

THE ROLE OF BREATHING IN BODY-ORIENTED PSYCHOTHERAPY

by

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Abstract

This thesis presents a discussion and analysis of the role of breathing in body-oriented psychotherapy. This discussion addresses the theoretical conceptualization of the relationship between breathing and healthy and unhealthy psychophysical states and the use of breathing techniques in the therapeutic process.

The basic theoretical premises upon which body-oriented psychotherapy is based are put forward, followed by brief descriptions of eight therapeutic approaches: Reichian Therapy, Bioenergetics, Primal Therapy, Rosenberg's Integrative Body Psychotherapy, Painter's Postural Integration, and the Body Work of Wong and McKeen. It was found that the main similarity among the eight approaches is the use of breathing techniques, primarily of deepened and accelerated breathing to aid the process of increasing emotional activation (usually to the point of catharsis) and of integrating the released emotional material. There are

many differences in the therapeutic approaches, including differences in method, theoretical foundations of therapy, and in approach regarding how much analysis is done.

A final section includes discussions of four propositions put forward by body-oriented psychotherapists. In each of these discussions an analysis and synthesis is presented which addresses the internal consistency of the proposition and introduces both supporting and challenging information from empirical and experimental literature. It was found that some of these propositions are supported by empirical evidence while other areas are unsupported and that all areas need further research. For example, there is considerable empirical evidence that people who are anxious tend to have heightened sympathetic nervous system activation and also tend to breathe shallowly, as Reich (1973) and others have stated. There is little evidence to support (and in fact some to refute) Reich's (1973) proposition that a decrease in emotion, which has been clinically reported to occur when an individual decreases his or her respiratory volume, is due to a decrease in blood levels of oxygen or a decrease in metabolism.

A comparison between hyperventilation and breathing techniques used in body-oriented psychotherapy has shown evidence of similarities. For example, hyperventilation has

been shown to lead to emotional activation and catharsis. This supports the body-oriented psychotherapy position that high volume breathing in therapy, which leads to psychophysical responses similar to those of hyperventilation, can be a potentially valuable therapeutic tool for increasing emotional activation and catharsis. No evidence was found that hyperventilation is medically dangerous except, for example, in cases where an individual may have an existing heart condition.

Finally, very little outcome research has been done in this field. It is suggested that this be done.

Examiners:


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SECTION I

INTRODUCTION

"Respiration means to respirit, to animate."

(Stanley Keleman, 1985, p. 43)

A stronger emphasis upon physical, as well as psychological processes, differentiates body-oriented psychotherapies from other approaches to psychotherapy. Breathing, which is closely related to emotional response, is at the centre of body-oriented psychotherapy (Baker, 1967; Felekey, 1916; Lowen, 1975; Reich, 1973). There is clinical evidence to link the suppression of emotion to changes in breathing (Baker, 1967; Davies, personal communication, November, 1986; Wong & McKeen, personal communication, November, 1986). Breathing, they aver, is a link between the conscious and unconscious because it is under both voluntary and involuntary control (Lowen, 1975; Rosenberg, 1985). Due to the proposed connection which respiration provides between psychological and physiological processes, breathing techniques may be a valuable therapeutic tool.

Body-oriented psychotherapists maintain that most people experience anxiety and tension to some degree

(Lowen, 1975; Perls, 1971; Reich, 1973; Rosenberg, 1985). Reich (1973) developed a theoretical perspective and therapeutic process which accounts for, and works to release, chronic muscular tension, which is seen as an integral part of psychopathology related to early life trauma. He believed that repression of traumatic experiences was a psychophysical process, therefore the therapeutic process should also be a psychophysical one.

Reich (1972; 1973) claims that suppressing emotion ultimately leads to chronic tension in the body accompanied by rigid character structure. He suggests that in order to suppress emotion and to keep it suppressed, the individual will tense the musculature usually as an unconscious process. This may occur throughout a person's life, he maintains, beginning possibly prenatally and more certainly during birth and early infancy.

An important part of this mind-body repression, as Reich (1973) conceives of it, is the suppression of emotion. Other writers in the field of body-oriented psychotherapy concur with this position, stating that many people have difficulty experiencing and expressing their emotions (e.g., Lowen, 1975; Rosenberg, 1985).

According to Reich (1973) and others (Baker, 1967; Lowen, 1975; Rosenberg, 1985), experiencing and expressing

a full range of emotion is of critical importance to ensuring a healthy life. Some clinical evidence suggests that diseases such as allergy, infection, and cancer can be linked to the inability to effectively express emotion (Pearsall, 1987).

Ellis (personal communication, March, 1987) has noted this relationship between limited expressiveness and illness to be evident in working with people who have cancer, migraines, and other forms of chronic pain. She observes that these individuals usually respond with considerably less 'emotional aliveness' than other people with whom she works. Her belief is that for these people, emotion is expressed somatically, through illness.

Although research linking emotional states and illness is largely correlational (Pearsall, 1987) and therefore subject to differing causal interpretation (e.g., disease causes limiting of expressiveness rather than the reverse), it suggests that helping clients in ways which promote ease of emotional awareness and expression may lead to higher levels of physical as well as psychological health.

Suppression of breathing, consciously or unconsciously, is thought by body-oriented psychotherapists to play an integral part in the suppression of emotion. Considering emotional suppression

to be unhealthy, these therapists use breathing techniques and also a variety of other techniques, such as muscular massage, specific types of physical exercises, physical and verbal expression and so forth. These techniques are used in the attempt to re-establish freer emotional experience and expression, and to integrate this expression into the client's present life.

There is empirical evidence in the psychophysiology literature to support the body-oriented therapy proposition regarding the close relationship between respiration and emotion (Christie, 1935; Feleky, 1916). In theories of emotion, physiological responses, including respiration, are assumed to play an integral part in emotional response (Cannon, Lewis & Britten, 1927, cited in Lader & Tyrer 1975; Jacobson, 1967; James, 1961). Jacobson (1967), for example, states that there is a "participation of neuromuscular patterns whenever emotion occurs" (p. vii).

Purpose of this Thesis

Since breathing techniques have a central role in body-oriented psychotherapeutic approaches, it is of interest to examine the theoretical foundations which

underlie their use and to examine how, in fact, these breathing techniques are utilized. There are a number of approaches to body-oriented psychotherapy, most of which, though not all, stem from Reich's (1973) work. The purpose of this thesis is to present a description, discussion, and analysis of the theoretical conceptualizations about breathing and the therapeutic uses of breathing techniques in body-oriented psychotherapy.

This thesis examines primarily the similarities and differences between eight approaches to body-oriented psychotherapy. Although there are individual differences in each therapist's approach, the emphasis here is upon general trends in these approaches.

Description of Bodywork in General

In this paper, the term "bodywork" refers to any type of therapeutic approach which involves working with the body to enhance the well-being of clients (such as massage, exercise, and body-oriented psychotherapy). While practitioners of all types of therapeutic bodywork generally conceive of a functional mind-body unity, they

differ in regard to what extent they deal with psychological processes.

There are a wide variety of ways which exist for working with the body to help people reach higher levels of well being. Some of the main areas of approach are the following: Relaxation and stress management (Benson, 1975; Geba, 1977); pain management and physical healing; postural and integrative release work (F.M. Alexander (1918; 1923), M. Feldenkrais, (1972, 1985), R. Masters and J. Houston, (1978), T. Bertherat and Bernstein, (1977); dance therapy; physical education and sports; voice training (e.g., Linklater, 1976); Eastern practices: Martial Arts, Yoga (Iyengar, 1981; Morse, Cohen, Furst, & Martin, 1984; Ramacharaka, 1970), spiritual practices and meditation; and acupuncture and acupressure.

This thesis deals only with bodywork which also includes a psychotherapeutic component, 'body-oriented psychotherapy'. In general, body-oriented psychotherapists approach their work from a holistic perspective and work with psycho-emotional aspects of human functioning as well as with the body, in contrast to, for example, a massage therapist who would work more specifically with reducing muscular tension, but would probably not be very involved in psychological processes. Body-oriented psychotherapy can also be contrasted to a

strictly verbal-therapeutic approach which would probably not involve working directly with the body. Body-oriented psychotherapists work with the body to increase awareness and expression of feelings and thoughts so that these may be released and integrated. The integration process varies in different approaches. Some involve verbal expression and discussion, while others do not.

Organization and Contents of this Thesis

The following is presented:

1. An introduction to the theoretical concepts and propositions which underlie body-oriented psychotherapy. This includes a brief discussion of the origin of neurosis, the goals of therapy, and the therapeutic process, focusing on the role of breathing.
2. Brief descriptions of eight approaches to body-oriented psychotherapy which emphasize how breathing techniques are used. Included are theoretical perspectives of these approaches concerning breathing in relation to healthy and unhealthy psychophysical health.

A summary of these approaches, including similarities and differences between them, concludes this section.

3. An analysis and discussion of the role of breathing in the eight approaches to body-oriented psychotherapy. The critique will address, in regard to the practice of breathing work, such issues as: empirical and clinical support for theoretical perspectives; operational definition of key constructs; description of pertinent physiological systems; empirical testability of the theoretical concepts and its implications; other possible explanations for what occurs in therapy sessions, for example, placebo effect or demand characteristics.

This discussion will be augmented by information from journal articles and physiological literature.

4. Conclusions. This section includes a summary of the findings, a discussion of ideas for further research, and suggestions for the counsellor and therapist.

5. A glossary of terms used in body-oriented psychotherapy.

The main sources of information for this thesis were books written by practitioners of various approaches to body-oriented psychotherapy. The selection of what therapeutic approaches to include was based on the following criteria:

1. The approach must emphasize a body-oriented approach which also attempts to foster increased psychophysical well-being.
2. The approach must use breathing techniques.
3. The approach must clearly have a goal of incorporating psycho-emotional expression into the growth and change process.

In order to further understand the concepts presented in the body-oriented psychotherapy literature, supplementary information from articles presenting empirical research on breathing and character traits and emotion; and also with reference materials on the subjects of anatomy and physiology, and breathing practice, exercise, and theory. As a final source of information, interviews with practitioners of body-oriented psychotherapy were drawn upon, primarily to augment written information. Information from one interview (McKeen & Wong, personal communication, November, 1986) was used, along with written material, to write a section on their therapeutic approach.

Assumptions and Limitations of this Study

Assumptions

My main assumptions are first that body-oriented approaches to psychotherapy are of value and secondly that the body and mind are one functional whole.

Limitations

It is beyond the scope of this thesis to discuss in depth theories of breathing as they relate to Eastern practices and the Martial Arts. Breathing is also related to other areas which are beyond the scope of this thesis; for example: physical education and sports, dance, natural child birth, voice training, relaxation training, and pain management.

A further possible limiting factor is the jargon employed in the body-oriented psychotherapy literature. Words such as "energy," "holding," and "block," are used often but defined rarely. It is necessary not to assume

that something has been explained simply because it has been labeled.

Most of the writings about body-oriented psychotherapy are based upon clinical reports and do not refer to other empirical work. This creates a schism between experimental work done on breathing (e.g., on hyperventilation) and clinical-theoretical work. Some of the writers in this field (e.g., Baker, Reich, and Lowen) are medical doctors as well as psychotherapists, so their descriptions of occurrences in therapy sessions is based on their knowledge of anatomy and physiology. There is, however, a tendency (difficult to attenuate) to describe what is seen and experienced clinically in a somewhat metaphysical manner, especially when the physiological mechanisms involved are not yet fully understood. Inference, rather than direct observation, is often the basis of allusions to physiological processes. In this paper, an attempt has been made to decipher, and make clear, statements which are unclear or metaphorical in regard to physiological or other types of theoretical descriptions.

Since the extensive range of the material available regarding body-oriented psychotherapy is beyond the realistic scope of what can be presented in a single

thesis, I have attempted to primarily analyze the role of breathing in body-oriented psychotherapy using existing clinical literature.

SECTION II

THEORETICAL CONCEPTS WHICH UNDERLIE BODY-ORIENTED APPROACHES TO PSYCHOTHERAPY

Summary of Basic Theoretical Premises of Body-Oriented Psychotherapy

Functional Unity of Mind and Body

Wong and McKeen (1980) state, "The body is an expression of mind, and the mind of the body" (p. 299). The goal of body-oriented psychotherapy, they maintain, is to increase body awareness which has been decreased in a culture that emphasizes rational and mental processes. This does not mean to diminish the value of cognitive processes, but rather to work toward a dynamic balance. Painter (1984) elaborates, stating:

As we change old, rigid body postures, we need also to change the accompanying rigid feelings and thought processes; or if we release blocked

emotions and ideas, we need to free the muscles and tissues for new, more flexible movements. If for example, we want to change shoulders which chronically slump forward, we need to work not only with the tissue of the upper chest but also to work toward expressing our deeply entrenched attitude of being a burdened, helpless victim. And as we gain consciousness of the roles which we have been playing we also need to try out new emotions and physical positions of power and self responsibility. (p. 21)

Energy Flow in the Body

There is a concept of an "energy system which underlies the physical/psychological structure", conceived of as "life force energy" flowing throughout the psychophysical system (Wong & McKeen, 1980, p. 299). Reich (1973) theorizes that there is a bioenergy which accumulates in the body and which can cause problems (neurosis and physical illness) when it is not adequately discharged to allow for relaxation, when there is insufficient energy, or when the energy is blocked. He called this energy "orgone."

The Chinese have based much of their philosophy, spiritual practices, and traditional medicine upon the concept of "ch'i," or life force energy, which is thought to flow through special pathways, or meridians, in the body. The purpose of acupuncture is to insert needles into specific points along these meridians to alter the flow of the ch'i. "The concept of ch'i energy has been the basis of traditional Chinese acupuncture for millennia" (Wong and McKeen, 1980, p. 299). In Yogic tradition, the term "prana" is used to describe this life energy.

In addition to increasing body awareness, a further goal of body-oriented psychotherapeutic techniques is to work to release physiological blocks (muscular tension) to allow the flow of energy in the body.

Central Focus on Breathing

Breathing is seen by body oriented psychotherapists as having a central role both in the origin of neurosis and in the therapeutic work related to its resolution. Further, breathing is seen as central to life itself:

The life force or spirit of an organism has been associated with the breath. In the Bible it is stated that God breathed His spirit into a lump of clay, giving it life. In theology, the Spirit of God or the Holy Ghost is called the *pneuma*, which the dictionary defines as "the vital soul or the spirit." The word "*pneuma*" comes from the Greek, where it means wind, breath or spirit, and is akin to the Greek *phein* which means to blow, breath. Many Oriental religions place a special emphasis on breathing as a means of communion with the universal. Breathing plays an important role in bioenergetics, because only through breathing deeply and fully can one summon the energy for a more spirited and spiritual life. (Lowen, 1975, p. 66)

Eigen (1977) notes with surprise how limited the role of breathing has been in Western concepts of personality and psychological change. This he contrasts to the important role which breathing plays "in Eastern systems of personality change and the age old association of breath with psyche, spirit, or soul" (p. 35).

Decreasing the breathing is seen by therapists in this field as a way by which the client (usually

unconsciously) decreases uncomfortable emotional feelings and sensations in the body. When the breathing musculature is tightened this is said to lessen feelings of anxiety by decreasing the general level of arousal (by decreasing the oxygen supply). Decreased breathing is seen to accompany chronic anxiety states (especially insufficient or "held" exhale) (Reich, 1973). Reich (1973) describes how, when a person is startled or frightened, the breath is drawn in sharply and held. Since breathing cannot be stopped entirely, he concludes that the person will then breathe out, but that the exhale will be incomplete, shallow, and jerky. This is the type of breathing, he continues, which accompanies a state of anxiety. Perls et al. (1980) also describe the caught breath which is a part of the startle and orienting response. They maintain that this respiratory response is a valuable one and that "what is pathological is to extend this emergency behavior indefinitely" (p. 153).

Reich (1973) proposes that control or suppression of the breathing plays a central role in the process of control or suppression of emotion. He suggests that, "as the physiological mechanism for the suppression and repression of affects, the inhibition of respiration [is] the basic mechanism of neurosis in general" (p. 308-309).

Baker (1967) concurs with this, observing that, "armoring occurs first in an inspiratory contraction" (p. 41).

Reich (1973) contends that limiting of the breathing by tensing the abdomen and diaphragm lessens bodily and emotional sensations in two ways: by tightening the musculature to decrease sensation and by decreasing arousal through lowered activation due to lowered metabolism.

The tightening of the abdomen decreases sensation in the abdominal area, an area, Reich (1973) notes, which is a seat of pleasant and unpleasant emotions and sensations. Jacobson (1967) reminds us, "psychologists have recognized the participation of the visceral sensations in the emotions" (p. 140). According to Reich (1973), "there is not a single neurotic person who does not show a tension in the abdomen" (p. 306). He goes on to state that "respiratory inhibition and the fixation of the diaphragm is doubtless one of the first and most important acts in suppressing pleasurable sensations in the abdomen, as well as curtailing 'abdominal anxiety'" (p. 306).

The second way that inhibition of the breathing decreases feelings of anxiety, Reich (1973) holds, is by decreasing general arousal due to lowered metabolism because of reduced oxygen in the system. Respiration

functions to bring oxygen into the body and to remove carbon dioxide. The oxygen brings about combustion of digested food. Combustion refers to what occurs during the fusion of substances with oxygen. Energy is generated by this process. Oxygen, therefore, is necessary for combustion and the production of energy. In the human body, energy is produced through the combustion of digested foodstuffs. Heat and kinetic energy are generated in this way. Reich (1973) adds that "bioelectricity is also produced in this process of combustion" (p. 309). When respiration is reduced, there is less oxygen available for this process. In fact, Reich (1973) emphasizes that only enough oxygen for the preservation of life is then available. He continues that when there is less energy in the organism the "vegetative excitations" are reduced and thus are easier to control. Reich (1973) suggests, "viewed biologically, the inhibition of respiration in neurotics has the function of reducing the production of anxiety" (p. 309).

It is the contention of some writers (Baker, 1967; Lowen, 1975; Reich, 1973; Speads, 1986; Zi, 1986) that to some extent, most people in Western society breathe insufficiently, due to chronic tensions. Conversely, a state of relaxation is associated with open, full breathing (Baker, 1967; Painter, 1984). According to

Baker (1967) and Reich (1973), in healthy breathing, the exhale is full and relaxed and there is a pause following the exhale in which the body is in a state of pleasurable expansion.

Breathing also plays a central role in body-oriented psychotherapeutic practice (Baker, 1967; Lowen, 1975; Painter, 1984; Reich, 1973, 1973; Rosenberg, 1985; Wong & McKeen, personal communication, November, 1986). Since the decrease of breathing is related to the inhibition of feeling, increasing the breathing is used to activate the body and thereby increase awareness and expression of emotion. Breathing is also the only system which is clearly under voluntary and involuntary control and so it is seen as a point of access of the unconscious processes (Lowen, 1975; Rosenberg, 1985). According to writers in this field, without freely functioning respiration, emotional release is limited; by freeing the breathing musculature, emotions and memories may be released and can then be integrated (Lowen, 1975; Reich, 1973). Various therapeutic methods (such as massage, stress postures, movement, breathing techniques, and so forth) are used to release the chronic tension in respiratory musculature and elsewhere in the body to allow repressed emotions to be released, expressed, and integrated. By freeing the breathing (through muscular

release), other bodily tensions are also released and by releasing tensions elsewhere (through body work or as a result of cathartic release) the breathing can become more open and full.

Discussion of the Theories of the Origin of Neurosis and of the Body-Oriented Therapeutic Process

This discussion addresses the following topics as they are conceived of in the body-oriented psychotherapy literature: The origin of neurosis, the goals and therapeutic approaches resulting from this, and finally what the role of breathing is in body-oriented psychotherapy. It is theorized by practitioners in this field that there is a carry-over of psychophysically internalized and repressed trauma from infancy to adulthood and that breathing and other body-oriented techniques are a useful way of working to free, express, and integrate repressed material.

Body-oriented psychotherapy has the same primary goal as that of other psychotherapies: helping the client release repressed parts of the self from chronic psychophysical tensions which developed very early in life as protection against intolerable infant anxiety, and

fostering greater awareness and insight, and more acceptance of the self. What is unique about these body-oriented approaches is that beyond having the client talk about his or her feelings and thoughts, the therapist works with the client's body to release chronic muscular tension using a variety of methods, primarily breathing techniques. Thoughts and feelings may also be discussed throughout the process. The approach, however, is primarily physical, which is considered a more direct means of dealing with repressed anxiety (Lowen, 1975; Reich, 1973). Reich also points out the necessity of working with the body, believing that the origin of much of the repressed trauma occurs in the developmental phase prior to the attainment of language. Janov (1970) states:

Freud believed that dreams were the "royal road to the unconscious." If there is a "royal road," it may lie in deep breathing. For some patients, the use of deep breathing techniques, together with other methods, does help release the tremendous power of the Pain inside the body.

(p. 121)

Theories of the Origin of Neurosis in Body-oriented
Psychotherapy

It is thought by body-oriented therapists that neurosis, or an unhealthy psychological condition which does not involve psychosis (loss of contact with reality) is a psychophysical phenomenon, one in which the person has an ineffectual character structure which is reflected in and accompanied by chronic muscular tensions in the body. Reich termed these chronic tensions "armoring"; their origins, he believed (1973), lay in the period of infancy.

Armoring

"Armoring," as a theoretical and therapeutic term is conceived of by Reich (1973) to refer to muscular tension patterns in groups of muscles which functionally form bands across the body thereby inhibiting the flow of energy through the length of the body. He conceives of neuromuscular "armoring," or chronic muscular tension as an integral part of neurosis. Like Freud, Reich conceives of humans as having repressed, unconscious memories of

past painful events which affect the current state of psychological and physical well-being of the person. Reich's unique contribution is that he describes how these repressed events (memories) are held in the tightened musculature of the body. He describes how chronic tension in the musculature is related to the act of repressing unendurable, emotionally-laden memories. He conceives of the act of tightening the musculature (consciously or unconsciously) as an act of blocking feeling in the body, which was related to the unendurable emotional experience.

The blocking of feeling is related to the repression or "forgetting" of the related experience. Hence the body locks away, by chronic tensing of the musculature, the memory of the feeling of the traumatic experience in synchrony with the mental "forgetting." Reich (1973) puts forth, "the spasm of the musculature is the somatic side of the repression, and the basis of its continued preservation" (p. 302). According to Reich, each person develops a unique body structure (also known as "character structure") (Reich 1972; Lowen, 1975) which is due to individual muscular reaction patterns to life experiences. Reich calls this process "armoring" because the tightened musculature was said by Reich to inhibit sensation in the body. This inhibition decreases the experiencing of emotion because emotion is experienced in

the body (Jacobson, 1967; James, 1961; Keleman, 1985). Lowen, (1958, cited in Christiansen, 1972) notes that not all muscular tension is armor. Armoring is conceived of as a psychophysical process which functions to protect or defend an individual from undesired emotional experience. Thus muscular tension which does not do this, Lowen avers, is not armor.

As an integral part of the repressed memories, emotions are thought to be withheld from expression by the body (Reich, 1973). The experience, for example, of "sadness" is the combination of both bodily sensations and thoughts. If a person does not want to experience these sensations, or to express this emotion, then the musculature can be tightened to inhibit them (ie. the muscles of the face, throat and chest may be tightened to inhibit the feeling of sadness and to prevent the sobbing (Reich, 1973). Wallen (1970) expands:

Thus when needs and impulses arise there tends to be a muscular response. The response tends to play itself out on the motor level, and the only way that one can inhibit the response is by contracting antagonistic muscles that prevent this impulse from expressing itself fully. (p. 11)

Reich (1973) adds to this:

It is never individual muscles which become spastic but rather muscle groups that belong to a functional unity, in the vegetative sense. When, for example, an impulse to cry is to be suppressed, it is not solely the lower lip which is tense but also the corresponding musculature of the mouth and jaw, as well as the corresponding musculature of the throat, in short, those organs which are brought into action as a functional unity in the act of crying. (p. 302)

According to Wallen (1970), these antagonistic muscular contractions can eventually suppress the response pattern associated with the original emotional experience but by doing so they do not allow for expressing and discharging of the energetic arousal that is a part of the emotional experience. The individual would then produce a condition of repression in which any number of "impulse awareness states are maintained by chronic muscular contractions which are forgotten by the individual" (Wallen, 1970, p. 12). Although the person may not be aware of this physical structuring of the body, it can be evident to others. For example, a person who experiences

the world as a fearful place will probably not hold his or her head high, may have rounded shoulders which act to protect the vulnerable front of the body and may have a wide-eyed look. Even a dog who has been beaten may maintain the body structure of cringing to ward off the blows. Because the life experience of each person is different and because each person responds uniquely to his or her life experiences, there will necessarily be an individual psychophysical character structure for each person.

