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AN EXPLORATION OF CREATIVE EXPRESSION AND RELAXATION AS STRESS-RESOLVING EXPERIENCES: SOME SPECIAL IMPLICATIONS FOR CHRONICALLY ILL AND SEVERELY DISABLED POPULATIONS

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Baer, Beverly
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AN EXPLORATION OF CREATIVE EXPRESSION AND RELAXATION
AS STRESS-RESOLVING EXPERIENCES:
SOME SPECIAL IMPLICATIONS FOR
CHRONICALLY ILL AND SEVERELY DISABLED POPULATIONS

DISSERTATION

Presented in Partial Fulfillment of the Requirements for
the Degree Doctor of Philosophy in the Graduate
School of The Ohio State University

By
Beverly Baer, A.B., M.S.S.W.

* * * * *

The Ohio State University
1981

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Studies in Research Methodology: Professors Beverly Toomey and Roger Blackwell
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POMS Mood Factor Subscales

| T | Depression/Dejection |
| D | Anger/Hostility |
| A | Vigor (Negatively weighted) |
| VN| Fatigue |
| F | Confusion |

POMS Independent Subscales

| VP | Vigor (Positively weighted) |
| Fr | Friendliness |

Comparison Groups

A (Art) | Creative (Art) Media |
B (Words) | Written Words |
C (Relaxation) | Relaxation Tape |
D (Music) | Music Listening |
We are all in the same boat, in a stormy sea, and we owe each other a terrible loyalty.

G.K. Chesterton
Two years after I began to work as a social worker with cancer patients, my father was diagnosed with cancer. In living through the events surrounding his illness and death, my impression is that there were so many times when words simply were of no value in wrestling with thoughts and feelings. The great gap between feelings and words was particularly unbridgeable in the days following my father's funeral. The experience that helped me the most was creating a painting on a huge piece of wallboard. I began by actually throwing paint at the wallboard with my brushes. I recollect first spattering the light-colored surface with black and red, then black, and gradually, all colors became part of the painting. The beautiful end-product is predominately yellow, splashed upon the wallboard in mottled configurations superimposed by droplets of all colors (but mainly white) resembling tear-drops and streaks of tears. Written upon the painting are orange words, "goodbye dad see you when i too am a free Spirit." The painting was the beginning of the end of an almost unbearable period of depression in which I felt overwhelmingly isolated from the world. I couldn't communicate with anyone, but only felt so sad, angry and hurt that I wanted to die. As I write this, it occurs to me that the painting must
represent my window on the world (the passageway through which I (my feelings) became able to re-enter the world at that time).

Beverly Baer
From a Diary—July, 1978
CHAPTER I
INTRODUCTION

Background

While employed as a social worker with patients and families at The Ohio State University Hematology-Oncology Clinic, I became awed by the human will for survival and its limitless capacity for change and adaptation. As I witnessed people at close range continually deal with horrendous and unremitting stress in order to live with cancer, I grew increasingly aware of the deleterious nature of extreme stress as well as the need for professional people to create new therapeutic modalities to enable human beings to utilize their inner resources for stress resolution and adaptation to their surroundings.

Throughout the scientific literature, there is considerable emphasis upon the interrelationship between adaptation, attitude of mind and the discovery of meaning in life. Many current writers suggest that the most important component of stressful events is the manner in which people respond to them. The physical concomitants of stressful circumstances oftentimes cannot be reversed, but attitudes toward them and ways of coping can be changed. The human potential for adaptation through perceptual and attitudinal change represents a
vast reservoir of untapped inner resources as well as a relatively untouched area of study.

A pioneer in this area of study, Viktor Frankl, utilized his extraordinary experiences in a Nazi concentration camp to develop a new school of psychotherapy, logotherapy, which is based upon the human need to find meaning and purpose in life events. Frankl (1967) eloquently points out that although we frequently cannot alter external circumstances to meet our needs, we are free to create satisfactory outcomes within ourselves. He writes:

The freedom of. . .man is a freedom within limits. Man is not free from conditions, be they biological or psychological or sociological in nature. But he is, and always remains, free to take a stand toward these conditions; he always retains the freedom to choose his attitude toward them. Man is free to rise above the plane of somatic and psychic determinants of his existence (Frankl, 1967, p. 3). The crucial thing is how. . .he fills the place in which he has landed (Ungersma, 1961, p. 29).

Frankl insightfully suggests the endlessness of human capabilities. In filling the places where we land we tend, through habits imposed by cultural conditioning, to think materialistically, believing that the secrets of problem-solving change lie in molding the material stuff of our environment to our needs, rather than journeying to the uncharted regions of our individual potential.

It has been written countless times that even our most successful attempts to cope with our environment reflect but only a minute portion of our full potential. Somewhere within the gap between who we are and who we can become lie
an infinite variety of human experiences yet undiscovered. Most of our ways of interacting with our surroundings are within the domain of verbal (worded) interplay between our thoughts, cognitions and feelings. Largely unrecognized and unused is the rich terrain of nonverbal attributes (beyond the realm of words) within our nature. Herein, I believe, exist many of the mysteries surrounding the unexplored regions of our potential.

Central to this research is the human potential for stress resolution, coping and adaptation. Inseparably interwoven within these three processes is life change, which is, perhaps, the only absolute dimension of human existence. Focusing upon life change and its impact upon individuals and, conversely, the influence exerted by human beings upon the inevitable transformation in their lives, the present study explored the components of various therapeutic experiences purported to enable people to utilize their capacity for individuation, self-expression, and stress resolution. The goal of this research was to establish the groundwork for the development and exploration of some new therapeutic methods of working toward stress resolution and adaptation with individuals living with chronic illnesses and disabilities (i.e., neuromuscular conditions, cardiovascular diseases, diabetes, renal failure, cancer). The ideas expressed herein are applicable to not only the preceding persons, but also to those living with a multitude of other circumstances (i.e., job discontentment, family discord, divorce, loss of a loved one,
the rearing of a brain-damaged child) which disrupt the human condition and necessitate a tremendous amount of change as well as a regrouping of forces.

The greater part of this chapter represents a discussion of the issues which led to my interest in this research. These issues are: a) therapeutic modalities; b) the limitations of verbal therapies; c) nonverbal modalities; d) the process of visualization; and e) creative experience in rehabilitation. The discussions of these issues contain ideas which I perceive as thought-provoking, gleaned from the literature, as well as from persons in clinical practice, and woven throughout the fabric of my own thinking about various ways to broaden therapeutic experience to meet the widely-divergent needs of human beings, hopefully equipping them with coping skills to take from therapy into the real world, as it were. Also included in this chapter are discussions of research issues and objectives, as well as an overview of the significance of this pilot project.

**Therapeutic Modalities**

There are a multitude of therapeutic modalities to help us develop the unexplored regions of our capabilities in order to regroup forces to deal with disruptive circumstances. My personal viewpoint is that therapeutic modalities are educative experiences which enable individuals to achieve personhood on all levels: a) cognitive; b) affective; and c) intuitive. Each modality is appropriate for certain persons, but never
for everyone. No therapy is a panacea. Each modality is im-
portant because it adds to our storehouse of tools for human
coping and adaptation.

I am an eclectic, borrowing what is needed from various
therapeutic frameworks. The particular combination of verbal
and nonverbal modalities that I employ always depends upon
the choice and special needs of the person(s) with whom I
work. Philosophically, my position is predominately
existential-phenomenological, because I place a great deal of
emphasis upon unique personal experience and responsibility
for self-determination in exercising choices and making deci-
sions. I am a pragmatist in that I believe that experience and
ideas are critical, but should be put to the test, and modi-
fied or discarded, if they are unworkable or impractical.

A most important quality of therapy situation is that it
is a microcosm of the environment at large, where new modes
of thinking, feeling and behaving can be put to the test be-
fore they are employed in the real world, as it were. Within
this protective climate of sharing, communications and trans-
itions will hopefully grow into new coping skills--new tools
for living in the world.

Grinder and Bandler (1976) clearly portray the dilemma
which the therapist faces as he or she works with people en-
deavoring to acquire new coping skills. The thoughts of these
authors reflect my own conviction that the client's percep-
tion, or model of the world, is crucial to the elicitation of
therapeutic change.
All therapies are confronted with the problems of responding adequately to people. assisting in changing the client's experience in some way which enriches it. Rarely do therapies accomplish this by changing the world. People do not operate directly on the world, but operate necessarily on the world through their perception or model of the world. Therapies, then, characteristically operate to change the client's model of the world and, consequently, the client's behavior and experience. The overall strategy is to challenge and expand the impoverished portions of the client's model. Characteristically this takes the form of either recovering or creating a reference structure which contradicts the limiting generalizations in the client's model (p. 29).

Complementing the thoughts of Grinder and Bandler are those of Milton Erickson, world renowned hypnotherapist, who believes that our preoccupations with how to change people have long overshadowed our interest in the actual nature and kinds of change that can occur. Erickson eloquently voices his opinions about change in psychotherapy:

Psychotherapy is sought not primarily for enlightenment about the unchangeable past but because of dissatisfaction with the present and a desire to better the future. In what direction and how much change is needed neither the patient nor the therapist can know. But a change in the current situation is required, and once established, however small, necessitates other minor changes, and a snowballing effect of these minor changes leads to other more significant changes in accord with the patient's potentials. Whether the changes are evanescent, permanent, or evolve into other changes is of vital importance in any understanding of human behavior for the self and others. I have viewed much of what I have done as expediting the currents of change already seething within the person and the family--but currents that need the "unexpected," and "illogical," and the "sudden," move to lead them into tangible fruition (Watzlawick, Weakland, and Fisch, 1974, p. ix).

I think that Erickson gives us several important messages regarding the process of change in psychotherapy. One, change
has a cumulative effect. Hopefully, there will be enough momentum to carry the effects of change beyond the therapy situation into the real world, as it were. Two, both therapist and client should be aware of the preconceived notions about "what direction and how much change is needed." Rather, they should permit transformations within the client to occur naturally and spontaneously. All too often, interventions are unwittingly forced into the mold of preconceived ideas—expectations of what interchanges should occur between client and therapist. Three, many of the most valuable transactions in therapy emanate from the totally "unexpected" and "illogical" byways of spontaneity. In making decisions about therapeutic interventions, we too frequently tend to rely upon the false premise that successful interventions of the past will always work accordingly. I cannot overstress that although certain clients may share common characteristics and experiences, each is different, with needs uniquely his or her own. An intervention which works beautifully with one individual may prove ineffectual, or even disastrous, for another. Bandler and Grinder (1979) warn:

There's a tendency. . .to repeat some set of interventions that you've made in the past which were successful, hoping for success again in the present. I think one of the most dangerous experiences human beings can have is success—especially if you have success early in your career—because you tend to become quite superstitious and repetitious (p. 23).

Emphasizing the value of working spontaneously rather than repetitiously, Sheldon Kopp (1971) describes the brilliance and power of Fritz Perls' manner of entering into therapeutic
transactions. Even though we cannot follow in Perls' footsteps, we can be challenged by his risk-encountering departures from habits and conventions.

Perls had enormously powerful personal presence, independence of spirit, willingness to risk going wherever his intuitive feelings took him, and a profound capacity to be intimately in touch with anyone who was open to working with him. . . . It is not unusual to find yourself in tears, or exhausted, or joyful, after watching another being guided through such an experience. So brilliant was his intuition and so powerful were his techniques that sometimes it took Perls only minutes to reach the person. (p. 146).

There is little doubt that the extraordinary effectiveness of individuals such as Perls is, to a great extent, born of their departure from total reliance upon words in the therapeutic situation. A founder of the Gestalt approach, an experiential rather than verbal or interpretive therapy, Perls believed that "talking about" and interpreting were to be avoided as much as possible, in favor of awareness and experiencing. Viewing pathology as "incomplete Gestalten or experiences, involving strong emotion or interrupted action or expression where either insufficient support was available or active suppression occurred," (Fagan, 1976, p. 65) Perls depended heavily upon body cues and behavioral experiments, often asking the patient to "become aware of his gestures. . . . breathing. . . . emotions. . . . voice and. . . . facial expressions as much as of his pressing thoughts" (Perls, 1973, pp. 63-64).
Limitations of Verbal Therapies

I strongly support Perls' contention that when we merely "talk about" our experiences, we oftentimes go around in circles with neither a sense of direction nor feelings of resolution or completion. In so many instances, the events of our lives are indescribable in verbal language.

The words of any language fall far short of mirroring the vital processes of life. Words of wisdom have no meaning until one's own experience gives them meaning. Each person must be enlightened by his own experience. . . . the difference [is] between the inner meanings of a way of life and verbal descriptions of it (Holmes and Horioka, 1978, p. 90).

Concordant with the philosophy of Perls, the preceding observations of Holmes and Horioka reflect the importance of total experience, in contrast to mere observations of it. The words of the two authors suggest that we need to take a closer look at the entire spectrum of experience, nonverbal as well as verbal, in therapy. Although there is a growing trend toward focusing upon nonverbal aspects of experience in therapy, the wide range of psychotherapies, based on the assumption that words are necessary to phrase discussions and understandings, employ verbal interchange as a primary mode of affecting a client's modeling of his or her world.

It is my opinion that although verbal psychotherapies are helpful to many individuals, they are limited in certain respects. One, many persons do not have the verbal fluency to use these modalities to the fullest. Two, words are often laden with emotionally-threatening connotations that prevent
even highly articulate individuals from expressing a wide range of cognitions and feelings. Three, cultural taboos of our pleasure-oriented society make it difficult or impossible for most persons to openly discuss certain life events, such as infirmity, loss, grief, and death. One can, for example, conjecture that it would be easier for many persons to draw a picture of death than to sit and talk about it. Four, most verbal therapies, devoid of psychomotor activity, primarily address themselves to the intellect and the emotions, but not to the body; thus leaving out a vital dimension of sensations and behaviors which are an integral part of the processes of personal change and growth.

Our tendency to do the greatest part of our communicating, problem-solving and adapting within the rational-analytical framework of worded language, has created a situation in which the vast expanse of nonverbal experience has remained a silent substratum within the realm of our capabilities. I think that it is imperative that we broaden our range of options for going beyond the boundaries of words to connect our perceptions, cognitions, and feelings, with the world around us.

Nonverbal Modalities

In pursuit of new options, my exploration of different kinds of therapies led to my conviction that nonverbal expressive modalities (i.e., art, music) as well as relaxation techniques (i.e., meditation, visualization, autogenic training,
progressive relaxation) represent viable tools to combine with my social work counseling skills to enable persons with long-enduring illnesses and disabilities to adapt to acutely-stressful circumstances. At this time, I feel that I should mention that, although I will be discussing various expressive experiences throughout this work, I will concentrate upon the graphic and plastic arts in this dissertation, because they are my primary interest at this point in my education.

I also wish to say, that for the sake of simplicity and clarity in my writing, I am henceforth including both non-verbal expressive modalities and relaxation techniques under the rubric of creative experience, by interchangeably using various combinations of the words "creative," "expressive," "therapies," "modalities," and "experience." This will eliminate the necessity of continually repeating the two phrases, "nonverbal modalities" and "relaxation techniques" each time I generalize about the preceding therapies. References to specific expressive modalities (i.e., art, music) or relaxation techniques (i.e., meditation, visualization, progressive relaxation), will be made through the use of these singular terms as applicable.

The decision to treat these terms accordingly is based on my viewpoint that expressive modalities and relaxation techniques are essentially creative processes, which enable us to enlarge our experience by transcending the ordinary modes of dealing with ourselves and our environment. I think that Silvano Arieti's impressions of creativity apply to expressive
modalities as well as relaxation techniques. Arieti (1980) writes:

Creativity is one of the major means by which the human being liberates himself from the fetters not only of his conditioned responses, but also of his usual choices. . . . It establishes an additional bond between the world and human existence. . . . It is the perennial (and almost always unverbalized) premise of creativity, to show that the tangible, visible, and audible universe is infinitesimal in comparison to the one that awaits discovery through exploration of the world and of the human psyche. . . . The creative process is a way of fulfilling the longing or search for a new object or state of experience or existence that is not easily found or attained (pp. 4-6).

Visualization: The Common Thread

Throughout the fabric of creative experiences is woven the thread of visualization, a central theme in this research. One of the most powerful elements of human experience, visualization, or the creation of images in the eye of the mind, gives validity to our perceptions by anchoring us to what is "out there" in our surroundings. R.D. Laing (1976) notes:

It seems to come naturally to us to represent in a visualizable formula events we feel, but do not see, and cannot see. If we want to show how we feel, we may, for instance if we feel twisted, represent this nonvisual pattern of feeling by a visual pattern of movement, or design. The feelings of being central, of being here, may be represented by a dot we can see out there (Laing, 1976, p. 79).

Perhaps it is because of its inseparable alliance with an individual's belief system that the ability to visualize represents a vital component of healing processes. Samuels and Samuels (1975) tell us that the use of visualizations
represents the most ancient form of healing of primitive man. Records of ancient visualization techniques have been discovered on cuneiform slabs from Babylonia and Sumeria. Some modern-day Indian tribes continue to employ healing techniques based on visualization (Samuels and Samuels, 1975).

Playing important roles in revitalizing the use of imagery in twentieth century psychotherapy, Freud and Jung noted that bringing emotionally-charged images into awareness not only lessens neurotic symptoms but also constitutes a basic growth process in the inner world of the individual. Jung made wide usage of the mandala, a circular design reflecting one's personality, in his therapy because he regarded it as a symbol for centering. "Following one's images inevitably leads one to his own center" (Samuels and Samuels, 1975, p. 185). Freud (1960) wrote, "Thinking in pictures. . .approximates more closely to unconscious processes than does thinking in words, and is. . .older than the latter ontogenetically and phylogenetically" (p. 19).

Paul Watzlawick (1978) expresses concern about the manner in which the worded language of present day clinical methods dilutes the power of the subconscious realm--the wellspring of change:

Although communications emerging in therapy are ascribed to the mind's unconscious, dark side, they are habitually translated in clinical dialogue into the supposedly therapeutic language of reason and consciousness. . . .It is precisely this bizarre language of the unconscious which holds the key to those realms where alone therapeutic change can take place (Watzlawick, 1978, cover).
Rather than reach the subconscious through the customary route of translating the client's communications into the verbal language of a particular psychotherapeutic theory, Watzlawick (1978) suggests that the therapist's interventions be guided by the client's unique language, composed not only of words, but also of sounds, images, pictures, visualizations, gestures, facial expressions, breathing patterns, eye movements, and a multitude of other kinds of nonverbal behavior. Stressing the important role of the client's unique pictorial language, Watzlawick emphasizes, "what is essential in therapeutic communication is his visualization, his picture" (p. 61) of his or her conceptualization of reality. Going a step beyond the preceding idea, Arthur Koestler suggests that creative experience represents a critical juncture in our journey toward reality. He writes, "Language can become a screen which stands between the thinker and reality. This is the reason that true creativity often starts where language ends" (Virshup, 1978, p. 87).

Creative Experience in Rehabilitation

Indeed, creative behaviors enable us to traverse the silent spaces between ourselves, our words, and the real world. Perhaps Koestler's ideas give us some clues as to why, when all other measures fail, human beings often turn to creative experiences to minimize the overwhelming and devastating effects of life circumstances. "Sharing of painful images," writes art therapist Harriett Wadeson (1973), "may draw one's
unique world closer to that of another" (p. 133). Such sharing is particularly critical for persons living with long-enduring illnesses and disabilities, who are inevitably deprived or ordinary opportunities for dialogue with the world.

Machover (1978) observes:

Movement and contact with the outside world unite the body image. Individuals who, because of physical or mental disease, are restricted in movement or contact with the outside world are left to feed largely on the perceptions and sensations derived from their own body may portray an empty, vegetative, regressed and sometimes silly figure, reducing the image of the personality to the barest and crudest essentials (p. 59).

