A. A. Preface. In A. A. Ahsen, *Eidetic parents jest and analysis*. New York: Brandon House, 1972. Pp. v-vii.
- LAZARUS, A. A. & ABRAMOVITZ, A. The use of "emotive imagery" in the treatment of children's phobias. *Journal of Mental Science*, 1962, 108, 191-195.
- LEUNER, H. Guided affective imagery: a method of intensive psychotherapy. *American Journal of Psychotherapy*, 1969, 23, 4-22.
- LIPKIN, S. The imaginary collage and its use in psychotherapy. *Psychotherapy: Theory, Research and Practice*, 1970, 7, 238-242.
- MALLESON, N. Panic and phobias: possible method of treatment. *Lancet*, 1959, 1, 225-227.
- MAY, J., & JOHNSON, H. Physiological activity to internally-elicited arousal and inhibitory thoughts. *Journal of Abnormal Psychology*, 1973, 82, 239-245.
- MCCANDLESS, B. R. *Children: behavior and development*. New York: Holt, Rinehart & Winston, 1967.
- MCGUIGAN, F. J. Covert linguistic behavior in deaf subjects during thinking. *Journal of Comparative and Physiological Psychology*, 1971, 75, 417-420.
- MCKELLAR, P. Imagery from the standpoint of introspection. In 'P. Sheehan (Ed.), *The function and nature of imagery*. New York: Academic Press, 1972. Pp. 35-61.
- MCMAHON, C. E. Images as motives and motivators: a historical perspective. *American Journal of Psychology*, 1973, 86, 465-490.
- MORGANSTERN, K. P. Implosive therapy and flooding procedures: a critical review. *Psychological Bulletin*, 1973, 79, 318-334.
- MORISHIGE, H. A psychophysiological investigation of anxiety and repression during free imagery recall, dream recall, and emergent uncovering. *International Dissertation Abstracts* 1971, 32, 3645-3646.
- MUZUSHIMA, K. Mental imagery phenomenon and its clinical use. Unpublished paper presented at the meeting of the International Society for Mental Imagery Techniques, Geneva, Switzerland, 1968.
- NEMIAH, J. C., & SIFNEOS, P. E. Psychosomatic illness: a problem in communication. *Psychotherapy and Psychosomatics*, 1970, 18, 154-160.
- ORNSTEIN, R. E. *The psychology of consciousness*. San Francisco: Freeman, 1972.
- PAIVIO, A. *Imagery and verbal processes*. New York: Holt, Rinehart & Winston, 1971.
- PAIVIO, A. Images, propositions, and knowledge. Paper presented at the interdisciplinary workshop on Images, Perception and Knowledge, Univer. of Western Ontario, May 9-12, 1974.
- PANAGIOTOU, N. , & SHEIKH, A. A. Eidetic psychotherapy: introduction and evaluation. *International Journal of Social Psychiatry*, in press.
- PANAGIOTOU, N. & SHEIKH, A. A. The image and the unconscious. *International Journal of Social Psychiatry*, in press.

- PAVLOV, I. P. *Conditioned reflexes*. London: Oxford Univer. Press, 1927.
- PENFIELD, W. Memory mechanisms. *American Medical Association Archives of Neurology and Psychiatry*, 1952, 67, 178-191.
- PENFIELD, W. The interpretive cortex. *Science*, 1959, 129, 1719-1725.
- PENFIELD, W. The brain's record of auditory and visual experience--a final summary and discussion. *Brain*, 1963, 86, 595-696.
- PINES, M. *The brain changers: scientists and the new mind control*. Bergenfield: New American Library, 1974.
- POPPELWELL, J. F. & SHEIKH, A. A. The role of the father in child development. *International Journal of Social Psychiatry*, in press.
- RACHMAN, S, & TEASDALE, J. *Aversion therapy and behavior disorders: an analysis*. Coral Gables: Univer. of Miami Press, 1969.
- REYHER, J. Free imagery, an uncovering procedure. *Journal of Clinical Psychology*, 1963, 19, 454-459.
- REYHER, J., & MORISHIGE, H. Electroencephalogram and rapid eye movements during free imagery and dream recall. *Journal of Abnormal Psychology*, 1969, 74, 576-582.
- REYHER, J., & SMELTZER, W. Uncovering properties of visual imagery and verbal association: a comparative study. *Journal of Abnormal Psychology*, 1968, 73, 2 18-222.
- RICHARDSON, A. *Mental imagery*. New York: Springer, 1969.
- RIGO, L. The imagination technique of analysis and restructuring of the profound. Unpublished paper presented at the meeting of the International Society for Mental Imagery Techniques, Geneva, Switzerland, 1968.
- RIGO-UBERTO, S. Imagery techniques with play in child psychotherapy. Unpublished paper presented at the meeting of the International Society for Mental Imagery Techniques, Geneva, Switzerland, 1968. . .
- SALTER, A. *Conditioned reflex therapy*. New York: Farrar, Strauss,, 1949.
- SARBIN, T. R. Imagining as muted role-taking: a historical-linguistic analysis. In P. Sheehan (Ed.), *The function and nature of imagery*. New York: Academic Press, 1972. Pp. 333-354.
- SCHULTZ, J. H. *Le training autogene*. Paris: Paris Univer. Press, 1967.
- SCHWARTZ, G. E. Cardiac responses to self-induced thoughts. *Psychophysiology*, 1971, 9, 462-467.
- SEGAL, S. J. (Ed.) *Imagery: cuwe-nt cognitbe approaches*. New York: Academic Press, 1971.
- SHAPIRO, D. L. The significance of the visual image in psychotherapy. *Psychotherapy: Theory, Research and Practice*, 1970, 7, 209-212.
- SHEEHAN, P. W. Some comments on the nature of visual imagery: the problem of affect. Unpublished paper presented at the meeting of the International Society for Mental Imagery Techniques, Geneva, Switzerland, 1968.
- SHEEHAN, P. (Ed.) *The function and nature of imagery*. New York: Academic Press, 1972.
- SHORR, J. E. *Prycho-imagination therapy*. New York: Intercontinental Medical Book Co., 1972.
- SIMPSON, H. M., & PAIVIO, A. Changes in pupil size during an imagery task without motor involvement. *Psychonomic Science*, 1966, 5, 405-406.
- SINGER, J. L. *Imagery and daydream methods in psychotherapy and behavior modification*. New York: Academic Press, 1974.
- SMITH, E. D., DICKSON, A. L., & SHEPPARD, L. Review of flooding procedures (implosion) in animals and man. *Perceptual and Motor Skills*, 1973, 37, 351-374.
- STAMFL, T. G. Implosive therapy: a learning theory derived from psychodynamic therapeutic technique. - Paper read at the Univer. of Illinois, Urbana, Ill., 1961.
- STERNBACH, R. A. Psychosomatic diseases. In G. P. Shean (Ed.), *Studies in abnormal behavior*. Chicago: Rand McNally, 1971. Pp. 136-155.
- WATSON, J. B. Psychology as the behaviorist views it. *Psychological Review*, 1913, 20, 158-177.
- WILLIAMS, T. A. *Dreads and besetting fears*. Boston: Little, Brown, 1923.
- WOLPE, J. *Psychotherapy by reciprocal inhibition*. Stanford: Stanford Univer. Press, 1958.
- WOLPE, J. *The Practice of behavior therapy*. New York: Pergamon, 1969.

WOLPIN, M. Guided imagining to reduce avoidance behavior. *Psychotherapy: Theory, Research and Practice*, 1969, 6, 122-124.