Reich's (1973) belief that memories of repressed emotional experience are held in the chronically tense musculature was deduced from his experience of working with clients. He observed that as the chronic tension was released, emotional states were experienced by the client along with memories of traumatic and previously repressed experiences. These memories were full and rich and in a sense were like reliving the experience, which was very different from a simple mental memory. This expression of an emotion and the remembering and integrating of the memory is thought to be an integral part of freeing the body-mind of chronic tension (Reich, 1973; Rosenberg, 1985). Reich (1973) observes:

It never ceases to be surprising how the loosening of a muscular spasm not only releases the

vegetative energy, but, over and above this, reproduces a memory of that situation in infancy in which the repression of the instinct occurred. It can be said that every muscular rigidity contains the history and the meaning of its origin. (p. 300)

There is a great deal of consistency throughout the literature on body-oriented psychotherapy regarding the origin of neurosis or psychophysical disease. Most perspectives in this regard follow from psychoanalytic theory, in which it is believed that adult neurosis has its roots in childhood. Rosenberg (1985), for example, mentions that in infancy and early childhood, lifelong patterns of experiencing and interacting with the world are set. This is the time when initial bonding should take place with the mother (or other primary care giver). During this crucial time in the infant's development, however, such fundamental needs often are not adequately met. He contends that these learnings are "inextricably locked in the body and manifested in patterns of behavior" (p. 70). Baker (1967) describes this process which, he maintains, occurs when the vital mother-infant contact is disrupted:

Loss of contact creates anxiety (a contraction) in the infant, primarily at the diaphragm, and results in respiratory blocking. A continuation of this state may be expected to result in extension of the armoring upward and downward, laying the foundation for future biopathies.

(p. 326)

Feldenkrais (1985) maintains that the extended period of dependence in humans is the arena in which the basis of human neurosis, the fear of isolation, or anxiety, is developed. An infant, for example, who wakes up from a nap alone and who does not immediately feel human contact, may feel abandoned and become anxious. This anxiety is not easily discarded. Liedloff (1977) notes:

The infant. . . lives in the eternal now; the infant in arms. . . is in a state of bliss; the infant out of arms is in a state of longing in the bleakness of an empty universe. (p. 31-32)

In addition to tense muscular armoring, there is some clinical evidence of what Painter (1984) terms 'soft armoring' (Baker, 1967; Wong & McKeen, personal communication, November, 1986). This is a condition in which the musculature is flaccid rather than tense, but may

function in a similar manner to that of tense armoring, to decrease sensation and inhibit expression.

In summary, then, most writers in this field believe that people develop psychophysical defenses to protect themselves from the relative pain of unsatisfied infant needs, but that these defenses if overused become their prisons. Although protecting oneself in this way is functional, the overuse of armor and defenses can be debilitating when awareness of and ability to make choices is lost.

Reich's Theory of the Psychophysiology of Neurosis, Armoring, and Therapeutic Release

The central focus on breathing in body-oriented psychotherapeutic work is developed from Reich's (197) work. Reich's theoretical perspective was that the whole body, mediated by the nervous system, was involved in the process of repression and that, therefore, work with the whole body (including the nervous system) needed to be part of the therapeutic process.

Reich believed that the chronic state of neuromuscular hypertension, which he called "armoring" was maintained by an imbalance of the autonomic nervous system

(ANS), typically a hyperactive sympathetic nervous system (SNS). "'Fear' or 'apprehension' becomes an affective 'anxiety experience' only when the stasis of physical excitation overloads the Autonomic system" (Reich, 1973, p. 135).

The SNS becomes activated at times when the person believes him or her self to be at risk. Activation of the SNS and related endocrine functions prepare the body to fight or flee. In addition, there is heightened emotional arousal (such as fear or anger). Reich (1973) contends that if these emotions and the accompanying physical activation are suppressed, rather than expressed in some fashion, that this causes chronic tension in the body. Conversely, the expression of emotion, he states leads to activation of the parasympathetic nervous system (PNS) and relaxation (Wong & McKeen, personal communication, November, 1986).

Because individuals do not always express all emotion, Reich maintains that it is necessary to have a physiological process whereby the accumulated tension can be released. He sees the sexual orgasm as fulfilling that purpose.

Reich (1973) developed what he called the "orgasm formula" which schematically describes the process which occurs during sexual orgasm and which leads to ANS

balancing. The formula is writted: "Tension --> Charge --> Discharge --> Relaxation" (Reich, 1973, p. 272).

During sexual arousal, existing tension (from unexpressed emotion) in the body is amplified, accompanied and mediated by arousal of the SNS. This Reich termed "mechanical tension" in the body.

This increased "mechanical tension" leads to the creation of what Reich called a "bioelectric charge" in the body. In other words, the body somehow develops a heightened level of bioelectric energy as a result of the heightened mechanical tension.

At the point of what Reich called "full sexual orgasm", bioenergy is discharged and flows throughout the body. This leads to activation of the PNS and accompanying "mechanical relaxation" or relaxation of the musculature.

But Reich notes that his patients remained hypertensive and when he questioned them he ascertained that they were not experiencing what he called "full sexual orgasm" which involved the surrendering to the involuntary response of the entire body and the flowing of energy throughout the body.

This inability to experience full orgasm was due, Reich maintains, to three things. The first was that neuromuscular armoring impedes the flow of bioenergy, thus

inhibiting full discharge. The second is that due to fear of intimacy, individuals contract from the psychophysical openness he believes necessary to have this full response. Thirdly, he maintains that individuals are afraid of surrendering to the involuntary body sensations and movements of full orgasm. These three components comprise what Reich terms "orgasm anxiety." Reich believes that due to this "orgasm anxiety," the natural "orgasm formula" is not complete, and the ANS thereby becomes imbalanced; instead the SNS becomes activated and increased mechanical tension occurs in the body, followed by a bioelectric charge. Because of orgasm anxiety, the discharge is incomplete and hence the relaxation is also incomplete.

He states that gradually, over time, the SNS activation and neuromuscular tension builds up and that the PNS never fully counteracts this state until the person develops a state of chronic sympathetic stasis ("sympatheticotonia"). "Central to sympatheticotonia is orgasm anxiety, that is, fear of expansion and involuntary convulsion" (Reich, 1973, p. 296). It is also possible to reach a state of parasympathetic stasis in which one has very little energy or motivation, the muscles are flaccid and metabolism low. This may be related to the psychophysical state described above in which the individual has soft armor. Reich (1973) maintains:

All biopathies, whether they appear in people as neuroses or as somatic manifestations, are caused by a disturbance in the autonomic nervous system resulting in a disturbance in the biological function of pulsation through the total organism. A limitation of full expiration and chronic expansion of the chest are basic to sympatheticotonia. The function of this inspiratory attitude is to prevent the rise of those affects and bodily sensations which would appear with normal respiration. To aid in this suppressing, other muscles of the body contract and chronic armor forms. (p. 199)

The state of neurosis, then, according to Reich, is one of chronic sympathetic stasis, or, less frequently, parasympathetic stasis. The goal, then, of Reichian therapy, is to help the client to release armoring and accompanying fears so that the full orgasm can be regained and thus the balancing of the ANS would occur naturally in the bodymind.

Reich is certainly not alone in seeing this state of chronic sympathetic stasis as the original problem state. There have been myriads of therapeutic processes developed which attempt to rectify this state, for example

the Progressive Relaxation work of Jacobson (1967), the Relaxation Response work of Benson (1975), Feldenkrais' Psychophysical Re-education (1972, 1985). Many Eastern practices also address this issue, for example, Yoga (Iyengar, 1981) and meditation practices (Singh 1984).

Reich claims that when a person's body-mind is relatively unarmored the whole body will respond and move in synchrony with the respiration process. When this occurs, the respiratory waves flow through the body, producing an undulating movement. When this free movement during respiration is present, the person is more likely to also be able to experience full orgasm. Reich calls this undulating movement the "orgasm reflex" (Lowen, 1975).

It is important to note that what Reich terms the "orgasm reflex" is different from a sexual climax. What he is referring to is an involuntary response of the whole body which is manifested in rhythmic, undulating movements which are an integral part, Reich (1973) claims, of full, quiet respiration. This can occur when the breathing is free and the person surrenders to these spontaneous movements. In this case, there is no sexual climax because there has been no sexual excitement.

One thing should be clear. The orgasm reflex is not an orgasm. It occurs on a low level

of excitation and is a gentle movement. One experiences the reflex as a pleasurable feeling of inner freedom and ease. It denotes the absence of tension in the body. (Lowen, 1975, p. 249)

The spontaneous body movements which accompany free respiration are: the pelvis moving forward during the exhale and backward during the inhale. "These movements are produced by the respiratory wave as it travels up or down the body with expiration and inspiration" (Lowen, 1975, p. 22). Simultaneously, the head moves backwards and forward, but the head moves backward during the expiratory phase and forward during the inspiratory phase. Reich maintains that, theoretically, if a person's body is free enough to have this reflex during a therapy session that he or she would also be capable of having a full orgasm during sex. Such a person would be considered by Reich to be emotionally healthy. Lowen (1975) does not agree with Reich on this. The emotional environment of the two situations, he tells us, is radically different. For one thing, the therapeutic setting may feel much safer to the individual. For another, the level of excitement during sex is much higher and this makes surrendering to the full body experience much more difficult. Lowen avers that for

these reasons, bioenergetics puts less emphasis on the development of the "orgasm reflex" though not denying its importance. Rather, more emphasis is put upon helping the client to handle stress and excitement, so that, in a sense, the person can be strong enough to let go.

The method which Reich developed to reach this therapeutic goal of the development of the "orgasm reflex" was one which focused primarily around a breathing technique which he developed. This technique is now known as "Reichian breathing" (Wong & McKeen, personal communication, November, 1986). Reich discovered that by having the client breathe deeply (without straining) that the client could go through a physiological process which contained all the elements of the "orgasm formula" (tension --> charge --> discharge --> relaxation) but without the sexual component.

Reich maintains that when a person breathes deeply, physiological arousal and metabolic rate are increased. The SNS is activated and bioenergy is increased (charge). This charge is focused in tense areas (Wong & McKeen, personal communication, November, 1986). Discharge of this energy occurs through the psychophysical expression of emotion, for example, crying, kicking, hitting, laughing, and so forth (catharsis). The discharge of energy is experienced in the body as

"streamings" which flow the length of the body. The streamings allow the mechanical tension to be relieved and mechanical relaxation results (Wong & McKeen, personal communication, November, 1986).

Both during the catharsis stage and during the relaxation stage, as the muscle tensions begin to release, memories (which Reich and others believe are in some way stored in the tense musculature) may emerge to consciousness (Reich, 1973; Wong & McKeen, personal communication, November, 1986).

Thus, the Reichian breathing technique is used therapeutically to rebalance the ANS (this occurs over time), allowing for the release of neuromuscular armoring and the emerging to consciousness of traumatic memories and emotions which can then be analyzed and integrated. In Reichian therapy, this leads to what Reich considered to be the healthy goal state of freedom from "orgasm anxiety."

Goals and Therapeutic Approaches to Body-Oriented
Psychotherapy

The goal of body-oriented psychotherapy is to help the client to reach a state in which he or she is generally free of armoring, and has awareness and freedom of emotional experience and expression, and is sensitive, responsible, and loving toward him or her self and others.

The therapeutic approach involves the bringing into conscious awareness, with full emotional expression, feelings and memories of unsatisfied infantile and childhood needs. Insight and integration are expected to follow as functional parts to the natural healing process, within the supportive relationship of client and therapist. The intended result is a new understanding from an adult perspective on part of the client.

The primary process of this school of therapy involves the releasing of chronic psychophysical tensions which began to be developed very early in life as protection against the intolerable infant anxiety. This release leads to the awareness of previously repressed material and new insights and integration of this material follow (Reich, 1973). 'Integration' here means the process of remembering and reliving a previously repressed

experience, followed by a new understanding or perspective leading to change of orientation toward the self and others.

A number of practitioners and writers in this field maintain that catharsis alone is not sufficient as a therapeutic tool (Heider, 1974; Lowen, 1975; Wong & McKeen, personal communication, November, 1986).

Catharsis may afford some release and relief, but it is in how the person makes sense of and integrates the therapeutic experience, that deep change occurs. In other words, it may be therapeutic to cry and to express deep, hidden feelings of sadness about not having felt loved as a child, but it is in discovering how to love oneself and how to find love now in adult life that a person grows and begins to let go of old psychophysical patterns.

Liedloff (1977) concurs with this position, stating that the value of the therapeutic experience is in what it contributes to the client's self insight which, she believes, can then be integrated into a new understanding of "how things really are in his life (as opposed to how he has always believed them to be)" (p. xviii). She says that abreaction (catharsis) may provide a final piece of a puzzle:

Making possible the leap from understanding to realization, when one's spontaneous behavior

finally comes to reflect the discovered truth.

But it is the truth itself that brings about the transformation, and apparently only the truth, no matter how it is acquired. (p. xviii)

And yet from Reich's perspective, it is necessary to include physical activation in the therapeutic process. He mentions that the excitation which accompanies the process of abreaction or catharsis is a vital part of the therapeutic process.

This is not at variance with the fact that the somatic symptom can be eliminated by making its psychic meaning conscious, for any change in the sphere of psychic ideas must of necessity be functionally identical with changes of vegetative excitation. Thus, it is not solely the making conscious of an unconscious idea that cures, but the modification brought about by the excitation. (Reich, 1973, p. 350)

It is thought by body-oriented psychotherapists that the methods of working with the body which will be described in this paper are valuable means of unlocking old tension patterns associated with repressed trauma. Ultimately what is sought is a change in how a person experiences him or herself in the world and in relation to other people.

The state of well being as it is described in the literature is one of freedom from self-limitation (Lowen, 1975; Reich, 1973). It is not a static state of perfection, but rather a dynamic process. There is an underlying theme of returning to an unspoiled, "natural" state. For example, Lowen (1975) puts forth:

The goal of bioenergetics is to help people regain their primary nature, which is the condition of being free, the state of being graceful and the quality of being beautiful.
(p. 43-44)

The nature of human beings is thought to be primarily good and that anything which occurs which is harmful is seen as an obscuration of this primary nature (Lowen, 1975). Feldenkrais (1985) describes the goal state which he calls "maturity":

Maturity is not a state that is reached and then maintained by itself. It is a way of doing in which patterns of behavior formed in the period of dependence are no longer enacted as the only possible way. (p. 44)

McKeen and Wong (personal communication, November, 1986) speak of growing awareness or revelation rather than change as the desired outcome of therapy. They believe

that every person is already a good human being and that the process of therapy is one which reveals the self to the self to allow a more open and less unconscious existence. They maintain that they are not attempting to help the client to remove bad parts of the self or to dump psychic garbage, but rather to meet and acknowledge more fully all parts of one's being.

The goal in body-oriented psychotherapy is to free the client of psychophysical blocks to the feeling and expression of emotion and bodily sensations. This is not meant to produce irresponsible hedonism, but to encourage and develop awareness of choices in any given situation. In a contracted state of anxiety, it is believed that a person has limited choices regarding behavior; that behavior will generally be non-spontaneous and defensive to the extent that the person is armored and neurotic. Reich (1973) maintains that following therapy clients are more moral, aware and considerate.

The Therapeutic Process

As stated above, the theory regarding how neurosis develops and the goal of therapy in body-oriented psychotherapy are very similar to that of most psychotherapies which have developed from the psychoanalytic tradition. The difference, it seems, lies in the focus of therapeutic intervention. Whereas insight-oriented psychotherapists will use primarily verbal methods with clients, body-oriented psychotherapists work with the body, especially the breathing. Throughout the therapeutic process, the client is instructed to breathe in various ways, often quite deeply. This may be accompanied by a variety of other techniques, but the breathing is always of prime importance.

The Three Stages of the Body-Oriented Psychotherapeutic Process: Activation, Catharsis, and Integration

Although the approaches to body-oriented psychotherapy vary considerably, there seems to be a general form to this type of therapeutic work. During a session, there are three main stages through which the

client will progress. The first stage is one of increasing activation. Primarily, this is achieved by having the client breathe more fully, but may be accompanied by other methods, such as muscular pressure (Painter, 1984) or by having the client adopt postures which stress particular groups of muscles (Lowen, 1975). During this first stage, the client and therapist work to bring the client to and through the point of impasse (Perls, 1971) which relates to issues of fear of facing the experiences which have been repressed. These issues are dealt with in a variety of ways, depending on the approach of the therapist and the needs of the client, and range from fairly aggressive approaches (e.g., Primal Therapy, Janov, 1970) to slower and more gradual methods (e.g., Bioenergetics, Lowen, 1975).

The second stage begins once the increased breathing (possibly combined with other techniques) has led to the activation of emotion and heightened sensation in the body. At this stage the volitional breathing of stage one takes on a new character and although it remains full, it becomes involuntary. There is a sense of the body now requiring more oxygen for processing the heightened activation. This is the stage of catharsis or abreaction.

Catharsis, or abreaction, is a crucial part of body-oriented psychotherapy. Catharsis is an involuntary and, it is assumed, natural means for the body-mind to release itself of held tensions related to past traumatic experience (Liedloff, 1977). Aldous Huxley, in a letter to Barry Stevens (1975), describes some of the aspects of abreaction, stating that he believes the abreaction to be a naturally occurring phenomenon which "seems to be one of the ways in which the entelechy, or physiological intelligence, or deeper self, rids itself of the impediments which the conscious superficial ego puts in its way" (p. 174). He describes the physiological concomitants which occur as a part of abreaction, such as sobbing, shaking, and twitching, and states that the abreaction is followed by a "sense of liberation and openness to healing" (p. 174). He further points out that there may be a recall of repressed or "buried" material, but that this does not always occur. Even without this recall, he continues, the abreaction has beneficial results, such as the loosening of "many of the visceral and muscular knots, which are the results and counterparts of psychological knots" (p. 175).

At the beginning of the cathartic experience the client will start to experience emotion. This emotion is

experienced in the body and there may or may not be associated thoughts. For example, the client may experience strong feelings of anger or sadness without cognitive understanding. Following this or possibly quite early in the cathartic stage, the client may also experience an emerging or flashing to consciousness of memories (pictures, sounds, words, smells, and so forth) which are related to the current emotional expression.

The therapist may facilitate this process of emotional expression and remembering by asking the client questions and by encouraging the client to express either physically or verbally something appropriate to the situation; for example, "tell him how much you hurt" or "tell her to stop," or "say, 'I'm lonely,'" and so forth. Wong and McKeen (personal communication, November, 1986) liken this type of work to improvisational theatre because, when it is done well, the therapist and client work closely together in the dynamic flow of each moment. They also believe that it is necessary for the therapist not to try to control what the client experiences. The client is in charge of that, they maintain. In order for this stage to be complete, there must be a surrendering to and climax of the emotional release.

The therapist can further facilitate the process by working with the client to "relive," in a sense, the

previously overwhelming situation, bringing to it the support and safety present in the therapeutic relationship and the adult knowledge, understanding, and awareness that was not available to him or her as a child, when the original trauma was first experienced.

This process marks the beginning of the final stage involving integration and release of the previously repressed psychophysical memory. There may be patterns of repressed psychophysical memories due to repression of more than one isolated experience; for example, if a child felt rejected by his mother, never good enough for her, he may have a vast number of psychophysical memories of this held in his psychophysical structure.

Relaxation follows the cathartic release. During this final stage, if stage two has been complete, the breathing is gentle but full and deep. The client may have some insights about his or her way of being in the world and relationships with other people. The client has opened up to a lot of deep emotional feeling in the previous stages and it is important at this point to help him or her to reintegrate and to make sense of the experience. The unintegrated cathartic experience is not necessarily a valuable one, and in fact can be harmful or

frightening. For this reason, a therapist should be fully informed and trained prior to using this type of process. Integration may continue to occur long after the session. The client may have more insights for days or weeks to come.

Although the process described above is typical, it should be remembered that progress may be less systematic than described. One stage may flow into another and then move back again to an earlier stage. As in every other type of therapeutic process, there is a dynamic interaction between the client and the therapist which can take many forms.

Brief Introduction to the Role of Breathing in Body-Oriented Psychotherapy

Body-oriented psychotherapists believe that inhibition of the breathing is the major component involved in controlling the emotions (Baker, 1967; Lowen, 1975; Reich, 1973; Rosenberg, 1985). Lowen (1975) observes that individuals who have a great deal of muscular tension in their bodies do not breathe fully and naturally. The result, according to Lowen (1975), is that

their energy levels are depressed. Under ordinary circumstances, their basal metabolism will appear normal, he states, but in stressful situations, this condition will become apparent either in an inability to get sufficient air or an inability to cope with the stress. Reich (1942) suggests that "the inhibition of respiration is the physiological mechanism of suppression and repression of emotion, and consequently, the basic, mechanism of neurosis" (p. 266-267).

In contrast to the shallow breathing described above is the full, open breathing of a person who is not contracted in an anxious state. "Breathing is a part of our whole bodymind. A spontaneous breath, that is, a breath which is full and free, helps us to establish a flexible center" (Painter, 1984, p. 109).

Lowen (1975) puts forth that it is often difficult to get clients to breathe fully and deeply, and that it is even more difficult to get them to allow their breathing to become free and spontaneous. He and his colleagues developed what he calls a "breathing stool" which is a short (1 1/2 to 2 feet tall) stool covered with a rolled blanket. The client lies back over the stool to aid in opening up the tightened musculature of the chest (Lowen, 1975).

Frequently, freeing up the breathing will lead to

heightened emotionality and emotional expression. Lowen (1975) writes of a woman who, in a session, felt that she couldn't breathe. As she began to let go of muscular tension in her chest, she began to cry. "The impulse came from a deep sadness locked in her chest. She reacted unconsciously by attempting to choke off the impulse and ended by choking off her breath instead" (p. 125-126). Lowen continues, "I have seen many patients choke up on feelings that well up when their throats open and their breathing becomes deeper" (p. 126).

Janov (1970) writes of different types of breathing that accompany the various stages of a therapeutic session. For example, shallow and tight breathing often occur at the beginning of a session, very full and deep and fast breathing occurs during catharsis, and slow and full breathing occurs following release, accompanying insight and integration. He maintains that the nature of a client's experience can be inferred to a great extent from the nature of his or her breathing. "A patient cannot be defending part of himself while engaged in a breathing process that encompasses the whole body" (p. 124-125).

During the body-oriented psychotherapy session, the therapist will maintain a constant awareness of the client's breathing, both when working directly with the

breathing and also when the focus is on some other area of the body. McKeen and Wong (personal communication, November, 1986) maintain that when the client feels or acts resistant or stuck, the first thing they do is to check the client's breathing and then check their own breathing. An openness to feelings and emotional expression, new awareness, and change all result from freed breathing.

SECTION III

DESCRIPTIONS OF THE PRACTICE OF BODY-ORIENTED PSYCHOTHERAPY IN EIGHT APPROACHES: FOCUS ON BREATHING

Introduction

In this section, a brief description of the theory and practice of therapy emphasizing the use of breathing techniques is presented for: Reichian Therapy, Bioenergetics, Primal Therapy, Rosenberg's Integrative Body Psychotherapy, Painter's Postural Integration, Rebirthing, Gestalt Therapy, and Wong and McKeen's body-oriented therapeutic approach. Since Reichian Therapy is presented first, any similarities of description in the following sections will be abbreviated. The areas addressed in each description are:

1. A brief introduction to the therapeutic approach
2. A Brief description of the therapeutic process
3. Theoretical perspective regarding the breath and the role of breathing
4. The therapeutic approach: Breathing techniques used

Reichian Therapy

Brief Introduction to the Therapeutic Approach

What is truth? To find your way to the thing you feel when you love dearly, or when you create, or when you give birth to your children, or when you build your home or when you look up at the stars at night. (W. Reich, cited in Bean, 1971, p. 60).

Since Reich is the originator of body-oriented psychotherapy just as Freud is the father of psychoanalysis, this section begins with a description of Reichian therapy. To this day, many therapists refer to the type of breathing work they use, which will be described below, as "Reichian breathing" even though they may not consider their approach to be a specifically Reichian one.

The therapeutic technique developed by Reich (1972, 1973) went through a number of changes as he gained more knowledge and experience. Reichian therapy is still practiced today, though not extensively in its original form. More typically, aspects of Reichian therapy are incorporated into some type of eclectic approach (for example, Rosenberg's (1985) Integrated Body Psychotherapy). Reich began his practice as a traditional

psychoanalyst. Evidence of this is clear in the analytic nature of his work (1972, 1973).

Brief Description of the Therapeutic Process

In Reichian therapy, after an initial interview, the client lies on a flat couch and is instructed to breathe through the mouth and to relax. Reichian therapy is a systematic approach to releasing chronic neuromuscular armoring. Sections of armoring are worked with in a specific sequence, starting with the breathing musculature (to develop increased energy in the body) and then working from the top of the head and eyes (ocular area) to the legs and feet. The Reichian therapist also works with whatever emerges in the client as he or she breathes deeply. Lowen (1975) notes:

For Reich, then, the first step in the therapeutic procedure was to get the patient to breathe easily and deeply. The second was to mobilize whatever was most evident in the patient's face or manner.

(p. 19)

The therapist, then, would either encourage the client to exaggerate a facial expression or to put words to it or the therapist might use pressure on tight muscles or have

the client kick or hit and perhaps yell, following whatever emerged as a result of the breathing. In Reichian work the body is conceived of as being made up of seven segments: ocular, oral, cervical, thoracic, diaphragmatic, abdominal, and pelvic. Each of these areas is thought to hold specific kinds of emotion. For example, tension in the cervical area, or muscles of the neck, is thought to be related to deep emotions of "heartbreak, bitter sobbing, rage, and longing" (Bean, 1971, p. 50). Baker (1967) puts forth that the segments:

are usually freed in that order except that the chest is most often mobilized first so that it can be utilized to build up energy in the organism and provide additional inner push to help in both revealing and removing other blocks. (p. 44)

By this he means that by beginning with freeing up the breathing, the client is enabled to breathe deeper and faster, increasing the level of energy inside the body. According to Reich (1973), this occurs because of increased metabolism. This increased energy level increases arousal which is related to emotional feelings in the body. This counteracts the state of low energy stasis which is the usual original state of the client. Reich (1973) suggests that with less energy in the

organism, the vegetative excitations are less intense and, therefore, easier to control. Thus, helping the client to free holdings in respiratory musculature and developing fuller, deeper breathing is the usual starting point in Reichian therapy.