Eminent art therapist, Edith Kramer (1971), reflects upon the manner in which creative expression enables human beings under tremendous stress to repair broken self-images. She notes:

My earliest observations of the value of art for children under stress go back to the late 1930's, when I conducted art classes for the children of refugees from Nazi Germany in Prague. It was among those traumatized children that I first observed the different responses to stress as they manifested themselves in children's art, responses that would later become so very familiar to me. I saw regression; repetition that told of unresolved conflict, I first observed identification with the aggressor in children who identified with Hitler, who had proved his power by the very damage he had done to them; I saw withdrawal into frozen rigidity, and, finally, the capacity for creative expression surviving under difficulties. . . .Their surviving art, which was salvaged after World War II and sidely exhibited in Europe, testifies to the power of art in preserving and fostering children's capacity for growth and self-expression under hardship (Kramer, 1971, p. xiv).

Under the very worst of circumstances, creative modes of expression can help humankind to transcend the most grim and
torturous reality to convey experiences which are otherwise uncommunicable. What greater tribute to the power of the creative spirit to lift up humanity from its surroundings could there be than the following passages?

I wrote a novel on an aspect of the Nazi era. . . . I was not wholly satisfied with it, and one reason, I discovered, was the inability of ordinary language to convey the appalling events. Dachau defeats syntax, grammar (p. 8). Terezin was a curio in the Nazi cabinet of horrors. The Germans seem to have been fascinated with it, particularly the varied, vigorous cultural life the Jews nurtured in the shadows of death. Who but Jews would bother staging Carmen, The Bartered Bride. . . . on a diet of stale bread and thin soup, in a place where your first violinist or leading soprano might be at rehearsal one day— and in a filthy train bound for Auschwitz the next? . . . All these activities preserved something noble and fine, and, we may be sure preserved the sanity of thousands who passed through Terezin. . . . It was only when the artists. . . dared to paint the dreadful truth about Terezin. . . . only then did the artist have to be obliterated. . . . (Green, 1978, pp. 32-35).

Individuals who are living with painful and irremediable circumstances inevitably have many experiences which are far beyond verbal description. When the need for self-expression is beyond the boundaries of words, creative expression is often invaluable in permitting people to mobilize and redirect their energy toward new meaning and purpose in their lives.

Quite frequently, creative experience will lead to verbal expression of thoughts and feelings. The function of expressive experience as a catalyst eliciting verbal dialogue is an important survival tool for human beings to utilize to deal with feelings (i.e., fear, anger, frustration, resentment, hostility) which they find so difficult to verbalize
with significant others, caregivers and medical personnel. One of the most important things that professional persons can do for those living with long-enduring illness and disability is to help them find outlets for their feelings. Creative modalities can meet some extremely vital needs in enabling patients to develop emotional outlets. A patient, for example, can express feelings toward a physical condition without the risk of social disapproval.

Further, the psychomotor activity in these modalities enables patients and families to regain a sense of control over their surroundings as they release tension and energy through their creative work. Such activity is especially vital to incapacitated individuals who cannot make use of physical exercise as a mode of stress-reduction. Perhaps the most important quality of these modalities is their ability to make it possible for patients and families to override tremendous limitations by enlarging their storehouse of options for adapting to life crises.

Research Objectives and Issues

The objectives of this research study were to a) explore expressive modalities and relaxation techniques as educational resources and tools of practice for stress resolution; and b) establish a body of knowledge, of the preceding therapies, based upon formal understanding and clarity. The following represent some of the questions which were attended to in this project:
One, what mood state fluctuations do persons experience while they engage in verbal expression, art experience, relaxation and music listening? Two, are mood disturbances, such as anxiety, tension, depression and anger increased or diminished by the preceding activities? Three, how is locus of control affected by the four expressive and relaxation experiences?

This research primarily addressed itself to the issue of how various expressive and relaxation experiences compare to one another in enabling individuals to neutralize stress responses. The goal of this project was to closely examine and compare four expressive and relaxation experiences from the standpoint of their effectiveness as tools for stress resolution. Specifically, the method of accomplishing this task in this study was to a) reduce several widely-used therapies (i.e., verbal psychotherapy, art therapy, music therapy, relaxation) to their most simple components (use of words, art materials, musical experience, relaxation) and b) examine and compare the effects of these component experiences, manifested in post-stress mood-state fluctuations, state anxiety, and locus of control.

In this experiment, the dependent variables were scores on the following measurement tools, completed by subjects immediately after post-stress expressive and relaxation experiences: a) State-Trait Anxiety Inventory (STAI) A-State; b) Profile of Mood States (POMS) and c) Locus of Control (LOC) Rotter Internal-External Scale. The scores, reflecting
anxiety, locus of control and various mood states (tension/anxiety, depression/dejection, anger/hostility, vigor, fatigue, confusion) following the post-stress expressive and relaxation experiences were studied and evaluated in view of the differences between the four comparison groups. Refer to Table 1 for an illustration of the preceding components of the research design period. All of these components, along with the research hypotheses, are described in detail in Chapter III.
**TABLE 1: Multigroup Posttest Only Research Design**

<table>
<thead>
<tr>
<th>Random Assignment</th>
<th>Independent Variable</th>
<th>Dependent Variable Posttest</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>17 S's to</strong></td>
<td>S Creative (art) media</td>
<td>1. STAI/A-State (STAI-A)</td>
</tr>
<tr>
<td><strong>comparison</strong></td>
<td>1. STAI/A-State (STAI-A)</td>
<td>2. Locus of Control (LOC)</td>
</tr>
<tr>
<td><strong>Group A</strong></td>
<td>3. Profile of Mood States (POMS)</td>
<td></td>
</tr>
<tr>
<td><strong>17 S's to</strong></td>
<td>R Written words</td>
<td>1. STAI/A</td>
</tr>
<tr>
<td><strong>Group B</strong></td>
<td></td>
<td>2. LOC</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. POMS</td>
</tr>
<tr>
<td><strong>16 S's to</strong></td>
<td>S Relaxation tape</td>
<td>1. STAI/A</td>
</tr>
<tr>
<td><strong>Group C</strong></td>
<td></td>
<td>2. LOC</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. POMS</td>
</tr>
<tr>
<td><strong>16 S's to</strong></td>
<td>Music listening</td>
<td>1. STAI/A</td>
</tr>
<tr>
<td><strong>Group D</strong></td>
<td></td>
<td>2. LOC</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. POMS</td>
</tr>
<tr>
<td>5 min.</td>
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<td>10-15 min.</td>
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**Research Significance**

Relaxation techniques (i.e., meditation, visualization, progressive relaxation) have been well-researched in recent years, particularly in regard to the physiology of responses to stress. Since stress resolution is of prime concern to practically everyone in modern society, experimental studies in this area are presently occurring at an ever-increasing rate.
Research investigating the use of relaxation techniques, combined with expressive modalities (i.e., art, music), however, is practically non-existent. Generally, expressive therapy programs, tending to be experimental and innovative, lie beyond the realm of traditional employment situations. The jobs associated with these programs must often be created anew with research funds. Since they represent something new and different, expressive therapy programs are apt to be viewed with a measure of distrust and skepticism until they "prove" their merit with measurable results. Moreover, many creative therapy programs, supported by public funds, exist within the dominion of government agencies and institutions. These programs, too, are subject to continual scrutiny by funding sources, which attests to the willingness of society to make expenditures for programs whose efficacy is measurable. "Therein lies the problem for those who wish to see art become an integral part of... a system which, due to limited funding is demanding 'accountability' as a prerequisite for survival... .Hard evidence of the efficacy of the arts as a therapeutic technique is scarce compared to evidence compiled for other techniques" (NASW News, 1979, p. 11).

Under the most favorable circumstances, art programs are in a precarious balance relative to funds. Due to political developments within recent months, the outlook for the survival of these programs appears even more bleak than in the past decades.
Of all of the expressive modalities, music therapy research is the most highly developed. Although it is beyond the boundaries of this present work to extensively review experimental efforts outside the area of the graphic and plastics arts, my predominant interest, I believe that it is important to point out that music therapy research represents a valuable educational resource from which other arts therapies can draw, as they go through some of the growing pains initially experienced by music therapy.

Most of the experimental studies in music therapy focus upon such populations as the retarded, developmentally disabled, mentally/emotionally ill, physically disabled, and the elderly. Noteworthy researchers Madsen, Greer, and Madsen (1975), have compiled a collection of articles about behavioral research in music in the classroom. In their text, Madsen and Madsen (1970) introduce college students and researchers to various music research topics and concepts in rationale, methodology, and experimental terminology. Duerksen (1969) and George (1968) present compilation of statistical processes and research methodology, as well as an annotated bibliography on music therapy.

In art therapy, on the other hand, there is much literature, but a paucity of sound research. Many persons in this field are deeply concerned about the lack of quality research, which is so vital to the advancement of knowledge and practice in a new and rapidly-developing profession (Rubin, 1978; Wadeson, 1979, 1980; NASW News, 1979; Betensky, 1978; Hodnett,
1978). "When practice runs ahead of knowledge, there is the danger that arrogance, dogma and ritual may replace humility, as well as the search for knowledge and experimentation" (Levin, 1963, p. 1760). Although these words were written by a music researcher, they mirror the present condition of art therapy. Since the art therapy field has concentrated on producing "clinicians rather than scholars, there has been relatively little research of substance...to date" (Wadeson, 1980, p. 11). Judith Rubin (1978) observes that many people in the arts are "hostile to research largely because they realize that some things are not easily quantifiable, measurable or visible" (p. 264).

Case histories and anecdotal material comprise a very large part of the art therapy literature. Hodnett (1978) believes:

We have to get away from the trend of testimonial and anecdotal evidence in which the phenomena of a given situation are so entwined...and interpreted to serve a...favored theory or pre-determined outcome that those phenomena cannot be separated...from the all-pervading theoretical flavor and used impartially by other investigators. We need to set up...a better approach to all the data of the field so that any investigator may draw from it (p. 155).

Hodnett (1978), Rubin (1978) and Betensky (1978) favor phenomenological inquiry because it is "peculiarly suited to art expression and art therapy," (Betensky, 1978, p. 31) as well as an "open kind of design which doesn't preclude valuable information" (Rubin, 1978, p. 265).
A section of Chapter II includes highlights of research studies which are of value to persons, in the fields of health and expressive therapy, who have an interest in stress resolution and adaptation. Although none of the studies deal with stress per se, they all contain valuable insights to be applied to clinical and experimental endeavors aimed toward helping human beings adapt to stressful circumstances.

Summary

The focal point of this research was the human potential for stress resolution, coping and adaptation, by way of expressive modalities and relaxation techniques. The long-term research goal, an on-going endeavor which is anticipated to take place over a period of years, is to develop and explore some new therapeutic methods of working toward stress resolution and adaptation with individuals living with chronic illnesses and disabilities (i.e., neuromuscular conditions, cardiovascular diseases, diabetes, renal failure, cancer).

Primarily addressing the issue of the efficacy of various experiences in enabling individuals to neutralize stress responses, this project examined and compared four expressive and relaxation activities (use of words, art materials, music listening and relaxation) from the perspective of their post-stress effects, manifested in mood state fluctuations, state anxiety, and locus of control. To date, little, if any, published research has addressed these issues.
This first part of this chapter represents an overview of the issues which led to my interest in employing creative experiences in holistic rehabilitation programs. The latter section includes a discussion of the research objectives of this study.
Background

In this chapter, the relevant literature is discussed from the perspectives of theory, clinical practice and research. This chapter is composed of five main sections. Section 1 explores change, communication and hemispheric laterality as the foundations of therapeutic experience. Section 2 is an overview of the various conceptualizations of stress and stress resolution, coping and adaptation. In this section, stress as a major health problem is discussed from the viewpoints of some well-known researchers. Subsequently, the ideas of these individuals are related to various concepts of coping and adaptation. In Section 3, the discussion of relaxation techniques concentrates upon the therapies which I personally use with patients: meditation, progressive relaxation, systematic desensitization, autogenic training, autohypnosis and visualization, the common element of all of the preceding modalities. Although I do not practice hypnotherapy or biofeedback at this time, brief discussions of these modalities are included because of their close alliance with: a) other expressive modalities; b) the human belief system; and c) the development
of personal responsibility for health and well-being. Section 3 closes with a clinical example of combining relaxation techniques with creative expression. In Section 4, expressive modalities are examined from the standpoint of theory, practice and research. Section 5 explores the use of creative expression in the rehabilitation of chronically ill and severely disabled persons.

The graphic and plastic arts are central to this dissertation, because they represent my present educational orientation. This emphasis, however, should not preclude generalizations to other kinds of creative expression, such as music. Because I have an undergraduate background in music, and use it in my work, I am tempted to explore the healing qualities of music, as well as a wide range of other creative experiences. Recognizing that such a task is far beyond the scope of this project, I have concentrated my attention upon the graphic and plastic arts throughout this work. I hope my writing will evoke, in the mind of the reader, a smooth and continuous flow of ideas, generalizations and connections among all of the expressive and relaxation techniques discussed herein.
Section 1

Change, Communication, and Hemispheric Laterality

There are a multitude of therapeutic modalities to help us develop our unexplored capabilities. Central to these modalities are the processes of change and communication.

Change

What is change? Although we human beings continually talk about change, a primary stuff of our existence, we rarely put the meaning of the term into clear perspective. The words of Ogden and Richards aptly describe the dilemma of defining terms such as change:

There are certain terms in scientific discussion which seem to make any advance impossible. They stupefy and bewilder, yet in a way satisfy the inquiring mind, and though the despair of those who like to know what they have said, are the delight of all whose main concern with words is the avoidance of trouble (Tormey, 1971, Frontispiece).

Since I was not able to find a definition of change applicable to this study, I composed my own: change is the nuances of intentional, perceptual, attitudinal and behavioral transformation which emanates from the continual interplay between our perceptions of ourselves and our view of the world around us.
The multidimensionality of change is reflected in the preceding definition, as well as in the statements of Paul Watzlawick (1974), world authority in communication and communication therapy. Watzlawick and his associates have thoroughly examined the phenomenon of change and put it into a conceptual framework. Capturing a part of the elusive nature of change, he tells us that there are two different kinds of change: "one that occurs within a given system which itself remains unchanged, and one whose occurrence changes the system itself" (p. 10). Watzlawick and his colleagues (1974) put their ideas into behavioral terms:

A person...can do many things in his dream—run, hide, fight...but no change from any one of these behaviors would ever terminate the nightmare. ... [this is] first-order change. The one way out of a dream involves a change from dreaming to waking. Waking...is no longer a part of the dream but a change to an altogether different state. [This is] second-order change (p. 10).

While Watzlawick does not sharply define change, he enriches the reader's understanding of change as a multidimensional aspect of human behavior, which is central to all of the important issues addressed in this research.

Due to its multidimensionality and complexity, change has a different meaning for everyone. Perhaps no part of the entire spectrum of human experience is surrounded by more polarities than change. Individuals are both attracted to change and repelled by it. Just as pleasureful changes may have negative effects upon us, horrendously difficult changes may bring forth the very best within our nature. While
change may be the quality which gives meaning and purpose to our lives, it may be the very circumstance which turns our lives upside down, necessitating a regrouping of forces in order to search for new meaning and purpose.

None of us escapes the necessity of making continual transitions as we move from one life event to another. Even when changes occur under the best of circumstances, we often reel with feelings of isolation, detachment, and uprootedness as we instinctually endeavor to maintain our pre-change homeostasis. Human beings are vastly dissimilar in their manner of maintaining their equilibrium. Perchance this dissimilarity is due, at least in part, to the divergent ways of perceiving life change. While some persons tend to view change as an external controlling force, others firmly believe that change generally emerges from within the individual. Regardless of how change is perceived by human beings, there characteristically seems to be some degree of resistance to it. No matter how undesirable, the state of being prior to change is somehow less threatening, because it represents the familiar. In contrast, post-change circumstances, or the imagined aftermath, are frequently unwelcome in our mind's eye because they evoke fear of the unfamiliar and unknown. Perhaps this fear is linked with our characteristic resistance to change.

Many theorists and researchers in fields dealing with human nature speculate that our fear of change and its unknown constituents is not innate, but rather is a product
of cultural conditioning which encourages us to both fear and avoid what we do not understand. These theorists suggest that the stressful effects of life changes may arise more from our attitudes than from the multiplicity of circumstances which make up the ever-changing kaleidoscope of causes, effects, and transitions in our lives.

It is never easy to realize, when one is so deeply involved in it oneself, that the main cause of...human misery lies not so much in circumstances as such, but rather in the attitude of mind with which they are met (Challoner, 1972, pp. 65-66).

Concordant with the idea that attitude of mind is a critical determinant of human responses to stress are the words of Arthur Deikman (1977), who suggests that "the problems of the meaning of life are solved by a special perception rather than by logic" (p. 318). I wish to emphasize the importance of the role of perceptions in our behavior toward stressful circumstances. Whether in a therapeutic situation or in the real world, the primordial substance of who we are and how we feel in relation to our environment is rooted in our model of ourselves and the world around us. I agree with Grinder and Bandler (1976), who write:

All the techniques of every form of therapy...affect the processes of representation, the creation and organization of a client's model of the world. To the degree that techniques induce change in a client's modeling of the world is the degree to which they will be effective in assisting a client to change. As a client's model of the world changes, his perceptions change and so, too, does his behavior (p. 199).

Subsequent to occurring within one individual, change generally spills over into the lives of other human beings in
an intricate network of never ending transformations, which constitute patterns of communication.

The next section attends to the issue of communication, or the way in which one mind affects another.

Communication

Communication, defined by Warren W. Weaver, includes "all the procedures by which one mind may affect another. This, of course, involves not only written and oral speech, but also music, the pictorial arts, the theatre, the ballet, and in fact all human behavior" (Ruesch and Keys, 1974, Frontispiece). I particularly like Weaver's idea of communication because it mirrors the growing interest, among communication theorists and psychotherapists, in nonverbal behavior as a fundamental aspect of human expression, as well as an essential ingredient of therapeutic experience.

For many years, communication theorists Bandler and Grinder (1979) have studied and analyzed various therapeutic and educational methods of personal change, from the perspectives of both verbal and nonverbal expression. Their research has led them to the conclusion, perhaps surprising to some, that "the verbal component is the least interesting and least influential part of communication" (p. 2). This conclusion is based upon their contention that our sensory apparatus is the well-spring of our modes of thinking. Bandler and Grinder (1979) state:
We noticed that different people actually think differently, and... these differences correspond to the three principle senses: vision, hearing, and feeling—which we call kinesthetics. When you make initial contact with a person s/he will probably be thinking in one of these three main representational systems. Internally s/he will either be generating visual images, having feelings, or talking to [her/himself] and hearing sounds. (Bandler and Grinder, 1979, pp. 14-15).

In order to communicate effectively, Bandler and Grinder (1979) tell us that we need to share a common representational system composed of sensory-based words. In ordinary everyday conversation with one another, however, this is difficult or virtually impossible to achieve.

If I use any words that don't have direct sensory referents, the only way you can understand those... is for you to find the counterpart in your past [which] will overlap with mine to the degree that we share... certain kinds of backgrounds. Words have to be relativized to the world model of the person you are talking to. The word "rapport" for a ghetto person... a white middle-class person... someone in the top one hundred families in this country [is] very different... There's an illusion that people understand each other when they can repeat the same words. But since these words internally access different experiences—which they must--then there's always going to be a difference in meaning, (Bandler and Grinder, 1979, p. 16).