The statement that the client is in a state of low energy stasis seems contradictory to what Reichians maintain: that most people live in a state of chronic SNS stasis. It is possible, however, that the chronically tightened musculature does not allow for the flow of energy in the body, and the contracted breathing which is reported to accompany this state may also contribute to decreased energy level. There may be potential energy available due to increased SNS arousal but this energy, if it is not expressed, may become somehow stagnated. This might be analogous to pushing on the accelerator and brake pedals of a car simultaneously, resulting in a racing engine, but no movement.

Helping the client to become aware of and to feel the blocks to full breathing constitutes the starting point of therapy. As the client attempts to breathe fully and deeply, and as he or she begins to thus move muscles

which have been chronically rigid, emotional or cathartic release may occur. Baker (1967) concurs:

To relieve the situation [armoring] this equilibrium must be disturbed, either by reducing the holding of energy (breaking the muscular spasm) or by increasing the inner push (breathing) or both. (p. 45)

Painter (1984) states of his experience in Reichian Therapy:

My Reichian therapist used bodywork to help me release and finish blocked feelings. Through a variety of breathing techniques -- panting, sighing, exaggerated diaphragmatic and upper chest inhalations and forced exhalations -- I found my energy, my feelings and thoughts, building, and then climaxing into profound moments of relaxation, what the Reichians consider to be the natural rhythm of charging and discharging energy. All this was assisted by the timely interventions of my therapist. (p. 12)

Theoretical Perspective Regarding the Breath and the Role
of Breathing

Since the Reichian orientation to the role of breathing was described extensively in the preceeding section, the following is a summary of Reich's position. Reich (1973) contends that breathing is both the first point, and the central point, of armoring. Controlling the breathing (especially the exhale) is seen by Reichian therapists to be at the center of the neurotic anxiety pattern. Reich (1973) maintains that no neurotic person is:

capable of breathing out deeply and evenly in one breath. Patients have concocted every conceivable means of preventing deep exhalation. They exhale in a fragmentary manner, or quickly revert to a position of inhalation. (p. 333)

The respiratory inhibition, he notes, is experienced in the upper or middle part of the abdomen. Baker (1967) concurs with this, stating that in the average client, the chest is usually held rigidly and moves very little if at all during respiration. When the chest does move, he maintains, it may be held high or low, but will have limited excursion. The shoulders are also held and do not move freely with the breathing. The head, which he says

should naturally move gently back and forth with the breathing, may be held rigid or jerked forcibly. He also states that a great deal of tension is often held in the spinal muscles. This too can prevent full breathing by preventing movement in the ribcage. Baker (1967) claims that the chronically held inhalation is "the most important means of suppressing any emotion" (p. 56).

Thus, the therapeutic process of working to free the breathing musculature and deepen the breathing is used as a means to increase arousal which may lead to emotional catharsis and thus psychophysical release. Breathing is also used to free tight musculature (abdominals, diaphragm, and intercostals). As the client breathes easily and deeply, the muscles begin to release. This may also lead to emotional release and catharsis. Baker (1967) observes:

Breathing may in itself overcome minor holdings and does help to reveal and overcome more severe blocking. The patient is asked to breathe fully without forcing and to allow himself to develop a rhythm which soon becomes easier and freer.
(p. 46)

Another aspect of Reichian breathing is the physical-emotional release cycle which Reich called the "orgasm formula": tension -> charge -> discharge ->

relaxation" (p. 272). Breathing is used to increase tension and to create a bioelectric charge (increased metabolic energy and physical-emotional arousal). Emotional expression and muscular movement are used as discharge. This is followed by relaxation accompanied by full, deep breathing. Reich (1973) puts forth that when the body is free of neuromuscular armor, then orgone energy (Reich's term for "life energy") can flow freely through the body. Clients report feeling "streamings" through the length of their body (Bean, 1971).

Free and open breathing is considered by Reichian therapists to be a sign that release has occurred in therapy and is also seen as an indication of general health (Baker, 1967; Reich, 1973).

The Therapeutic Approach: Breathing Techniques Used

Baker (1967) contends that:

The principle of therapy is quite simple: merely to remove chronic contraction which interferes with the free flow of energy throughout the organism and thus restore natural functioning. In practice it may be

extremely difficult and complex. (p. xv)

Baker (1967) avers that there are "essentially three avenues of approach," and that each is used according to the specific needs and experience of the client at any given time -- though all are used within each therapeutic relationship at some time. The first is increasing what Baker (1967) terms the "inner push on the organism" (p. 45). This is done by increasing the energy level through deeper breathing. The second is to work directly on spastic muscles to free the contraction. The third is to maintain "the cooperation of the patient by bringing into the open and overcoming his resistances to therapy and the therapist" (p. 45).

Baker maintains that this work with the client's resistance is extremely important because even though the choice to enter therapy is the client's, that he or she will still struggle against opening up and letting go of the defensive psychophysical patterns which have provided protection. Bean (1971) describes this resistance as he experienced it in his therapy with Baker, stating:

I realized it was going to take all the courage I could muster to de-armor myself. I knew I would fight Baker every step of the way but I also remembered how I had felt for that thirty-six hours or so after my first

treatment and I wanted it more than anything else in the world. (p. 46)

Bean (1971) continues, stating that Reich recognized this struggle the client (patient) faces, stating that Reich had:

learned that the very thing the patient wanted, freedom from his internal bondage, was what terrified him most. As each new area of armoring was broken down, the patient would feel elated at first and then absolutely terrified. (p. 25)

Baker (1967) discusses the role of the therapist in helping the client to feel safe and not to open up too fast. Lynn (personal communication, November, 1986) contends that a client who opens up too deeply and too fast will have trouble integrating the experience and will encounter what he calls a "whiplash" effect in which the defences and armor may become even stronger than before the therapeutic work was done.

Reich (1973) notes that the first step in therapy "is essentially brought about by an intensification of the vegetative inhibitions" (p. 331). The therapist works to help the client to intensify chronic tensions to the point where the client is consciously aware of them. This may be done by using any or a combination of any of the three avenues of approach which Baker (1967) has described,

although breathing is always used. Reich (1973) concurs that the client "must first feel [the tensions] before he is in a position to focus his attention on them" (p. 331), stating that most people are not aware of their muscular blocks. The therapist may use the technique of having the client consciously attempt to hold his or her body in the manner in which it is chronically (and unconsciously) held. The therapist may also ask the client to voluntarily perform actions which would occur spontaneously if armoring did not exist. This can also lead to release of the involuntary chronic tension. Reich (1973) states:

Voluntary muscle actions can coincide entirely with the direction of involuntary muscle actions; thus the conscious imitation of pelvic movement can release an involuntary vegetative pelvic movement. (p. 333)

In this way, voluntary actions by the client can be used to activate muscles which are unconsciously in spasm, allowing for movements in the body which would occur automatically and involuntarily if there were not unconscious muscular holdings against these movements (such as the head and pelvic movements with full breathing).

Following this initial work, the therapy progresses according to the needs of the client. For example, in working on the thoracic segment, Baker (1967) describes his approach:

Increase breathing with instructions to follow through in expiration, exert pressure on the chest during expiration or press gently on the epigastrium, and work directly on the intercostal muscles, deltoids, and spinal muscles. Elicit hitting, choking, tearing, scratching, yelling, rage, and sobbing and reaching with longing. (p. 58)

In regard to working on the diaphragm, Baker (1967) notes that "the diaphragm may remain immobile even though the chest moves and vice versa" (p. 59). He further adds that, "where there is doubt between two emotions, use the more aggressive expression. For example, if a patient wants to cry he will do so after rage; but if he wants to get angry crying will inhibit his expression" (p. 58).

Reich (1973) describes the basic principles of his therapeutic process. These are: First, to discover the places "where the unitary character of the orgasm reflex is interrupted" (p. 333). This means that when the client is lying down and breathing deeply, the therapist watches the person's body to see where the musculature is in

spasm, thus inhibiting energy flow, or seems flacid and devoid of energy and is therefore not allowing full body involvement in the breathing process. Ellis (personal communication, March, 1987) mentions that throughout the therapeutic process, the therapist is diagnosing. For example, as the client breathes, the therapist will note which emotions are easily expressed and which are not. The therapist will also note which areas of the breathing structures and the rest of the body move freely and which are chronically tense (this is evident in such symptoms as colour change in the tissue, where whiteness denotes tension; temperature; movements and vibrations in the tissue; and so forth). Ellis describes this as a process of ascertaining where "chronicity" occurs, or what psychophysical aspects of the individual are chronically armored. The therapist will also note how difficult or easy it is for the client to let go in general. This gives a sense of how encompassing and pervasive the armoring is.

The second basic therapeutic principle Reich describes is "to intensify the involuntary inhibitory mechanisms and impulses (e.g., the forward movement of the pelvis) which are capable of completely releasing the blocked vegetative impulse" (p. 333). This seems to mean

that by intensifying inhibitory mechanisms and impulses that somehow this brings release of these inhibitions.

He goes on to say that "the most important means of freeing the orgasm reflex is a breathing technique, which evolved spontaneously through the work" (p. 333). This "breathing technique" is now referred to as "Reichian breathing."

Description of the Therapeutic Session

Reichian breathing. The Reichian therapist has the client lie on a flat couch and any binding clothing is loosened or removed. The client may wear just underwear or a bathing suit because this allows the therapist to see his or her body movements and muscular contractions more easily. The client's knees are bent, feet flat on the couch, feet and knees are hip width apart (Wong and McKeen, personal communication, November, 1986; Ellis, personal communication, March, 1987). The client is instructed to breathe deeply into the chest and abdomen, through the mouth. Mouth breathing is used for two reasons. First, that more air can be breathed and, second, that opening of the mouth, which aids in relaxing

the jaw, initiates the process whereby the armoring of the jaw is released (Ellis, personal communication, March, 1987).

Reich (1973) tells us that he instructs clients to "breathe all the way through" (p. 334). This is done in an attempt to keep the client from forcing the breath artificially. This forcing "serves only to obstruct the natural vegetative rhythm of breathing" (p. 334) and is itself a form of inhibition. Another instruction which Reich uses is to breathe "'in an entirely normal way' i.e., not to engage in any respiratory exercises" (p. 334). Ellis (personal communication, March, 1987) emphasizes that, initially, the therapist will not do much guiding or directing of the client's breathing.

Reich (1973) holds that after 5-10 breaths the respiration usually deepens "and the first inhibitions emerge", (p. 334). For example, the client may try to keep his head from moving naturally forward with the inhale and backward with the exhale. The shoulders also tend to move gently and lightly forward in deep, natural exhalation and the client may also inhibit this.

Reich (1973) informs us that he may at this time apply some gentle pressure to the upper abdomen, telling the client to continue breathing in and out deeply.

Ellis (personal communication, March, 1987) notes that these "first inhibitions" are also manifest in the form of spasms, cramps, or pain, and that it is the role of the therapist to encourage the client to continue to breathe through these sensations. She continues that the spasms and cramps are sensations of armoring, that the client is, in a sense, "up against the armoring." The therapist is there, she adds, because without persistent coaching, the client would stop the process as it begins to get painful. Ellis states that this is the point where therapy begins. Without a therapist to act as a guide, the individual would most likely stop at the "place of chronicity." It is necessary, she says, for the therapist to be aware of the client's history in order not to "repeat the trauma" which the client experienced earlier in life (Ellis, personal communication, March, 1987).

The client is instructed to breathe down into the abdomen. The breath does not actually flow into the abdomen, however, as the abdominal muscles are attended to and are used to breathe, this allows the diaphragm to drop down and more air to enter the lungs. The abdomen rises and falls with the breath. This is called "abdominal breathing" (Ellis, personal communication, March, 1987). Ellis informs us, as does Reich (1973) that the abdomen

"holds" deep emotion, that the tightened abdominal musculature keeps an individual from feeling.

During the therapeutic process, the client experiences a variety of physical changes and sensations; for example, tingling throughout the body, especially in the hands and feet and around the mouth. Ellis (personal communication, March, 1987) says, "tingling is normal and natural when you're coming alive. When your body is being stimulated with the breath which is aliveness, one of the things it can do is tingle." In regard to this, Baker (1967) asserts, "one of the tasks of the medical ergonomist [Reichian therapist] is to accustom the individual to tolerate functioning at higher energy levels" (p. 245).

In most clients, at least in initial therapy sessions, this increased breathing may lead beyond tingling feelings in the hands and feet, then in the mouth, to tetany. Baker (1967) suggests that if a client develops severe tetany, the therapist should work to bring the individual back from this point by slowing breathing and by manually mobilizing the fingers and arms.

Ellis (personal communication, March, 1987) notes that it is difficult to convey to people who have not experienced this type of therapeutic work "the depth and

intensity of chronic muscular tension and the wonder at the release of same."

Examples of segments of Reichian therapy sessions.

Baker (1967) describes a couple of sessions that he had with a woman who had asthma:

I asked her to breathe through her mouth, manually compressed her chest, and encouraged her to scream, which she did in a stifled way. (p. 239)

In describing a later session with the same client, he adds:

I asked her to lie on the couch with her knees flexed and to breathe through her mouth. She was overtly passive but remained rigid, thighs held tightly together, arms hugging her sides. She could take only shallow breaths; the chest was fixed in the inspiratory position and did not move. Setting about freeing her chest brought on an asthma attack, which was relieved by deep inspiration. Then I encouraged her to concentrate on expiration while I exerted considerable pressure on the sternum. There was some movement

in her chest, but still much wheezing in expiration. (p. 239-240)

Again, Ellis (personal communication, March, 1987) notes that to someone who is unfamiliar with this type of therapeutic work, the above situation could be conceived of as highly undesirable and even scary. She claims, however, that, as in childbirth, if the person tenses his or her body and fights the process that it can be painful, but if the person breathes and surrenders to the process that there can then be release followed by a feeling of freedom.

Bean (1971), writing about his work with Baker, mentions that in order to establish fuller breathing (his inhale was okay, but he wasn't exhaling fully), Baker put pressure on his chest by putting one hand on his chest and pushing down on it with the other hand.

I would take a deep breath and Baker would force it out of me, pushing down and holding till I was making rasping noises like Barry Fitzgerald doing a death rattle. However, when he stopped his pushing I found that I was able to continue the more or less deep breathing and I could feel the impulse of the

expansion and contraction of my chest continuing down toward my pelvis. It felt good. (p. 47-48)

Bean mentions that when he began therapy with Baker, the first few sessions were spent working with him to increase his general metabolic (energetic) level. For example, Baker had him first just breathing deeply; after he had done this for a while, he had him breathing and kicking and then breathing and kicking and hitting with his fists.

I have since found out that my chest and breathing were being worked on first to mobilize energy in my body, which would help the de-armoring process. Energy is built up with the intake of air. (p. 48)

At one time, Bean began to develop tetany, a symptom of hyperventilation syndrome. He asked Dr. Baker what was happening and Baker replied, "you built up more energy than you could tolerate at this point. . . so your body contracted against it (p. 49).

Bean (1971) describes later therapy sessions:

As Baker jabbed and pinched and dug, I howled. I screamed and ranted and shrieked and clawed at the bed. I sobbed and pounded and beat.

I rolled my eyes and shook my head and carried on like a lunatic. And every time, the sessions would end with my breathing impulses going deeper and deeper down my body until I could feel them in my feet. I would leave his office with the energy coursing around in me like the lights on a pinball machine. (p. 67)

Bioenergetics

Brief Introduction to the Therapeutic Approach

Alexander Lowen (1975) developed the therapeutic approach which he calls bioenergetics. Lowen (1975) was a student of Reich's (1972, 1973) for a number of years, eventually moving out on his own, modifying the Reichian techniques he had learned. He augmented Reich's approach in ways which he believed it to be lacking, for example, in the integration of the therapeutic change into the client's daily life (Lowen, 1975). He holds, "the focus on sexuality that Reich employed, though theoretically valid, generally failed to yield results that could be sustained under the conditions of modern living" (p. 41).

In its beginning stages Lowen developed bioenergetic therapy by working on his own therapeutic process with an associate, John Pierrakos. During the three years that they worked together they developed a number of body exercises which became the basis of bioenergetics. In comparing bioenergetics to Reichian therapy, Lowen (1975) notes that the developing bioenergetic therapy "was focused more on the release of

muscular tension than on giving in to sexual feelings" (p. 39).

Brief Description of the Therapeutic Process

Bioenergetic therapy is an analytic therapy. Lowen (1975) maintains that although character-analytic work is a long and involved process, it is a necessary one if lasting results are to be attained. Working to release muscular tensions alone is insufficient and must be accompanied, Lowen believes, by a careful and systematic analysis of the person's "habitual mode of being" and behavior in the world (p. 42).

There is a strong focus in bioenergetics on working with the body. Lowen (1975) believes that a person's life is:

the life of his body. Since the living body includes the mind, the spirit and the soul, to live the life of the body fully is to be mindful, spiritual, and soulful. (p. 42-43)

Lowen (1975) states that in this culture we often treat our bodies as instruments or machines, that we have, somehow, become dissociated from our bodies and are no longer identified with them. Lowen describes this as a "betrayal" of the body (p. 43).

Bioenergetics, he avers, is a therapeutic approach which helps a person to reunite with the body and thus to more fully enjoy the life of the body. This includes all aspects of body functioning.

A major premise of bioenergetics is that what goes on in the body affects the mind and vice versa because there is a underlying belief in the unity of the mind and body (Lowen, 1975). "We constantly overlook the fact that experience is a bodily phenomenon. One only experiences that which takes place in the body. To the degree that the body is alive, one's experience is vivid or dull . . . " (p. 62).

Bioenergetic therapy, like Reichian therapy, is based upon Reich's "energy concept" (Lowen, 1975, p. 45): "tension --> charge --> discharge --> relaxation". In bioenergetics, as in Reichian Therapy, the rate and depth of breathing is increased to build an "inner charge" or high metabolic energy level. This is followed by energetic discharge accompanied by emotional expression and the remembering of repressed material. Without avenues of free expression to allow for discharge, Lowen maintains, there can be no increase of the internal charge. It is not possible to increase energy level by breathing alone; there must also be means for self expression, accomplished through movement and vocalizing.

The eyes, he asserts, must also be "opened up" to allow for expression.

Discharge may occur spontaneously in the course of producing a charge. In this instance, the breathing may deepen automatically, for example, as a result of lying back over the breathing stool. Without any conscious intention or even awareness, the client may suddenly begin to cry.

He may not know at the moment why he is crying. The deeper breathing opened his throat, charged his body, and activated suppressed emotions with the result that a feeling of sadness erupted and flowed out. (p. 49-50)

Lowen maintains that it is necessary to work with the charge and discharge as a unit because they function together. Therefore as a person's energy level is raised, avenues for self expression must also be facilitated. This, he claims, allows for the restoration of feeling in the body. The emphasis, then, is always on breathing, feeling, and movement "coupled with the attempt to relate the present-day energetic functioning of the individual to his life history" (p. 50).

In addition to balancing charge and discharge, Lowen uses exercises which "ground" the person. Grounding helps develop in the client a feeling of being present in

the body, especially increasing awareness in the legs, feet, and pelvis. It provides a physical connection with the earth and a sense of solidity. This sense of groundedness, Lowen maintains, is what keeps people from the roller-coaster effect which breathing work can produce due to increased energy in the body.

When a person leaves a session or a workshop feeling very high, there is a good probability he or she will crash. This is not serious if the person anticipates and can handle the down. However, when a person leaves feeling good and solid, the odds are he will hold this feeling. (p. 196)

Ellis (personal communication, March, 1987) discusses how bioenergetic therapy leads to a gradual increase in energy levels in the body-mind; the therapist's goal being to teach the client that these new levels of energy are natural. Experiencing this increasing energy in the body-mind, the client will usually feel excited and also afraid. The therapist helps the client to accept and live with this increasing energy through the use of grounding in particular, so that the client can gradually come to be more fully aware of thoughts, sensations, and emotions.

In bioenergetic therapy, then, the therapist instructs the client in bioenergetic exercises (postures

which put the body in a position which stresses particular groups of muscles, the ones in chronic hypertension). Because of the belief that it is necessary to increase sensation, awareness, and energy flow in the legs and feet, many of the exercises are done in a standing position, and the clients are instructed to breathe in various ways. This breathing, in specific bioenergetic postures, usually results in an increase of blood flow to the stressed area, increased natural breathing, shaking, and often some type of emotional cathartic release either during the exercise or following it.

The therapist selects the exercises that he or she asks the client to do on the basis of an ongoing diagnosis. Diagnosis is a continual process based upon information the therapist has obtained from talking with the client regarding current life issues, past life issues, and from observing the muscular tension patterns in the client's body (which bioenergetic therapists, as well as Reichian therapists believe are related to armored character attitudes of the client).

Following the cathartic release, the therapist and client will discuss the relevance of any insights the client may have had in order to integrate the experience for the client in a way which will allow him or her to approach life issues in a new way, to incorporate

psychophysical changes which have occurred in the therapy session into his or her life in the world.

Theoretical Perspective Regarding the Breath and the Role
of Breathing

Generally, the bioenergetic conceptualization of the role of breathing is the same as that of Reichian therapy. "Breathing is as crucial to bioenergetics as it is to Reichian therapy" (Lowen, 1975, p. 40).

Lowen mentions how, throughout his work with Reich, he was aware of some similarity between Reichian therapy and the practice of yoga: the focus on breathing. He describes the difference of these two approaches as being in the direction of their attention. "In yoga the direction is inward, toward spiritual development; in Reichian therapy it is outward, toward creativity and joy" (p. 72). Bioenergetics is similar to Reichian therapy in this orientation.

Lowen agrees with Reich regarding the patterns of breathing associated with anxiety states. He observes that when there is psychological trauma, the breathing is always affected.

Lowen (1975) also discusses how a depressed individual is physically depressed as well as psychically

depressed. He puts forth that depression is one of the most common problems that brings people to therapy. He also suggests that psychophysical depression is related to breathing in that a depressed person's breathing is also depressed and thus his or her metabolic functioning and energy level is also decreased.

Lowen (1975) continues that:

It is an important thesis of bioenergetics that changes in personality are conditioned on changes in bodily functions -- namely, deeper breathing, increased motility; fuller and freer self expression. (p. 115)

He further iterates that "any obstruction to the breathing process will produce anxiety "(p.124). This is interesting because he also claims that chronic anxiety states are accompanied by decreased breathing. He is unclear as to which comes first.

Bioenergetic therapists, like Reichian therapists, believe that the breathing can be blocked at different places in the body. The muscles of the abdomen may be tight, the diaphragm may be tense, the intercostal muscles may be in spasm, there may be a ring of tension in the throat, and probably a combination of any or all of these. It is thought, based upon clinical evidence, that

tightness in a specific area is related to specific kinds of blocked emotion.

The Therapeutic Approach: Breathing Techniques Used

As mentioned above, breathing is a crucial aspect of bioenergetic therapy. Throughout the therapeutic session, the therapist will remind the client to breathe, often instructing the client to breathe out along with one part of a movement and in with another part. For example, in a simple "grounding exercise," the client stands with his or her feet toed in and bends over resting the hands or fingertips on the floor. The knees are bent with the inhale and straightened with the exhale.

Ellis (personal communication, March, 1987) describes the process which occurs in bioenergetic therapy, stating that all the exercises are designed to move the body toward a natural flowing movement. As clients attempt this and have difficulty with the natural movement, they are experiencing their resistance, in the form of muscular armoring. She notes that this resistance is also reflected in their life attitudes. At this point, she claims, clients become more aware of how they inhibit their capacities to be sensitive and effective. As awareness of the temporarily frustrated capacity is

increased, emotion can also be freed. This allows for release of the chronic muscular holding and the related psycho-emotional attitude. This may be followed by integration of a new awareness and attitude which is in synchrony with the changes which have occurred physically due to release of tension.

Lowen (1975) adds that it is often difficult to get clients to breathe fully and deeply and that "it is even more difficult to have such breathing become free and spontaneous" (p. 40). This is not surprising considering what Lowen and others (Baker, 1967; Reich, 1973) have said about the link between breathing and anxiety: that people who are anxious do not breathe fully or freely.

Lowen (1975) has developed and uses a number of techniques and exercises which aid in the opening of breathing musculature. One is to move the arms up and back over the head and bring them down -- this is usually done by hitting in a standing position, using, for example, a tennis racket on a pillow. This exercise can also be used to get a client to express anger, but it is very effective in opening up the upper chest and increasing breathing. Often the therapist will encourage the client to make a sound or to say or yell that which comes up spontaneously, while he or she is swinging the arms and hitting.

Backward bending exercises are also used to open up the throat, chest, and diaphragm, abdominal areas, the thighs, and the pelvis. One example is the "bow," in which the client stands with his or her fists against the lower back area and bends backward. Another example is the use of the "breathing stool." A low stool covered with a rolled blanket which the client gently leans backwards over. The client can position the stool under various points of the back, stressing and opening in different areas. Bioenergetic therapists also use traditional Reichian breathing techniques.

According to Lowen (1975), in bioenergetics, as in Reichian therapy, freeing the breathing has two purposes; to increase the metabolic level in the client which increases arousal and may lead to catharsis, and to gradually release chronic spasm of the respiratory musculature by putting stress on specific areas. This may also lead to some form of emotional release. Lowen (1975) emphasizes, "I have seen many patients choke up on feelings that well up when their throats open and their breathing becomes deeper" (p. 126).