In all situations, communication is critical. Bandler and Grinder (1979) stress the importance of paying special attention to nonverbal expressions and interchanges in the therapeutic situation. They write:

If you clean up your sensory channels... when you make a statement or ask a human being a question they will always give you the answer non-verbally, whether or not they are able to consciously express what it is... The easiest way to begin to train your senses is this people make movements with their eyes which will indicate to you which representational system they are using. When somebody
walks into your office, they are planning what they are going to do. They are either visualizing, or they are telling themselves what they are going to say, or they are paying attention to the feelings that they want to describe to you. When they do that, they go inside and they access that information, and they make typical gestures that every one of you knows about unconsciously, and yet through the whole history of psychology no one has ever explicitly described (pp. 17-18).

Hemispheric Laterality

It is true that although psychology has not fully illumined the processes of nonverbal behaviors, such as the gestures, visualizations and eye movements, of which Grinder and Bandler speak, a limited number of its practitioners provide us with some keen insights into these processes. Examples are Paul Watzlawick and his colleagues, whose extensive studies of therapeutic communication complement those of Grinder and Bandler.

Watzlawick (1978) notes that we utilize two basic languages in our communications. One language, expressed in the words which we use from day to day, is "objective, definitional, cerebral, logical, analytic; it is the language of reason, of science, explanation, and interpretation, and therefore the language of most schools of psychotherapy" (p. 14). Describing the second language, Watzlawick (1978) states:

[The second], in which the preceding example is expressed, is much more difficult to define--precisely because it is not the language of definition. We might call it the language of imagery, or metaphor, of pars pro toto, perhaps of symbols, but certainly of synthesis and totality, and not of analytical dissection (p. 15).
In the past few decades modern brain research has provided surprising evidence of the duality of the mind (Geschwind, 1967; Dimond, 1972; Bogen, 1969a, 1969b, 1969c; Galin, 1977). In very simple terms, the left (verbal, dominant, major) hemisphere translates perceptions into logical, semantic, and phonetic representations, and communicates with a logical-analytical coding of the surrounding world. Its areas of competence are language (grammar, syntax, semantics), thinking, reading, writing, counting, computing, digital communication, detail responses, and secondary processes (psychoanalysis). The left hemisphere also gives dominance to the right (contralateral) side of the body. Left hemispheric lesions result in deficits in the areas of speech, writing, counting, computing and reasoning (Watzlawick, 1978).

The right hemisphere is responsible for the holistic grouping of complex relationships, patterns, configurations, and structures. From this hemisphere emerge pars pro toto recognitions, concept formations, primary processes (psychoanalysis), illogical conclusions, metaphors, primitive (2-digit) arithmetic, memory recall (and accompanying moods, sensations), dream symbology, musical ability, images, spatial proportions, and Gestalten (Watzlawick, 1978).

The ideas of Watzlawick are compatible with those of philosopher Karl Jaspers, who also supports the concept of the duality of the mind. In the 1940's, Jaspers commented:
It is possible to "think," rather than in verbal concepts, in images, shapes, myths, gods, in landscapes, colors, natural phenomena, in terms of action and performance. All primitive world images evolve in this way, verbal language refers to it (Watzlawick, 1978, p. 25).

Jaspers' observation that wordless thinking represents a transition to verbal language is of particular interest to art therapists, who encourage verbal discussion of art works produced during therapy:

Wordless thinking appears to exist as a germ and as a transition. Perhaps it is in this wordless thinking that the decisive step of cognition—the jump towards novelty, the inception, the original, anticipatory comprehension—takes place (Watzlawick, 1978, p. 25).

Galin attributes our different ways of thinking to the fundamental differences between the two hemispheres. He notes that it is extremely difficult to shift from one hemispheric language to another when he tells us that "parts of the experience of attending a symphony concert are not readily expressed in words, and the concept 'democracy requires informed participation' is hard to convey in images" (Galin, 1974, p. 576). Galin's impressions of the contradictory nature of these experiences relative to hemispheric functioning suggest a potential source of conflict and pathology. Watzlawick (1978) writes:

And here...lies the potential for conflict and pathology. There is every reason to assume that the interhemispheric connections via the corpus callosum are rather scarce compared to the intrahemispheric connectivity, and that in certain critical situations, the two hemispheres may become functionally separated and enter into conflict with each other (p. 36).
The hemispheric theory, according to Watzlawick (1978), is a "modern confirmation of the theory of dissociation which Pierre Janet postulated almost a hundred years ago" (p. 38).

Janet's conception of a vertical separation of the mind, relative to the etiology of neuroses, was soon replaced by a general acceptance of Freud's horizontal topography of the human psychic mechanism. Watzlawick (1978) elaborates:

The hemispheric theory now confronts us with the possibility that the conceptual distinction of conscious and unconscious processes (and with all the manifold consequences for our understanding of psychopathology and psychotherapy that necessarily follow from this distinction) may have to be modified. We are led to the assumption that we have two conscious minds which, ideally, are capable of harmonious complementary integration for the purpose of grasping and mastering our outer reality, but which, if and when conflict arises, may be unable to communicate with each other for lack of a common language (pp. 38-39).

In connection with the preceding conceptions of the topography of the mind, Watzlawick (1978) notes that Starobinski's study, La Relation Critique (The Critical Relation), particularly the chapter entitled, "Freud, Breton, Myers," is of special interest because it establishes a relationship between psychoanalysis and surrealism. The essay demonstrates how the concepts of surrealism can be traced to the thinking of Janet, Charcot, and Liebault, rather than to the traditional viewpoints of Mesmer and Freud.

Illuminating this discussion with his insights, Read (1959) tells us how Breton defined surrealism:
Pure psychic automatism, by which it is intended to express, whether verbally or in writing, or in any other way, the real process of thought. Thought's dictation, free from any control by the reason, independent of any esthetic or moral preoccupations (p. 132).

Surrealism, according to Read (1959), "represents the most recent romantic attempt to 'break with things as they are'" (p. 145). Read (1959) notes that the movement is not confined to painting and sculpture, but includes poetry, where it actually began as a mode of "exploring without fear the confines of man's fate and destiny" (p. 146).

Perhaps the most important idea in all of this discussion is that of psychic unity. Read (1959) observes:

Breton has suggested that there is an inherent connexion between chance, or what he prefers to call automatism, and rhythmic unity. 'Recent psychological researches, we know, have drawn a comparison between the construction of a bird's nest and the beginning of a melody tending towards a certain characteristic conclusion. . . . I maintain that Automatism in writing and drawing. . . . is the only mode of expression which gives entire satisfaction to both eye and ear by achieving a rhythmic unity, just as recognizable in a drawing or in an automatic text as in a melody or a bird's nest.' (p. 140).

While Breton's ideas are rather crudely phrased, they raise an important issue: spontaneity (automatism) promotes unity within human beings by stimulating more than one sensory experience. The idea of multiple sensory experiences may provide us with some clues about interhemispheric communication. Watzlawick's inference suggests that a more highly-developed capacity for non-verbal expression may equip human beings with a language for interhemispheric communication. Watzlawick (1978) notes:
We have two conscious minds which, ideally, are capable of harmonious integration for the purpose of grasping and mastering our outer and inner reality, but which, if and when conflict arises, may be unable to communicate with each other for lack of a common language (p. 38).

Perhaps one way in which nonverbal experiences promote interhemispheric communication is that they heighten our sensory experience by bringing more than one sense into play. This may be one reason why creative experiences may represent a "common language," an energy-releasing catalyst, which ultimately promotes homeostasis, harmony, and integration of polarities within individuals. I am not necessarily saying that creative experiences are a panacea for achieving homeostasis and unity. Rather, I am suggesting that these experiences represent a vast and fertile therapeutic territory, the ramifications of which we actually know very little.

Heretofore, verbal-linear communication has dominated our evolutionary development. Perchance, in the future, our civilization should engage in nonverbal activities, such as creative experiences, at an ever-increasing rate, I speculate that a multitude of surprising changes would emerge from the human condition. We are only aware of a miniscule part of our potential. We have no idea what lies beyond this tiny portion of human capability with which we are familiar. I believe that the broad range of our capabilities lie within the realm of nonverbal kinds of expressions, such as creative experiences. The key to more nearly approaching ultimate potential is perhaps to be able to integrate verbal and nonverbal
processes, thus activating both inter and intrahemispheric connections in the brain—the wellspring from which all communication flows. Such integration may be the "hallmark of genius" (Watzlawick, 1978, p. 16).

Summary

Change, the essence of adaptation, is defined as the nuances of intentional, perceptual, attitudinal and behavioral transformation which emanates from the continual interplay between our perceptions of ourselves and our view of the world around us. Subsequent to occurring within one individual, change generally spills over into the lives of other human beings in an intricate network of never-ending transformations, which constitute patterns of communication. Communication, the process by which one mind influences another, occurs verbally, in written and spoken language, as well as nonverbally, in an infinite variety of behaviors, ranging from gestures, breathing patterns, and facial grimaces to the most exalted forms of creative expression. Modern brain research, along with current theories of communication, have provided surprising breakthroughs in hemispheric laterality, or the duality of the mind. These new insights have greatly illumined our understanding of: a) change and communication as fundamental aspects of human expression; and b) the role of verbal and nonverbal therapeutic processes aimed toward enhancing stress resolution and adaptation.
Section 2
Stress, Coping and Adaptation

Background

Since the dawn of civilization, stress and anxiety have been concomitants of human existence. In this century, however, the sweeping changes which have occurred within the industrial, economic and social realms of our society have heightened our awareness of stress and anxiety. The threat of nuclear destruction, unstable economic conditions, environmental pollution, and energy crises, coupled with the breakdown of close family ties and increasing transient styles of living are exerting a tremendous impact upon all of us. The widespread use of drugs, as well as the increasing popularity of various non-drug ways of finding relaxation and serenity, such as meditation, biofeedback and the martial arts, attest to the ever-growing concern with stress.

The contention that stress-related conditions represent a major health problem in our society is supported by scientific literature (Pelletier, 1977; Selye, 1956, 1974, 1978, 1978a; Dohrenwend and Dohrenwend, 1974; Levine and Scotch, 1970; Funderson and Rahe, 1974; Lazarus, 1974). Kenneth Pelletier (1977) regards stress disorders as the "afflictions of civilization" that constitute the number-one health
problem in our country. These disorders include cancer, cardiovascular conditions, colitis, ulcers, migraine headache, general sexual dysfunctions, sleep-onset insomnia, alcoholism, as well as numerous neuroses and psychoses. Most standard medical textbooks, according to Pelletier (1977) attribute from 50 to 80 percent of all illness to psychosomatic or stress-related origins.

Previously emphasized in this research is the idea that perhaps the most important aspect of stressful events is the manner in which people respond to them. While the physical components of stressful circumstances frequently cannot be reversed, attitudes toward them and ways of coping can be changed. The potential for adaptation represents a vast reservoir of untapped human resources for stress resolution. It is incumbent upon us to develop some new ways of enabling human beings to increase their adaptive capacities.

Unless we can learn to understand, control and prevent (or adapt to) the pressures of contemporary life, the toll—in physical illness, violence, crime, substance abuse and early death—may come to outweigh the gains of modern civilization itself (Kutash, Schlesinger and others, 1980, Frontispiece).

Here tofore, I have established the foundation for the development of new modes of stress reduction by examining the roles of change, communication, and hemispheric laterality in therapeutic experience. Before I explore some new ways of therapeutically directing change and communication toward adaptation, I will examine various conceptualizations of
stress, coping, and adaptation from the perspectives of some well-known theorists and researchers.

Trends in Contemporary Stress Research

Most of the current interest in stress has grown from two sources: a) the awareness of the pervasiveness of stress-related disorders in our society; and b) the "therapeutic impact of newly appreciated psycho-physiological techniques used as biofeedback, progressive relaxation, autogenic training, meditation and related procedures" (Brown, 1980, p. 21).

A large number of researchers have endeavored to establish a relationship between life stress, personality characteristics, and the onset of illness. There are two primary approaches to this relationship. One, the generality model, attributes less importance to a stressful event and its corresponding coping patterns, than to the general mobilization "accompanying any emotion, which precipitates tissue damage or increased vulnerability to illness through the...effects of associated neuroendocrine activity" (Lazarus and others, 1980, p. 93). A major example of this approach is Selye's (1956, 1974, 1976) concept of the General Adaptation Syndrome, (G.A.S.) "an orchestrated form of bodily mobilization against...noxious agents" (Lazarus, 1980, p. 94).

Two, the specificity model, in contrast, maintains that each illness (i.e., hypertension, colitis) is associated with a particular set of stress dynamics. A well-known example of this model is the work of Friedman and Rosenman (1974),
who have linked coronary artery and heart disease with Type A behavior. Defining this behavioral concept, Friedman and Rosenman (1974) write:

[Type A behavior is] an action-emotion complex. . . . in any person who is aggressively involved in a chronic, incessant struggle to achieve more and more in less and less time, and if required. . . . against the opposing efforts of other things or other persons (p. 84).

Friedman and Rosenman's six-month study of accountants revealed a sharp rise in serum cholesterol near the April 15 tax deadline, and a marked decrease in cholesterol levels when the subjects' sense of time urgency dissipated during May and June. According to the authors, the study was the first completely documented and controlled demonstration that brain functions could alter serum cholesterol levels. The results "could only have been due to. . . . emotional stress--because neither their food, smoking, or exercise habits had changed during the period of our surveillance" (p. 76). 

Lazarus and others (1980) comment on the specificity model:

[It is] not unreasonable if one assumes. . . . that psychodynamic variations can lead to different chronic or repeated emotional patterns and, further, that different emotions have distinguishable physiological response patterns (pp. 93-94).

While the past few decades have witnessed the ebb and flow of both generality and specificity models among researchers, Lazarus and others (1980) are of the opinion that current trends reflect a strong upsurge of the generality position.
Relevant to this dissertation is that aspect of the generality-specificity issue which focuses upon the distinction between positive and negative emotions. Lazarus and others (1980) observe that it is widely assumed, although not empirically demonstrated, that negative emotions, because of the hormonal changes they reportedly generate, lead to not only low morale and social disability, but also to diseases of adaptation. An excellent example of research centering upon the effect of negative emotions is the controlled study of subjects exhibiting depressed lymphocyte function after bereavement, in which Bartrop and others (1977) have shown that severe psychological stress can produce a "measurable abnormality in immune function which is not obviously caused by hormonal change" (p. 834).

In spite of all of this activity within the realm of scientific research, medicine has traditionally had little interest in the relationship between stress-resolving psychophysiological techniques and cognitive processes, such as the nuances of belief, faith, and self-suggestion, as well as meditative and relaxing exercises, which are purported to influence internal functions (Brown, 1980). Psychology, on the other hand, has applied hardly any of its theories to medical knowledge. The isolationism between these two fields has resulted in little progress toward the unification of theories, research findings, and clinical practice. Consequently, there are a number of shortcomings in present conceptualizations of stress and its treatment.
Recognizing these shortcomings, Gunderson and Rahe (1974) note that "life stress" refers to a "broad area of research concerned with events in daily living which affect susceptibility to illness; this...[however]...should not...imply that this term can be precisely defined or that all potentially stressful situations can be considered" (p. 3). The term, "life stress," which focuses upon a broad area of scientific concern, is in tremendous need of operational definition and conceptual integration.

Research Problems

One of the greatest research problems is how to classify human stress. In the literature, there are a number of organizational schemes. Among these is one suggested by eminent biofeedback researcher, Barbara Brown (1980), who tells us that human stress is usually designated as environmental stress with subclasses of psychological stress (i.e., loss of love, unconscious conflicts), social stress (i.e., cultural restrictions, technological change), economic stress (i.e., unemployment, poverty) and physiological stress (i.e., physical, chemical, bacteriological factors). The common denominator of all of the preceding is cognitive mediation, which gives identity to each kind of stress.

Brown (1980) points out that the issue of cognitive mediation represents a primary conceptual gap in stress research. She defines cognitive mediation as "the mechanisms operating
between the external psychosocial factors and the activation of the internal psychophysiological mechanisms during reactions to psychosocial stress" (p. 22). She writes:

Despite the tacit understanding and pragmatic accept­ance of cognitive mediation, the most popular notion of psychosocial stress is the vast oversimplification that psychological stressors excite the varieties of neural, endocrine, and immune systems that implement stress reactions, as defined by Selye (p. 22).

Among the others who have addressed the issue of method­ological shortcomings in research focusing upon life situa­tions, adaptation, and illness are the following persons.
Minter and Kimball (1978) remark, "Investigations of the sick role and the effect of stress upon illness behavior indicate that greater control of these variables is desirable" (p. 334). Mechanic (1974) comments, "Intrapsychic variables require specification of what events influence what illnesses under what conditions through what processes" (p. 87). Miller (1980) states, "Although some. . .investigations have used ingeneous controls. . .it is difficult entirely to rule out confounding factors" (p. 137).

Dohrenwend and Dohrenwend (1978, 1980) believe that the most critical question, often bypassed in stress research, is: What is a stressful life event? Addressing this question from a psychosocial perspective, Dohrenwend and Dohrenwend (1980) are of the opinion that a stress model should accomplish the following: a) distinguish between a stressor (an event which elicits a stress response) and the state of stress (the immediate response to the event); b) delineate both
situational (environmental) supports and/or hindrances, and personal factors which constitute the stress context; and (c) determine the outcome, resulting from the interaction between the state of stress and the intervening (environmental and personal) factors. Discussing outcomes of stressful events, Dohrenwend and Dohrenwend (1980) contend that a person may undergo psychosocial growth, resume his life without substantial permanent change, or experience a change for the worse in his functioning or health.

Although the model of the two authors is greatly simplified, it clearly tells us that perhaps the most important task of contemporary stress researchers is to examine with greater scrutiny the individual's unique appraisal of his or her environment as a prerequisite in defining and measuring stressful life events.

Definitions of Stress

In the literature, stress has a variety of definitions. Generally, physiological researchers, such as J.W. Mason and Hans Selye, view stress as "a response, a reaction, or an adaptation, usually somatic in nature, to environmental stimulation or change" (Schlesinger and Revitch, 1980, p. 174). In common parlance as well as the fields of psychiatry, psychology, and sociology, stress is regarded as a stimulus which evokes a response. Engle (1953) includes internal and external sources of stimulation in his definition of stress. He is of the opinion that "stress refers to all processes,
whether originating in the external environment or within the person, which impose a demand or requirement upon the organism" (Schlesinger and Revitch, 1980, p. 174).

Barbara Brown (1980) is of the opinion that the major stress for modern man is social stress, "with cognitive concerns about social activity being the primary cause of all the disorders of psychological and physiological function now called stress-related problems" (p. 44).

Scott and Howard (1970) provide us with a brief overview of some well-known models of stress. Mechanic defines stress in view of personal responses to situations, while Basowitz and his associates focus upon the nature of a situation, independent of a person's reaction to it. Dohrenwend and several proponents of the mechanical model, define stress as "an intervening state. . .the internal reaction to stressors, loads, or noxious stimuli" (p. 265). Dunbar, a pioneer in psychosomatic medicine, views stress as an attribute of the stimulus situation. Alexander's psychosomatic model and Wolff's Protective Reaction Pattern focus upon stress from the perspective of both the stimulus and the person's response to it (Scott and Howard, 1970).

Hinkle and his associates (1958, 1974) were among the first to attempt a large scale investigation of the relationship between life events and the onset of illness. The first well-known quantitative measure of life events, the Social Readjustment Rating Scale (SRRS), was developed by Holmes and Rahe (1967). A self-administered questionnaire, the SRRS
consists of numerical ratings of forty-three life events that require change in individual adjustment (i.e., death of a spouse, unemployment, divorce, illness, retirement). Holmes (1978) and his co-workers are widely recognized for a series of studies in which they endeavor to clarify the relationship between psychological factors, emotions and life changes, and the onset and course of disease.

The most noted of theorists, whom I prefer to call the "grandfather" of stress research, is Hans Selye. Recognizing that stress mechanisms are influenced by internal factors (i.e., hereditary predispositions, past experience) as well as external (environmental) conditions, Selye (1956) describes stress as the "state manifested by a specific syndrome [group of symptoms] which consists of all the non-specifically-induced changes in a biologic system" (p. 54). Stress, according to Selye (1980), is "the non-specific (common) result of any demand upon the body" (p. vii). Levi (1974) responds:

The nonspecific response. . . a stereotyped phylogenetically old adaptation pattern, primarily prepares the organism for physical activity, e.g., fight or flight. These Stone Age responses, which may be provoked by a variety of psychosocial and other conditions of modern life, when no physical action is possible or socially acceptable, have been suspected of eliciting physical and mental distress or malfunction, or even structural damage. Briefly, then, stress is one of the mechanisms under certain circumstances suspected of leading to disease (p. 9).

Selye's concepts, "disease of adaptation," and the "General Adaptation Syndrome" (G.A.S.) represent major contributions to our present understanding of psychosomatic medicine.
The G.A.S., derived from the perspective of the endocrine system, denotes an adaptive response consisting of three stages: a) alarm reaction; b) resistance, and c) exhaustion, produced by nonspecific stress and mediated by the pituitary-adrenal-cortical system (Serban, 1976).

Selye (1980) feels that the following qualities of stress contribute to the confusion of present research: a) stress is nonspecific; b) a psychologic stressor exists only if it is perceived as such; c) there is a distinction between unharmful (good) and harmful (bad) stress; d) stress states, as well as stress-related syndromes, occur in varying degrees; e) "stress tests" in research need to be evaluated from the standpoint of individual performance, as well as from the usual mode of group "averages." Selye (1980) emphasizes that we need to make a clear distinction between treatment techniques (i.e., biofeedback, relaxation, physical exercise) and a philosophy of life. He states:

Both are of considerable importance, but I believe that the greatest challenge to humanity at present is to find a philosophy of life, a code of behavior, which gives good guidance, not to avoid stress (for that is impossible), but to cope with it in order to achieve health, long life and happiness (p. xii).

The preceding paragraphs attest to the variety of definitions of stress which exist within scientific literature. "Despite a lack of consensus on definition," writes Brown (1980), "there is little doubt that the chief intervening agency is the interpretive, integrative, conceptualizing,
decision-making, action-directing functions of human beings" (p. 26).

Mediating Cognitions

One of the most fascinating issues of stress research is how adaptational outcomes, particularly somatic illness, are influenced by intervening cognitions, emotions, and coping processes.

While social stress systems are decidedly complicated because of labyrinthine feedback systems...it is ultimately the activity of higher-order mental processes that furnishes social activities with meaning. The force of social stress occurs only through an intervening system that invests social activities with qualities of stress, the action I have called "stressor processing." In other words, social stress is stressful only after cognitive processing (Brown, 1980, p. 30).

Formulating their ideas on the basis of various stress models, Scott and Howard (1970) note that each individual tends to "develop a characteristic level of activity and stimulation at which [he/she] most comfortably functions" (p. 270). Problems in adaptation occur when certain stimuli or conditions produce demands that require a person to go beyond his usual limits of functioning. Boredom and sensory deprivation are "problem situations in much the same sense that crises, disasters, and acute insults to the integrity of the organism are problems" (p. 270). Mastery depends upon the way in which an organism responds to a problem. Scott and Howard (1970) observe that individuals experience tension as they mobilize energy and resources to solve problems. In
successful problem-solving, one resumes his or her usual level of functioning as tensions are evenly dissipated. When problems are not resolved, however, one must deal with a residue of tension, manifest in a second-order problem of coping.

Failure in mastery requires the organism to use an excess of energy and resources in maintenance activities. . .[which] involve the organism in a state of continuous mobilization of tension. To the extent that excess maintenance tension exists, the organism [is] experiencing stress. . .[defined as]. . .a state that results from the excess tensions produced by a failure of the organism to master threats from. . .its environment (Scott and Howard, 1970, pp. 272-273).

A person's interpretation of environmental threats is crucial to mastery. According to Lazarus, Cohen and others (1980), the distinguishing characteristic of psychological stress, as opposed to social and physiological, is the presumption that cognitive activities (i.e., evaluative perceptions, thoughts, and inferences) guide the individual in making conscious and unconscious appraisals of each adaptational interchange with the environment.

At the human level, cognitive appraisal processes are complex and symbolic, permitting individuals to recognize and distinguish among harm-loss, threat, and challenge, and to make numerous other subtle cognitive distinctions that give human life its highly rich and complex emotional qualities (Lazarus, Cohen and others, 1980, p. 91).

There is a great deal of research support for the role of mediating cognitions in psychological stress (Lazarus, 1966, 1968; Lazarus, Averill, and Opton, 1974; and Lazarus and Launier, 1978). While the relationship between cognitive processes, adaptational behavior, and physiological outcomes is obscure, it is at this juncture that some of the most
compelling research questions are being asked about the role of stress in somatic illness, social functioning and morale. One crucial question deals with the distinction between the nature of a potentially stressful event and the appraisal of that event. Another point in question is whether health, morale, and social functioning are impeded or enhanced by emphasizing the "positive" aspects of demanding or unfavorable life circumstances.

Brown (1980) notes that another critical, but generally overlooked area is "the feedback system between neural and mental processing" (p. 33). According to Sperry (1976), neural activity leads to mental events, and vice versa. Thus, every cognitive response to social stress is linked with some degree of physiological (central nervous system) activity, which dominates the clinical situation because it is more visible and measurable than its more subjective and obscure cognitive counterpart. Brown (1980) believes that operationalizing cognitive processes could more readily facilitate the development of treatment procedures for stress, than the current practice of describing and focusing upon the consequences of (responses to) stress, such as defense reactions, unconscious conflict, frustration and guilt.

Brown (1980) delineates six steps in intellectual processing of social data leading to psychosocial distress: a) expectations; b) perceptions; c) interpretation of
disparity; d) rumination; e) perceptual distortion; and f) cortical inhibition.

**Expectations.** An individual perceives the countless aspects of his or her milieu according to expectations, which are "multidimensional...subjective activities depending upon individual history...linked to aspirations, motives, and situational clues" (Brown, 1980, p. 34). The complex expectational set gives rise to cognitive processes that elicit emotional or physiological distress if satisfaction and/or neutralization are not forthcoming.

**Perceptions.** In order to perceive, one must continually interpret ever-changing dimensions of human behavior, motives, cultural proprieties, emotional expressions, nonverbal (body) language as well as verbal language. The interaction of a multitude of complex social events which are highly competitive as well as heavily laden with rewards and punishments, must be "observed, associated, analyzed and judged" (Brown, 1980, p. 35). The synthesis of these events is greatly complicated by communication patterns which are "broad, layered, symbolic, elite, caste-developed, and rife with opportunities for misinterpretation" (Brown, 1980, pp. 34-35).

Brown's observations are applicable to the work of Sapira and others (1971), who studied differences in perception between hypertensive and normotensive patients. Both groups of patients viewed two movies of contrasting doctor-patient relationships. In the first, the doctor was rude and disinterested and, in the second, warm and relaxed. The most
striking result was that the hypertensive group denied seeing obvious differences between the two physicians, while the normotensives clearly identified behavioral differences between the physicians.

**Interpretation of disparity.** A significant disparity between expectations and perceptions according to Brown (1980), leads to intense cognitive activity and conflict which affect both subjective sensations and physiological activities. Further, a lack of rewards and/or fulfillment, and subsequent repression, are sometimes indelibly engraved upon a person's habits and defenses arising from previous experience.

**Rumination.** The recognition of disparities characteristically evokes mental activity, in the form of rumination, "worry," "pondering, speculating, projecting, imagining and reacting to each possible alternative solution to the perceived problem" (Brown, 1980, p. 36). Rumination may affect physical functioning in two ways.

One, a residue of uncertainty may threaten social well-being, thereby evoking anxiety and/or apprehension, which may trigger physiological defenses, such as muscle, visceral, and subjective tension. Secondly, rumination is accompanied by an almost continual train of mental images which may lead to physiological arousal, as demonstrated by Edmund Jacobson (1938). Jacobson (1938) has shown that organs of the body "respond to images involving these organs, and, with certain predisposing factors, the images may evoke [the]
physiological arousal responses accompanying anxiety" (Brown, 1980, p. 36).

**Perceptual distortion.** Seeing and hearing aspects of the social matrix that fit preconceived pictures and images of situations and problems, individuals tend to select perceptions which increase distress by intensifying the dimensions of the problem and strengthening inappropriate solutions.

**Cortical inhibition.** It has been suggested that higher order cortical processes inhibit the normalizing effect of lower brain functions by preventing the relay of proprioceptive information to appropriate muscle regulatory systems. Brown (1980) tells us that "cortical inhibition" a) interferes with recognition of internal physiological due; b) reinforces rumination; c) narrows the focus of attention; and d) limits cognitive activities.

**Stress and Emotions**

Inseparably aligned with the preceding processes of cognitive appraisal are emotional responses, reflected in the manner in which a human being interprets his or her surroundings. Charles Spielberger (1972) tells us that although it is widely accepted that specific emotions may profoundly affect our lives, research on emotion reveals a "discouraging degree of conceptual ambiguity and empirical inconsistency" (p. 24). William James (1890) has described the literature on emotion as "one of the most tedious parts of psychology" (p. 449). As one might surmise, there are a number of diversified
definitions of emotion throughout the literature. The one which seems most adequate to me is that of Charles Spielberger (1972), who regards the term "emotion" in much the same way as it is used in common language. He writes:

"Emotion" refer[s] to complex, qualitatively different feeling states in conditions of the human organism that have both phenomenological and physiological properties. A major point...is that the long-neglected phenomenological-experiential properties of emotion must be investigated in their own right, along with the patterns of physiological and behavioral response associated with emotional arousal (p. 27).

The works of Walter B. Cannon (1953, 1963) are regarded as classics in the study of emotional arousal mechanisms (p. 27). Cannon (1963) states:

The key to [the] marvelous transformations in the body is found in relating them to the natural accompaniments of fear and rage--running away in order to escape from danger, and attacking in order to be dominant. Whichever the action a life-or-death struggle may ensue...emotional responses...may reasonably be regarded as preparatory for struggle. They are adjustments which...put the organism to readiness for meeting the demands which will be made upon it. The secreted [adrenalin]...quickly abolishes the effects of muscular fatigue...so that the organism...can restore [readiness] to its tired muscles (pp. 227-228).

Neal Miller (1980) is also very interested in homeostatic functions. A researcher in the relationship between learning and fear, or anxiety, "as it is called when its source is vaguely defined," (p. 132) Miller is especially intrigued with fear because it can be quickly learned as a response to a new situation. Regarding the brain as the "supreme organ of integration of the body," (p. 131) Miller (1980) writes:
The brain regulates vital functions such as breathing, heart rate, blood flow, blood pressure, body temperature, energy balance, and electrolyte balance; controls the release of adrenaline into the blood; and controls the function of the master gland, the pituitary, which in turn controls the hormones essential to growth, sex, and reproduction, and the ACTH and corticosteroids released during stress, which have multiple effects throughout the body. The brain is also the source of emotions and drives such as love, anger, fear, hunger, and thirst, and contains the mechanisms for perception, learning, voluntary responses, and the highest mental processes: thought, reasoning, and artistic and scientific creativity (p. 131).

Miller (1980) notes that all of the aforementioned processes are inseparably related because of the brain's integrative capacity. For example, reasoning and foresight, by spelling danger, can evoke an emotion of fear, just as intense fear can shape one's thoughts, and thus influence such vital processes as digestion, respiration, and circulation.

Clinical studies reveal that extreme fear can result from such experiences as "sudden, intense, and unexpected stimuli, threats of aggression, social disapproval, the prospect of loss of love, loss of money, injury, illness, loneliness, helplessness or death" (Miller, 1980, pp. 134-135). The fear associated with these experiences can become manifest in the following symptoms of neuroses, psychoses, and psychosomatic illness:

Rapid pulse, dryness of the throat and mouth, strong feeling of muscular tension, trembling and exaggerated startle, sinking feelings of the stomach, perspiration, frequent need to urinate, irritability; aggression, overpowering urge to cry, run or hide, confusion, feelings of unreality, feeling faint, nausea, fatigue, depression, slowing down of movements and thoughts, restlessness, loss of appetite, insomnia, nightmares, interference with speech, use of
meaningless gestures, maintenance of peculiar postures, and (sometimes) stuttering, mutism, amnesia, and paralysis (Miller, 1951).

Although these symptoms characteristically occur in myriad random patterns, if one of them is reinforced by a fear-reducing hope of escape, it will likely be learned (Dollard and Miller, 1950; Miller, 1975; Richter, 1957).

Akin to fear is anxiety. Anxiety, according to Freud, "could be distinguished from other unpleasant affective states, such as anger, grief, or sorrow, by its unique combination of experiential and physiological qualities" (Spielberger, 1972, p. 23). In current psychology, anxiety is defined as "a palpable but transitory emotional state or condition characterized by feelings of tension and apprehension and heightened autonomic nervous system activity" (Spielberger, 1972, p. 24). An extensive review of psychological literature led Krause (1961) to say that anxiety is evidenced by: a) introspective verbal reports; b) physiological signs; c) "molar" behavior (i.e., body posture, restlessness, distortions in speech); d) task performance; e) clinical intuition and f) the response to stress. According to Krause, introspective verbal reports are the most frequently used index of transitory anxiety in psychological literature.

Spielberger (1972) tells us that the words stress, threat and anxiety are used interchangeably by stress researchers. Stress and threat represent components of a temporal sequence of circumstances which lead to the experience of anxiety. Stress denotes the objective stimulus properties of a
situation, whereas threat refers to a person's unique per-
ception of a physically or psychologically dangerous situation. 
Spielberger (1972) writes:

A situation that is objectively stressful will be perceived as dangerous or threatening by most people. But whether or not a stressful situation is perceived as threatening by a particular person will depend upon his own subjective appraisal of the situation. . .state [transitory] anxiety (A-State) . . .refer[s] to the complex emotional reactions that are evoked in individuals who interpret specific situations as personally threatening. If a person perceives a situation as threatening, irrespective of the presence of real (objective) danger, it is assumed that he will respond to it with an elevation in A-State. . .he will experience an immediate in-
crease in the intensity of an emotional state char-
acterized by feelings of tension and apprehension, and be heightened autonomic nervous system activity (pp. 30-31).

Coping and Adaptation

Coping. There is a rapidly growing awareness that the coping processes associated with stressful experiences exert a tremendous influence upon social and physiological spheres of adaptational outcomes. While some coping behavior can increase the possibility of malfunctioning or illness, other patterns of coping can decrease the likelihood of these processes, "though the psychophysiological mechanisms underlying these effects are far from clear" (Lazarus, 1980, p. 100).

Coyne and Lazarus (1980) note that within the past thirty years, conceptualizations of stress have moved from the domin-
ion of simplistic drive-tension and stimulus-response theories, to the complex interrelationship between the individual's coping resources and his or her environment. Coelho, Hamburg
and Adams (1974) observe that the terms adaptation, coping and defense often overlap, and are used in a variety of ways throughout the literature. Lazarus, Averell and Opton (1974) are of the opinion that the variety of meanings attributed to coping is a result of writers using the term in an "intuitive, everyday sense, relying on the context to make the meaning clear" (p. 250).

Joel Dimsdale (1978) sees coping as a universal phenomenon "firmly embedded in warlike connotations" (p. 420). He points out that the verb "to cope" comes from the old French verb "couper," meaning "to strike." Coping, according to Dimsdale, is basically a long-term warlike struggle in which the strategist must mobilize both defense and offense, while maintaining the system. Feeling that theorists have failed to clearly distinguish among coping, adjustment, and adaptation, Dimsdale warns against simplistic views of stress. He states, "Even if one has survived a major onslaught, stress can have an impact that is not always dissipated by coping responses" (p. 404). Dimsdale adds that coping is a failure if it does not enable an individual to experience "self-esteem and a sense of continuity with his past and future" (p. 404).

Sociologist Howard Kaplan (1980) contends that the capacity for adaptation, coping and defense includes psychological, sociological and coping resources, manifested in personal action. Coping, according to Kaplan, is the "concrete effort to deal with the life strains [people] encounter in their different roles" (p. 69). Another viewpoint, emphasizing
mastery of a new situation, is espoused by Lois Murphy (1962), who sees coping as an endeavor to deal with potentially threatening, frustrating, challenging or gratifying circumstances. Lazarus and his associates (1974), in contrast, perceive coping as a problem-solving endeavor which necessitates confronting demands essential to one's well-being, as well as taxing to his or her adaptive resources.

Having told us that coping is struggle, problem-solving and mastery manifest in concrete efforts to maintain homeostasis and deal with life strains, demands and taxations, the preceding theorists have given us some clues as to the nature of coping and adaptation relative to stress. These authors have suggested that coping is the actions that we take to maintain our equilibrium in current situations. Several noteworthy ideas are presented by Dimsdale. One is that coping responses are not successful unless accompanied by self-esteem. The second is that a function of coping is to provide a sense of continuity between past and future. One might conjecture that Dimsdale would go on to say that a byproduct of satisfactory coping is the development of an adaptive pattern which is, in essence, a continuous imaginary book of reference, containing effective and ineffective behaviors relative to various types of circumstances, to be used in dealing with current situations.

Adaptation. Adaptation, on the other hand, appears to represent the total storehouse of learned coping resources accumulated over a period of time. Lazarus and others (1980)
eloquently describe the process and flux in the adaptational pattern. They write:

The essence of adaptation is change. . .when confronted with a dangerous or demanding situation, a person copes, thus altering the stressful person-environment relationship and, in turn, the physiological disturbance or disease process. Person-environment relationships are always in flux; emotions are rising and falling and changing in quality, with attendant changes in tissue reactions. The way a person appraises what is happening is also constantly changing with changing circumstances and with his or her own cognitive and behavioral activity. Effective coping also requires that a person be attuned to the specific demands of the situation. The successfully adapted person does not do the same thing, or react in the same way, from one stressful encounter to another, though there are undoubtedly some things about his or her tendency to react that are comparatively stable (p. 108).

Coyne and Lazarus (1980) suggest that the crux of the adaptational encounter is the unique human dimension, which ultimately determines the unfolding sequence of responses to events and circumstances. They reiterate:

In an adaptational encounter, environmental demands, cognitive appraisal processes, coping, and emotional response interpenetrate, each affecting the other. Depending on how the observer punctuates the unfolding sequence, antecedent status can be assigned to any of a number of configurations of these variables (p. 150).

**Developing Awareness**

One of the most critical aspects of coping with stressful circumstances is developing an awareness of the sensations and processes within one's body. Secondary to this awareness is learning to distinguish between the effects of normal and pathological levels of stress upon the body. Even though
there is no clear dichotomy between the preceding, it is help­ful to know that a certain amount of stress, which Selye (1978) terms "eustress," is normal, as well as essential to our well being and ability to function. Kenneth Pelletier (1977) cites Simeons, who warns that inappropriate responses to normal stress activity can sometimes be more harmful than the stress itself:

Modern man's cortex, having censored the diencephalic reactions at the level of consciousness, is unable to interpret the bodily preparations for flight cor­rectly. . .[man] speaks of indigestion when apprehensiveness kills his appetite, and insomnia when fright keeps him awake at night. . . The increased heartbeat becomes palpitation, the sudden elimination of waste matter he calls diarrhea, the clenching of his back muscles he calls lumbago (p. 44).

Another important factor is duration of stress. Franken­enhaeuser (1980) points out that the duration of responses to disturbing life circumstances plays an important role in their potential harmfulness. Oftentimes, stress becomes detrimental when it occurs unremittingly, and there is no avenue of escape for the individual. While the subcortex responds to stress by preparing for fight or flight, the in­dividual consciously restrains himself. Immobility sub­sequently is interpreted by the subcortex as inadequate prepar­ation for fight or flight, and the individual consequently experiences mounting tension in a highly destructive cycle. Awareness of this cycle represents one of the key aspects of understanding psychosomatic disorders (Pelletier, 1977).