Primal Therapy

Brief Introduction to the Therapeutic Approach

Primal therapy was developed by Arthur Janov, who saw it as a means of erradicating forever, or "curing", neurosis (1970, 1974, 1983). Janov had been in practice as a psychoanalyst doing what he call "insight therapy" for seventeen years when he first discovered what he calls the "primal scream" (p. 84). He gives an example, of one client he was working with, whom he calls "Gary." In a therapy session, Gary was describing how his parents had always been critical of him and had never loved him, and "had generally messed up his life" (p. 12). Janov then asked Gary to call out for his parents.

He demurred. He "knew" that they didn't love him, so what was the point? I asked him to indulge my whim. Half-heartedly, he started calling for Mommy and Daddy. Soon I noticed he was breathing faster and deeper. His calling turned into an involuntary act that led to writhing, near-convulsions, and finally to a scream. (p. 12)

Janov notes that both he and Gary were shocked at what had happened. He had had a similar thing occur with a client some months prior to that but had thought that the previous occurrence was "an ideosyncratic reaction of one patient" (p. 12). Janov goes on to say that following his cathartic experience:

Gary was flooded with insights. He told me that his whole life seemed to have suddenly fallen into place. This ordinarily unsophisticated man began transforming himself in front of my eyes into what was virtually another human being. He became alert; his sensorium opened up; he seemed to understand himself. (p. 12)

Janov, following these experiences with his clients, went on to develop a therapeutic technique which would invoke this type of cathartic release in a systematic way.

Brief Description of the Therapeutic Process

Janov (1970) conceives of ego defenses as unnatural or "symbolic" behavior which is an attempt by an individual to fulfill the needs which were unmet in infancy. He suggests that a neurotic person, because of

psychophysiologicaly repressed psychic pain is in a state of tension because "the organism goes into a state of emergency alert" (p. 19). This state, he emphasizes:

propels the infant, and later the adult,
toward the satisfaction of need in any way
possible. . . . The organism continues to
live at any cost, and that cost is usually
neurosis -- shutting down unmet bodily needs
and feelings because the pain is too great
to withstand. (p. 19)

Primal Therapy is a very aggressive therapy which aims at "breaking down" a client's defenses against feeling the "primal pain," the experience of unmet needs (p. 13). Janov observes that Primal Therapy:

is revolutionary because it involves
overthrowing the neurotic system by a
forceful upheaval. Nothing short of that
will eliminate neurosis, in my opinion.
(p. 13)

The therapeutic method used in Primal therapy is an intensive, three week period in which the client has daily two to three hour sessions. The client does not work or go to school during this time. The therapist consistently confronts the client's defenses in an attempt to "break" them down. The client is at least initially

asked to lie in a vulnerable, spread eagle position and to breathe deeply through an open mouth. The goal of the therapeutic process is to get the client to a place where he or she will experience the "Pain" which was previously repressed by going through deep catharsis which Janov calls "having a Primal" (p. 13). According to Janov, feeling the "Pain," expressing, and understanding it are the necessary components for releasing neurotic patterns and defenses to allow the person to become "real".

Following the three week intensive, clients join a therapy group which meets twice a week for three or more hours.

"Its major function is to stimulate group members into new Primals" (Janov, 1970, p. 101-102). More than one person may be experiencing a Primal at one time, which Janov says "can be bedlam" (p. 102). Following a Primal, which usually lasts about a half hour, the person will usually just lie there for up to an hour "making connections silently" (p. 103). Janov claims that "Primal Therapy is not an interacting process" (p. 103), however, at the end of the three hours there is a discussion period.

Janov (1970) puts forth that following Primal Therapy, clients show physiological changes which represent a decrease in hypertension, such as "dramatic downward shift of blood pressure, . . . changes in resting

body temperature, and the lowering of pulse rates" (p. 414). Janov (1970) avers:

Primal Therapy is essentially a dialectical process in which one matures as he feels his childish needs, in which a person becomes warm when he feels his coldness, in which one becomes strong through feeling weak, in which feeling the past brings one wholly into the present, and in which feeling the death of the unreal system brings one back into life. (p. 412)

It is a curious contradiction that the neurotic who is trapped in the past really has no past. He is cut off from it by Primal Pain. Thus he must continuously act out his history day after day. For this reason, he does not change significantly throughout his life. . . . (p. 413-414)

Theoretical Perspective Regarding the Breath and the Role
of Breathing

As stated in the Introduction, Janov (1970) believes that breathing may be the "royal road" to the unconscious (p. 121). He maintains that deep breathing techniques, together with other methods, can be a process which can help clients to release the psychophysical tensions associated with repressed trauma.

Primal breathing techniques become the via regia to the Pain, unblocking memories along the way. In this important sense they are the pathway to the unconscious. (p. 122)

Janov's (1970) perspective regarding the breath seems to be very similar to Reich's (1973). He holds, proper breathing should be instinctual -- the most natural thing in the world -- yet the neurotics I have seen rarely breathe correctly. This is because they have enlisted breathing to push down feeling; in short, breathing becomes part of the unnatural system. (p. 122)

Janov (1970) describes Reich's work and discusses Reich's theoretical perspective regarding the breath and repression. It would appear that he agrees with Reich's

position, yet nowhere does he give credit to Reich for what he, Janov, has assimilated of this original work.

Janov (1970) notes that he uses deep breathing techniques in Primal Therapy to help a client to become more aware of his or her feelings. He states that many clients report that following therapy, their breathing had changed, that they now breathed more deeply. They only became aware of how shallow their breathing had been previously after this change had occurred.

Janov (1970) also adds, however, that he does not believe that breathing techniques alone are sufficient to "transform a neurosis" (p. 123). This probably means that it is necessary to provide other guidance and verbal direction to the client. Janov, as far as I know, does not use muscular pressure or other physical techniques with his clients.

Janov (1970) states:

In the majority of cases, breathing techniques are either not necessary or rarely used after the first few days of therapy. It must be remembered that it is the Pain we are after and that breathing is one of the many devices we use to arrive at it. (p. 123)

The therapist may not have to coach the client to breathe deeply after the first few sessions.

The Therapeutic Approach: Breathing Techniques Used

In Primal Therapy, deep breathing is used to help the client to experience his or her emotions, to "lift the lid of repression" (p. 122).

The result is the emission of explosive force, something which previously had been diffused throughout the body, in the form of high blood pressure, elevated temperature, shaky hands or whatever. (p. 122) [This is a description of symptoms associated with sympathetic stasis.]

This deep breathing is used at the beginning of Primal Therapy to begin the process of activating an emotional state. As Janov (1970) has stated, in most cases breathing techniques are not used as frequently after the first few days of therapy. This does not mean that the client does not breathe deeply during the therapy sessions, but rather that it will most likely not be necessary for the therapist to be as involved in coaching the client to breathe because the client is familiar with the process and will, therefore, begin breathing deeply without as much input from the therapist. If at any time in the process the client seems to be resisting emotional experience or expression, the therapist may at this point again encourage or instruct the client to breathe more

deeply or more rapidly. Janov (1970) notes that in this case he would instruct the client to "breathe deeply and hard from the belly" (p. 82). He tells the client to breathe through the mouth, keeping it as wide as possible, instructing the client to "pull, pull that feeling from your belly!" (p. 82)

The patient will begin to breathe deeply, writhing and then shaking. When the breathing seems to be happening automatically, I will urge, "tell Daddy you're afraid!" (p. 82)

Janov coaches the client, using various techniques, including a combination of breathing, vocalizing and verbal expression to help a client to become aware of and to express feelings.

Janov (1970) also watches the breathing as a means of diagnosing tension. "Breath and the voice that rides astride it seem to be a significant indicator of neurosis" (p. 123). For example, someone who is anxious would probably have a high-pitched anxious sounding voice.

Janov (1970) also describes a change in breathing which occurs in Primal Therapy. He states that at the beginning of a session the client will experience a lot of difficulty breathing, that there will be a lot of swallowing and gasping for air. A tight band is often

experienced across the chest. The client is asked to pull the breath up from the abdomen while saying "Aah."

As soon as the "Aah" hooks into the ascending feeling:

the patient is on his own. The power below, finding an opening, seems to push up automatically, and the patient enters into the state I call conflict-breathing.

(p. 123) [This is the beginning of stage 2.]

Conflict-breathing, Janov claims, doesn't occur until the client has already had a number of "Primals."

Conflict-breathing is an involuntary stage of the Primal in which the patient begins heavy panting that sounds animalistic. The breathing becomes increasingly rapid and heavy until at times it sounds very much like a locomotive. Because he is so involved with the feeling, the patient is often unaware of the nature of his breathing. . . . The breathing process can go on for 15 or 20 minutes, and the person looks as if he were running a race for his life, needing every bit of air he consumes. Under ordinary circumstances, a patient would pass out. (p. 123-124)

Janov (1970) declares that "once the breathing takes on a life of its own, there is little for the therapist to do but watch" (p. 124). He continues that his clients have said that they feel "helpless before the onrush of the Pain" (p. 124) and yet that they know that they could stop the process if they wanted to. He says, however, that no one has ever aborted the process at this stage:

As the breathing broadens and deepens, we can sense that the climax is only seconds or minutes away. The stomach is quivering; the chest is heaving; the legs are bending and unbending; the head is moving from side to side; he is gagging and, in general, seems to be in his last-ditch flight from his Pain. Suddenly, in one large convulsion, the connection seems to be made -- and explodes out of the mouth in the form of the Primal Scream. He then breathes fully and easily; one patient said, "I've just breathed myself back to life." Patients report then feeling "cool," "cleaned," "pure". (p. 124)

Janov (1970) continues that following this "connection" the client's breathing becomes smooth and effortless. He also mentions that when listening to a recording of Primal

Therapy on tape, it is possible to hear changes in breathing which are associated with various stages of the process:

The sound of the breathing is critical; a patient cannot be defending part of himself while engaged in a breathing process that encompasses the whole body. (p. 123-124)

Integrative Body Psychotherapy

Brief Introduction to the Therapeutic Approach

Jack Rosenberg (1973; 1985) has developed an approach to psychotherapy which he calls Integrative Body Psychotherapy (IBP). His approach is an eclectic one which draws from sources such as

Tantra and Hatha yoga; Freudian, Jungian, Reichian, and Gestalt therapies; Rolfing, chiropractics, and movement therapy; medical models and acupuncture; meditation and dance; object relations and the human potential movement; developmental psychology and work with death and dying; and more. (p. 11)

In IBP there is an intention to integrate mind, body, emotions, and spirit. There is also a continuous focus on the body. Rosenberg states that the success he has experienced with his work is related to the recognition that the psyche is grounded in the body and vice versa. He believes that therapeutic approaches which do not deal with the body have "limited lasting success in treatment of psychological pain" (p. 14).

Brief Description of the Therapeutic Process

In IBP, as in bioenergetics and Reichian therapy, the purpose is to release blockages to energy flow; these blockages are the chronic muscular armoring. A number of techniques are used, chosen from those techniques listed above, to bring the client to a point of catharsis, release and integration. During this release the client will often "relive the past" traumatic experience which Rosenberg (1985), like Reich and Lowen, believes was the cause of the armoring (p. 28):

We say "relived" because, unlike remembering, which is mostly a verbal, cognitive process, it is a profound body/mind experience involving all the senses -- sight, hearing, smell, taste, touch. Simply remembering doesn't reach most of our early experiences because we had them before we had language. (p. 28)

At the beginning of IBP, the client describes his or her earliest life memories and life history. Rosenberg considers this to be crucially important in terms of how the client currently lives. He calls the early life experience the "Primary Scenario."

Rosenberg (1985) also stresses the importance of the relationship between the client and the therapist:

The Primary Scenario occurred within a relationship and it is within a relationship that a person must learn to deal with or transcend his Primary Scenario. Merely reliving early negative experiences isn't sufficient, or one could simply do it alone.

(p. 32)

As the client begins to become more aware of the Primary Scenario and how this relates to holding patterns and the body and his or her current life situation, Rosenberg (1985) believes that it is then possible for the client to begin making life changes. Rosenberg observes that as the client develops awareness that he or she can then make choices about his or her behavior. He declares, however, that insight alone is not sufficient. It is necessary for clients to:

direct their energies toward deeper understanding of the needs that weren't satisfied when they were children, how to break the defensive habits they developed, and how to satisfy their needs in productive, adult ways. (p. 86)

In other words, the therapeutic process, he believes, provides a means for resolving and releasing the tensions associated with the early unmet needs which resulted in

the unproductive and unpleasant adult lifestyle. This can then become more full and productive.

Theoretical Perspective Regarding the Breath
and the Role of Breathing

Rosenberg's (1985) position is very close, if not identical to that of Reich and Lowen in regard to the role of the breath and the blocking of sensations in the body which cause or are related to anxiety.

The Therapeutic Approach: Breathing
Techniques Used

The following is a summary of what seems to be a typical IBP therapy session, as recorded by the client. The sessions are taped, and it appears that, especially in recording dialogue, the client made use of the taping (p. 91-92):

1. The client wears "snug fitting clothes" so that the body movements, musculature, and breathing are clearly visible.

2. The client lies on a massage table in Reichian breathing position.

3. The therapist makes contact with the client (eye contact) to discover if the client is emotionally present.

Therapist: Are you here? Are you ready to work? What do you feel?

4. The therapist instructs the client to breathe (high thoracic).

Ther: Breathe through your mouth and breathe into here -- do you mind if I touch you? (Indicates a spot just below clavicle).

5. The therapist watches the client and coaches breathing.

Ther: Now see if you can make your chest move. (Places hand on upper chest) Now breathe. . . and push against my hand. Good, now keep it moving that much.

6. Therapist asks the client what she is feeling

7. Continued coaching of deep breathing then the therapist asks the client to breathe faster, too, and again asks the client what she feels. The client is feeling tingling in her lower arms, thighs, and calves. Then the client has begun to tremble: her knees begin knocking and her ribs begin "moving sporadically in and

out while a convulsive wave sped from my belly to my neck, back down, then back up again. . . "

8. The therapist coaches the client to "let some sound out" as she breathes.

The client writes: "I tried, but suddenly I didn't have to try. The trembling in my body, the convulsive wave I was afraid was nausea must have reminded me unconsciously of the noise I needed to make and I began to sob.

Ther: There!

The client writes: "It felt so wonderful to cry, to sob like a baby, though why I wanted to just because I'd been breathing hard, I couldn't fathom

Ther: What do you feel like?

Client: Like a little girl (still sobbing)

Ther: Can you picture that little girl?; Now what would you like to do with her?

Cl: I want to hold her

Ther: So hold her. You can hold yourself, too, you know (therapist helps client to wrap her arms around her own shoulders)

The therapist then has the client roll onto her side, into a fetal position. Then she talks to the client about providing nurturing to her child-self when she needs it.

Later:

Ther: Notice the feeling in your body

Client writes: " And this time [compared to the beginning of the session] it was a pleasure to take inventory. I wasn't tingling, but I could feel my body, every inch of it, even the calloused soles of my feet. At the very same time I felt wondrously relaxed and full of life. I could have slept soundly or gone dancing."

Ther: Look at your face (hands client a mirror). See how easy the lines are around your eyes and how open your expression is.

Client writes: She was right. My jaw looked smoother, too. I looked the way I look when I'm in love or serenely happy, eyes wide open and unguarded.

Rosenberg (1985) compares the IBP work this client described above to the work she had done previously in another type of therapy. He states that she had been surprised that her feelings had surfaced so quickly since she had expressed little in her previous work with another therapist. He notes that the main reasons for this are that this IBP therapist was aware of the client's "Primary Scenario" and brought this into the therapeutic session,

and, he continues, that the other therapist didn't use breathing techniques. The client:

had breathed normally in her sessions, which meant that she had barely breathed. She hadn't inveigled her body into giving up its secrets by infusing it with oxygen in a way designed to do just that. She had just sat there, talking. And just talking won't do it. (p. 94)

Rosenberg (1985) gives another example of a client who relives a traumatic experience of having been trapped in a haystack as a child:

Therapist: Tell me what its like down there.

Sam: I'm scared. Scared and alone. . . very alone.

Ther: Tell me more.

Sam: No one is around (voice is weepy and trembling).

Ther: That must be terrible for you

Sam: Yes, I've always felt alone. This is not a new feeling. My mother was never there for me. She doesn't love me. . . She doesn't care. . . ., ("and he cried, not in the resigned sadness of an adult, but in the wrenching sobs of a small, neglected child") (p. 33). The therapist then works with Sam to release and integrate

these feelings. Rosenberg mentions, "gradually, a positive sense of well-being was developing in his body. He no longer needed to cling to the unfulfilled longings of the past" (p. 33-34).

Postural Integration

Brief Introduction to the Therapeutic Approach

Postural Integration (PI) is a form of mind-body therapy developed by Jack Painter (1984). PI primarily involves varying degrees of deep tissue bodywork in which the therapist works on the client's muscular armor while encouraging the client to breathe and to express emotions as these emerge. Painter (1984) notes:

For me, "Postural Integration". . . is not an eclectic combination of techniques which I experienced or learned -- Rolfing, Reichian breathing, Gestalt, etc.; rather it is a singular approach to the whole person. I found that when we change, we change throughout our whole being. We don't change physically, then mentally, or vice versa. We don't change a little on the outside, then later on the inside. When our changes are permanent and truly redirect our lives, we are transformed in all dimensions of the self at the same time. (p. 14)

A Brief Description of the Therapeutic Process

Painter (1984) describes a PI session:

there you might find a practitioner hovering over an individual, bearing down with hands, fingers, or elbows, while the person sighs, moans, or even screams and kicks. You might see the practitioner working very gently: rocking, cradling, and caressing the individual, encouraging deep breathing, or perhaps entering into a dialogue of feelings and ideas. (p. 21)

Generally, PI is done in approximately ten sessions. The primary focus of the work which is done in PI is a manipulation of the fascia, a pliable tissue which envelops the muscles. The fascia guides and organizes the muscles by forming a system of layers of tissue. The outside layer is large and encompassing like a "big shopping bag" (p. 27). In deeper layers of tissue, there are individual sheaths for each muscle. Painter states that it is not just a matter of muscular tension which produces what Reich (1973) called "armoring," but that as rigid physical and emotional patterns develop in a person, the fascial system becomes less flexible and begins to

restrict movement. This, Painter notes, also restricts "overall bodymind attitude" (p. 27).

The deep tissue work done in PI has the goal of loosening and "reorganizing those parts of the fascial system which have become hard and stuck, and this, in turn, it is thought, gives mobility and balance to the muscles held in the fascia" (p. 27).

There are two major stages to PI work. The first involves the "release of armor" and usually takes approximately seven sessions. The second involves the "integration of this release" which usually takes about three sessions. Painter does state, however, that during both stages there is attention to the whole bodymind, including "all attendant sensations, feelings, thoughts, and beliefs" (p. 54).

Different areas of the body are focused on in each session and there is a general plan laid out which the therapist follows regarding the releasing process and then the integration. For example, session one deals with the initial opening of the superficial fascia in the upper half of the body. There is flexibility in this general plan, depending on the needs of the client.

The extraordinary power of PI lies, then, in the willingness of the practitioner to

work with the client on many levels at the same time. It is like conducting an orchestra, bringing one section of the self to the fore, and then another, without losing a sense of the full harmony of the self. (p. 23)

Theoretical Perspective Regarding the Breath and the Role of Breathing

Painter's (1984) theoretical perspective seems to be based upon both his understanding of the Reichian breathing tradition, which he cites repeatedly, and upon his own professional experience with his clients. For example he discusses what he calls the "essential role of breathing in body-mind balance" (p. 104). This balance refers to the balance between the charge and discharge as specified by Reich (1973) in his orgasm formula. Painter mentions, "I have also found, like Reich, that unhindered breathing is the key to helping us achieve a free flow of our energy, to find a balance between our charging and discharging activities" (p. 103).

Painter (1984) discusses a number of disturbances in the respiratory cycle which affect the overall state of

the individual. He mentions that when a practitioner is working with a client that the patterns of tension in the client's body tissue correspond with the habitual ways the client has of blocking and controlling his or her breathing. He gives examples of people who take in too much air without adequate exhale, stating that this would be a body orientation of, for example, an "aggressive, active male who keeps his chest puffed out" (p. 104). He contrasts this with someone who gives out a lot of air in the exhale but doesn't inhale sufficiently, giving an example of a "listless female who collapses her chest and tightens her diaphragm" (p. 104).

In general, Painter's (1984) work seems to focus quite a bit on the breathing, whether he is working with the breath only or working on the body in harmony with the breathing. He emphasizes, "while working with the fascia, I respect the individual's breathing rhythm, letting my pressure follow and adjust to the range of inhalation and exhalation" (p. 32).

When the practitioner is working with the breathing, Painter claims, he or she needs to work at the client's pace or rhythm. In order for the client to be able to trust the therapist and to begin to release the psychophysical armor, "he or she has to be given time and space to accept the contact, pressure, and movements

initiated by the practitioner" (p. 35). Further, in order for the practitioner to be sensitive to the level of the client's openness, he or she must be self-aware and "balanced in bodymind, allowing the energy to flow to and from the client" (p. 35).

The Therapeutic Approach: Breathing Techniques Used

Firstly, Painter states that he may encourage an anxious client to use "slow meditative breathing" to aid relaxation (p. 22). Secondly, he describes how he may use one of two different approaches in working with a client's breathing. The first approach is to coach the client to breathe more exaggeratedly in the manner that he or she usually breathes. For example, if one normally breathes a lot and is "overcharged," then Painter might encourage even deeper and more rapid breathing "until the energy buildup finally has to surge into a discharge" (p. 105). Should one breathe very shallowly, he may coach even more exhalation "until in exhaustion, a greater inhalation automatically occurs and the person recharges" (p. 105).

The second approach would be to encourage the opposite or a different breathing pattern to the one which is usually used by the client. Further, Painter adds that

his "entry into the body tissue is coordinated with these breathing patterns" (p. 105). He continues that he often uses:

provocative, quick palpations along with strong exhalations to bring energy past the point of release, then I work with very slow maneuvers and slow inhalations, while shifting and organizing layers of fascia.

(p. 105)

Thirdly, Painter (1984) uses a technique developed by Leonard Orr called "connected breathing" which allows the client to develop and maintain a "high, but even, level of balanced charge and discharge" (p. 108). "This consists of using a series of short, rapid nasal breaths, followed by a slow, surrendering breath" (p. 108). This is somewhat different from what Leonard & Laut (1983) refer to as the "connected breath." [see Rebirthing section].

Painter (1984) recognizes and coaches different forms of breathing during the various stages of the therapeutic process. For example, he will coach clients to breathe deeply and fully to build up an energetic charge (increased metabolism and arousal) while working on the muscles and fascia. This leads to a releasing of muscular tension and discharge (physical and emotional);

following this release, the breathing slows. Painter describes what he sees as the necessity to have a complete release and to follow this with a rebalancing and integration. He observes:

As we release our blocked habits we allow for more charge or discharge, but the sudden new movement of our energy can be disorienting unless we allow our energy to run its course and find a new balance or harmony. (p. 31)

This feeling of completion is usually accompanied by a state of psychophysical openness to new awareness and integration of that new awareness. There is also a feeling of deep physical relaxation. He refers to integration as "the harmonizing of the new energy" (p. 31).

After releasing their blocks, I want my clients to focus on the connections in their lives, to feel how they can flow from one movement, feeling or thought to another without having to hold on to old postures and attitudes. (p. 31)

Painter (1984) holds that during the integration stage, when the breathing has become free, there is a balance between the inhale and exhale, which is a balance between

charging and discharging of bioenergy. He states that "spontaneous breathing" will occur at this point; that is:

A vibrating, unpredictable movement of the whole breathing apparatus and eventually the entire body, is essential to the individual's continuing balance and flexibility. (p. 32)

He sees the breathing and emotional expression as an integral part of the bodywork he does.

I work with the overall form of the bodymind, organizing the long fascial planes and sheaths between major body segments. The legs and thighs can now undulate with the breathing movements of the torso. The pelvis can naturally rock with the head. (p. 31-32)

This is Painter's perspective regarding what occurs when the psychophysical armor releases to the point where what Reich described as the "orgasm reflex" occurs as part of the respiration process.

In order to do the best work, Painter avers, it is necessary that there be a strong rapport between the client and the therapist. Painter shares that he often finds himself breathing with the client that he is working with:

Practitioners need to work with such sensitivity to the movement of their clients' breathing that their own bodies and breathing rhythms synchronize with even the slightest change in the direction of the breath. (p. 108)

Painter (1984) notes that what he calls "spontaneous" breathing is:

not simply a repetitious building of energy followed by a discharge of energy, followed by another recharge. Nor is it an unbroken steady contraction, followed by another steady expansion and then another contraction. An unarmored cycle of energy is made up of many smaller cycles. (p. 106)

Rebirthing

Brief Introduction to the Therapeutic Approach

Rebirthing is a therapeutic process which involves using the breathing to increase psychophysical activation which leads to emotional release and often memories of previously suppressed material. Some rebirthers do not believe that it is necessary to have a conscious awareness of what is being released and integrated.

The Rebirthing process was developed by Leonard Orr (Orr and Ray, 1983). Rebirthing is not simply a therapeutic process, but also involves a philosophical and spiritual belief system. Orr did not develop Rebirthing as a psychotherapy, but rather discovered that he experienced personal insights, especially in regard to his infancy and birth, when he would use particular breathing techniques. He first developed the process in the bathtub and, in fact, Rebirthing was always done in a bathtub or hot tub for the first few years (using a snorkel and noseplug since the person's face was submerged), until dry Rebirthing was developed by Orr (Orr and Ray, 1983).