According to Barbara Brown (1975), the concept, psychoso­matic, indicates an emotional origin of disease processes.
Research in biofeedback, Brown believes, represents the "first medically testable indication that emotion and mind can relieve illnesses as well as create them. Mind and willpower, however, are not always with us; they are elusive attributes of human beings" (p. 223). People generally do not realize that there is a relationship between their behavior, attitudes, and autonomic neurophysiological functions. An awareness of this relationship is perhaps the most essential ingredient of stress management, which is largely dependent upon the power of human volition—the belief system of the individual. Inherent in belief systems are self-fulfilling prophecies. Pelletier (1977) notes that "what is expected is observed, and what is observed confirms one's expectations" (p. 33).

When personal belief systems reflect a loss of control over life, human beings often become immobilized by their own convictions. Feeling hopeless and helpless, people may not be able to reverse the general decline of their well-being. Resultantly, exacerbations of tension and anxiety accompanying the extended periods of stress, may interfere with the functioning of vital processes and produce even greater incapacity. A vicious cycle is thus set in motion.

New Options for Stress Resolution

Scott and Howard (1970) tell us that there are two basic courses which can be followed by human beings who are experiencing undissipated tension. One, a person can live with the tension, as in the event of assaults to physical
integrity. If, however, there is a great need to mobilize energy and/or resources, this is not a viable alternative because exhaustion may ensue. Two, it is possible for an individual to at least temporarily dissipate tension through a variety of physical, psychological, and social mechanisms.

Expressive modalities and relaxation techniques represent some of the mechanisms whereby people can dissipate tension and neutralize the effects of stress-laden circumstances, which are often perceived as victimizing forces. Through these therapies, people can often stop the vicious cycle of their decline and achieve homeostasis by exercising volition and regulating physiological functioning, thus regaining a sense of control and responsibility as they become able to channel their modes of living in a positive direction.

Summary

The sweeping changes which have occurred in this country within recent decades have led to an ever-growing concern with stress and stress resolution. Unfortunately, conceptual ambiguities and empirical inconsistencies surround the concepts of stress, coping and adaptation. Researchers in physiology, psychiatry, psychology and sociology attach variant meanings to these terms. Generally, stress refers to all processes, internal or external to the individual, which place a demand upon the organism. The terms stress and anxiety are used interchangeably by a number of researchers. Anxiety is a
transitory emotional state or condition accompanied by sensations of tension and apprehension, along with increased activity of the autonomic nervous system. **Coping** is a blend of struggle, problem-solving and mastery, manifest in concrete efforts to maintain homeostasis and deal with the demands of life. **Adaptation** represents the total storehouse of learned coping resources accumulated over a period of time. An adaptational encounter is a potpourri of environmental demands, cognitive appraisals, coping behaviors, and emotional responses, which interact with and affect one another.

A multitude of researchers have endeavored to establish a relationship among life stress, personality characteristics, and the onset of illness. Research problems are: a) defining stressful life events; b) isolating a stress response within the organism; c) operationalizing the onset of illness; d) determining the individual's unique perceptual appraisal of his or her environment; and e) operationalizing mediating cognitions, which play an exceedingly important role as psychological and physiological concomitants of stress.

Critical factors in dealing with stress are: a) developing an awareness of the sensations and processes within one's body; and b) distinguishing between the "normal" stress of life and that which is pathological in reducing one's ability to function. Unremitting stress, accompanied by undissipated tension, is often a distinguishing feature of a pathological situation. A person in this situation can: a) endure the prolonged tension; and b) dissipate the tension through
various activities, such as relaxation techniques and expressive modalities.

The following part of this chapter is an overview of relaxation techniques and expressive modalities which represent options for enabling persons to adapt to stressful events.
Relaxation Techniques

Background

There is a growing interest in nonpharmacological, self-induced, altered states of consciousness, which are purported to alleviate tension and stress, as well as enhance mental and physiological functioning. Subjective and objective data support the hypothesis that an integrated nervous system "relaxation response" accompanies this altered state of consciousness.

Techniques for inducing relaxation experiences date back to antiquity. In Judaism, altered states of consciousness were recorded during the time of the second temple (second century B.C.) in early forms of Jewish mysticism. In the thirteenth century A.D., the ideas of Rabbi Abulafia became a major part of Kabbalistic mysticism. One must meditate upon an "absolute" object, which Rabbi Abulafia found in the letters of God's name in the Hebrew alphabet. A Christian work, The Third Spiritual Alphabet, written by Fray Francisco de Osuna in the tenth century suggested repetitive prayer, as well as simply saying "no" to intruding thoughts. From these initial vestiges of relaxation experience have emerged countless
variants, many of which have come from Eastern religions and ways of life, manifest in the practice of Zen and Yoga.

Herbert Benson (1974), Harvard Professor of Medicine, and his colleagues define the relaxation response as an "integrated hypothalamic response resulting in generalized decreased sympathetic nervous system activity, and perhaps also increased parasympathetic activity" (p. 37). Hess (1957) writes:

We are actually dealing with a protective mechanism against overstress belonging to the trophotropic-endophylactic system and promoting restorative processes. . . . These adynamic effects are opposed to ergotropic reactions which are oriented toward increased oxidative metabolism and utilization of energy (p. 40).

Benson (1974) equates the relaxation response with the trophotropic response, and the fight or flight response, first described by Cannon, with the ergotropic response. In man, the relaxation response reflects physiological changes which are the opposite of the fight or flight response. For example, the practice of Transcendental Meditation, a well-researched technique, elicits the primary components of a hypometabolic state.

The following relaxation techniques represent some widely-used methods of enabling people to learn new ways of coping with the environment. In some respects, these therapies are distinct from one another, yet they have overlapping qualities, and, in many respects, they can be used in combination a) with one another; b) with expressive modalities, or c) with psychotherapy techniques.
The techniques which are presented are meditation, progressive relaxation, systematic desensitization, hypnotherapy, autogenic training, autohypnosis, biofeedback and visualization. Although I do not practice hypnotherapy or biofeedback at this time, discussions of these therapies are included because of their close relationship to: a) other expressive modalities; b) human belief systems; and c) personal responsibility for health and well-being.

Meditation

Psychotherapist Thomas Keefe (1976) cites some reasons for practicing meditation:

Meditation is practiced for the side effects of relaxation and calming, for the spiritual pursuit of enlightenment, for the dissolution of the subject-object mode of perception, for enhanced interpersonal functioning and empathy, or for greater insight into one's feelings and self (p. 486).

In practicing meditation, one concentrates his attention upon a single external object (i.e., mandala, flower, sound), or a biological function (i.e., respiration, heart rate or sexual activity). Repetition is a key factor in meditation. In many forms of meditation, syllables attached to no particular meaning (i.e., mantras in transcendental meditation) or numbers in various patterns are repeated throughout the meditative process. The purpose is to utilize continual repetition to clear the mind of extraneous thoughts.

Karlins and Andrews (1972) describe meditation as a "concentrated period of being alone which allows one to
re-synchronize his internal rhythms" (p. 73). The rhythms of the lower areas of the brain, for example, become slower and more harmonious, as the activity of the cortex decreases. Meditation represents a respite from the responsibilities and pressures of daily living in which the individual can "get himself together" as he discovers his organic center.

There is a broad range of meditative practices. Whether the origin is of the Hindu, Buddhist, or Zen tradition, or the Yoga-oriented transcendental meditation technique, the individual experiences a minimization of thought in the verbal, linear, and analytical sense, as he focuses his attention upon a single idea, object, or point, either within or outside his body. The self-control of the individual is enhanced as his mental functions characteristically become "one-pointed."

Although there are a variety of positions to achieve relaxation, the lotus (seated, cross-legged with back and neck erect, head balanced, and arms resting upon the knees or folded in the lap) is the most familiar and widely-used (Keefe, 1976).

Wallace and Benson (1972) reveal that the following physiological changes occur in the hypometabolic state of meditation: a) marked decrease in oxygen consumption and carbon dioxide elimination; b) decrease in respiration rate and volume of air breathed; c) decrease in cardiac output; d) slight increase in blood acidity; e) rapid decline in concentration of blood lactate; f) rapid increase in the electrical resistance of the skin; g) increase in the intensity
of "slow" alpha waves in the frontal and central brain areas, and h) increase in the blood flow in the forearms.

According to Wallace and Benson (1972) persons with anxiety neurosis exhibit a marked rise in blood lactate levels when they confront stressful situations. Individuals with essential and renal hypertension also have higher blood-lactate levels at rest than do persons with normal blood pressure. Wallace and Benson (1972) believe that regular practice of meditative relaxation can be very beneficial to numerous persons with conditions such as heightened anxiety and blood pressure.

Keefe (1976) presents some therapeutic properties of meditation; a) increased awareness of one's feelings; b) enhanced perceptive abilities; and c) improved ability to focus attention and awareness upon present events (here and how).

The culmination of meditative states is peak experiences, described by Maslow as "those timeless, ego-less moments that happen spontaneously to all of us. . .characterized by serene joy" (Lawrence, 1972, p. 162). Maslow (1968) writes:

We speak here of the ability to integrate and of the play back and forth between integration within the person, and his ability to integrate whatever it is he is doing in the world. . . .This is precisely what the great artist does. He is able to bring together clashing colors, forms that fight each other, dissonances of all kinds, into a unity.

Progressive Relaxation

American physician and physiologist, Edmund Jacobson (1938, 1978), began his research at Harvard University in
1908. One of the most important aspects of his work was the discovery that when people merely picture themselves involved in an activity such as running, the muscles of their body used in that activity contract in small, but observable, amounts. Jacobson noted that our day to day purposes are "carried out by the contraction and relaxation of 1030 skeletal muscles which compose nearly one-half of the weight of the human body" (Jacobson, 1978, p. 14). Through his research, Jacobson (1978) was able to demonstrate that "thinking at any moment occurs not alone in the brain but simultaneously. . .in our nerves and muscles" (p. 22).

Jacobson developed an extensive set of exercises to enable people to regulate muscle tension, by first tensing muscle groups and subsequently releasing tension in them, and experiencing relaxation by feeling the difference between the tension and relaxation. Jacobson's pioneering discoveries led to his conclusion that tension effort manifested in the shortening of muscle fibers occurs when a person reports "anxiety" (Bernstein and Borkovec, 1973), and secondly, that anxiety can be reduced by decreasing tension levels.

In his relaxation procedures, Jacobson instructed patients to recognize their tensions and observe when and where, in the course of their daily activities, they habitually contracted and relaxed muscles. "It is important to learn how you spend your energies," he frequently advised his patients. One of the most important concepts of his work is "residual tension,"
or the difference between felt and unfelt muscle tension. Central to his relaxation program is his hypothesis that individuals can learn to reduce their unfelt tension by becoming aware of it.

In his work, Jacobson incorporated the use of images to enable patients to "recall the tension reactions during actual tension-producing situations and learn to discriminate levels of tension during therapy" (Brown, 1980, p. 42). Brown (1980) also notes that "the use of mental images both confirms the source of the tension and aids in identifying relationships between social situations and tension states" (Brown, 1980, p. 43). The ultimate goal of Jacobson's therapy was to reach deep levels of relaxation without the use of images. Recent recognition of the role of cognitive processes in physiological functioning has given impetus to a resurgence of appreciation for Jacobson's discoveries.

Brown (1980) tells us that the major assumptions of Jacobson's work are: a) anxiety and relaxation states are mutually exclusive; b) comparing tension to relaxation (tense-relax exercises) develops awareness of feelings of relaxation; c) anxiety results from unnecessary energy expenditures in solving problems; d) imagery occurring during problem solving elicits physiological activity and expends energy.

Brown (1980) also compresses Jacobson's elaborate anxiety/tension-reducing program into the following steps: a) identify the tension-producing situation(s); b) identify the
patterns of tension-image responses; c) use the images during relaxation learning; and d) eliminate the images while maintaining relaxation.

A technical manual of theory and methodology, *Progressive Relaxation*, written in 1938, represents the culmination of Jacobson's work. Since that time, Jacobson's studies have provided the foundation for various psychotherapies, a natural childbirth technique, and a number of methods of treating tension-related diseases, such as high blood pressure (Samuels and Samuels, 1975).

The 1962 set of Jacobson procedures for relaxation involved fifteen muscle groups, each of which was dealt with in one to nine hour-long daily sessions, prior to advancing to the next phase. The entire regimen consisted of a total of fifty-six training sessions. Near the turn of the century, psychologist Joseph Wolpe modified Jacobson's procedures and applied them in a systematic program of treatment. The result of Wolpe's endeavors was a more efficient and compact relaxation program focusing upon the circumstances surrounding the occurrence of anxiety rather than the anxiety response per se. Wolpe's rationale was that because anxiety is often a learned response to a particular stimulus, it is most effectively reduced by "developing an incompatible response (e.g., relaxation) and investigating the situations which elicit the anxiety" (Bernstein and Borkovec, 1973, p. 4). Wolpe's treatment procedure systematic desensitization, will be discussed further in another section of this chapter.
Borrowing from the work of Jacobson and Wolpe, Bernstein and Borkovec (1978) have created a simplified and shortened relaxation program, which is a more clinically viable tool than Jacobson's original set of procedures. The technique, called progressive relaxation training, consists of teaching clients to sequentially tense and then relax (sixteen [initially] and seven, four [advanced]) muscle groups throughout the body, while simultaneously recognizing the feelings which accompany the tension and relaxation. Clients are encouraged to become aware of muscular contractions which are associated with their daily activities particularly those linked with a great deal of tension. The goal of the training is to help clients learn to reduce muscle tension in their body, whenever and wherever they wish, far below their usual adaptation levels.

Similar to Jacobson, Bernstein and Borkovec believe that tension involves muscular contractions, and that learning to reduce the contractions will relieve the feeling of anxiety. Although Bernstein and Borkovec's method of dividing the body into muscle groups differs from Jacobson, the basic relaxation procedure is the same in that it involves tensing and relaxing muscles for the purpose of recognizing and controlling tension. Bernstein and Borkovec's concept of recall relaxation, or the production of relaxation by thinking about the relaxation process rather than actually tensing and relaxing muscles, resembles Jacobson's use of diminishing tensions. Differential relaxation, the periodic recognition of tension during
daily activities and the subsequent relaxation of unnecessarily tense muscles, is approached in much the same manner by Jacobson and Bernstein and Borkovec. The preceding practice enables unusually tense persons to maintain a low arousal level throughout the day, as well as calmness during especially anxiety-provoking situations. One technique which is included by Bernstein and Borkovec, but not Jacobson, is conditioned (cue-controlled) relaxation, which enables a person to pair a cue word with feelings of relaxation until the cue word alone induces relaxation.

In summary, progressive relaxation enables the client to control tension by becoming aware of it, and subsequently feeling the difference between the tension and relaxation, practicing tension/relaxation throughout various muscle groups of the body.

Systematic Desensitization

Borrowing from Jacobson's approach to progressive relaxation, Joseph Wolpe (1958) developed the procedure of systematic desensitization. Wolpe's method involved having patients relax, generally through progressive relaxation, and subsequently visualize a series of anxiety-provoking situations, arranged in a hierarchy. Employed to reduce maladaptive anxiety, systematic desensitization involves the "pairing of relaxation with imagined scenes depicting situations that the client has indicated cause him or her to feel anxious" (Rimm and Masters, 1979, p. 41). Following the principle of
counterconditioning, substituting a relaxation experience for an anxiety response, systematic desensitization is based on the assumption that if the client is taught to replace anxiety with relaxation while imagining stressful scenes in therapy, real life (in vivo) encounters with fear-provoking situations will become more tolerable.

Some of the phobias which have been successfully treated with desensitization are fears of heights, animals, driving, insects, classroom examinations, flying, water, going to school, injections, crowds, authority figures, physical injury and death (Rimm and Masters, 1978). Studies by Gordon Paul (1969, 1969a, 1969b) attest to the effectiveness of systematic desensitization as an anxiety-reducing therapy.

**Hypnotherapy**

Discussions about hypnosis reflect a broad range of viewpoints throughout the scientific literature. Theodore Xenophon Barber (1959-1960) reveals that various authors have described hypnosis as a "trance, a state of dissociation, an unconscious level of awareness, a pre-conscious state, and a subconscious state" (p. 19). Barber feels that hypnosis will remain a mysterious phenomenon as long as it is generally regarded as a "state." He describes hypnosis as a "descriptive abstraction referring to a number of interrelated and overlapping processes" (p. 19). Barber states that hypnosis is
not 'in' the subject, but is primarily a "transactional process between the subject and the operator" (p. 19).

One of the difficulties in defining hypnotic behavior is establishing a dichotomy between hypnotic activity, and that of the normal state of wakefulness (Schneck, 1968). In spite of the diversity of opinion about hypnosis, there appears to be a certain amount of agreement that there is a marked decrease in the awareness of external stimuli (other than that provided by the hypnotist) of hypnotized persons (Barber, 1959-1960).

Barber (1959-1960) believes that hypnosis must be analyzed according to the entire transactional process, which includes the following phenomena: a) antisocial behavior; b) sensory-perceptual alterations, i.e., hypnotic analgesia; c) psychosomatic alterations, and d) post-hypnotic suggestion. Weizenhoffer (1953) states, "If the subject is made to perceive his actions as not being anti-social, he most probably can be induced to perform anti-social acts" (p. 206). In order to experience such phenomena as color-blindness, deafness, or analgesia, the individual must be somewhat attentive to his surroundings, as well as very motivated to be a "good" subject. He must be convinced that he cannot perceive (see, hear, or feel) stimuli (Barber, 1959-1960).

Livingston (1943) summarizes a number of research efforts regarding the relationship of hypnosis to pain. He regards pain as a perception, subject to the influence of associated
ideas, apperceptions, and fears. Discussing hypnotic analgesia, Barber (1959-1960) notes:

The decrease or disappearance of response to noxious stimulation (during hypnotic analgesia) is one aspect of a total organismic response which includes the subject's conviction that he is insensitive to pain (p. 29).

One can begin to understand hypnotic psychosomatic alterations if he hypothesizes that the subject is responding organismically to the stimulus situation as he perceives it, rather than as an observer views it. To illustrate this point, five researchers have documented that one's bile characteristics (quality, acidity, as well as enzymatic content of gastric secretions) are the same when the subject merely believes (hallucinates) he is eating a certain food, as when he actually is eating that particular food (Barber, 1959-1960).

Hypnotic processes do not necessarily cease when the hypnotist instructs the subject to wake up. When individuals are given post-hypnotic suggestions, they remain set to carry out the suggestions from the time that they are told to wake up, until they are convinced that the experiment is over (Barber, 1959-1960).

Applying the use of hypnosis to stress-alleviation, S.J. VanPelt (1959-1960) compares controlled with uncontrolled tension. The components of controlled tension are one's ability to accomplish the following: a) visualize (form mental pictures) of a desired outcome, b) employ relaxation to break the cycle of tension, c) discover the source of
extreme tension, and d) create outlets for tension through proper channels (i.e., hypnotic suggestions). **Uncontrolled** tension, on the other hand, results in the following detrimental effects: a) creates changes in the autonomic nervous system that lead to psychosomatic disorders, b) interferes with concentration and memory functions, and c) causes outbursts of socially-unacceptable behavior (i.e., temper, violence).

Watzlawick (1978) and his associates tell us that the suggestion of images plays an important role in hypnosis and in autogenic training. Instead of suggesting on a purely intellectual plane that an overweight person will reduce his appetite, it is much more effective to have him or her create in the mind's eye a vivid and detailed picture of his or her fat cells being consumed by animal-shaped proteins. What is critical is the quality of the person's choice of imagery, and the quality of his or her imagery of the fat cells.

**Autohypnosis**

The concept of autohypnosis (self-hypnosis) emerged in the scientific world between the years 1890 and 1900, when a physiologist, Oskar Vogt, was conducting research in sleep and hypnosis at the Berlin Institute. Vogt observed that intelligent patients who had participated in his hypnosis sessions were able to "put themselves for a self-determined period of time into a state which appeared to be very similar to a hypnotic state. His patients reported that these
'autohypnotic' experiences had a remarkable recuperative effect" (Luthe, 1972, p. 317).

Kroger (1963) describes autohypnosis as a "means of developing sensory-imagery conditioning" (p. 85). He defines autohypnosis as "a highly suggestible state wherein suggestions can be directed to the self. It is a powerful tool in any therapeutic process, and well-trained patients can often parallel the success of heterohypnosis through their own efforts" (p. 80). Autohypnosis can be quite effective in enabling people to modify their behavior and overcome undesirable habits. It is also helpful in promoting relaxation, concentration, and self-confidence (Kroger, 1963).

Leslie LeCron, (1976) for example, emphasizes that a passive exercise of volition is also important in the effectiveness of autohypnosis. When one consciously tries to make muscles relax, they generally will not. "If a group of muscles, such as an arm or a leg is tired, distraction of attention from them brings automatically complete relaxation to these muscles" (p. 98).

Autohypnosis increases the patient's potential for responsibility and self-control, as opposed to the hypnotic situation in which the hypnotist has a greater degree of participation, than in autohypnosis. Strong motivation, intelligence, and diligence on the part of the patients are necessary concomitants of the effective use of autohypnosis (Kroger, 1963).
Autogenic Training

Akin to autohypnosis is autogenic training, which combines relaxation, autosuggestion and visualization in the treatment of diseases (Samuels and Samuels, 1975). In autogenic exercises, subjects characteristically visualize parts of their body as being warm and heavy, and repeat to themselves stress-alleviating phrases such as the following: "I feel quiet," "My hands are heavy and warm," and "My ankles, knees, and hips feel heavy and relaxed" (Karlins and Andrews, 1972). Oftentimes breathing exercises are used with these phrases. According to Samuels and Samuels (1975), autogenic exercises produce a generalized relaxation effect in which the hypothalamus moderates the activity of the autonomic nervous system, "producing homeostatic, normalizing and healing physiological changes. A particular exercise may affect a specific organ or physiological process" (p. 225).

Physiological improvements that occur during the practice of autogenic training exercises are stabilized by regular practice over an extended period of time and have a normalizing influence on a great variety of bodily and mental disorders. Clinical results have demonstrated that autogenic training has produced positive results in the treatment of respiratory, cardiovascular, vasomotor, and gastrointestinal conditions, as well as disorders of the endocrine system. Green and Green (1977) point out that sixty to ninety percent of patients with such disorders as chronic insomnia, headache, bronchial asthma, and constipation improve from autogenic
training. Behavioral and motor disturbances, such as stuttering, bed-wetting, anxiety, and phobias also respond to autogenic exercises (Green and Green, 1977).

Since 1910, when autogenic training was developed by a German psychiatrist Johannes Schultz, it has been widely used throughout Europe; although to a very limited extent in the United States. A seven-volume work by Schultz and Luthe cites 2400 studies (Samuels and Samuels, 1975) relative to the efficacy of autogenic training.

Biofeedback

Feedback is a "method of controlling a system by reinserting into it the results of its past performance" (Karlins and Andrews, 1972, p. 24). The word "biofeedback" is derived from bios, a Greek word meaning life, and feedback, return to the source (Karlins and Andrews, 1972). Lilian Winer (1977) regards biofeedback as a "technique of providing the intact human subject immediate and continuous information of some bioelectric response through auditory or visual signals" (p. 626). With the help of electronic equipment, the individual is given information about physiological functions in different parts of his or her body, such as the brain, heart, circulatory system, and various muscle groups. The biofeedback training procedure according to Jodi Lawrence (1972), enables an individual to "perceive the minute internal happenings of his body and mind, and to learn to 'feel' how to
control events at will—how to turn on, or turn off” (pp. 16-17) bodily functions.

In Stress, Psychological Factors and Cancer, Achterberg, Simonton and Simonton (1976) note:

Heart rate, blood flow, temperature, and the firing of specific muscle groups have all been influenced . . . by humans as well as by other species, which would indicate that it is a rather primitive ability that has been underdeveloped. A significant aspect of this control from the research on humans is that a state of combined relaxation and imagery precedes the physical alteration. For example, if a patient is attempting to influence the blood flow through a finger, he pictures his finger in a glass of very warm water and the blood flow subsequently increases in his finger and the temperature rises (pp. 3-4).

When an individual can "see" his heartbeats or "hear" his brain waves, he has the kind of knowledge that he needs to begin to control physiological functions (Karlins and Andrews, 1972). The physiological activity of a part of the patient's body is thus represented by a signal, and he or she is instructed to alter the signal as he or she observes it. A malfunction of the body can be altered and/or eliminated if an individual is able to "keep the tone off" or "make the light dimmer." People are so unfamiliar with the language of their bodies that their endeavors to modify their subtle behavior often result in the opposite of the intended outcome (Karlins and Andrews, 1972).

In biofeedback, modality indicates the system, function or activity of the body that provides biofeedback information. The following are biofeedback modalities: a) feedback of muscle electrical activity is electromyogram (EMG) biofeedback;
b) electroencephalogram (EEG) biofeedback mirrors the electrical patterns of brain-wave activity; c) galvanic skin response (GSR) feedback indicates the electrical resistance of the skin; d) in temperature training, the temperature of the fingertips reflects circulatory functioning; e) electrocardiogram (EKG) feedback assesses activity of the heart.

Brown (1978) suggests that brain-wave biofeedback may be the ultimate form of biofeedback because the brain-wave activity of human beings represents the "greatest potential resource for understanding the dynamics of all human behavior" (p. 176).

The four major types of brain-wave rhythms, beta, alpha, theta, and delta, are actually descriptive terms for various wave speeds, which are recorded in Hertz units (cycles per second). Beta, associated with the normal waking state, generally ranges from thirteen to twenty-six Hertz (Hz). Alpha, which ranges from eight to eleven cycles per second, is indicative of a meditative state of relaxed alertness. In a study of mental imagery, Kenneth Slatter (1960) has documented that alpha rhythms are blocked non-specifically by anxiety. Theta rhythms, which range from four to eight Hz., appear to be associated with drowsiness, creativity and the dream component of the sleep cycle (Lawrence, 1972). Theta states are often accompanied by hypnagogic images (while falling asleep) and hypnopompic images (while waking) (Green and Green, 1977). Delta rhythms, which predominantly occur in unconscious or
deep (dreamlike) sleep, range from zero to four cycles per second.

In counseling sessions, skin conduction feedback (GSR) can be used to sensitize patients to the interaction between their emotional and physiological responses, by indicating to them whether they are over-reacting, under-reacting, or responding "appropriately" to a verbal situation (Pelletier, 1977).

Temperature training for relaxation is generally performed with hand or finger temperature. Temperature training, an inexpensive and quickly learned technique, has been used successfully with vascular problems, such as hypertension and Raynaud's syndrome, and also migraine headache. At least six clinical studies have confirmed the effectiveness of the Green-Sargent method of migraine treatment combining temperature and autogenic training (Brown, 1978). It is interesting that migraine improves as patients learn to raise the temperature of their hands; thus relieving vascular congestion in the brain.

In electrocardiogram (EKG) biofeedback, patients can learn to regulate the activity of their heart through observing biofeedback instruments.

Beatty and Heiner (1977) tell us that it has been empirically shown that the following conditions are amenable to EMG biofeedback; muscle contraction (tension) headache, chronic anxiety, sleep-onset insomnia, and essential hypertension. Fowler and others (1976) have researched EMG biofeedback as a useful tool in the control of diabetes.
Visualization

Visualization, or the ability to create images in the eye of the mind, denotes the special thread which is woven throughout the fabric of all of the relaxation techniques which have been discussed thus far. Samuels and Samuels (1975) observe that "twentieth century man travels in two directions—outward to space and inward to the mind. Traveling outward he uses space craft, traveling inward he uses images" (p. 3).

Gardner Murphy tells us that imagery is "experience similar to sensory experience, but arising in the absence of the usual external stimulus" (Sommer, 1978, p. 9). The most widely-used meaning of imagery, derived from the Latin *imitari* (to imitate), depicts a mental duplicate. Richardson (1969) provides a more complete definition:

Mental imagery refers to 1) all those quasi-sensory or quasi-perceptual experiences of which 2) we are self-consciously aware, and which 3) exist for us in the absence of those stimulus conditions that are known to produce their genuine sensory or perceptual counterparts, and which 4) may be expected to have different consequences from their sensory or perceptual counterparts (pp. 2-3).

Images may appear in a multitude of ways through hallucinations, daydreams, dreams, unbidden images (Schorr, 1974).

Surrounded by mystery, man's imaginative capacity is limitless and unbounded. Yet, perhaps because of its inseparable alliance with the human belief system, visualization is one of the most powerful elements of human experience. Through the placebo effect, the eye of the mind is purported
to heal. Through such phenomena as taboo death, strong belief reportedly destroys life.

Until recent decades, most of the medications prescribed by physicians were pharmacologically inert. Unwittingly, physicians were treating patients with placebos. A striking aspect of the placebo effect is the role of the patient's expectations of the effects of drugs (Winer, 1977). Evans (1974) has reported evidence suggesting that a placebo is about half as effective as either a mild analgesic or morphine in relieving pain. Winer (1977) contends that while the placebo effect may be regarded by some as a "nuisance variable," it is undoubtedly a "potent therapeutic intervention in its own right" (p. 631). Dr. Jerome Frank, a psychiatrist who has written about persuasion and healing, postulates that "a placebo is a symbol of healing. It is as if the symbol (the placebo) triggers in the patient a healing visualization" (Samuels and Samuels, 1975, p. 29).

At the other extreme of the relationship among mental imagery, belief, and expectation, and the body, is taboo death, a common phenomenon among the Murngin, a North Australian tribe. If a Murngin has been informed that it is common knowledge that his soul has been stolen, he will die within several days (Samuels and Samuels, 1975). These observations suggest that a person's conviction that his predicament is hopeless may cause or hasten his disintegration and death (Samuels and Samuels, p. 42). Frank (1961) hypothesizes that taboo death may be caused by prolonged overstimulation of the
adrenal glands resulting from fear-induced over-activity of the vagus nerve innervating the heart.

During the nineteenth century, "actions once attributed to imagination were deemed the products of suggestion or autosuggestion" (Shorr, 1974). Not until this century were imagination and imagery redefined and revitalized by Freud, Jung and Forenczi. In this country, Titchener of Cornell worked with problems regarding imagination and introspection prior to the 1920's (Shorr, 1974). A decade later, French psychotherapist Desoille developed a method of fantasy exploration which, in recent years, became known as the "directed daydream." Desoille's methods employed therapist-directed imagery to enhance the client's self-understanding and emotional maturity (Kelly, 1974). A technique called "guided affective imagery," developed by the German psychiatrist Leuner, guided the client through a series of ten imaginary situations having special symbolic meaning for the psyche (Kelly, 1974).

Contemporary counseling methods employ imagery and visualization in behavior modification, psychodrama, play therapy, relaxation experiences, gestalt dream exploration, and a variety of guided imagery methods.

Some of the well-known psychotherapists who presently use visualization techniques are Shorr (1972, 1974, 1977), Lazarus (1976, 1977), and Sommer (1978). Various therapies, such as Gestalt and behavioral, make use of imaginative processes. Gestalt therapy encourages clients to interpret
their own dreams and recognize that all components of these dreams, even the grotesque and bizarre, belong to them. Gestalt therapists frequently ask clients to picture significant others and engage in imaginary dialogues with them. In assertiveness training and systematic desensitization, behavior therapists often ask clients to create mental pictures of persons and situations reflecting problematic issues. Increased awareness of visualization has accompanied a growing emphasis on phenomenology, or how a person sees his world. Phenomenologist R.D. Laing (1962) employs therapeutic imagery to help people deal with interpersonal relationships. Believing that personal maps of the world emerge largely from the right hemisphere of the brain, Watzlawick (1978) and his colleagues stress the importance of using imagery in therapy. They suggest that traditional modes of psychotherapy often lack effectiveness because they are primarily verbal and thus stimulate only the left hemisphere. Blocking the functions of the left brain is a vital part of the modus operandi of Watzlawick and his fellow therapists.

Regarding body relaxation as a prerequisite of learning to visualize, Samuels and Samuels (1975) have developed a number of exercises to enable people to improve their ability to experience specific kinds of visualizations.

Achterberg and Lawlis (1978) write about the physiological effect of mental imagery documented by Schultz and Luthe in their compilation of 2400 studies of autogenic therapy.
This therapeutic technique involves the use of visualization and relaxation procedures, offered in a highly structured framework. Changes accompanying the procedures often include alterations in temperature, blood sugar, blood pressure, white blood cell count, and brain wave patterns, however, many of these changes occur naturally by relaxation alone. Therefore, the relationship between visualization and relaxation and the relative contribution of each to the end result is still unclear (pp. 8-9).

Using visualization to help cancer patients combat stress are Carl and Stephanie Simonton and their co-workers (Achterberg, Simonton and Simonton, 1977; Simonton and Simonton, 1975; Achterberg and Lawlis, 1978; Scarf, 1980; Klisch, 1980; Kolata, 1980). Combining traditional medical practice with psychotherapy and relaxation-visualization techniques, the Simontons and their team endeavor to "counteract the stress response that is concomitant with a diagnosis of malignancy" (Achterberg, Simonton and Simonton, 1977). The rationale for this controversial treatment is based on the suggestion that stress is not only precursive to cancer in animal species tested (Riley, 1975; LaBarbra, 1970), but also that the physiological changes accompanying stress reportedly inhibit the human immune mechanism (Solomon and Amkraut, 1972).

Believing that psychological factors are associated with the onset of cancer, Simonton and colleagues developed a form of positive thinking called "imaging," in which "cancer patients conjure up mental images of a sort of inner battle-field upon which healthy cells can be 'observed' putting the malignant ones to rout" (Scarf, 1980, p. 33).
The relaxation visual imagery provides a self-help tool that patients are able to use to deal with anxieties and fears via systematic desensitization; the psychotherapy provides insight into behavior patterns and attitudes that are maladaptive in responding to cancer (Achterberg, Simonton and Simonton, 1977, p. 416).

Watzlawick (1978) discusses the work of the Simontons:

Patients are encouraged to evoke visualizations that to them personally and idiosyncratically represent the most vivid and meaningful image of their illness, and this image is then gradually modified through suggestions toward remission, healing, and well-being. The patient is, for instance, requested to visualize his white blood cells as ferocious polar bears, hungrily roaming his entire body and viciously attacking any cancer cell that they can hunt up (p. 62).

Achterberg and Lawlis (1978) tell us that the Simontons suggest that patients visualize the disease, treatment, and immune system components. Specific suggestions are to see the cancer as "raw hamburger or liver," "a weak, confused cell," "a blackened area," and the radiation as "millions of bullets of energy." In the Simonton method, IMAGE-CA, on the other hand, specific suggestions are not provided. According to Achterberg and Lawlis (1978), patients using the IMAGE-CA are asked to draw a picture which contains three things: a) their tumor (or disease, or cancer) as they see it in their mind's eye, b) their body's defense against the tumor, or the white blood cells, and c) their treatment.

Visualization techniques, such as the preceding, to promote relaxation, are purportedly effective in the control of other medical conditions, such as diabetes (Biermann and Toohey, 1980; Fowler, Budzynski and VandenBergh, 1976;
Combining Relaxation Techniques with Expressive Therapies

Helen Landgarten (1981) has combined expressive modalities with relaxation techniques in working with children of Holocaust survivors and chronic pain patients. Characteristically, Landgarten begins with a relaxation induction procedure in which her patients are asked to relax and fantasize as they pay attention to their bodily experiences. When relaxed, they are instructed to draw the imagery of their body awareness through an abstract or representational design.

In working with chronic pain patients, Landgarten (1981) utilizes an art therapy relaxation program consisting of four steps: a) relaxation exercise; b) imagery induction; c) reinforcement of pleasant, painless feelings; and d) a comparative assessment. To facilitate relaxation, patients are asked to "leisurely paint broad horizontal bands of color with varying tones of greens, blues and purples" (p. 353) with a Japanese watercolor brush, sponge, watercolors, a carton of felt pens and paper, while concentrating on the tone and intensity of each color as well as the way the paint spreads across the page. The procedure is repeated, one page after another, until a meditative state is achieved. In step two, patients visualize a pleasant experience and verbally share the imagery. Upon opening their eyes, they are asked to record their active imagination through a painting. In step
three, to reinforce the positive imagery, patients use plastici
cene to form abstract symbols of their feelings during their
pleasant imagery. The final step, assessment, enables pati­
ents to consider their progress through self-management, by
sculpture (before self-management). The realization that
they had experienced no pain during their imagery expands
patients' capacity for self-controlled pain reduction.

I feel that Landgarten's work is noteworthy because it
represents, within the relevant literature, the only compre­
hensive report of the use of expressive modalities and re­
laxation techniques to treat the physically ill, as well as
those who are dealing with other forms of extreme stress.

Summary

In this section, the following relaxation therapies were
examined: meditation, progressive relaxation, systematic
desensitization, hypnotherapy, autogenic training, autohypno­
sis, and biofeedback. Also explored was visualization, or the
ability to create images in the eye of the mind, a character­
istic which is common to all of the relaxation therapies dis­
cussed in Section 3, is a bridge between relaxation techniques
and expressive modalities. Inseparably linked with one's be­
liefs and expectations, visualization (imagery), which can
be positive or negative, plays an important role in maintain­
ing human health and well-being. Two critical aspects of
imagery are the ability of the individual to a) picture a
desired outcome and b) assume personal responsibility for
his or her physical condition. Relaxation techniques employing visualization can successfully be combined with expressive therapies.
Background

Thus far in this dissertation, I have examined the manner in which the processes of change and communication are woven into the intricate fabric of adaptive behavior. I personally feel that a central part of our adaptive mechanism is an intrinsic yearning for personal wholeness and connectedness with our surroundings. If a vital aspect of our person-environment totality is altered or disfigured by adverse circumstances, adaptive mechanisms immediately begin, oftentimes unostentatiously, to repair the brokenness by generating homeostasis.

I think that human beings are equipped with an untold number of back-up systems to maintain equilibrium. A deficit occurring somewhere within the complex body-mind-spirit configuration will, more than likely, be counterbalanced by regeneration in another area. There is a continual ebb and flow of loss and gain throughout our lives. Those persons who lose very little in a lifetime probably will experience a minimal amount of regeneration. In contrast, individuals
who appear to grow beyond the boundaries of human limitations are frequently those who have endured extraordinary losses.

What kinds of experiences enable human beings to bridge the gap between flaccidity and growth—brokenness and wholeness—isoilation and connectedness? I personally believe that a large part of the answer to bridging the gap between the aforementioned polarities lies within the domain of how effectively we express ourselves, which, for all practical purposes, represents the crux of my work. According to Billig and Burton (1978), creative expression "embodies a continuous struggle to maintain an equilibrium between constancies and new experiences" (p. 27). Self-expression not only enables us to maintain homeostasis, but it represents the primordial substance which binds us to our surroundings, and ultimately determines the quality of our patterns of adaptation. My personal belief is that all expression is creative in that it adds a new dimension to our existence. We can think of expression as a continuum. At one end of the continuum, there is a fine line between expression and the craggy eruption of the raw emotion. At the other end of the continuum, there is a fine line between expression and the most majestic landscape of human endeavor.