Orr had originally thought that it was the warm, water environment in which the person floats which was

crucial to the Rebirthing process. Later he found that "it is the breathing and relaxing in the presence of a rebirther that is crucial to the success of the rebirth" (Orr & Ray, 1983, p. 73).

The name "Rebirthing" was used to describe the process because, initially, it was believed that this breathing process was a means of, in a sense, reliving the birth process and thereby somehow releasing any psychophysically held trauma. It is believed by Rebirthers that just about everyone in this culture suffers trauma during birth because of inhumane medical practices (e.g., bright lights, drugs, forceps, separation of baby from mother after birth, and so forth) (Leonard & Laut, 1983; Orr & Ray, 1983; Ray, 1983). Janov (1983) concurs with this.

Later, Rebirthing was conceived of as a means for working through and integrating any type of repressed trauma. Since this change, the name "Rebirthing" has been thought by some to be an inaccurate descriptor because it deals with issues other than re-experiencing the birth (McKeen and Wong, personal communication, November, 1986). Leonard & Laut (1983) observe that "anything that has been made wrong and suppressed can be integrated using the technique of Rebirthing" (p. 43). The goal of Rebirthing,

then, is the "integration of suppressed material" (Leonard & Laut 1983, p. 43).

The spiritual aspect of Rebirthing is evident in Orr & Ray's (1983) statement, "the purpose of rebirthing is to acquaint people with a dimension of spiritual energy which they may not heretofore have experienced" (p. 92).

A Brief Description of the Therapeutic Process

Rebirthing can be done with the client lying on a couch or in a bathtub or hot tub. Generally there is one "rebirther" who coaches the breathing of the "rebirthee," but rebirthing is also done in groups.

In addition to the breathing work, there are a number of seminars which rebirthers give which deal with philosophical and spiritual life attitudes. Rebirthers advocate the use of affirmations (writing positive statements to counteract the effect of negative thoughts and beliefs) in addition to the breathing work.

Theoretical Perspective Regarding the Breath and the Role
of Breathing

It would be virtually impossible to discuss Rebirthing from a strictly psychophysiological perspective because writers on the topic inevitably use metaphysical concepts to describe the process. For example, Orr and Ray (1983) claim that breathing

is the primary vehicle of restoring divine energy into the human mind and body. So rebirthing primarily means the rehabilitation of breathing. Rebirthing is more descriptively called conscious breathing or energy breathing.
(p. xviii)

A specific type of breathing is used in Rebirthing which is called "circular breathing." Circular breathing is breathing in which there is no pause between the inhale and exhale. This will be described in more detail in the following section. It is believed by Rebirthers that this type of breathing results in "complete circuits of energy" in the body -- a balancing of "prana" and "apana." Prana is the Sanskrit word for "life force energy" (Leonard & Laut, 1983, p. 45). The concepts of prana and apana come from Indian Yogic philosophy. Prana is similar to the Chinese concept of "ch'i" and the Japanese "ki" and

travels through the body along energy channels called "nadis." There are, according to Leonard and Laut (1983), many sources of prana: food, sunlight, water, and air. Air, they maintain, is the most important source of prana. Apana, apparently, is some type of negative energy force which exits the body during exhalation (Leonard & Laut, 1983).

It is believed by Rebirthers that "circular breathing sets up a condition in the body that is analogous to alternating current" (Leonard & Laut, 1983, p. 46), with the prana flowing through the body after it is inhaled and the apana leaving the body on the exhale. The authors remind us that a "flow of energy" is thus developed and that the client can feel this energy flow. The client can also, they hold, feel "blocks in the flow of energy that are caused by previous suppression" (p. 46). It is not clear from this discussion what these blocks are, whether they are analogous to Reich's concept of armoring of the breathing musculature. Leonard and Laut (1983) go on to mention that the energy activation caused by the circular breathing "results in activation of old patterns of suppressed make-wrong and gives the person the chance to integrate them" (p. 46). "Make-wrong" refers to any negative belief that the client has about the suppressed material. It is thought that the material

was initially suppressed because the client believed that whatever occurred or whatever he or she thought, felt, or did was bad or wrong. Rebirthers hold that during the breathing process, if the client can re-experience the previously suppressed material, not experiencing it as wrong, then the experience can be remembered and integrated. Some rebirthers believe that it is not necessary to be consciously aware of what is being integrated (Godine, personal communication, November, 1986). "Integration means becoming aware of something that you've made wrong and suppressed, and then ceasing to make it wrong" (Leonard & Laut, 1983, p. 31).

Rebirthing is the most efficient way to integrate a make-wrong duality because Rebirthing works at the level of physical patterns of energy. Your mind will fool you for years at a time but your body won't fool you at all. Your feelings are always right there just waiting for you to explore them and celebrate them. The breathing component of Rebirthing exists to facilitate you in feeling your suppressed feelings.

(Leonard & Laut, 1983, p. 38)

this statement demonstrates the belief of Rebirthers that the body is a very important part of the whole being. It

also demonstrates an awareness that increasing the amount of air that a person breathes will usually lead to heightened emotionality.

The Therapeutic Approach: Breathing Techniques Used

Leonard and Laut (1983) declare, "in Rebirthing, a breathing technique is used to give you access to your patterns of suppression at the level of your physical body" (p. 45). This technique is called "circular breathing." This is any type of breathing in which all the following criteria are met:

- 1) The inhale and exhale are connected together so that there are no pauses in the breathing
- 2) The exhale is relaxed and not controlled at all
- 3) If the inhale comes in through the nose then the exhale also goes out through the nose, or, if the inhale comes in through the mouth, then the exhale also goes out through the mouth (Leonard & Laut, 1983, p. 45).

There are many variations of circular breathing which are differentiated by the following factors: the volume of the inhale, the speed of the inhale, nose or mouth breathing, and what part of the lungs the breath is

taken in to. The authors inform us that any type of circular breathing will lead to conscious awareness of previously repressed material or "patterns of energy" but that each of the above factors will lead to different kinds of psychophysical results and thus have different uses.

The following discussion is taken from Leonard and Laut, (1983), pages 46-49:

The Volume of the Inhale

The volume of air inhaled affects how much the person will feel (physically and emotionally). The authors use the expression, "feel the patterns of energy in [the] body" (p. 47). They use the analogy of the volume control on a stereo. The volume must be high enough to hear and enjoy, but not so high as to be deafening or uncomfortable. "The idea that Rebirthing is about 'confronting your suppression' makes no more sense than the idea that listening to your stereo is about confronting your music" (p. 47). The idea, then, is to increase the volume of air in order to increase emotional and physical activation but if, at any time, this becomes too intense, the volume is decreased.

The Speed of the Inhale

The speed of the inhale, according to Leonard and Laut, affects the balance between awareness of "everything in your experience" and "focusing on the most prominent pattern of energy" (p. 47). A slow inhale, they suggest, allows one to focus whereas a faster inhale "increases the awareness of the overall experience" (P. 47). This is relevant, they say, because when something which has been suppressed becomes "activated," and before it is "integrated," it is the most important thing to be aware of and needs to be focused upon. Following what they call "integration" of this memory or awareness, and because of the integration, it is neither more nor less important than anything else to the person.

They observe that during the period of time in which the person is becoming aware of something which has been suppressed, it is best to maximize the focus by using slow inhalations. "Once you are thoroughly aware of the pattern, then speeding up your breathing will tend to speed up the integration" (p. 47). The authors point out that when they refer to speeding up the breathing, this means speeding up the inhale, not the exhale. "The exhale should never be controlled" (p. 47). They also note that the speed of the inhale and exhale may be different. "Let

your body decide. It is not important for the inhale and exhale to be of the same duration" (p. 47).

Three Kinds of Circular Breathing

"There are three main combinations of volume and speed, each with its own specific application" (p. 48):

1. Full and slow: The authors maintain that this is the best breathing pattern to use when starting a session or after one "pattern of energy" has been integrated and the client is ready to move on to another awareness. "The large volume of air makes you more aware of the pattern and the slowness makes it easier to focus" (p. 48).

2. Fast and shallow: This type of breathing, they claim, is "the best when a pattern is coming up intensely" (p. 48). This is because the shallowness allows for less volume of air and therefore decreases the intensity of the experience, making it easier to experience. The rapid breathing, they emphasize, speeds up the integration process.

3. Fast and full: This pattern is used by Rebirthers when the client is having trouble maintaining body awareness or if the client is tending to get sleepy.

Breathing Through the Nose or Mouth

In general, Leonard and Laut note that the rule is, "whichever feels better is better" (p. 48). Mouth breathing may be preferred, however, because a larger amount of air can be breathed through the mouth.

Upper or Lower Part of the Lungs

According to Leonard and Laut, the criteria for what part of the lungs to breathe into is based upon where the "pattern of energy" is "manifesting." I take this to mean that if there is tension which is blocking the breathing in the upper part of the body that the rebirther may ask the rebirthee to focus his or her breathing in this area. The same is true in regard to the lower part of the body and lower or abdominal breathing. The authors note:

There are exceptions to this principle, however. Whenever anything gets suppressed, an inhibition goes into the breathing mechanism; otherwise breathing would bring it right back out of suppression. It is possible that something that you are feeling in the lower part of your body has its corresponding breathing inhibition in the upper part of your lungs and vice

versa. We encourage you to experiment and use your intuition. Often the Rebirther can observe that a person is avoiding breathing into a certain area of the lungs and then assist in the activation of more material by directing the person to breathe there. (p. 49)

Gestalt Therapy

Brief Introduction to the Therapeutic Approach

Gestalt therapy, developed by Fredrick (Fritz) Perls (1971), is not primarily a body-oriented psychotherapy. Perls did, however, pay a great deal of attention to bodily expression and physiological changes and would also work to increase his clients' body awareness in combination with emotional awareness. Perls was fundamentally in agreement with Reich's (1973) conception of body armoring as an integral part of the process of repression. Perls used the term "dissociation" to refer to the split which occurs in awareness due to psychophysical armoring in repression.

A Brief Description of the Therapeutic Process

The major approach in Gestalt Therapy is to work with individuals to increase awareness of themselves. This includes body awareness. As awareness increases, the concomitant emotional issues begin to re-emerge to consciousness and can be dealt with. Because of a tendency of all human beings to avoid pain, it is the role

of the therapist to persistently help clients to re-focus their awareness to these blind spots and to frustrate them to the point of confronting what they are avoiding (Perls, 1971). Consistently refocusing the clients' attention on their bodies is a highly effective means of reaching both an awareness of where the trouble lies (reaching the impasse) and of moving through this to resolution and integration.

Gestalt theory holds that there is an innate wisdom of the human psycho-physical organism. Problems develop when the natural emergence and resolution of needs is blocked due to patterns of tension. In a therapeutic setting, as awareness is regained the limiting beliefs will become clear to consciousness to be examined and changed or rejected. Associated body states and emotions are expressed and the body-mind returns to a state of balance.

This is seen as an ongoing process, one which is never complete, but one in which, as more and more held patterns are released, the person becomes more spontaneous, creative, and self responsible.

The procedure in Gestalt therapy is to gradually help the client to become aware of the holes in his or her awareness, especially body awareness. This is done by bringing the client back repeatedly to an awareness of the

self, the feelings, emotions, and the body, by saying: .
"What are you aware of?"; "Where do you feel that in your body?"; "Are you aware of what your hand is doing?" and so forth. The concomitant psycho-emotional issues begin to emerge to the consciousness of the person and can then be worked through in a way which can resolve the previously repressed experience. Growing awareness is the first step in the change process, Perls (1971) maintains. Because the goal of Gestalt therapy is self-responsibility, as a person becomes more aware, he or she begins to have a choice about whether or not to continue in existing life patterns or to change. This change may take a lot of work and time, but the contention is that "until you are aware of what you are doing you have no choice but to continue doing it" (Rosenberg, 1973, p. 5). Wallen (1970) notes:

Until the patient can feel how he contracts his muscles or how he manipulates his head or his eyes or his body in order to prevent himself from seeing or doing certain things, he cannot make the repressive mechanism a matter of choice. It is not that we want to destroy his ability to control himself, but rather that we want to make it a matter of choice. (p. 13)

Perls (1971) adds:

Awareness per se -- by and of itself -- can be curative. Because with full awareness you become aware of this organismic self-regulation, you can let the organism take over without interfering, without interrupting; we can rely on the wisdom of the organism.

(p. 17)

The Gestalt therapist pays attention to the client's posture, voice, facial expressions, and breathing and feeds this back to the client to increase the client's awareness. The therapist does not interpret these to the client but rather lets the client's awareness of him or her self increase and lead into new self understanding. Then the basic principle of Gestalt psychology can come into operation: "that the most important unfinished situation will always emerge and can be dealt with" (Perls, 1971, p. 54)

Theoretical Perspective Regarding the Breath and the Role of Breathing

Perls (Perls et al., 1980) believed, as Reich (1973) did that controlling of the breath is used to

decrease emotional sensation. Perls wrote extensively on the relationship between breathing and anxiety. His primary position is that anxiety is the experience of excitement which is inhibited when the breath is held. Perls stipulates that anxiety is the primary symptom of neurosis and that even if a person is not aware of his or her own anxiety that it will be manifest "to anyone with an eye for it in such signs as restlessness, increased pulse, or impaired breathing" (Perls et al., 1980, p. 150).

Perls et al. (1980) also maintain that controlling of the breathing (usually unconscious) is used to control emotional expression. They state that in order to control a burst of rage or an angry shout, one holds one's breath. This, they believe, has the double function of "denying the excitement its fuel, oxygen, and also of choking back what would be expressed if one permitted free exhalation" (p. 152).

The authors further state that although unrestricted breathing eliminates anxiety, someone who is anxious cannot breathe unrestrictedly. This, they state, is because the anxious person maintains patterns of muscular tension:

such as tightening the diaphragm against
tendencies to sob or express disgust,

tightening the throat against tendencies to shriek, sticking out the chest to appear substantial, holding back the aggression of the shoulders, and a number of other things. . . . He is utterly incapable of a complete, unforced exhalation. Instead his breath comes out in uneven spurts -- staircase breathing -- and it may stop, as if bumping into a wall, long before thorough emptying of the lungs. After hitting such a wall, he may then, by forced contraction, expel more air, but this is artificial and continues only as long as the deliberate effort. (p. 153-154)

They agree with Reich that the manifestation of neurotic breathing appears primarily in the exhale, that the anxious person is unable to exhale in an unforced manner.

The Therapeutic Approach: Breathing Techniques Used

There are many ways of working with the breathing in Gestalt therapy. They are all variations on the theme of increasing awareness which, they maintain, is the path to re-integration. Some of these methods can be applied in a counselling session, others in more intense therapy

sessions, in group work, or taught to people to use at home to improve their self-awareness (Perls et al., 1980).

During a counselling or therapy session, the therapist can pay attention to how the client is breathing and point this out to him or her. Other Gestalt techniques of "becoming," for example, the tight chest, abdomen or diaphragm may also be used to discover what may be behind the tension which is impeding full breathing. For example, the client would speak as if he or she is the tight diaphragm: "I am a taut diaphragm. I am always on guard. I don't let anything get past me. I am afraid of . . . "

Another Gestalt technique is having the client state what he or she is aware of in any given moment, this is usually focused on awareness of bodily sensations. Or the therapist might say something like, "close your eyes and enter into the experience of your shallow breathing. What do you experience now?"

Or the therapist may ask the client to exaggerate whatever he or she is doing, for example breathing shallowly or holding onto the exhale. The Gestalt therapist will always allow clients to discover the meaning of their experience rather than attempting to interpret it for them.

Another type of process that Gestalt therapists use is what they call awareness "experiments" which are directed awareness exercises meant to help individuals focus on sensations and processes in their bodies. Examples of these can be found in Stevens (1975) and Perls et al. (1980). John Stevens (1971) wrote a book which is entirely dedicated to awareness experiments, a number of these deal specifically with the breathing.

Wong and McKeen's Bodywork

Brief Introduction to the Therapeutic Approach

Bennet Wong and Jock McKeen (1980; personal communication, November, 1986) offer a number of intensive workshops which run from five days to 26 days. They are both medical doctors. Wong is also a psychiatrist and McKeen is trained in traditional Chinese medicine and uses acupuncture. They use a variety of approaches in their work, such as Gestalt, Psychodrama, bioenergetics, and psychosynthesis, in addition to the body-oriented work which will be described below.

They see the work that they do as a means of self-revelation and integration of what is revealed. It is not a means for ridding the person of old psychic "garbage," but rather a means for gradually getting to know oneself better and thus having more at one's disposal for creating a fuller life. The body-oriented work that they do they see merely as a tool for this self-revelation, one which can be discarded when it is no longer necessary.

A Brief Description of the Therapeutic Process

McKeen and Wong use a combination of Reichian breathing, deep massage of pressure points, acupuncture, and encouraging sounds, movement, and verbal expression in the client. Once the client has reached a point of activation and begins catharsis they will verbally interact with the person, always sensitive and responsive to the client, to facilitate the catharsis and the following integration. They describe this process as akin to improvisational theatre, maintaining that it is of utmost importance that the therapist follow the client and not attempt to control what the client will experience, express, and so forth. McKeen (personal communication, November, 1986) notes:

It is like improvisational theatre in that we're not directing it, we're following it. That's often hard to see, and I think that in a lot of bodywork there's an aim -- "I've gotta get somewhere" and . . . to us we think our best work is when we're able to be like a tango dancer where we can follow and that wherever the person's going to go will emerge.

They see themselves as setting the stage and helping the client to reach a psychophysical state in which he or she will be able to become aware of repressed material and they remain supportive and will work with the person to develop his or her expression and integration, but they do not control the form or content of the expression. Wong (personal communication, November, 1986) states:

We direct the breathing and they direct the experience. And I think that's so essential. Where we fault most people who do work like this is that they're trying to direct the experience as well as directing the breathing.

Theoretical Perspective Regarding the Breath
and the Role of Breathing

McKeen and Wong (personal communication, November, 1986) discuss the relationship between breathing and the ANS and the CNS. They declare that this relationship (discussed above) is of primary importance in our, albeit insufficient, understanding of how breathing is related to emotion and emotional expression. They also discuss how many people who practice and write about body-oriented psychotherapy, when they are faced with explaining this

relationship, resort to a metaphysical description of, for example, "the breath of the spirit" and how this leads immediately to a loss of scientific credibility. They observe that there is no need to deny the scientific or the metaphysical, that they are just different ways of understanding the same thing.

McKeen and Wong (personal communication, November, 1986) maintain that breathing is the most important part of the body-oriented psychotherapy work that they do. "The breath is the essential part. . . without the breath, none of the other things work." They mention that by working only with the breathing they can accomplish the same things that they do by using breathing in combination with the massage, acupuncture, and other techniques, but that it would just take longer. In fact, they maintain that in traditional Reichian therapy, the therapist didn't use muscular massage, but used only breathing techniques (personal communication, November, 1986).

The Therapeutic Approach: Breathing Techniques Used

Wong and McKeen (1980, personal communication, November, 1986) use an adapted form of Reichian breathing.

Their procedure is to have the person lie down on a mat, with knees bent and feet resting on the mat (eyes closed). The client is instructed to breathe through the mouth, filling the chest and abdomen. The breathing, although not fast, is deep and continuous, with no pause or holding at any point in the cycle (equal inhale and exhale). They term this "figure of eight breathing" (personal communication, November, 1986).

The therapist closely observes the client's breathing as he or she attempts to breathe in this manner. As the therapist observes any ways in which the breathing is interrupted or doesn't move completely into all areas of the chest, or if the abdomen does not move, the therapist may suggest ways of changing the breathing to allow more freedom of movement.

Often verbal recommendations are made to breathe more deeply or at an altered pace, or to concentrate on breathing into specific places. The practitioner is attempting to "see" in the body areas of blockage, indicated by diminished breathing in that area, alterations in normal coloring, tissue tension, flaccidity, or other signs. (Wong & McKeen, 1980, p. 299-300)

So, if there are areas the client is not breathing into, generally the therapist will direct the client to breathe into that area. They hold the position that it is the client who is doing the work and that they are simply another set of eyes to help the person to see how he or she breathes. They add that they will not move on to any further or deeper work until the person has developed the figure of eight breath. In fact, they claim that it is not unusual for a client to experience quite a bit of emotional discharge (catharsis) simply as a result of breathing into areas which are usually not used.

They put forth that they will also, at this point, gently touch the client in the places where they see tension. This serves two functions. The first is to facilitate a sense of contact and closeness between them. The second is that it is a way of exploring the area to gain a deeper sense of the client's physical being. Verbal contact is also maintained "because it is needed to sustain the client's position and the appropriate respiratory activity" (1980, p. 300).

After the client has reached a state of activation through deep breathing, the therapist may begin using other methods of working to free up blocked energy. For example, McKeen and Wong check the Chinese pulses and then

may use acupuncture. They also may use deep pressure massage.

The deep muscular work is often quite painful and the client is instructed to breathe "into" the pain "much in the same way as women in labor are urged to breathe with the contractions" (1980, p. 301). As the client does this, "it is possible for him or her to relax the tense tissue" (p. 301). Note here that they do not believe that they are relaxing the tissue, but that it is the client who does this. They tell us that as a result of and during this physical releasing, the client will often experience an emotional catharsis "with the expression of stored content from the client's past. Literally, the client lets go of pain, both physical and emotional, that has previously been held" (p. 301).

Following this, the therapeutic work may go in any of a variety of directions, "depending upon the client's experience that emerges" (1980, p. 301).

The therapist may continue the deep massage with the same or altered breathing patterns, or may utilize further acupuncture in order to continue the unblocking process. At times the therapist may use Gestalt, bioenergetics, psychosynthesis, or other techniques to work

with the content of the client's experiences.

(p. 301)

Wong and McKeen (1980) emphasize clearly that the body-oriented work they do is "an art, not an exact technology" (p. 301). They state that what is of primary importance is the relationship between the client and the therapist, their "sensitive, close encounter" and that all the techniques they use are merely tools of secondary significance compared to this (p. 301).

Summary and Discussion of the Eight Approaches

The following is a discussion of the main themes which emerge from the descriptions of the eight approaches to body-oriented psychotherapy, beginning with differences and similarities in theoretical concepts and followed by differences and similarities in practice. At the end of the section are two tables (Tables 1 and 2) which summarize the main similarities and differences between the approaches.

Reich is considered the originator of body-oriented psychotherapy (Lowen, 1975). Other body approaches vary in how closely they are linked to Reich's. For example, Lowen (1975), Reich's client and student, attributes the development of bioenergetics partly to his work with Reich. Perls (1971) also states that his views about the mind-body relationship and the therapeutic process are fundamentally based upon Reich's work. Rosenberg (1985) and Wong and McKeen (personal communication, November, 1986), too, have developed much of their approach from Reichian theory and process. Painter (1984), though he is aware of Reichian theory and

uses deep breathing to some extent, does not use primarily Reichian techniques. Janov (1970), while he is familiar with Reich's work and although Primal Therapy is very similar in many respects to Reichian therapy, nowhere acknowledges Reichian theory as a foundation for Primal Therapy. Neither do Rebirthers state that their approach has any connection with Reichian therapy.

Each of these eight approaches differs from the others in some particular way. If Reichian therapy, which makes use of Reichian breathing, some muscular pressure, and analysis, were taken as a standard, Bioenergetics would differ in its use of exercises and attention to the use of "grounding," and in its greater attention to integration (Lowen, 1975). Painter's PI would differ in its primary use of deep muscular work aimed at freeing the fascia and in its limited use of analysis. Primal, again, makes little use of analysis; and the "Primal Scream" does not appear anywhere else in the literature. Some of the other approaches describe emotional expression in the form of deep sobbing or screaming, but the "Primal Scream" is unique in that it comes as a kind of finale to the cathartic stage. One might wonder why this scream occurs in Primal Therapy with relative consistency, Janov (1970), and yet not in the other approaches despite their apparent similarities. Possibly there is a demand characteristic

of the therapist or therapeutic procedure in operation here.

Rebirthing differs from Reichian therapy in not being an analytical therapy, and in having a metaphysical theoretical foundation. Rosenberg's IBP differs from Reichian therapy in the wide scope of its approach; Reichian techniques would be used along with many other techniques. A main difference of Gestalt therapy is its focus on the "here and now"; no analysis is done, the focus being on awareness. Further, Gestalt is not primarily a body-oriented therapy. Wong and McKeen's work incorporates Reichian techniques and adds psychodrama, Gestalt techniques, acupuncture, and so forth.

In general, the writers who describe these eight approaches to body-oriented psychotherapy have similar theoretical positions regarding the role that breathing plays. They assert that people who exhibit neurotic and anxious behavior tend to breathe shallowly and with difficulty, (although they acknowledge strong individual differences). Reich (1973), for example, states that these clients will have some tension in the abdomen, hampering abdominal breathing with a resultant thoracic, and less deep, breath. However, Reich also describes how every individual has unique patterns of muscular tension which may include tightening of upper respiratory

musculature in addition to the abdominal tension. For this reason it appears that respiratory patterns, as well as patterns of general armoring, are unique to the individual. This is supported by experimental literature; for example, Alexander and Saul (1940) and Sutherland, Wolf and Kennedy (1938) state that a person's respiratory pattern is like a fingerprint, unique and reliably recognizable from the pattern of other people. Other writers in this field concur with Reich, that individual respiratory patterns vary according to muscular tensions related to the suppression of emotion and the repression of memories of traumatic experiences (Baker, 1967; Lowen, 1975; Wong and McKeen, personal communication, November, 1986).

Breathing techniques are employed as a central part of the body-oriented psychotherapeutic process. This is based on the underlying belief in a strong relationship between respiration and emotion. For example, it has been demonstrated clinically that an increase in respiration can lead to an increase in emotional response and vice versa (Janov, 1970; Reich, 1973). The most widely used being some form of Reichian breathing which involves greatly increasing the respiratory volume (without forcing the breath), and other variations of breathing pattern, leading to catharsis and the re-experiencing of repressed

trauma (Janov, 1970; Lowen, 1975; Reich, 1973; Rosenberg, 1985; Wong & McKeen, personal communication, November, 1986). According to Reich, control of the breathing (e.g., voluntarily increased respiration) leads to a loss of that control and, concomitantly, of emotions which, according to these authors, have been over-controlled (Wong & McKeen, personal communication, November, 1986).

These authors also fundamentally agree on how to use breathing techniques in the therapeutic setting, generally following the three-stage model described above (activation, catharsis, and integration). Assessment of respiratory pattern is also used as a diagnostic tool. Further, they refer in some manner to a "reliving" or full-body sense memory of past traumatic experience which comes to consciousness following the cathartic release (Reich, 1973; Rosenberg, 1985; Wong & McKeen, personal communication, November, 1986).

Many discuss the development of what Reich (1973) termed the "orgasm reflex," (Baker, 1967; Lowen, 1975; Painter, 1984; Perls et al., 1980; Reich, 1973; Rosenberg, 1985; Wong & McKeen, personal communication, November, 1986). The development of this reflex is the goal of traditional Reichian therapy and one of the goals of some of the others because it is thought to occur when the

individual's body is relatively free of psychophysical armoring (Lowen, 1975; Rosenberg, 1985).

Practice

The eight therapeutic approaches vary in the general methods and techniques employed. Some therapists think that the breathing work alone, not in conjunction with other techniques, can lead to change (Baker, 1967; Wong & McKeen, personal communication, November, 1986). Wong and McKeen state that they use the other therapeutic techniques to speed up the process which would occur simply by using breathing techniques alone.

Reichian breathing involves more than simply increasing the volume of air breathed, the therapist also may coach the client to breathe into various parts of the chest, back, sides, and abdomen. Further, the therapist may ask the client to vary the depth, rate, or volume of air breathed, in response to evaluation of the client's progress. For example, he or she may ask the client to breathe into areas of the chest or abdomen that are not being reached. This, in itself, can lead to catharsis (Wong & McKeen, personal communication, November, 1986).

Another breathing technique appearing in the literature requires that the exhale and inhale be

connected with no pause at either end. Wong and McKeen (personal communication, November, 1986) refer to this as "figure-of-eight breathing"; it is termed "circular breathing" in the Rebirthing literature (Leonard & Laut, 1983). Wong and McKeen insist that the client must develop the "figure-of-eight breathing" before they will go on to further or deeper work.

The practice in each of the approaches has unique characteristics. Rebirthing is always carried out with the client either lying down or floating in a hot-tub. Breathing is attended to and coached, but for the most part, nothing else is done.

Bioenergetics may involve specifically Reichian breathing, but other techniques, such as exercises aimed at putting stress on tight muscles, often accompany it with attention to and coaching of the breathing. Further, bioenergetics stresses "grounding," in which the client feels his or her connection with the earth, through the feet and legs. For this reason many bioenergetic exercises are done in a standing position.

Reichian therapy makes use of breathing techniques, and the client may also be asked to hit or kick or vocalize, and so forth.

Primal Therapy generally involves using breathing techniques to help the client to reach the point of

catharsis. This may be facilitated, at least in part, by techniques which attempt to make the client feel vulnerable (such as having the client lie in a spread-eagle position) and by the limited degree of relationship with the therapist.

PI focuses on deep tissue work. The client may lie down, sit, or stand. Emotional expression and integration are seen as part of the process of re-integrating the body-mind. Breathing is recognized as an important factor in this release, but is usually not the central focus of the work.

IBP draws from many different approaches, none of which is solely characteristic. However, Reichian breathing is often the central focus of sessions, followed by discussion and integration. Gestalt therapy makes use of a variety of techniques which focus on increasing the client's present awareness, especially body awareness and breathing. Although some types of bodywork are used in Gestalt therapy, they do not necessarily hold the central position that they do in the other approaches. Catharsis is a goal in the therapeutic process and this is reached through many different means.

The bodywork of Wong and McKeen (1980; personal communication, November, 1986) incorporates Reichian-type breathing in addition to pressure point massage,

acupuncture, and other techniques, such as Gestalt and psychodrama.

Some approaches tend to be more dramatic or intense (e.g., Primal) than others which may be less so (e.g., Integrated Body Psychotherapy); again dependant, to a great extent, upon the individual therapist and the needs of the client. The intensity may be determined by when the approach was developed and used. Body-oriented psychotherapies were very popular in the 1960's and 1970's when encounter groups and the seeking of intense experience was at its peak. A review of the literature indicates much change since then. For example, there seems to be a trend away from stronger, more confrontative therapeutic work which focuses on dramatic catharsis and opening up of emotions, toward more gentle work. Although involving emotional expression and catharsis, most of the focus is most upon the integration of this work into the life of the individual.

A comparison of reports of the clinical work that was done 10 to 15 years ago with what is currently being done supports this conclusion. Current examples of the movement away from invasive and dramatic work and toward more integrative work appear in the recent approaches, such as that of Rosenberg (1985), who also writes extensively of the importance of integration in the

therapeutic process, and in that of Wong and McKeen (personal communication, November, 1986) who, in fact, describe how their therapeutic approach has developed in this manner over the years. Contrasting this, Primal Therapy, developed by Janov in the late 1960's and early 1970's, does not make use of conscious integrative work between the therapist and client. Another example of the earlier orientation would be Rebirthing. Some Rebirthing literature was first written in the early 1970's and has a dramatic flavor; rebirthing does not incorporate conscious integrative work (eg. Orr and Ray, reprinted in 1983). It is important to bear this developmental trend in mind when comparing the description of therapeutic techniques of the 1970's with others which are more contemporary.

While the integration stage is considered of great importance by many of the authors, nevertheless, they vary considerably in the degree of attending to it. Rebirthing and Primal Therapy involve little conscious integrative work since it is assumed that integration occurs as a part of the breathing and cathartic processes and is thus thought to occur naturally without necessary intervention by the therapist. Painter (1984) discusses how integration must follow release in PI therapy.

In saying that integration is thought to occur unconsciously, the intent is not to imply that it does not

take place. As Huxley (cited in Stevens, 1975) points out, catharsis and abreaction can be considered a natural process of the body-mind and integration may be a part of this when occurring fully. However, Lowen (1975), Wong and McKeen (personal communication, November, 1986) and Rosenberg (1985) have stated that conscious understanding and integration are necessary as an explicit component in the therapeutic process.

Another issue of importance is how self-responsible the client is for his or her growth in the therapeutic process. A potential danger with body-oriented psychotherapy is that since the process often involves Reichian-type breathing, where the client lies down and is coached by the therapist to breathe in various ways accompanied, perhaps, by other techniques, this can result in the client being less responsible in the process. This will not necessarily be the case, and, again, this will vary according to the beliefs of the therapist and the client. McKeen and Wong (personal communication, November, 1986), often use Reichian-type breathing yet maintain that they consistently work to keep the process directed by the client -- it is the client's work to do, they state, not theirs. They help the client to get to a body-mind state where the work can be done, by coaching the breathing and using muscular pressure, and so

forth; but it is the client who knows what he or she feels, experiences, and how this will be expressed. The client must also, in some way, allow the process to occur. Deep breathing doesn't necessarily lead to catharsis. The therapist, they maintain, merely facilitates. Client responsibility is strongly affected by the attitudes of the therapist, but it generally appears that the intent in Gestalt therapy, Bioenergetics, and Wong and McKeen's bodywork, is to encourage client responsibility with the other approaches falling somewhere below this.

The approaches also vary in terms of the length of time the therapeutic process entails. Primal Therapy, for example, is an intense three week therapeutic experience followed by a few months of group work. Painter (1984) maintains that PI therapy takes approximately ten sessions. The other therapies are long term processes which may go on for many months or even years.

Table 1
Summary of Types of Body-Oriented Techniques Used in the Eight Approaches

	Type of breathing techniques used	Other Body-oriented techniques used
Reichian	Reichian	muscular pressure, kicking, hitting, biting, vocalizing
Bioenergetics	Reichian & also deep breathing accompanying exercises,	musc. pressure, kicking, hitting, biting, exercises, vocalizing
Primal	Reichian-type (no credit to Reich)	kicking, hitting vocalizing
IBP	Reichian-type (adapted)	same as Bio-energetics
PI	various techniques used	deep musc. pressure
Rebirthing	various types of breathing, including high volume (no credit to Reich)	none in traditional Rebirthing, other than vocalizing
Gestalt	some use of high-volume breathing	body awareness, limited use of touch & pressure, vocalizing
Wong & McKeen	Reichian-type	musc. pressure, kicking, hitting, biting, exercise, acupuncture, vocalizing

Table 2
Use of Verbal Techniques and Analysis & Unique
Characteristics of the Eight Approaches

	Use of Verbal Techniques & Analysis	Unique Characteristics
Reichian	some verbalizing, yes analysis (Reich moved away from this in his later years)	
Bioenergetics	high use of verbalizing & analysis	use of stress- exercises
Primal	little verbalizing other than in emotional expres- sion, no analysis	Primal scream
IBP	same as Bio- energetics	eclectic
PI	some use of verbalizing & analysis	deep muscular and fascial release work
Rebirthing	little or no verbalizing during Rebirthing session, separate work done re: beliefs	use of under- water breathing (with a snorkel)
Gestalt	-high use of verbalizing -no analysis, emphasis on awareness	focus on awareness
Wong & McKeen	-some verbalizing -some analyzing	eclectic, & use of acupuncture

SECTION IV
ANALYSIS, DISCUSSION, AND CRITIQUE OF
SOME THEORETICAL THEMES

The purpose of this section is to address some of the themes which have emerged from the above discussion by augmenting the information in the body-oriented psychotherapy literature with that from empirical studies. This discussion is organized in terms of theoretical propositions, empirical deductions from them, and relevant evidence.

Individual Differences in Respiration,
Related to Neurosis and Anxiety

Theoretical Proposition 1

Body-oriented psychotherapists maintain that people who need therapy, those described as anxious or neurotic, exhibit constricted breathing (ie. Baker, 1967; Lowen, 1975; Reich, 1973; Rosenberg, 1985). Reich (1973) further maintains that every individual who is neurotic will have tension in the abdominal muscles. Reich (1973), in addition, maintains that anxious individuals manifest chronic heightened sympathetic activity.

Specific Predictions

1. People who score high on a measure of neuroticism or anxiety tend to breathe thoracically and shallowly, since the tense abdominal muscles do not allow for abdominal expansion.
2. Individuals assessed as anxious or neurotic on various clinical or psychometric measures would show higher levels on sympathetic measures.

Preliminary Discussion

A. The Concept of "Neurosis"

Before beginning a discussion on respiratory patterns which may be associated with unhealthy or "neurotic" psychological states, a brief discussion of the concept of neurosis, as it is used in the body-oriented psychotherapy literature is in order. The term "neurosis" is used as a general term to refer to any unhealthy psychological condition which falls short of psychosis (loss of contact with reality) (Baker, 1967; Janov, 1970; Lowen, 1975; Reich, 1973). Reich (1973) proposes that neurotic states occur as a result of repressed sexuality and that most people fall into this category to some extent. To him, "it was precisely the inability to experience gratification which characterized neurosis" (p. 153).

Neurosis, according to Reich (1973) is manifest in the body as well as in the mind. He maintains that there are general characteristics of this condition, such as the existence of chronic muscular tension (armoring) and an unbalanced state of the autonomic nervous system. The typical psychophysical pattern Reich (1973) describes as

"neurotic" involves muscular tension and heightened sympathetic activation.

In addition to this hyper-sympathetic state, there is also some discussion of other physiological states accompanying "neurotic" psychological symptoms which do not involve increased tension or SNS activation, but rather may be characterized by flaccid musculature ("soft armor") and PNS hyperactivation (Baker, 1967; Lowen, 1975; Reich, 1972; Wong & McKeen, personal communication, November, 1986). Further, Reich (1973) discusses how an individual may have parts of his or her body which are hypertense (SNS activated) while others are flaccid and PNS activated.

Body-oriented psychotherapists concur that each individual's experience and expression is unique and thus it would seem that even though the term "neurosis" is used to categorize people who exhibit certain psychophysical patterns, each of these people will manifest his or her own characteristics (Baker, 1967; Lowen, 1975; Reich, 1972, 1973; Rosenberg, 1985). Lowen (1975), for example, states that any categorization which a therapist uses must be tempered by a recognition that every client is unique.

B. Measuring Respiratory Amplitude

There are three major styles of breathing. These are: (a) abdominal, in which the diaphragm moves down, forcing the abdomen out, followed by a possible ventilation of the chest; (b) thoracic (costal), in which some part of the chest moves out as the diaphragm lowers, followed by possible distention of the abdomen; and (c) unisonal, in which the abdomen and thorax move out in unison (Christiansen, 1972).

There are innumerable variations on these major respiratory styles. One example is paradoxical breathing, in which the abdomen is drawn in during the inhale and moves out during the exhale. Another way that respiration varies, especially in the thorax, is in what part of the chest moves to allow for ventilation. Full natural breathing makes use of the elastic qualities of the entire rib cage, including the sides and back. The shoulders will also move with a full breath (Speads, 1986). In fact, some writers suggest that the whole body moves with full, free respiration (Christiansen, 1972; Reich, 1973).

Respiratory amplitude can be measured in two ways. The first is by using a spiograph (or spiogram) (employing a mask over the nose and mouth which is connected to a recording machine that registers air

volume, among other measures). The spiograph measures the volume of air breathed during each breath. In this case the term amplitude refers to the volume of air breathed. The second method for measuring respiration is by putting elastic bands around the chest and/or abdomen and recording the amount of stretch in the bands, using a pneumograph. This measurement may also be called amplitude, but what is being measured here is the amount of distention of the thorax and/or abdomen. When using this method, both the abdomen and thorax must be measured in order to have a complete picture of an individual's respiration. Thus it is necessary to know what is referred to when the term "amplitude of respiration" is used.

Thoracic breathing often does not include much, if any, abdominal movement. If this is the case then thoracic breathing would bring in very little air during each inhalation; it would be shallow. Thus, thoracic respiration is sometimes referred to as "shallow breathing." Conversely, abdominal breathing brings more air into the lungs than thoracic breathing does and is sometimes referred to as "deep breathing."

Confusion emerges due to the variety of individual differences in respiratory pattern. Some individuals, for example, may breathe abdominally yet have a small abdominal excursion. Thus the volume of air inspired in

one breath could be more than that of someone who breathes thoracically and yet not as much as someone who has a large abdominal excursion, especially when this is followed by a thoracic distention as well (Konno & Mead, 1967; Stein & Luparello, 1967).

Review of the Evidence

Part 1: Respiratory Patterns in Individuals With Neurotic Symptoms

The pattern of thoracic breathing is common among people who are diagnosed as being neurotic in an anxious manner (Braatoy, 1947, cited in Christiansen, 1972; Christie, 1935). Braatoy (1947, cited in Christiansen, 1972) describes his clinical observation of the breathing pattern of the "anxiety neurotic" whose "tenseness draws the breathing in, tightens the neck, shoulder, and arm muscles, and thereby fixates the breathing in a high-costal pattern" (p. 217-218).

Christiansen (1972) describes his proposition that high costal breathing results from tension in the abdomen which inhibits abdominal breathing. He further maintains that if the chest is relatively mobile, inefficient thoracic breathing ensues. He describes this pattern,

stating that if the chest is mobile then abdominal tension may "gradually force respiration into a comparatively inefficient costal stratum" (p. 58).

There is some additional empirical support for this apparent relationship between anxiety and costal respiration. Clausen (1951), for example, who used a pneumograph to measure respiration curves, found that neurotic females often have extreme thoracic breathing patterns compared to normal subjects, although the respiratory pattern for males in terms of thoracic breathing was not clear. Christie (1935) also found that when respiration was measured using a spirogram, individuals with "anxiety neurosis" exhibit "a tendency to rapid and shallow breathing" (p. 428). In other studies, locus of breathing was not specifically measured (Finesinger & Mazick, 1940; Stevenson & Ripley, 1952; Thompson, Corwin, & Aste-Salazar, 1937). There is some evidence that in normal subjects, states of heightened emotion are accompanied by a primarily thoracic respiratory pattern whereas states of relaxation are accompanied by abdominal breathing. For example, Halverson (1941, cited in Christiansen, 1972) found that in infants, abdominal breathing (measured with a pneumograph) was dominant during deep relaxation while

thoracic breathing occurred primarily during strong excitement.

Some further possible evidence of decreased amplitude of breath during anxiety is found in a study done by Wolf (1947) who observed that patients who reported feeling anxious often complained of "respiratory distress characterized by inability to get a full breath" (p. 201). Since Wolf did not measure thoracic or abdominal movement, the style of breathing of these subjects is not clear. In this study, the diaphragmatic movements of 17 anxious people were observed using a fluoroscope while they were induced to have anxiety attacks by discussing "situational conflicts" (p. 1201). Wolf states:

In each instance a characteristic disorder of diaphragmatic function was observed. Inspiration became jerky and the excursion of the diaphragm exceeded that in expiration. The diaphragm thus assumed a progressively lower position. When its contractile state was such that an adequate inspiratory excursion was no longer possible, dyspnea

occurred with a feeling of inability to take a breath. (p. 1201)

Faulkner (1941) observed diaphragmatic excursion associated with pleasant and unpleasant thoughts and emotion in fifteen anxious patients using a fluoroscope. He found that when an individual experiences unpleasant emotion related to unpleasant thoughts, diaphragmatic excursion is severely decreased. For example, one man's diaphragmatic excursion during pleasant emotion was 3 1/2 inches and during unpleasant emotion it decreased to between 1/2 and 3/4 of an inch. Faulkner maintains that this is representative of his findings. It is possible that the diaphragm may develop chronic hypertonicity, thus not allowing for full easy breathing.

In addition to the shallow thoracic respiratory pattern, there are a number of other respiratory differences between individuals diagnosed as neurotic or anxious, and those considered "normal". For instance, there is a tendency for increased respiratory rate which is apparently required to accommodate for shallow breathing. Christie (1935) used a spirometer [spiograph] to measure respiratory response. He states that there is evidence that individuals who are diagnosed as having certain types of neurotic symptoms (e.g., anxiety, hysteria, or phobia) tend to breathe more rapidly than

normal subjects. Braatoy (1947, cited in Christiansen, 1972), Clausen (1951), and Finesinger and Mazick (1940) concur with this. Finesinger and Mazick (1940) applied painful stimuli and measured respiratory response in 39 "psychoneurotic patients" and 14 control subjects using a spiograph. The patients were divided into two groups according to their symptoms. Respiratory rate of those displaying symptoms of anxiety increased but that of control subjects and non-anxious patients did not. They state that "there is usually an increase in respiratory function accompanying feelings of anxiety" (p. 478).

Another discriminating variable is rhythmicity of respiration. Clausen (1951), who compared respiratory patterns in 50 "normal" subjects, 40 "neurotic" subjects, and 49 "psychotic" subjects, using a pneumograph, found that "irregular [respiration] curves are obtained from some of the patients, but not from the normals" (p. 42). He does not differentiate between anxious and non-anxious individuals, possibly accounting for his inconclusive statement. Thompson and Corwin (1942, cited in Christiansen, 1972) determined psychological diagnosis from eight hours of psychiatric interviews and observed the respiration patterns of subjects, measuring the regularity and volume of tidal air (spiograph). They maintain that those who were diagnosed as having neurotic

character traits had respiratory patterns which showed "marked irregularity with no discernable pattern" (p. 49). Finesinger (1943) who compared "anxiety neurotics", "other neurotics", "schizophrenics", and "normals", maintains that anxiety neurotics showed significant respiratory irregularities compared to other groups (measured with a pneumograph). Further, he maintains that the incidence of sighing is greatest in people who are diagnosed as "anxiety neurotic". A technique which measures sighing rate can be reliably used, he claims, to differentiate between "anxiety neurotics" and "normal controls," since the average incidence of sighing is 60% and 21% respectively. Stevenson and Ripley (1952), who measured thoracic respiratory movement using a pneumograph in 22 individuals with bronchial asthma (15 subjects) and "anxiety states" (7 subjects) while discussing emotionally upsetting issues, state that:

Irregularity of respiration was one of the most frequent findings. . . . Three situations -- anger, guilt, and sorrow -- in particular were associated with gross irregularity of respiration. (p. 484)

Theoretical basis for the relationship between anxiety and respiration. Although there are always individual differences in respiration (Alexander & Saul, 1940), there is ample evidence of a shallow and/or rapid and/or irregular breathing pattern evident in individuals who experience anxiety. The question arising from this is whether the breathing pattern leads to anxious feelings or the anxious feelings lead to the development of this pattern of breathing. Perls et al. (1980) maintain that the feelings of anxiety which these individuals experience are due to their breathing patterns which are a result of their chronic muscular tension. They believe that the tension in the respiratory musculature is due to an armoring against emotional experience and expression. They state:

Anxiety is the experience of breathing difficulty during any blocked excitement. It is the experience of trying to get more air into lungs immobilized by muscular contractions of the thoracic cage. (p. 128)

Perls et al. (1980) describe what they consider to be the causes of some types of respiratory armoring:

The neurotic who suffers from anxiety-states simply cannot. . . breathe -- for, unaware of what he is doing and therefore

uncontrollably, he maintains against his breathing a systems of motor tensions, such as tightening the diaphragm against tendencies to shriek, sticking out the chest to appear substantial, holding back the aggression of the shoulders, and a number of other things. . . . He is utterly incapable of a complete, unforced exhalation.

(p. 131)

Reich (1973) fundamentally concurs with this. He would also agree with Perls et al. (1980) about the origin of the armoring of the respiratory musculature which, he also believes, leads to a decrease in feelings of emotion (both positive and negative) which are unbearable to the individual. The relationship between anxiety and decreased respiration which Perls et al. (1980) outlined above is also reflected in Reich's (1972) writings. He states:

The inhibition of respiration -- specifically of deep expiration -- creates a conflict: the inhibition serves the purpose of damping the pleasurable excitation. . . , but just in doing so, it creates an increased susceptibility for anxiety. (p. 301)

Thus the respiratory armoring, whose purpose is to decrease uncomfortable emotional feelings, is thought to lead to a respiratory condition which may, in turn, lead to feelings of anxiety, a state which probably is not any better than the initial state. In fact, the relationship might be quite circular; feelings of anxiety may also lead to increased respiratory (and general) muscular tension which ultimately could increase anxiety level.

Respiration pattern in non-anxious neurotics.

Although there does seem to be a clear relationship between unhealthy psychophysical states which are characterized by anxiety, this is not the only type of "neurotic" state which has been found to be associated with respiratory changes. There is some clinical and experimental evidence of another type of breathing which Braatoy (1947, cited in Christiansen, 1972) describes, which is seen in people he diagnoses as "compulsive neurotics", but this isn't well documented. He contrasts this group with individuals who he classifies as "anxiety neurotics," stating:

The anxiety neurotic breathes fast and irregular of anxiety, while the compulsive neurotic breathes in a certain way, usually with an abdominal predominance, in order to avoid anxiety. (p. 52)

There is some experimental evidence to support this type of grouping. For example, Finesinger and Mazick (1940) found that respiratory patterns (measured using a spiograph) of individuals with diagnoses of "hysteria, phobia, or anxiety neurosis" (Group 1) responded to a painful stimulus with an increase in respiratory rate, minute respiratory volume, and metabolic rate, whereas individuals with a diagnosis of "hypochondriasis, reactive depression, compulsion neurosis, and questionable schizophrenia" (Group 2) showed little or no change in rate, though they did show an increase in depth and a small increase in minute volume. In fact, this type of slow deep breathing has been shown to decrease sympathetic arousal and is used in relaxation training (see discussion on respiration and the ANS).

Finesinger (1944) addresses this issue further in another study where he looked at respiratory responses to pleasant and unpleasant ideas. He again found that members of Group 1 showed great respiratory reactivity whereas members of Group 2 were less responsive than controls. He states:

We note of course, . . . that the former group are probably characterized by a fairly high degree of thoracic breathing, while the latter group, most probably, are

characterized by a habitual diaphragmatic predominance. (cited in Christiansen, 1972, p. 64)

The evidence presented here supports the proposition that anxious individuals tend to have constricted breathing. The respiratory response associated with other neurotic patterns in which the individual is not anxious are not as clear, however. This evidence points to the necessity of distinguishing what type of neurosis one is referring to in relation to respiratory patterns, since it appears that individuals in Group 2, from Finesinger (1944) and Finesinger and Mazick's (1940) findings seem to show respiration which is not constricted and which, in fact may be greater than normal.

Christiansen (1972), however, seems to believe that a breathing pattern may be diaphragmatic and still be constricted. He asserts that the reason for these differences in breathing style may be related to patterns of chronic muscular tension, not absence of tension in one group. One would expect, however, that if the respiration of Group 2 members were constricted in some way, their minute volume would be decreased, which was not the case.