Beginning with an exploration of the many faceted meaning of expression, the following section explores creative modalities from the standpoint of current theories, practice and research.
The Meaning of Expression

The crux of my work is the human attribute of expression. Art educators, art therapists, aestheticians, philosophers, psychologists and a host of other groups of people interested in human behavior and/or the arts, freely talk about expression, yet hardly anyone has endeavored to come to grips with the meaning of the term. There is little doubt that the elusive and intimately-personal qualities of creative expression make is exceedingly difficult to arrive at ideas which even vaguely resemble definitions or conceptualizations.

Aesthetician Suzanne Langer (1957) writes:

People...are asking questions about the meaning of "art," "expression," "form," "reality," and dozens of other words that they hear and use, but find—to their surprise—they cannot define, because when they analyze what they mean it is not anything coherent and tenable (p. 3).

There appear to be two categories of persons who have a particular interest in the concept of expression: a) practitioners who enable other individuals to utilize expressive experiences for their well-being, and b) thinkers who philosophize and theorize about the meaning of expression. Art therapists, art educators, and psychologists make up the majority of the first group, while aestheticians and philosophers largely represent the second. Let us explore the ideas of some of these persons.

Early conceptualizations. Art therapist Mala Betensky (1973) tells us that the early dictionary meanings of the Latin exprimere, the French expres and the English express,
gave the word an aura of impact and immediacy. "The word always carried with it the connotation of something definite and explicit" (p. 301). The seed of a basic and universal meaning in express enables the word to be applicable to a number of "things, situations, and activities, human and not human" (p. 301). In transportation, the word refers to trains rapidly approaching a destination. In the postal service, the word implies that a message should be delivered with utmost haste, in a special way. Other meanings include pressing or squeezing the contents out of something, which led to derived meanings of extorting or eliciting. The activity of expressing evoked added meanings about something expressed, such as an "utterance, phrase, manifestation, graphic representation, or image of, resembling, symbolically representing and revealing by external tokens" (p. 301).

Darwin, writing about the expression of emotions, contended that the observer's instinct connects the outer expressions with their psychological counterparts. In his theory of empathy, Theodore Lipps focused upon how we find expression in temple columns. Lipps believed that perception of expression is made possible through the action of mechanical forces or pressures. He regarded empathy as a "projection of mechanical or kinesthetic sensations which provoke feelings" (Betensky, 1973, p. 302). Betensky (1973) feels that Lipps' theories paved the way to a psychology of expression and art, by emphasizing a play of forces later reflected in Gestalt psychology.
Personal Identity. Langer (1957) refers to the dance to suggest that expression provides us with a sense of unity and personal identity, mirrored in the ebb and flow of feelings and subjective experiences. She notes:

What is expressed in a dance is... an idea of the way feelings, emotions, and all other subjective experiences come and go--their rise and growth, their intricate synthesis that gives our inner life unity and personal identity.... A dance... expresses human feeling—the rhythms and connections, crises and breaks, the complexity and richness of what is sometimes called man's "inner life," the stream of direct experience, life as it feels to the living (p. 7).

Judith Rubin (1978) experiences an integrative and insightful kind of self-communication in her creative work. She reflects:

My painting was not meant primarily as a communication to others, but rather as a kind of self-communication, a rhythmic dialogue between picture and creator which gradually rose and finally fell in intensity. I think the process was neither mainly cathartic nor mainly integrative, but was both simultaneously, and was meaningful just because of the tension and interplay between destructive and constructive forces. It was both an aesthetic and an intellectual experience producing art as well as insight (p. 15).

Edith Kramer, art therapy pioneer, contends that art expression, a mirror of life processes, is mysterious and elusive. She comments:

Since the time of the cave man... created configurations serve as equivalents for life processes. We call these configurations works of art. The process... is as mysterious as all basic processes of life (Kramer, 1977a, p. 7). Art is... elusive... distinct from all other forms of pictorial expression... art defies definition (Kramer, 1977, p. 50).
Drive toward order. Where art educators emphasize human development, learning, the role of art in society, the artistic heritage, and the use of materials to develop artistic skills, as well as enhance visualization and communication, art therapists tend to view expression from a psychodynamic perspective. Many theorists, reflecting upon the psychodynamic aspects of expressive activity, note that creative experiences tend to transform internal chaos into order.

Believing that art therapy "hinges on the definition of art," Elinor Ulman (1977a) tells us that art expression transforms chaos into order. She states:

The motive power of artistic expression springs from within the individual's personality. ...it is a way of bringing order out of...chaotic feelings and impulses within, the bewildering mass of impressions from without. It is a means to discover both the self and the world, and to establish a relation between the two. (p. 21).

Many references to the expressive process focus upon the arousal of chaos, in the artist's mind, which dissipates as the creative work nears completion. Aesthetician and philosopher Collingwood (1975) states:

When a man is said to express emotion...he is conscious of having an emotion, but not conscious of what that emotion is. All he is conscious of is a perturbation or excitement...going on within him...While in this state, all he can say is "I feel...I don't know what I feel." From this...condition he extricates himself by doing something which we call expressing himself (p. 109).

Also referring to the drive toward order and completeness, art educator Laura Chapman (1978) notes that "in all cultures
...art has reflected the strange power of the mind that seems to delight in order for its own sake" (p. 49).

**Emotional release.** Throughout relevant literature, theorists and practitioners discuss expression from the standpoint of its cathartic and emotion releasing properties. While the issue of tension resolution as a result of creative expression remains a moot point, because some art therapists contend that artwork increases tension and others claim the opposite, there is no doubt of the intimate relationship between expression, feeling states, and ever-changing tension levels.

Art educators Lowenfeld and Brittain (1975) believe that self-expression is "giving vent in constructive forms to the feelings, emotions and thoughts of an individual at his own level of development" (p. 17). To Lowenfeld, self-expression, as opposed to the production of a technically excellent art product, was of primary importance.

Art educator Edmund Feldman is of the opinion that the process of self-expression rests upon an essentially cathartic foundation. He writes:

*Everyday life...contributes to a build-up of frustrations, an accumulation of pent-up energies...to live harmoniously...we repress our instinctual desires, and that repression builds tension...and thus a psychological problem is created. Artistic activity...constitutes a socially acceptable and personally rewarding outlet for those energies. At the same time that the individual solves his problem of tension, he also creates something that is objectively satisfying and aesthetically valuable (Feldman, 1970, p. 37).*
Maslow (1949) talks at length about the differences between coping which is essentially problem-solving, and expression, which "reflects the internal state of the organism" (p. 267). According to Maslow, coping is determined by drives, needs, goals, purposes, and functions. Determined by external stimuli, coping is learned and conscious, as opposed to expression, which is an internally-directed form of unlearned and unconscious behavior. Most behavior, Maslow notes, has expressive as well as coping components.

Maslow (1949) believes that emotional release (i.e., cursing) is a special form of expressive behavior to maintain the organism's comfort. Catharsis, a complex variation of release behavior, "is the free (and... satisfying) expression of an... uncompleted act which, like all impeded acts, seems to pass for expression. This would be true of simple confession" (p. 266). According to Maslow (1949), "expressive perseveration" includes release and catharsis, as well as motor restlessness, excitement and ideomotor tendencies in general.

Collingwood (1975) suggests that the unburdening of the mind which one often feels after expression is akin to language which eventually leads to catharsis. Those who express want the observer to know how they feel. The act of expressing according to Collingwood, is an exploration of one's own emotions.

Saying that "emotional discharge is a necessary but not a sufficient condition of expression," (p. 61), Dewey (1934) makes a distinction between expressing and discharging,
getting rid of, "spewing forth," as it were. He writes, "Not all outgoing activity is...expression" (p. 61). Dewey (1934) contends:

There is no expression without excitement...turmoil. Yet an inner agitation that is discharged at once in a laugh or a cry, passes away with its utterance. To discharge is to get rid of, to dismiss; to express is to stay by, to carry forward in development, to work out to completion. A gush of tears may bring relief, a spasm of destruction may give outlet to inward rage. But where there is no administration of objective conditions, no shaping of materials in the interest of embodying the excitement, there is no expression. What is sometimes called an act of self-expression might better be termed one of self-exposure; it discloses character—or lack of character—to others. In itself, it is only a spewing forth (pp. 61-62).

Tormey (1971) responds by saying that Dewey is "concerned to protect us from the 'error' which has invaded aesthetic theory" (p. 100) and that is that "the mere giving way to an impulse, native or habitual, constitutes expression" (p. 100). Perhaps Langer (1957) is saying something similar:

An artist, then expresses feeling, but not in the way a politician blows off steam or a baby laughs and cries. He formulates that elusive aspect of reality that is commonly taken to be amorphous and chaotic; that is, he objectifies the subjective realm. What he expresses is, therefore, not his own actual feelings, but what he knows about human feeling. Once he is in possession of a rich symbolism, that knowledge may actually exceed his entire personal experience. A work of art expresses a conception of life, emotion, inward reality. But it is neither a confessional nor a frozen tantrum; it is a developed metaphor, a non-discursive symbol that articulates what is verbally ineffable—the logic of consciousness itself (p. 26).
Langer's observation that expression objectifies the ineffable is concordant with Maslow's belief that "expression in its purest form is unconscious" (Maslow, 1949, p. 265).

Unconscious needs commonly express themselves in dreams, in visions, in emotional outbursts...in slips of the tongue...gestures, in laughter...compulsions...projections...children's games, regressions, doll play, making up stories (TAT), finger painting, man-drawing and fantasy productions (Murray, 1938, p. 114).

Rudolf Arnheim (1972), eminent authority on the psychology of art, expresses regret that Maslow treats expression as "something outside the mainstream of behavior, by saying that it is unmotivated and useless...has no effect on the environment...is not functional...refers to what a person is, rather than what he does" (p. 199). Arnheim (1972) believes:

Expression is an objective property of all organized patterns of shape and color. It is an inherent aspect of every perceptual quality...It is found in...every object or activity...Expression can be weakened and disturbed by inarticulate, disorganized patterns, but it can never be absent. As an aspect of perception, expression is cerebral rather than retinal, that is, it arises in the brain rather than in the eye, but is lawfully dependent on the stimuli recorded by the eyes. Every change of shape...makes for a change in expression (pp. 201-202).

I think that Arnheim's ideas represent a synthesis of some important aspects of expression which have been presented thus far. Inseparably aligned with perceptual and cerebral functions, expression is a vital dimension of all manifestations of what a person is as well as what he does. These manifestations include not only intellectual, perceptual and emotional components of what a person is, but also the
physical, or kinetic, aspect of his or her being. The next section explores some of the psychomotor elements of expression.

Kinesthetic activity. Of critical importance to expression is the kinetic activity of producing art which, in addition to its cathartic value, tends to release energy and give vent to affect (Landgarten, 1975, p. 66). Emphasizing the role of the body in early artistic expression, art professor William Proweller (1973) notes:

The function of the visceral and muscular systems intervenes between the self and the environment interweaving meaning and definition. . . . Every focal experience is an overt consequence of body action reaction; the shape of things being nothing more or less than the shape of our locomotion. Out of self-body awareness we shape external and internal images simultaneously (p. 12).

"All lines. . .reach out from the paper and meet in the extended hand of the artist," observes well-known artist, Paul Klee (Proweller, 1973, p. 14).

Clinician Emanuel Hammer (1978) deals with projective drawings as an adjunct to psychotherapy. He also emphasizes the psychomotor elements of expression:

The muscles of an individual are honest. When we try to hide what is in our minds, the muscles of our face and shoulders and our bodily posture, give us away. It is hard to smile when our hearts tell us to cry (p. 59).

Hammer notes that projective techniques are often more useful with adults than children because the former are more apt to express themselves on paper than through overt behavior in the
office of the clinician. Children, on the other hand, are more able to "reveal themselves in...direct fashion" (p. 61).

Kinesthetically, a drawing or a painting may be likened to a dance in that it "is a perceptible form that expresses...human feeling" (Langer, 1957, p. 7). The physical movements that occur throughout the drawing are as revealing of their creator as the dance steps of the dancer.

It stands to reason that space is no longer anything "outside the body," it is rather [an]...extension of the body, a communication that is brought to bear upon experience...The face we see becomes the face that looks back at the child and the house that is drawn and the door that faces us, is the opening in which the child enters, and the squares are the possessions belonging to the child (Proweller, 1973, p. 14).

In regard to personal attributes and feelings, expression reflects "character, sentiment, action, and emotional forces by suggesting one's thoughts...in words, motions, physiognomic manifestations, or in a work of art" (Betensky, 1978, p. 301). The ideas of Betensky (1978) are closely linked with the communication theories of Bandler and Grinder (1979), presented in the early part of this chapter, which remind us of the importance of the nonverbal components of behavior that we continually take for granted. Perhaps the insights of these individuals will prompt us to develop some new ways to utilize nonverbal processes in therapeutic techniques. Betensky (1978) comments:
Every work of art and many works in art psychotherapy express...something to the observer...they communicate something [and] arouse an experience in him. Physiognomics, or the study of facial features...is the oldest system of correlating feelings and visible expressions of feelings. Berkeley, in the...Eighteenth century, wrote on...the "invisible passions...let in by the eye along with colors." Two centuries later, Gestalt Psychology of Art [influenced by] Max Wertheimer and...Rudolph Arnheim, picked up the importance of the...eye, instrument of visual perception, perceived expression as an equal partner to color and form (pp. 301-302).

Thus far in this section, the meaning of expression has been viewed from the perspectives of its close link with personal identity, the drive toward order and completion, the release of emotions and kinesthetic activity. Several important points which have not been made are that expression reflects: a) intuition and synthesis; b) the urge to go beyond ordinary experience; and c) pleasure and self-expansion.

Envisioning creative expression from the perspective of conscious-expansion is Sandra Pine, who has been an art teacher in an urban elementary school, an art therapist in a residential school for psychotic children, and a psychotherapist in an outpatient psychiatric clinic. Pine believes that art expression is a universally-pleasurable experience that leads to the expansion of the self through loosening rigid defenses, fostering integration, and restoring wholeness within the human being (Pine, 1977).

Recognizing the impact of Dewey, who regarded the school as a microcosm of everyday life, art educator Laura Chapman (1978) talks about self-expression as a reflection of ultimate maturity, as well as an 'urge to go beyond ordinary
experience" (p. 47). According to Chapman (1978) expression is revealed in imagined realities, impossible situations, spiritual revelations, exotic places. "It is precisely because our culture so often ridicules fantasy and invites genuine expression of feelings that teachers must nurture children's creative imagination" (Chapman, 1978, p. 49).

Philosopher Benedetto Croce (1959), who formulated his ideas at the turn of the century, notes that "every true intuition or representation is also expression. . . . The spirit only intuites in making, forming, expressing" (p. 98). Croce (1959) goes on to say that "expression is a synthesis" (p. 106).

Croce's ideas are concordant with those of Kenneth Beittel (1973), who views expression with awe. Perhaps expression elicits awe because it truly represents a synthesis of our whole being. Beittel (1973) states:

The structure of a given expressive act, then, is seen as peculiar though inexhaustible, in its very concreteness. I have lately been fond of saying that we can never know the expressive act, but that we can indeed study it, if only indirectly, and through a concern with its context and structure we can do two things: arrive at an understanding and appreciation of it, and reflect upon it from some more abstract and theoretical vantage point. These two aims, though interrelated, are distinct and different (p. 76).

My personal feeling is that, in its most elemental form, expression is an expansion of all of the polarities within our entire being, outwardly manifested and captures at certain points in time by myriad tangible sounds, images, textures, movements, grimaces, and gestures ad infinitum. I believe
that expression is a vital dimension of the infinite energy, resonating and surrounding us at all times, of which we are always a part. Perhaps one might say that expression is the sum total of the tensions and energies of our drive to establish connectedness with this infinite energy of our surroundings. Expression is so much more than itself. It is an intermingling of many qualities, which will now be considered. Among these are imagination, intentionality, intuition, creativity, and spontaneity.

**Components of Expression**

**Imagination.** According to Samuels and Samuels (1978), an imagination image may "contain elements of past perceptions, but arranged in a different way than when they were originally perceived" (p. 43). Among the various kinds of imagination images are hypnogogic imagery, perceptual isolation imagery, photic stimulation imagery, pulse current imagery, sleep deprivation imagery and meditation imagery (Richardson, 1969). Samuels and Samuels (1978) regard these kinds of imaginative experiences as the "stuff of which creativity is made" (p. 46). Postulating that creativity is a natural manifestation of life, E.W. Sinnott, an American biologist and philosopher, views imagination as "a person's ability to picture in his mind's eye something he had not seen, something never experienced" (Samuels and Samuels, 1978, p. 240). In this respect, imagination images are different from memory images, which are based on the things which we have actually seen without eyes.
Dewey's (1934) conception of imagination is "a way of seeing and feeling things as they compose an integral whole" (p. 267). Indeed, "an imaginative experience is what happens when varied materials of sense quality, emotion and meaning come together in a union that marks a new birth in the world" (p. 267).

In Collingwood's (1975) theory of imagination, he focuses upon a "new stage of existence" (p. 222). He comments, "This new stage is reached...[it] is an enlargement of our field of view, which now takes in the act of feeling as well as the thing felt" (p. 222). Collingwood (1975) remarks:

Imagination is "Blind"...Consciousness can never attend to more than a part of the total sensuous emotional field; but either it may recognize this as belonging to itself, or it may refuse to recognize it...certain feelings are not ignored, they are disowned; the conscious self disclaims responsibility for them, and thus tries to escape being dominated by them without the trouble of dominating them. This is...the source of what psychologists call repression...the mind that takes refuge...delivers itself into the power of the feelings it has refused to face (p. 224).

Imagination plays a vital role in our patterns of adaptation and the ways in which we meet situations. Without it, we would never be able to utilize our mind's eye as a "testing ground" for new behaviors and modes of problem-solving.

Art therapist Irene Champerowne (1976) poignantly notes: Without imagination, which is the awakening of images in the mind, man is cut off from the depth of his own soul. This tells us how infinitely important is the artist in our world and how humble each of us should be in utilizing the very smallest ability to express in some way the images within our own nature (p. 5).
If I had to choose one profound idea to represent the meaning of this dissertation, it would be the preceding. It is not possible to overemphasize the importance of Champerowne's admonishment that we should be humble in "utilizing the very smallest ability to express in some way the images within our own nature" (Champerowne, 1976, p. 5).

**Intentionality.** An integral aspect of imagination and expression, intentionality often occurs on such a subtle level that we are unaware of its presence. Tormey (1971) suggests that intentionality is at least a "necessary condition for expression" (p. 27).

Henry Aiken (1959) notes, "We consider an artist's intentions because we have questions about his work that we cannot always answer without his guidance, without knowledge of what he was trying to do or say" (p. 305). Aikens seems to be saying that artists' intentions are advisory, since "they help us to know what to expect and hence how to approach a particular artifact" (p. 302).

Paul Linden has combined the practice of Aikido, a martial art, with relaxation techniques to enable people to develop self-understanding through subtle dimensions of movement awareness at the level of intentionality. Linden (1980) writes:

> When the self is calm and collected in the state of center, every movement will be casual, precise and effective. Aikido sees this state of harmony in movement as being the natural state of human movement. The Aikido practices are not designed to teach something new to the student but only to clean the dirt off his movement so that the natural brightness
will shine out... The essence of learning to be centered is learning to intend correctly. Most people simply act, but are not aware of all the subtle mental and physical processes leading to the action. Intending is the meeting place of the emotions, mind and body. The emotions define a desire, the mind draws upon its stored knowledge to determine how to fulfill the desire, and the body acts to achieve the desire. The reason that movement is a way of understanding the whole person is that movement is a concrete expression of the desires, perceptions, beliefs, emotions, intentions in a person's life. Watching our movements, we come to understand the conflict and confusion in our intentions, and that shows us the lack of clarity in our lives (p. 102).