Abdominal respiration is more efficient for extracting oxygen than high thoracic breathing since a

greater proportion of inspired air reaches the alveoli of the lungs. Inefficient, costal breathing cannot occur if the muscles of the chest wall are severely contracted. Thus, if the chest wall is kept in an armored, fixated position, the respiration is forced to become abdominal (unless abdominal tension is greater). Perls et al. (1980) maintain that in individuals whose breathing is primarily costal, the feeling of anxiety may be diminished by constriction of the chest, forcing the breath to be abdominal. However, they further state that due to chronic abdominal tensions which usually exist in these individuals, this is not a lasting solution.

Summary. A review of the empirical literature shows that certain individuals, those who are diagnosed as anxious, do appear to have contracted, shallow breathing. However, from the limited evidence, individuals who are diagnosed as neurotic but are non-anxious do not seem to have constricted breathing. Further research is needed to clarify this relationship.

Part 2: Anxiety and the SNS

Preliminary discussion. There is what appears to be some confusion in Reich's (1973) writings in regard to the effects of constriction of the breathing on autonomic response. Reich claims that suppression of the breathing leads to a decrease in emotional activation which may be related to a decrease in sympathetic activation. This makes sense in terms of empirical evidence which demonstrates an increase in SNS activation which often occurs during emotional arousal (Jacobsen, 1967).

The confusion emerges when Reich then describes what he considers to be the long term effect of emotional suppression (related to respiratory suppression), heightened sympathetic stasis. Anxiety states have been shown empirically to be accompanied by heightened SNS activation (Grings & Dawson, 1978). What Reich doesn't discuss is why the short term (SNS decreased activation) and long term (SNS increased activation) effects of emotional suppression are opposite to each other.

Review of the evidence. The issue of increased sympathetic arousal in anxiety states will be addressed only briefly. Reich's (1973) proposition that anxious people are in a state of sympathetic stasis is supported by the experimental literature. For example, Grings and Dawson (1978) state that in their review of studies which address this issue that:

All in all, the findings indicate that anxiety is associated with diffuse overactivity of the sympathetic division of the ANS. . . .

It has been concluded that anxious patients are in a state of sympathetic hyperactivity or, put differently, they are in a state of physiological overarousal. (p. 67)

Summary. Reich's (1973) proposition that individuals who are chronically anxious have hyperactive sympathetic nervous systems is supported by the experimental literature on this subject.

Physiological Effects of Constricted Breathing
on PO_2 and Metabolism

Theoretical Proposition 2

According to Reich (1973), an individual may unconsciously constrict his or her breathing, in the face of an emotional stressor, leading to a decrease in the volume of air breathed, thus bringing less oxygen into the system, resulting in lowered metabolism. The state of lowered metabolism, he believes, results in decreased activation in the body in general, and specifically in decreased emotional activation. The individual, according to this proposition, experiences less emotion as a result of constricted breathing.

Specific Predictions

1. Constricted breathing results in decreased oxygen in the system, specifically PO_2 in the blood (in, or just after leaving, the lungs) and that this will lead to a decrease in metabolism and general arousal.

2. An individual who constricts his or her breathing in the face of an emotional stressor will experience less emotional arousal than someone who breathes normally (this may be true without point "(a)" above being true and vice versa).

Review of the Evidence

Part 1

Underbreathing, or hypoventilation, is a condition in which there is insufficient oxygen to meet metabolic needs. In this state there is a lower than normal partial pressure (concentration) of oxygen in the blood (PO_2) and usually a lower pH (acidosis). Some physical symptoms associated with hypoventilation are such things as feeling weak or light-headed. As discussed in the above section, there is experimental evidence to support Reich's (1973) contention that shallow breathing often occurs during anxiety. One important factor regarding shallow breathing is clear: it is less efficient than full abdominal breathing in terms of the amount of oxygen inhaled for the amount of respiratory energy output. Further, shallow, more rapid breathing doesn't blow off carbon dioxide as efficiently.

Even though shallow thoracic breathing is usually found in anxious individuals, Guyton (1982) and West (1974) suggest that a state of clinical hypoventilation occurs only in lung disease or in a situation (such as high altitude) where there is insufficient oxygen to breathe. Wenger (personal communication, June, 1987) concurs with Guyton and West's position, stating that it

is unlikely that shallow breathing could lead to a decrease in partial pressure of arterial oxygen. This is because it takes 25/100 of a second to saturate arterial blood with oxygen as it passes through the lungs, and the blood is in the lungs during the resting state for 75/100 of a second; thus there is ample time for saturation to occur. Problems only begin when, for example during strenuous exercise, heart rate increases to the point where the blood moves so fast through the lungs that sufficient oxygenation cannot occur.

Thus, the implication of Reich's proposition, that shallow breathing due to muscular tension does not provide sufficient oxygen to saturate arterial blood, is not supported by physiological evidence. Tenny and Lamb (1965) explain this further, stating that "the proportional relationship between ventilation and whole body metabolism which is maintained over a wide range of muscular exercise, ensures an arterial CO_2 tension that varies within narrow limits" (p.979). The partial pressure of arterial CO_2 (PCO_2) is the main stimulus for respiration. When PCO_2 increases, this stimulates the respiratory brain centers which innervate respiratory musculature. Tenny and Lamb (1965) discuss other back up measures which apparently ensure adequate oxygen is provided to body systems. There are a number of metabolic

and respiratory responses which occur when there is an acute decrease in oxygen. These include such responses as the appearance of increased concentrations of lactate in the blood which, theoretically, can substitute (as lactic dehydrogenase), for oxygen in metabolism. Secondly, low oxygen levels stimulate ventilation, though the mechanisms that do this come into play only when ventilatory response to CO_2 has proved to be insufficient. Thirdly, in response to prolonged respiration of air with low oxygen concentration, hemoglobin levels in the blood increase. Fourthly, there is evidence that cardiac output increases during hypoxia (Tenny & Lamb, 1965).

Other factors may need to be considered regarding respiratory function during activity. Although the above may be true, it may also be that individuals vary in terms of how efficiently they extract oxygen from ventilated air. Mezey and Coppen (1961) measured respiratory efficiency using a spiograph. They found that anxious individuals are less efficient at oxygen extraction and that during and just following exercise, their metabolic levels are far above normal. If a person develops chronically constricted breathing, as appears to be the case with many anxious individuals, other factors may be involved. Christie (1935), for example, measured respiratory patterns using a spiograph. He states that

individuals who are chronically anxious exhibit symptoms of rapid, shallow breathing, and "also complain of breathlessness, palpitation, giddiness, sweating, and precordial pain, all exaggerated by exercise" (p. 428). He further states that in severe cases this may lead to "anoxamemia and cyanosis, naturally relieved by oxygen" (p. 428). This would suggest that chronic respiratory muscular tension associated with long term anxiety states needs further study before it can be clear whether, perhaps, there are blood gas and metabolic effects of this type of respiratory muscular tension, especially when this condition has become chronic. To determine this, blood levels of oxygen would have to be measured.

Part 2

There is a substantial amount of clinical evidence that an individual will experience less emotion when his or her breathing is constricted (i.e., Baker, 1967; Davies, personal communication, November, 1986; Reich, 1973; Wong and McKeen, personal communication, November, 1986). Even if Reich (1973) is incorrect about the physiological mechanisms involved in the relationship between decreased breathing and decreased emotional activation, it is still germane to question whether

decreasing breathing in the face of an emotional stressor leads to a decrease in subjective emotional experience.

In order to test this, it would be necessary to expose a number of individuals to emotionally stressful stimuli while taking measures of respiratory and ANS functions and also obtaining some type of subjective report. This might include such things as observing emotionally provoking films or something which is closer to the therapeutic situation, such as discussing personal concerns, and so forth. Correlations could then be made regarding degree of subjective emotional experience and degree of respiratory constriction. ANS measures could be used to discover whether respiratory constriction effects general arousal levels. No studies which address this issue were found.

Summary

Following from the above discussion, and excepting the possibility suggested by Mezey and Coppen (1961) regarding inefficient oxygen extraction, one may conclude that decreased breathing as a result of muscular constriction would be insufficient to decrease PO_2 levels in the blood enough to effect metabolic rate, if this constriction were to occur in an otherwise healthy

individual. However, individuals who are anxious have been found to have shallow, thoracic breathing which is often fast. They have also been found to have decreased oxygen extraction capabilities in a resting state. During exercise, and for five minutes following exercise, their metabolic rates were shown to increase above normal. In fact, Coppen and Mezey (1960, cited in Christiansen, 1972) state that:

It is possible that the lowered respiratory efficiency and higher metabolic rate may contribute to the symptoms of fatigue commonly reported in anxiety states and thus add to the difficulties already experienced by these patients. (p. 174)

There is much clinical evidence of a decrease in emotional response related to a decrease in respiratory volume. This has not been addressed in laboratory studies. Suggestions for research in this area have been presented.

Psychophysical Concomitants of Reichian-Type Breathing

Theoretical Proposition 3

That Reichian-type breathing leads to increased physiological activation, and release of repressed emotional content.

Specific Predictions

Increasing the rate and depth of breathing leads to an increase in measures of SNS activity, and will lead to an increased report or expression of emotion.

Preliminary Discussion

Relation between Respiratory and Autonomic Function

Breathing techniques are used in body-oriented psychotherapy to help the client reach a state of psychophysical activation, catharsis, and, finally, of integration of previously repressed material. The possible explanations for how this occurs are quite complex and primarily involve the respiratory system, the central nervous system, the autonomic nervous system, the

endocrine system, and the skeletal musculature. The first part of this discussion will focus on the interplay between the respiratory system and the central and autonomic nervous systems, in order to clarify this relationship, since body-oriented psychotherapists place a lot of emphasis on the interaction of these two systems. The role of the non-respiratory skeletal musculature and armoring will be addressed only briefly, since this is beyond the scope of this thesis.

Respiration and the ANS. The respiratory system is controlled by the reticular activating system of the medulla and pons; it is not controlled directly by the ANS, except for the SNS activation (dilation) of the bronchioles and the mild constriction of the blood vessels of the lungs (the PNS dilates the lung blood vessels and may constrict the bronchioles). However, the respiratory system is very closely interrelated with processes whose control is mediated by the ANS. In fact, changes in respiration lead to strong and almost immediate changes in heart rate, finger volume pulse, and galvanic skin response, all of which are mediated by the ANS (Stern & Anshel, 1968). For example, Stern, Ray and Davis (1980) state that when conducting psychophysiological tests:

A deep breath, intentional or not, will usually bring about a greater change in autonomic nervous system responses than will manipulation of the independent variable. (p. 151)

Although it is clear that respiratory function is closely linked to systems which are innervated by the ANS, there is no evidence of direct ANS innervation, except for the existence of a filament from the sympathetic nervous system which joins to the phrenic nerve, but only in some people (the phrenic nerve innervates the diaphragm). Anatomists are not sure of the function of this sympathetic filament (Wenger, personal communication, June, 1987).

There are afferent (leading to the brain) nerve fibers from stretch receptors in the lungs which are in the vagal system, the main nerve of the parasympathetic system. This accounts in part for the close connection of respiration and autonomic functions, since neural impulses from the lungs travel within autonomic nerves. A further reason that changes in respiration lead to changes in autonomic functions is that during respiration there are pressure changes within the thorax; these are sensed by structures in the heart and blood vessels which

immediately lead to changes in heart rate, blood flow, and so forth.

Respiration, therefore, is not an autonomic function if by this is meant respiratory musculature is innervated by autonomic nerves (except for the unknown function of the sympathetic filament attached to the phrenic nerve of some individuals). Nevertheless, in the very limited sense of afferent fibers leading from the stretch receptors in the lungs which are part of the vagus nerve, the respiratory system is associated with the autonomic system. There is no evidence of direct innervation of the intercostal muscles by sympathetic nerves (Berne & Levy, 1983).

Respiration is both a voluntary and an involuntary function; it is controlled both by the cortex and by the lower brain, by a "widely dispersed group of neurons located bilaterally in the reticular substance of the medulla oblongata and the pons" (Guyton, 1982, p. 318). The lower brain does not operate solely through the ANS. Just because a function is unconscious and automatic does not mean that it is necessarily autonomic.

Another example of the close relationship between respiration and the ANS is that during inspiration there is an increase in functions which are mediated by the SNS and during expiration there is an increase of functions

which are mediated by the PNS (Stern & Anshel, 1968). What occurs during respiration, then, is a cyclic alternation of heightened SNS and PNS activation.

Emotion, Respiration, and the ANS

It has been demonstrated experimentally that emotional arousal is accompanied by changes in respiration (Cohen, Goodenough, Witken, Oltman, Gould, & Shulman, 1975; Faulkner, 1941; Feleky, 1916; Jellinek, Goldenheim, & Jenike, 1985; Ruggieri, Amoroso, Balbi, & Borso, 1986; Singh, 1984). For example, Christie (1935) states, "there is hardly an emotion which has not its obvious respiratory manifestation" (p. 427). Christiansen (1972) describes commonly experienced associations, such as sighing in grief or depression, gasping in rage or fright, panting with fear or anger, and so forth. Emotional expression is mediated by limbic structures which then activate the sympathetic nervous system. When the SNS is activated, this leads to the pattern of symptoms of the fight or flight syndrome. In order to provide oxygen to the system which is preparing for action, and in which heart rate and blood flow have increased, respiration also increases. Thus it is evident that there are connections between limbic structures and respiratory brain centers, at least

indirectly through the respiratory center's relationship with the ANS, and probably also directly.

The relationship between the ANS and respiration is further described in the literature on relaxation training which often makes use of slow, deep, abdominal breathing, especially of slow exhalation. For example, van Dixhoorn (1984) states, "this pattern of full, slow breathing is associated with active relaxation. . . ." (p. 35). Cappel and Holmes (1984) state:

Inhaling quickly and exhaling slowly was consistently effective for reducing physiological (skin resistance) and psychological (subjective cognitive) arousal. (p. 265)

Wenger (personal communication, June, 1987) states that one reason this slow deep exhale may lead to relaxation is that it causes the expiration of greater amounts of carbon dioxide. Since concentration of carbon dioxide in the blood is what primarily activates respiratory centers in the brain, blowing off carbon dioxide would quiet these centers and lead to slower, more relaxed breathing. Also, exhalation is related to PNS activated functions such as decreased heart rate and so forth. As well, abdominal breathing will be slower since it is more efficient. This decrease in rate may affect

the ANS further by activating the PNS or decreasing SNS activation.

Review of the Evidence

The Psychophysiology of Hyperventilation

Does body-oriented psychotherapy involve hyperventilation? The most compelling medical or physiological analogy to Reichian breathing would seem to be hyperventilation. Four things should be considered here, however. One is that many of the body-oriented psychotherapy practitioners believe that average North Americans do not, as a rule, breathe deeply enough (due, they maintain, to chronic anxiety, Lowen, 1975; Rosenberg, 1985; Wong & McKeen, personal communication, November, 1986). Increasing breathing in a therapeutic session may therefore be nothing more than bringing it to a healthier level rather than instituting a state of overbreathing (Lowen, 1975; Wong & McKeen, personal communication, November, 1986; Rosenberg, 1985).

Secondly, people have the ability to greatly increase their capacity for fullness of breath (e.g., opera singers and athletes). It also may be that in

therapy, initially, higher volume breathing will lead to symptoms of hyperventilation syndrome, and as the body accomodates to higher levels of oxygen (and other associated changes), hyperventilation will not occur as readily (as in athletic or voice training) (McKeen and Wong, personal communication, November, 1986).

Thirdly, a number of therapists state that they believe that the acute symptoms of hyperventilation, which may be painful or uncomfortable, can be distracting to the client. For this reason these practitioners recommend coaching the client not to breathe to the point where these symptoms occur (Baker, 1967; Wong & McKeen, personal communication, November, 1986). One thing to note here is that a person may be in a state of clinical hyperventilation (respiratory alkalosis, $\text{pH} > 7.45$) and not necessarily display or experience symptoms associated with this state. People respond differently to hyperventilation. Plus, response may also depend upon how far above normal the pH level has risen. Therefore, unless an individual's blood pH is measured it is not possible to ascertain whether that person is in a state of clinically defined hyperventilation or not.

Fourthly, there is a difference between clinical hyperventilation which accompanies a panic attack (acute stress response) and induced hyperventilation which occurs

in a laboratory or therapeutic setting. In a laboratory or therapeutic setting, an acute stress response may be elicited by voluntarily increasing the respiratory volume and rate. How a person responds to this will be related to that person's current level of chronic stress. If the individual has a high level of chronic stress, then it is likely that he or she will respond to increased breathing with the symptoms of an acute stress response. In the therapeutic setting, increased breathing is used as a tool in order to bring this about, since the acute stress response, in the form of catharsis, is seen as a means of releasing the chronic tension. Thus the purpose of therapy is to convert chronic stress into an active stress reaction. Breathing techniques are used to help an individual reach a state in which an acute stress reaction occurs which leads to release of chronic tension and which may be followed by integration of previously repressed causes of the original tension.

For these reasons, Reichian-type breathing may not represent a clear and unqualified example of hyperventilation. Nonetheless, it is not uncommon for clients to exhibit symptoms of hyperventilation syndrome (described below) as a result of this type of breathing work. For this reason a discussion of the psychophysical

concomitants of hyperventilation is relevant to the understanding of Reichian breathing.

Physiology of hyperventilation. Optimal pH balance is required for enzymes to catalyze the biochemical reactions sustaining life. This balance is critical, and respiration plays a critical role in its maintainance; the lungs are the most important organs in the body for the excretion of acid (two to three times as powerful as other systems; for example, the kidneys). This is accomplished by regulating how much carbon dioxide is exhaled (Heape, 1984).

Fluids in the body, including the blood, are acid or alkaline depending on the levels of free hydrogen ions (Guyton, 1982). Hydrogen ions are continuously formed in the body as a by-product of aerobic metabolism, during which carbonic acid is produced as the carbon dioxide combines with water. Carbonic acid then dissociates into bicarbonate and hydrogen ions. When there is a higher than normal concentration of hydrogen ions, the body fluids are acidic (lower pH). This condition is known as acidosis. A lower concentration of hydrogen ions produces alkaline body fluids (higher pH) and this condition is known as alkalosis. The normal range of pH in body fluids is 7.36-7.44 which is slightly alkaline. The lower and

upper limits of pH at which a person can live for more than a few minutes is between 7.0 and 7.8 (Heape, 1984).

Hyperventilation occurs when the oxygen concentration in the blood is increased and the concentration of carbon dioxide is decreased. This takes place when ventilation is in excess of metabolic needs (Ley, 1985). This process is accompanied by an increase in the pH level in the fluids of the body and the tissues of the brain (respiratory alkalosis, $\text{pH} > 7.45$). (In contrast to hyperpnea which is rapid breathing that is consistent with metabolic needs, $\text{pH} = 7.40$.) During hyperventilation, blood levels of pyruvate and lactate in the body rise and levels of ionized calcium decrease (Heape, 1984). Although medical practitioners treat hyperventilation as "potentially dangerous" (Heape, 1984, p. 233), there is no clinical evidence that it is a medically hazardous condition.

Some symptoms related to hyperventilation are light-headedness, heightened emotionality, tingling and cramping of the extremities and around the mouth, increased heart rate and sometimes palpitations, dizziness, and faintness (Heape, 1984; Ley, 1985). Heape (1984) states that respiratory alkalosis leads to overexcitability of the central and peripheral nervous systems. This is related, in part, to decreased

concentrations of calcium ions in the extracellular fluids (hypocalcemia) which results in greater permeability of nerve membranes. The nerves are firing automatically and repetitively because of the higher levels of excitability. The muscles may go into a state of tonic spasm (tetany).

Generally a person will breathe without conscious control, but it is possible to learn to control the breath, as during singing or snorkling. When voluntary control of the breathing brings a person to a state of physiological danger, the involuntary impulses take over and breathing adjusts to rebalance blood gas levels. It is therefore impossible to die from voluntarily holding the breath or voluntarily overbreathing. If a person gets too much or too little oxygen from over and under breathing, he or she may become unconscious in which case the involuntary system takes over and breathing is adjusted so that oxygen and carbon dioxide levels are rebalanced. (Asimov, 1963; West, 1974).

Ley (1984) states that one of the dangers of hyperventilation which medical doctors fear is that the alkalinity of the blood would rise to lethal levels. He states that when the pH level rises above 7.7, the arterial pressure of carbon dioxide has become so low that the arteries have become constricted to the point where the heart cannot pump with sufficient force and frequency

to provide for the transportation of enough oxygen to the cells of the body. The result is hypoxemia. Death does not occur, however, because, as stated above, the person would lose consciousness and respiration rate would decrease until a normal pH level had been restored. Wong and McKeen (personal communication, November, 1986) maintain that the only time hyperventilation or overbreathing could be dangerous is when the individual who is hyperventilating has a medical condition, such as a heart arrhythmia, which could be aggravated by this procedure. Therefore a screening interview is recommended prior to doing this type of work.

ANS effects of hyperventilation. The primary autonomic response to hyperventilation is an increase in parasympathetic or a decrease in sympathetic activation. This is because in hyperventilation carbon-dioxide is blown off and PCO_2 decreases (West, 1974). Wenger (personal communication, July, 1987) maintains that if the hyperventilation occurs under relaxed conditions with no conflicting input from higher brain centers, a decrease in PCO_2 leads to an activation of the PNS. This would then lead to a decrease in heart rate which would lead to a decrease in respiration rate.

Hyperventilation rarely does occur during completely relaxed conditions, however. Clinically, it is usually found to occur in individuals who are anxious (Ley, 1985; Lewis, 1959). Higher brain centers quite often, therefore, do play a role in the total response. This may be in the form of, for example, a fear response to the physiological symptoms. Feelings of fear would lead to SNS activation, which would probably override the PNS response.

Thus, strictly physiologically speaking, the body-oriented psychotherapy position that overbreathing leads to heightened sympathetic activation, at least from the point of view of the evidence on hyperventilation, is not supported. There may, however, be other reasons why emotional activation occurs in the therapeutic setting. This is discussed below.

Emotional response related to hyperventilation.

Body-oriented psychotherapists use Reichian-type breathing as a means of increasing emotional activation (usually to the point of catharsis) and of integrating the released emotional material. There is some evidence in the literature on hyperventilation that heightened emotional experience and expression sometimes accompanies hyperventilation. For example, Lewis (1959) states that

in his practice as a medical doctor he diagnoses chronic hyperventilation syndrome (related to panic disorders) by having patients breathe deeply for two to three minutes. He states that he identifies people as having "chronic hyperventilation syndrome" when they experience a "full fledged [panic] attack" as a result of this deep breathing. The first symptoms will usually appear within 60 seconds.

While using this diagnostic technique, Lewis (1959) found that his patients, after breathing deeply for a period of time, would often express emotion, even to the point of catharsis. He explains:

This experience often evokes an emotional catharsis that in turn brings about temporary symptomatic relief while often shedding additional light on the nature of underlying problems. (p. 126)

This is particularly interesting because Lewis (1959) describes catharsis followed by relief and insight as a result of deep breathing when it was not his intention to do psychotherapeutic work. Lewis' finding lends serendipitous support to the body-oriented psychotherapeutic assertion that heightened breathing can be used to facilitate release of repressed emotional material. In this case, the catharsis and subsequent

insight is unlikely to have been confounded by demand characteristics.

There are many possible reasons why individuals who are hyperventilating may experience emotion. Lewis' (1959) evidence seems to support the body-oriented therapy proposition that repressed emotional material is released as a result of this type of breathing. There is also evidence that the experience of fear during hyperventilation which, many believe, is a result of not understanding the physiological symptoms, may not be a surfacing of repressed material, but simply a response to the symptoms (Heape, 1984; Ley, 1985).

An example of someone experiencing fear during a situation which was supposed to be therapeutic is presented by Heape (1984) who writes of a Rebirthing workshop she attended where she experienced severe symptoms of hyperventilation syndrome and became quite frightened. After leaving the workshop, she did some research on hyperventilation and then wrote an article which strongly questions the Rebirthing approach to therapy. Heape discusses a number of things which occurred at the workshop which, in my opinion, contributed to her feelings of fear as much as did the physiological sensations she experienced. For example, when participants asked for information about what to expect,

their questions "were deflected by the response that each participant's experience would be different" (Heape, 1984, p. 231). Although it may be true that each experience is unique, if the participants had been told that they probably would feel tingling and perhaps cramping in their hands and feet and around their mouths, these responses would not have come as such a surprise. They were merely told to "keep breathing no matter what" (p. 231).

As a second example, although there were a number of Rebirthers available, each of them was responsible for about eight Rebirthees and apparently a number of the participants had never experienced Rebirthing before. This brings up the issue of safety and trust in the therapist. Heape (1984) describes her experience of feeling her hands tingling and then cramping and being told by the Rebirther that she was doing "just fine." She disagrees:

I felt terrified as I realized that I could not move my hands. . . . I called out for my rebirther, who again calmly told me that I was "doing fine." When I asked her to take a look at my hands, she expressed no surprise at their condition. It was all part of being rebirthed, she told me. Her lack of concern

about my obvious physiological and emotional distress served to increase my panic. (p. 231)

Heape (1984) notes that she was the only person to respond with fear to the Rebirthing experience. Further, the behaviors of these Rebirthers, as Heape (1984) has described them, are not necessarily representative of Rebirthers in general.

Ley (1985) maintains that a person who is hyperventilating and does not understand what is going on may become highly anxious whereas a person who knows what to expect physiologically will be much less likely to become afraid when symptoms occur. Indeed, since the physiological symptoms associated with hyperventilation may lead to fear, some of the symptoms which have typically been associated with hyperventilation may be confused with those related to an emotional state of fear. In Heape's case, the severity of her symptoms may have been related to the fact that she felt afraid.

This is supported by the findings of Saltzman, Heyman, and Sieker (1963) who measured the response of 13 normal subjects to one hour of hyperventilating. In order to produce and maintain a state of respiratory alkalosis (pH approximately 7.57), the subjects breathed vigorously for 15-20 minutes and then relatively normal breathing rates were required to maintain high blood levels of CO₂

(arterial-blood carbon dioxide tension). The authors state:

In contrast to the exaggerated symptomatology observed in the clinical hyperventilation syndrome, remarkably few symptoms were manifested by normal subjects in this study. Many of the clinical findings in the spontaneous hyperventilation syndrome are probably not caused by respiratory alkalosis but are related to anxiety and other factors as yet undetermined (p. 1435).

Saltzman et al. (1963) state that they attempted to "reduce the role of anxiety by careful explanation of the procedure to each subject" (p. 1432). Saltzman et al.'s (1963) evidence suggests that emotional states do not necessarily occur during hyperventilation.

Further, when emotion does occur during hyperventilation, fear is not the only emotional response which has been reported. Lewis (1959), for example, did not state that the emotional response of his patients was strictly fear related. Okel and Hurst (1961), who studied physical and psychological response in normal subjects to induced hyperventilation describe a variety of fluctuating emotional behaviors in one of their subjects. Further, the clinical reports of body-oriented psychotherapists describe a wide range of emotional response, not strictly

that of fear (Baker, 1967; Lowen, 1975; Wong & McKeen, 1980).

Individual differences in response to
hyperventilation

There may be a number of factors which contribute to the differences in response to overbreathing. One would be the fear response mentioned above which occurs, at least in part, as a result of not understanding what is going on physiologically. A second may be related to how readily the body accommodates to blood gas and pH level changes. For example, Lewis (1959) discovered that people who suffer from chronic hyperventilation syndrome (panic attacks) show virtually no evidence of what he calls the "cardiac recovery" phenomenon. What he found was that in a group of "normal" subjects, heart rate changes associated with overbreathing would return to normal in 44 seconds after overbreathing ceased whereas only 22% of the "hyperventilator" group showed even a tendency for this to occur. In the 22%, the mean time for recovery was 73 seconds. "The majority lacked any capacity to compensate in this way" (p. 125). Lewis (1959) further states that members of the "hyperventilator" group all showed severe symptoms quickly after beginning to overbreathe (mean = 33

seconds). Subjects in the normal group developed some symptoms, but much less severe and these milder symptoms would begin, on an average, after 76 seconds of overbreathing.

Lewis' (1959) findings indicate that some people tend to go into a state of hyperventilation more readily, recover from that state more slowly, and have a strong physiological and (potentially) emotional response to overbreathing. Ley (1985) also investigated the question of why some people develop hyperventilation syndrome more readily. He suggests that some people may be on the verge of respiratory alkalosis all the time. Ley outlines three styles of breathing, clavicular (which is extremely shallow), thoracic, and abdominal. Each of these styles of breathing involves a different volume of air (smallest in clavicular, largest in diaphragmatic) and thus a different breathing rate (fastest in clavicular, slowest in diaphragmatic). Ley (1985) maintains that the people he has worked with who have chronic hyperventilation syndrome all breathed with a predominantly thoracic pattern. This type of breathing pattern has been shown in other studies (Clausen, 1951; Finesinger & Mazick, 1940) to be present in persons who are anxious and is usually accompanied by a rapid respiratory rate. The individual

may be thus be blowing off too much CO₂ and thus on the verge of respiratory alkalosis.

Factors Affecting Emotional Response to
Reichian-type Breathing

There are a number of considerations related to the issue of why deep breathing may or may not be related to emotional activation and possibly catharsis. One is that of safety in the therapeutic setting. From reading Lewis' (1959) article, it seems that his patients feel supported by him and therefore freer and safer to express emotions which arise. This sense of his supportiveness is based upon his descriptions of his interactions with his patients. For example, he states, "in such cases, this experience is vital to the development of an effective physician-patient relationship" (p. 126). It is possible that in other hyperventilation experiments in which there is no report of emotional release that emotional responses either occurred and were not reported (this is unlikely because the studies do report changes in sensation and cognition) or that the subjects may have felt emotional but held this back either because they felt unsafe to be emotional or thought being emotional inappropriate. The subjects may have suppressed emotional response without

conscious awareness of this process, so there may be not reports of this emotional arousal. Although emotional activation and expression can be very strong, this does not mean that, for the most part, they cannot be suppressed and controlled. Cathartic release does not necessarily overwhelm, leaving the person with no control. In fact, it appears that the individual must, on some level, surrender to the experience (Wong & McKeen, personal communication, November, 1986).

It is also possible that as clients begin to feel more out of control physically, they may also allow themselves to be more out of control emotionally. Wong and McKeen (personal communication, November, 1986) also discuss the fact that the neuroanatomical structures which mediate respiratory functions and those which control emotional response (the limbic system) are in close proximity to each other and are easily interrelated, both neurally and hormonally. It is possible that limbic structures may be activated when breathing takes on characteristics which resemble those which occur during heightened emotionality.

There is also evidence that people who tend to have panic attacks are closer to both a heightened physiological level of arousal and emotional arousal as well. These people would respond more quickly to the

deeper breathing. For example, in Lewis' (1959) article, the patients who did not show signs of physiological arousal as a result of deep breathing also did not become emotional. But there is some evidence that people who have no known history of anxiety may show evidence of heightened emotionality during hyperventilation. Okel and Hurst (1961), for example, state that one of their subjects, during the early stages of the experiment:

manifested all the outward signs of alcoholic inebriation -- a loquacious loud pattern of speech, a flight of ideas, an expressed loss of inhibitions, and rather marked mood changes with emotional swings from euphoria through apathy to frank depression. (p. 158)

Or, it may be that experiencing a breathing pattern which is similar to that which an individual has previously experienced in an emotional state will produce proprioceptive stimuli which remind the person of the emotional state and thus may trigger a similar state. Further, the therapeutic situation may be coloured by expectations by the therapist or the client of the client which he or she responds to. A final possibility is that the client, because of past associations with the therapist or the therapeutic setting responds in a similar way as in the past, with emotion.

Thus it is difficult to determine clearly the nature and cause of the emotion which the client experiences. From Lewis' (1959) evidence it appears that there is support for the emergence of previously repressed material. There may also be emotional reactions which are simply a response to the current situation, for example, fear of physiological symptoms, which may be interpreted in terms of the client's past history. Finally, there may be some kind of combination of these two emotional responses, in which, for example, the fear in the current situation stimulates the emergence of repressed material.

Incidence and Significance of Tetany in Reichian-type Breathing

The experience of tetany as a response to overbreathing does not occur in everyone who overbreathes. There is some empirical evidence that tetany is more often experienced when an individual is tense or afraid, or is emotionally unexpressive. Okel and Hurst (1961), for example, state that the subject in their experiment who was most emotionally expressive did not experience tetany, unlike other subjects. It is the contention of some writers in the field of body-oriented psychotherapy that tetany is related to tensing against natural flow and

release of energy, due primarily to fear. For example, Orr and Ray (1983) state that hyperventilation syndrome, primarily tetany:

doesn't occur with rebirthees who relax into the "tingling" energy sensation, who stay with a constant breathing rhythm, and who allow themselves to feel their fears. People who try to stop the energy and protect themselves get paralyzed. (p. 82)

Leonard and Laut (1983) maintain that controlling the exhale is what leads to tetany. This may be either forcing or "blowing" the exhale, or holding back the exhale. It could be that an emotional state of fear is associated with an exhale which is not relaxed. Baker (1967) and Reich (1973) would agree with this, but it is not clear how this would lead to tetany any more than any other type of exhale. Leonard and Laut (1983) maintain that the reason forcing the exhale leads to tetany is that controlling the exhale does not allow the apana to leave the body. "The build-up of apana causes the muscles to contract" (p. 50). It is not clear what this might mean in physiological terms.

Baker (1967) also maintains that tetany is related to blocked energy. He states that tetany occurs when the amount of energy which has built up in the body is more

than the person can deal with, and so the person has, in a sense, contracted against this energetic flow. He (1967) maintains that in a fear state, the body contracts. By this he may mean that the skeletal musculature contracts as it does during the "startle response" (Jones, 1979). Baker supports this position with the clinical evidence that as his clients begin to release chronic tensions in the body they stop developing tetany. The problem with this explanation is that it cannot be clearly determined whether the diminishing tetany may not be due to physiological adaptation to blood-chemical changes associated with the deeper breathing. For example, McKeen (personal communication, November, 1986) states that when he plays the flute after he has not played it for over a year, at first he develops tingling around his mouth from the deeper breathing required. When he has been playing it again for a few days, this tingling no longer occurs.

It is thought that it is heightened levels of calcium in the blood which cause tetany (Guyton, 1982; West, 1974). Baker (1967) argues against this as the sole explanation, however, stating that a client who has ceased to experience tetany will again experience it when he or she reaches a "new level" in therapy, in other words, when again there may be psychophysical resistance to energy flow due to fear of opening to new feelings, memories, and

so forth. What may be occurring is some type of psychophysiological response in which certain types of emotional states (e.g., fear) cause autonomic and endocrine changes which lead to the release of higher levels of calcium into the bloodstream. This may be accentuated by neuromuscular tension which also accompanies a heightened sympathetic state.

Godine (personal communication, November, 1986), a Rebirther, concurs with Baker's position, stating that whether or not a person experiences tetany seems to be related not only to physiological response, but to the level of psychological fear or openness and that it may come and go throughout the therapeutic relationship.

Janov (1970) maintains that the deep breathing which occurs during Primal therapy is different from that which occurs during a panic attack or what he calls "hyperventilation syndrome." He states that one of the symptoms of hyperventilation syndrome is dizziness or lightheadedness, and maintains that these symptoms do not occur when a person is having a "Primal." He states, "indeed, if a patient reports dizziness, we know he is not having a Primal" (p. 123). It may be true that during the period of catharsis, when the client is very psychophysically active, heightened breathing (what Janov calls "conflict breathing") this full breathing may not be

in excess of metabolic needs. This would be a state of hyperpnea, rapid and deep breathing which is consistent with metabolic needs (Ley, 1985).

There may, however, be a period of time -- for example in the initial part of the session -- when the breathing is in excess of metabolic needs. There seem to be some differences in the various therapeutic approaches as far as the appropriateness of allowing the client to experience symptoms related to hyperventilation syndrome. Baker (1967), for example, states that if a client begins to develop tetany then the therapist should ask the client to breathe less deeply and should massage the client's hands to ease the cramping. Wong and McKeen (personal communication, November, 1986) maintain that since tetany can be uncomfortable or painful that it can take the client's attention away from any other awareness and hence is an intrusion to the therapeutic process. They state that it is best to work "this side of tetany."

Rebirthers seem to vary in their opinions about this. It seems evident from Heape's (1984) article, for example, that the Rebirthers at the workshop she attended thought that her tetany was just a part of the Rebirthing process. Orr and Ray (1983) concur with this position, maintaining that these symptoms occur when the client is resisting emotional release due to fear. They maintain

that the means of dealing with this situation is to encourage the client to keep breathing deeply until release occurs. They go so far as to state that deep breathing itself is the cure for hyperventilation syndrome. Leonard and Laut (1983) state that the client should be instructed to breathe easily, not holding back or forcing the exhale. They also recommend suggesting that the client "concentrate on the sensations that go with it [the tetany]" and that the therapist coach the client to breathe fast and shallowly (p. 50).

Summary

To the extent that what occurs in the therapeutic situation is similar to hyperventilation, it appears that evidence supports the proposition that high volume breathing can lead to an increase in emotional activation even to the point of catharsis, however, it does not appear that hyperventilation, per se, leads to SNS activation.

Outcome Research: Effects of Body-Oriented Psychotherapy

Theoretical Proposition 4

Body-oriented psychotherapy should lead to improvement in breathing and other physiological systems, and psychological functioning.

Specific Predictions

If the therapy is successful, it should be accompanied by fuller and more abdominal breathing, a decrease in measures of SNS activity, and a decrease in measures of neuroticism or anxiety.

Preliminary Discussion

Outcome research is potentially valuable for a number of reasons. First, it gives practitioners another way of evaluating the work they are doing. This should augment clinical observation, not replace it. Secondly, educators and supervisors of therapists and counsellors in training can then impart information to students about what approaches are effective in various situations and with various client groups (VandenBos, 1986). It is

possible that information gained in outcome research can be used to increase our understanding of client change resulting in development of more effective methods of treatment and improving the service that we offer. Thirdly, it is one way to indirectly evaluate the theoretical foundation which underlies the therapeutic practice.

A practitioner can be blinded to aspects of the therapeutic process which are in conflict with what he or she believes and wants to occur therapeutically. This can lead to the therapist ignoring (unconsciously) clinical evidence that refutes this. Further, without some way for evaluating the effects of specific aspects of any therapeutic approach, it is unlikely that a therapist can know what it is that is causing or is related to the change that is seen in clients.

Is it truly possible, nevertheless, to evaluate whether a psychotherapeutic approach is effective? With body-oriented approaches, one could evaluate whether clients show a decrease in chronic sympathetic hyperactivation. Clients could also be interviewed in regard to life satisfaction, success in interpersonal relationships, and so forth. Objective measures could be compared, such as MMPI scores in pre and post therapy conditions. These measures and reports could then be

contrasted with those of individuals who had had no therapy, others who used physical techniques only, such as exercise, massage, relaxation training, and so forth, and another group which had experienced, for example, some verbal-analytical form of therapy.

But what would this tell us? Since different people prefer different therapeutic orientations, someone who could gain from Rational-Emotive therapy might not like Reichian therapy at all and would not benefit from it for this reason. Further, people grow and change in their own ways and at their own rates; if an individual states that he or she has been helped or not helped, is it of value to objectively determine whether that person is incorrect, according to some objective measure?

Morrow-Bradley and Elliot (1986) state that most therapists prefer to obtain information from their clinical experience and do not value the outcome research of others. This may be because it is very difficult to compare the work of different therapists even when they allegedly use the same techniques or approach. Further, it is questionable whether comparing groups of heterogeneous the clients is of value. This, however, does not remove the responsibility of therapists to evaluate our work.

Morrow-Bradley and Elliot (1986) emphasize the necessity of recognizing the complex realities of the therapy situation; as a result research should focus on process-outcome links, significant change events and the therapeutic alliance in order to be more useful. Further, the individual differences in therapists and in needs of clients must be addressed. Research questions should be framed in terms of what type of intervention is most appropriate for whom, and under what set of circumstances (Strupp, 1986).

So, the question to be asked, given all these qualifications becomes, 'how effective is body-oriented psychotherapy compared to no therapy or to other types of therapy in terms of physiological and psychological change; and what are the lasting, and side, effects?'.

Review of the Evidence

A search of Psychological Abstracts from 1973 to the present revealed only one study addressing the outcome of body-oriented psychotherapy. Further, a number of practicing therapists in the Victoria area, when asked if they knew of research in this field, stated that they were not aware of any.

The one piece of research found in this survey was done by Caspary (1978) looking at the outcomes of an intensive period in Primal Therapy. In this study, subjects were divided into two groups, one of 18 individuals "who had completed the first two weeks of treatment" and of 9 who "had been accepted for treatment but who were awaiting its commencement" (p. 3565). The author did not find any significant differences between the two groups on any of the physiological or psychological measures used. He did question his design, however, suggesting that a two week period of therapy may not be sufficient to expect significant change.

I would agree with Caspary's (1978) qualifying remarks. Primal therapy does differ from most of the other approaches in that it is brief as well as being intense (Primal therapy usually lasts two to three weeks, followed by group work). Primal also differs in not making use of analysis or conscious integration of the cathartic work. So these results cannot really be seen to reflect upon other types of body-oriented psychotherapy.

There has been some research which addresses the issue of respiratory change as a measure of therapeutic effectiveness. Although this evaluation is not of body-oriented psychotherapies, it does support the claims of the writers who have stated that unhealthy and healthy

psychological states are reflected in different physiological patterns. For example, Mezey and Coppen (1961) measured metabolic rate during exercise and rest in "anxious" and "normal" subjects. Anxious subjects were also retested following clinical improvement. The authors observed that:

When tested after clinical improvement the patients showed a significant reduction in metabolic rate in all positions except standing and their metabolic rates were then very close to those obtained from the control subjects.

(p. 173)

Sutherland, Wolf, and Kennedy (1938) also found respiratory changes to accompany psychiatric improvement. They state:

As a patient's mental state changed, so too did his accompanying spirogram. As a patient improved clinically, his respiratory "fingerprint" or spiropoint approached the normal. Conversely, if his mental state became worse, his spirometric tracing showed it; i.e., became more irregular and bizarre In fact, from a glance at successive records the progress of a case could be

followed without actually seeing a patient.
Clinical examination confirms this. (p. 103)

Summary

Since very little research has been done to look at the effectiveness of body-oriented approaches to psychotherapy, I would suggest that this be done. Even organized clinical reports accompanied by subjective reports. Physiological changes (in, for example, respiratory pattern, heart rate, metabolic rate, and so forth) which may accompany or result from therapy could also be measured prior to, during, and following therapy.

SECTION V

CONCLUSIONS

Summary

The main similarity among the eight approaches to body-oriented psychotherapy, which have been described in this thesis, is the use of deepened and accelerated breathing to aid the process of increasing emotionality, usually including catharsis. Other breathing techniques are also used, such as having the client breathe into areas which are usually not ventilated and of varying the depth and speed of inhalation. The differences are many. These include differences in method (use of exercises, muscular pressure, acupuncture, and so forth), differences in theoretical bases for the therapeutic work, and differences in approach regarding how much analysis is done.

In some cases the writers in this field are not explicit in regard to what is occurring physiologically during this process. This becomes even more confusing at times when metaphor is used to describe a physiological process and yet is not clearly presented as metaphor.

A study of four propositions which emerge as themes from the discussion of body-oriented psychotherapy approaches was presented. In that section, the propositions were discussed in relation to other evidence from physiology and psychophysiology literature. This led to the conclusion that some of the propositions are well supported and all areas need further study. For example, there is considerable empirical evidence that people who are anxious tend to have heightened sympathetic nervous system activation and also tend to breathe shallowly. There is also some empirical evidence that individuals who are chronically anxious do not extract oxygen from inspired air as efficiently as non-anxious individuals. The effect of this on metabolic rate and emotional response, however, is not clear.

A discussion of the psychophysical effects of deep breathing led to the conclusion that although Reichian-type breathing is not exactly the same as hyperventilation, there are many characteristics in common. For example, the physical symptoms associated with hyperventilation are often seen during Reichian-type breathing sessions. There is also empirical evidence that hyperventilation, outside of a psychotherapeutic setting, can lead to emotional activation and even to catharsis. This supports the body-oriented therapy proposition that

this type of breathing can be a potentially valuable therapeutic tool. Since there has been very little outcome research in this field, it is not possible to objectively deny or confirm statements made by practitioners regarding the effectiveness of body-oriented psychotherapy.

Ideas for Further Research

There are a number of related issues which have not been addressed in length in this thesis. For example, the literature seems to reflect two distinct groups of people who are diagnosed as having neurotic symptoms. One group is characterized by rapid thoracic shallow breathing, heightened SNS arousal, and feelings of anxiety. The other group seems to be characterized by slower, abdominal breathing and decreased respiratory responsiveness to painful and emotional stimuli. It is not clear in the literature what the autonomic state of these individuals is, but it is possible that they would tend to have increased or heightened parasympathetic arousal. As with any grouping of people, no one would represent an ideal example of either of these patterns, and these groupings are only helpful from a theoretical standpoint.

The existence of this second group may fit well into an aspect of body-oriented therapy theory which has not received as much attention as that related to anxiety states. For example, it may be that an individual with this non-anxious type of characterological pattern and abdominal respiratory pattern may be in a state of parasympathetic stasis and could manifest the "soft armor" which Painter (1984) describes. More research is necessary in regard to these relationships.

Another issue which was not addressed at length in this thesis is that of transpersonal or metaphysical experience related to body-oriented psychotherapy. This is a subject that is covered extensively in the literature (e.g., Baker, 1967; Orr & Ray, 1983; Painter, 1984; Reich, 1973; Rosenberg, 1985; Wong & McKeen, 1980).

A further issue which was not pursued is that of the psychophysical response of and to a constricted exhale. Many writers describe this phenomenon, stating that it is always evident in individuals who have constricted breathing, and that this may, in fact, be the main way that constricted breathing is manifested (Baker, 1967; Orr & Ray, 1983; Painter, 1984; Reich, 1973). It is possible that this is related to the fact that the exhale, at least in a resting state, primarily occurs due to the natural recoil of the lungs and respiratory musculature

(Guyton, 1982). Therefore, if there is tension, it might be more likely to occur during exhale when there is little muscular action to overcome these tensions. More research would also be useful here.

Another topic which was not addressed at length was the relationship between specific breathing styles and specific characterological traits and disorders. Reich (1973), Lowen (1975), and Baker discuss this. Further, the issue of abdominal tension and its relationship to emotional experience and expression was not pursued at length. This is related to the psychophysiology of armoring, another area which requires further research.

The issue of the relationship between full deep breathing and health has not been completely covered in this thesis. Why may it be, for instance, that deep breathing is considered to be healthier than shallow breathing when it appears that even shallow breathing is almost always, except in the case of pulmonary disease or extreme climate, sufficient to saturate arterial blood with oxygen? It may be that during rest this type of breathing is sufficient, but that the individual cannot increase respiration to accommodate metabolic needs, for example during exercise. It may also be that when respiration is chronically constricted that, in fact, the individual does not absorb sufficient oxygen to meet

metabolic needs, even at rest. There seems to be no end to questions which can be asked about respiration and human experience.

Suggestions for the Therapist and Counsellor

The first consideration here is that most body-oriented psychotherapists recommend that an individual receive extensive training and supervision before using body-oriented approaches to psychotherapy. However, this thesis has discussed a few issues regarding the breathing which may be applied to any counselling or therapy setting.

Client's Breathing Pattern as a Diagnostic Aid

An awareness of a client's breathing can be informative regarding that person's emotional state. Further, the literature suggests that how a person breathes will often affect and be affected by his or her autonomic state. For example, slow, abdominal breathing will probably either indicate or lead to a state of PNS activation and relaxation; conversely, rapid thoracic breathing can either indicate or lead to increased SNS activation.

Encouraging the Client to Breathe Fully in Order to Experience Emotion

There is clinical evidence, although this is not clearly supported by other empirical work, that people may suppress their breathing in order to suppress emotion. For this reason, a suggestion to a client who is suppressing respiration to breathe may lead to an increase in emotional experience and expression. Another approach would be for the therapist to point out respiratory patterns to the client to increase the client's awareness of his or her breathing. Other Gestalt techniques may be used here as well.

Increasing the Client's Feeling of Safety

It is suggested in the literature on hyperventilation that an individual will probably experience less fear in response to physiological symptoms associated with hyperventilation syndrome, if this should occur in the therapeutic setting, if that person understands the process and feels safe with the therapist. Hyperventilation has been shown not to be harmful.

SECTION VI

GLOSSARY

Abreaction: (syn Catharsis) A psycho-physical process of expressing emotion related to a suppressed experience. This may involve body movement, crying, screaming, deepened and/or more rapid breathing, and so forth, and is followed by feelings of relief and relaxation. Memories of past events or insight may accompany abreaction.

Armoring: This concept was developed by Wilhelm Reich (1972, 1973). Armoring is a condition of chronic muscular tension which occurs as a result of usually unconscious tightening of the musculature in response to emotional and/or physical pain. This muscular tightening (such as occurs when a person is startled or must defend him or herself) is a self protective response and is therefore helpful and is thought by Reich (1973) to be the physical component of repression. It becomes harmful when the person does not or cannot release the tension and it becomes chronic.

Body-oriented psychotherapy: Psychotherapies such as Reichian, Bioenergetics, and Primal, whose goal is reintegration of repressed psychoemotional material which, according to the theoretical perspective of these approaches, is held in chronically tensed musculature of the body [see "armoring"]. The main therapeutic approach is to work with the body (and possibly with verbal expression) to facilitate expression and integration of the repressed traumatic experience.

Bodywork: Any therapeutic technique which focuses on work with the body to promote the well-being of an individual. There is not necessarily a focus on psycho-emotional aspects of well-being.

Breathing work: Any psychophysical or physical technique which incorporates the breathing in promoting increased well-being.

Catharsis: [See Abreaction]

Character armor: "The sum total of the character attitudes which an individual develops as a defense against anxiety, resulting in character rigidity, lack of contact, 'deadness.' Functionally identical with muscular armor" (Baker, 1967, p. xxvii).

Circular breathing: Breathing in which there is an inhale and exhale of equal duration with no pause before the inhale or exhale (Leonard & Laut, 1983). Also called "figure of eight" breathing (McKeen and Wong, p.c.).

Integration: The remembering and reliving of a previously repressed experience followed by a new viewpoint or understanding of the experience which may lead to a change in the person's orientation to self and others.

Neurosis: A disorder of the psychic or mental constitution; in contrast with the psychosis, it is less incapacitating, and in it the personality remains more or less intact (Dorland, 1965, p. 1008). The term "neurosis" seems to be used fairly non-specifically in the literature to mean a state in which a person is chronically in a state of psychophysical anxiety and tension. It is generally thought that this is a common, if not universal, state in Western society (Feldenkrais, 1985).

Repression: The thrusting back from consciousness into the unconscious sphere of ideas or perceptions of a disagreeable nature (Dorland, 1967, p. 1308). Reich (1973) believed that repression was a psychophysical process [see armoring].

SECTION VII
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