Intuition. Benedetto Croce (1921) feels that "art is perfectly defined when simply defined as intuition" (p. 33). He writes, "art is intuition, but intuition is not always art: artistic intuition is a distinct species differing from intuition in general by something more (Croce, 1969, p. 101). The crucial factor, according to Croce, is quantitative. "Certain men have a greater aptitude, more frequent inclination to fully express certain complex states of the soul" (pp. 101-102).

Dewey (1934) contends that intuition can best be understood from a philosophical perspective, and recognizes that Croce's desire to combine the idea of intuition with expression has added to the confusion surrounding the concept. Dewey (1934) regards intuition as "that meeting of the old and new in which... every form of consciousness is effected suddenly by... a quick and unexpected harmony which... is like a flash of revelation" (p. 266). Dewey (1934) goes on to say that "intuitive processes are prepared for by long and slow incubation" (p. 266).
Awareness of objects of art and of natural beauty is not a case of perception, but of an intuition that knows objects as . . . states of mind. What we admire in a work of art is the perfect imaginative form in which a state of mind has clothed itself. Intuitions are truly such because they represent feelings (pp. 294-295).

Rudolf Arnheim (1966) tells us that intuitive judgment is based on the "inspection of a pattern as a whole" (p. 104) and is assumed to "rely on the strength and directions of the tensions experienced in the perceived object" (p. 104). He writes, "Instead of figuring out the single elements and their connections piecemeal, the mind can rely on the tensions resulting from the integrated action of all the forces concerned" (p. 104).

Arnheim (1966) observes that a shortcoming of intuition is that it is easily disturbed by outside influences and its findings do not provide proof to the intellect. In discussing abstract language and metaphor, Arnheim tells us that there are "two profoundly different ways of grasping a thing: we either turn about it or enter into it. The latter. . .refers to the direct 'intuitive' vision of the nature of the object" (p. 266). Perhaps Arnheim is saying much the same thing as Watzlawick, Darwin and Janet have said about the mind—that it is dualistic in nature, with the right hemisphere functioning on the intuitive (imaginative) level of thought and the left, on the rational-analytical (verbal) level. This approach is concordant with my thoughts about the ultimate potential of human beings.
Creativity. Although many persons have written about creativity, it still remains an elusive concept. Whatever creativity is, it is regarded as a uniquely human characteristic. "Man alone can deliberately modify his own activities and he alone has the power to rearrange the world to suit himself... the behavior of only man can be considered creative" (Welsh, 1975, p. 5).

The research efforts of I.A. Taylor illustrate the diversity of opinion that exists on the nature of creativity. In a study in 1959, Taylor analyzed more than 100 definitions of creativity. Among the more well-known definitions is that of Barron, who regards creativity as "the ability to bring something new into existence" (Welsh, 1975, pp. 8-9). Another view is proffered by Donald W. MacKinnon:

Creativity involves a response or an idea that is novel or at the very least statistically infrequent... [that] must to some extent be adaptive to, or of, reality. It must serve to solve a problem, fit a situation, or accomplish some recognizable goal. And... [it]... involves a sustaining of the original insight, an evaluation and elaboration of it, a developing of it to the full (Welsh, 1975, p. 9).

Rollo May has stated, "Creativity occurs in an act of encounter, and is to be understood with this encounter as its center. Something is born, comes into being, something which did not exist before" (Anderson, 1977, p. 184). May notes:

It is literally true that the creative encounter does change to some degree the world-self relationship. The anxiety we feel is temporary rootlessness, disorientation; it is the anxiety of nothingness. The creative person... can live with this anxiety, even though he may pay a high price in terms of insecurity, sensitivity, and defenselessness for his gift of the "divine madness," as the
Greeks called it... by encountering and wrestling with non-being, he forces it to produce being. He knocks upon silence and meaninglessness until he can force it to mean (Anderson, 1977, p. 190).

Impressed with Frank Barron's studies of creative persons, May comments:

But the creative persons, both scientists and artists, much more frequently chose the disorderly cards. They chose the "broken" universe; they got joy out of encountering it and forming it into order (Anderson, 1977, p. 190).

Perhaps the reason that creative persons tend to gravitate toward "disorder," as it were, is their ability to utilize their imagination to "picture in the mind's eye something... not seen, something never experienced" (Samuels and Samuels, 1978, p. 240). The ability to complete a Gestalt, or synthesis, from something which appears to be "incomplete" represents an essential part of creativity, as is the ability to make meaningful connections between entities.

In this section, the complexities of the process of expression have been explored. The following discussion includes an overview of some therapeutic applications of expressive experiences which are, to a large extent, nonverbal.

Practical Applications

"We think in images. We had images before we had words" (Wadeson, 1980, p. 8). Rooted in prehistoric times when mankind first projected thoughts, feelings, needs, and desires onto cave walls, art experience represents a powerful
healing force, intimately bound to the human spirit. Wadeson (1980) suggests:

The beginnings of thought itself probably began with the process of symbolization (Greek syn 'together' and ballein 'to throw'). Thus meaning [became] established by the 'throwing together' of the known and the unknown. The concrete image could stand for the unknown, the mysterious, the ineffable (p. 13).

Discussing tribal art, which reflects, on a predominately nonliterate level, the strengths and fears arising from traditional beliefs, Billig and Burton-Bradley (1978) note that the unrelenting threat imposed by disease, hunger, interpersonal conflict and other stressful components of our existence, gives impetus to a need for human beings to control the environment by appealing to magical powers. "Supernatural imagery," they write, "gives the people access to the spiritual world, and helps them to control an otherwise intolerable environment" (p. 75). Billig and Burton-Bradley (1978) elaborate:

The need for a magical control of an almost ungovernable, unfriendly world... is a universal element in the mind of man. His impotence in dealing with the space around him, whether it is the jungles of the tropics... or the overpopulated metropolis, causes him to seek means for its control. This need exists universally among men (p. 76).

Lauretta Bender (1952), a child psychologist, also believes that creative expression is an intrinsic aspect of human nature. She writes:

Man's earliest childhood with all its strivings, yearnings, and uncertainties, with all its difficulties in grasping the world and getting in closer
touch with others, is still alive in every human being, and it is possible that man has to go back whenever he wants to create (Bender, 1952).

Professional Organizations. Although art expression has always been inseparably intertwined with man's existence, art as a form of therapy has existed only since the 1930's. Kwiatkowska (1979) tells us that contrary to the popular notion that art therapy began in mental health settings, the field actually grew from Adrian Hill's work with physically ill persons. Hill, an English artist, worked with his fellow patients while he was hospitalized with tuberculosis. Upon recovery, he began to share his ideas and experiences with hospitals for mentally, as well as physically, ill persons. In 1945, he published _Art Versus Illness_, the first book on art therapy. Art therapy as a profession is yet in its formative stages, for only since 1969 has the American Art Therapy Association (A.A.T.A.) been in existence. A.A.T.A. is a heterogeneous group whose members have various theoretical backgrounds (i.e., education, psychology) as well as credentials ranging from self-proclaimed competence and/or non-academic on-the-job training, to graduate degrees with supervised clinical practice in art therapy or related fields.

The structures of the professional organizations of art education and art therapy manifest the general disarray of the two fields. The National Art Education Association (N.A.E.A.), in existence since 1947, provides programs of study in art therapy and art for exceptional populations. Since its inception in 1969, the A.A.T.A. has increased over
800 percent within the past ten years (Packard, 1978).

A.A.T.A. accepts art teachers as members, in spite of the fact that some of its members are resistant to this idea. The organization also has art for exceptional children as part of its program.

In Pursuit of Identity. Those of us who are involved in the practical applications of creative expression are pioneers in an uncharted territory. An important part of our struggle for identity is to educate people (patients/clients/colleagues/students) as to what art therapy is relative to art education, and the various helping professions. A critical aspect of our responsibility is to clarify the objectives of our field, as well as to answer questions about art, art therapy, art education, art psychotherapy, and psychology. Especially important is our ability to distinguish between art therapy and art education, since it is from the relationship between the fields that much of the confusion arises about the unique qualities of the professions. Art therapists, more than art educators, are giving impetus to definition of identity and clarification of objectives of the two fields. I completely support this effort. One of the primary aims of my writings is to establish some distinctions between art education and art therapy, and to clarify theory and practice.

In my professional experience, one of the most difficult problems has been to educate both patients and professional people about my role, which focuses upon helping persons develop self-expression and emotional outlets. Patients often
view me as an art educator, or teacher, which is problematic because their perceptions magnify their inhibitions about expressing themselves and renew their fears about past art experiences, which generally took place in schools, where they perhaps did not measure up to teacher expectations. Common remarks are, "Oh, I'm a terrible artist. I can't draw a straight line with a ruler," "Please, don't make me draw. I'm no good," and "I don't want to try. I could never do art in school." One of my most frustrating tasks in clinical work has been to help patients move beyond the barriers of their initial attitudes. It often takes a great deal of patience and understanding to assure them that I am more interested in the process of self-expression than in their ability to create a technically fine art product.

It is sometimes necessary to deal with negative attitudes of professional people. While nurses and paraprofessionals generally are supportive and enthusiastic about my work, physicians tend to be skeptical "accountability hounds" who expect scientific validation of what I do. Phenomenological and experiential approaches and studies that are not tightly-controlled are often beyond their ken.

Much of my time is spent diplomatically and quietly trying to thread my ideas, concepts, theories and modes of practice through the intricate machinery of institutions and bureaucracy. I often feel that I am at a disadvantage because the art therapy literature does not provide the "how-to's" of theory and practice concerning my role. A pioneer,
I often must find my own routes to theory and practice, relative to each client's/patient's needs; many times through trial and error. I am constantly defining, redefining, sorting, throwing out, constructing, building and, most importantly, sharing, in order to accomplish this task.

I agree with Judith Rubin (1978), who regards art therapy as "a technique in search of a theory" (p. 18), and believe that it will be much easier for art therapists, as well as art educators, when art therapy possesses a distinctive body of knowledge based on clearly articulated methods of practice, as well as sound research.

Present Status. The distinctions between art therapy and art education are on the current forefront of the usefulness of expressive modalities. "Historically, art therapy and art education appeared fairly discrete," remark Packard and Anderson (1976, p. 21), but it is becoming increasingly difficult to determine where the two fields begin and end in relation to one another, because of the overlapping of many of their activities, and their use of the same art materials and similar methodology. Moreover, persons in other helping professions (i.e., medicine, psychology, and education) view art education and art therapy from different perspectives, using their own frames of reference to describe the field, which adds to the confusion.

Frances Anderson (1977), an art therapist and art educator, strongly believes that art therapists and art educators should carefully examine their theoretical and philosophical
orientation, in order to communicate clearly among themselves and with other disciplines. "We may be using the same art materials, but we are using them for different reasons" (p. 87). It is the nature of these reasons that will ultimately lead us to our identities, Anderson feels.

Viktor Lowenfeld who developed many of the current art therapy approaches represents a bridge between art education and art therapy. Lowenfeld viewed the teacher as a facilitator of self-expression, rather than a diagnostician. Passionately concerned with handicapped children, he believed that the classroom teacher should make a special attempt to use art experience to reach students with unusual needs, as well as a concerted effort to assist children in building a positive body image (Packard and Anderson, 1976). Edith Kramer (1977) writes about Lowenfeld:

He skillfully used art to enhance the sense of identity, especially of handicapped children. He elicited remarkable art work by helping children to feel and know who they were, what they could do, and where they belonged (p. 8).

Sandra Packard, art educator and art therapist, refers to the status of art therapy and art education as "a shared crisis," and believes that many of the problems of the two fields could be remedied if "one could simply legislate that only educators can teach and only therapists can do therapy" (Packard and Anderson, 1976, p. 21). The difficulty, however, is that neither profession has defined its specific attributes or its boundaries. Pertinent questions posed by Packard are: "Who is doing what? When is art experience educational and
when is it therapeutic? Does a therapist educate? Is education therapeutic?" (p. 21).

**Economic and political considerations.** Answers to Packard's questions are complicated by several factors: a) a decreasing number of jobs for teachers, due to rising inflation and shrinking school budgets; b) an increasing public interest in psychology, mental health and retardation; and c) the availability of federal funds for community programs to help people deal with emotional, intellectual, and physical handicaps. All of these trends have led to a growing job market for art therapists; particularly those qualified to work with exceptional populations.

Another result of current developments is the fear, of some art educators, that art therapists are a threat to their jobs. Concurrently, many art therapists are concerned because some art educators are labeling their teaching functions as therapeutic. Some art therapists, moreover, are worried that art teachers without work might accept art therapy positions without adequate qualifications, and thus downgrade the art therapy profession.

Trends in legislation have intensified present problems by widening boundaries and permitting art educators and art therapists to enter the terrain of each other. State and federal legislation mandating the placement of handicapped children in regular classrooms has compelled art teachers to seek guidance from art therapists. Furthermore, mainstreaming of handicapped children is encouraging universities to
offer more and more courses in art activities for exceptional children; illustrating an awareness of the need for therapeutic as well as teaching skills in helping these children (Anderson and Packard, 1976).

**Art Education and Art Therapy in Contrast.** Art therapist/educator Sandra Pine (1974) views art as a "special kind of learning that deals with a person's inner world and his immediate social world" (p. 14) of family and friends, as opposed to the society as a whole, with which art educators characteristically are concerned. Working with smaller groups and with more intensity than a teacher with students, the art therapist inevitably enters into a closer relationship with a patient. Generally practiced with individuals, conjointly, with families, or in various combinations with groups, art therapy is used for diagnosis, evaluation and treatment (enabling persons to use their inner healing resources to achieve emotional expression, self-awareness, and personal growth). Although psychosocial diagnosis and interpretation of visual imagery are sometimes employed by art therapists, and less frequently by art educators, they are by no means always used in therapeutic relationships.

Traditionally, therapeutic art experience is employed most frequently with psychiatric populations. It is also used with the developmentally disabled, mentally retarded, delinquent, deaf, orthopedically handicapped, elderly and, to a large extent, with children in various kinds of settings. Some therapists, such as Gestaltist Janie Rhyne (1973) work with
so-called "normal" populations, helping them to achieve self-actualization and personal growth. In various settings, ranging from private practice to institutions, agencies and clinics, art expression functions as a primary or an adjunctive therapy.

The particular treatment goals which art therapists work toward with their patients, depend on a number of variables such as personalities involved, philosophy and theoretical background of the therapist, working environments, and most importantly, the needs of the patient.

In their respective goals, I feel that art education and art therapy complement one another, in that the latter focuses upon the individual and his relationship to significant others, while the former works to enrich the lives of individuals within small groups, so that they in turn can enrich society.

The following sections represent some major areas of difference between the fields of art therapy and art education:

Use of art materials. The use of materials reveals some differences in practice between the two professions. Art therapy pioneer Margaret Naumberg perceives art education as "a planned and conscious process for improving the art productions of students" (May, 1976, p. 17). She believes that art educators tend to be too concerned with the "correct" use of materials to pay adequate attention to the individuality of the student. In art therapy, on the other hand, expressive processes relative to the unique qualities of individuals are of primary importance.
Secondly, with its emphasis upon curriculum, art education is generally a predominately verbal activity, as opposed to art therapy, which uses the patient's ability to verbalize as a goal that is secondary to the art process.

A third difference between art education and art therapy is the emphasis placed by the latter upon art expression, rather than upon learning enhancement through the curriculum. My ideas are in accord with Deborah May (1976) who believes that "the use of art as a way to make learning more pleasurable... should be used as a supplement to, and not a replacement for the expressive use of art" (p. 17).

**Product versus process.** Many authorities agree with Edith Kramer, who believes that the art product is more clearly subordinated to the process in art therapy than in teaching (Ulman, 1974). Viktor Lowenfeld feels that the aesthetic product is of secondary importance to the creative process, defined as the child's ability to "respond to his environment by thinking, feeling, and perceiving" (Lowenfeld and Brittain, 1976, p. 275). My personal feeling is that both product and process are one entity. Sometimes it is necessary to stress the process of self-expression to enable patients to work through their fears about using the media, but the product (outcome) of their efforts is the substance of therapy and should not be underestimated in importance. Rubin (1978) writes, "There is a false dilemma in the dichotomy of process and product. For me, it is always 'person' that matters
most, without whom there could be neither process nor product, nor art itself" (p. 225).

Communication. Art therapy theory draws heavily from Freud, who made his most outstanding contributions to both personality theory and therapy by listening to messages other than the obvious, straightforward verbal messages. "By focusing on dreams, images, hallucinations, slips of the tongue—all messages formerly dismissed by science as meaningless or unimportant—he opened up a new language...to assist in understanding personality" (Rhyne, 1973, p. xi).

Applying his new language to creative persons, Freud studied and analyzed the images created in the paintings and sculpture of artists such as daVinci and Michelangelo. Although it would have seemed natural for Freud to ask his patients to express themselves graphically as well as verbally, he did not, but rather continued to use verbal therapy to elicit personality change (Rhyne, 1973).

In the early years (1940's and 1950's) of art work with patients, generally in occupational therapy departments of hospitals, "therapists" trained in the use of media provided patients with simple art instruction. Patients were encouraged to relax, either by copying landscapes or religious images, or expressing emotions in a non-threatening manner (Rhyne, 1973).

Since that time, art educators and art therapists have placed increasing value on the relationship between visual images and communication.
Art is a major system through which the people in a society transmit their culture from one generation to another, symbolize and maintain their values and belief systems, and identify the social structure through styles of architecture, dress, and product design (Lanier, 19', pp. 72-72).

A number of persons view art experience as a mode of communication that reflects the deeper levels of personality. Among these are Margaret Naumburg, Emmanuel Hammer, Ernst Kris, and Karen Machover.

As a reflection of the unconscious and as a non-verbal and pre-verbal mode of expression, drawing and painting are supposed to provide a direct access to unconscious and preconscious processes because they bypass many of the defense mechanisms employed in controlling more cognitive processes (Eisner, 1972, p. 85).

Margaret Naumburg (1975) tells us that analytically oriented art therapy enables people to communicate by projecting the spontaneous images of their dreams, daydreams, and fantasies as they produce art work. In contrast to patients in psychotherapy who must transform the spontaneous images of dreamwork and fantasies into words, art therapy patients use art media, rather than words, to externalize these images (Naumberg, 1975). It is interesting that increasing numbers of psychoanalysts value art therapy as an adjunct to their methods of treatment.

Helen Landgarten, art psychotherapist, writes about the power of visual, as opposed to verbal communication:

In our daily lives we are constantly exposed to a worded world. People are bombarded by speech and consequently they learn to "tune out" that which they do not wish to bear. The visual product...has tremendous impact, it gives the person a chance to listen with his eyes. Because the image is so much
more powerful than speech and because it is so basic, old defenses are not so readily available as they are in a purely verbally-oriented therapeutic situation (Landgarten, 1975, 65-66).

**Human relationships in art experience.** Although it is desirable for a teacher to have good rapport with students, the quality of the relationship is not nearly so critical as in art therapy. "It seems fair to say...that in art education the major concern...centers on the making of art works" (Packard and Anderson, 1976, p. 23). The attainment of aesthetic awareness, visual literacy, and skill in using art media is of greater significance in the classroom, while in art therapy creative experience generally is a means of generating social interaction "in order to develop the person's sense of trust and acceptance as well as his communication skills" (Packard and Anderson, 1975, p. 23). Patients are encouraged to share their materials and enter into group discussion in order to help each other gain insight into feelings, thoughts, behavior patterns, and ways of relating to one another. In the classroom, on the other hand, the teacher (as facilitator) may promote interaction based on the sharing of knowledge about various aspects of art, as well as aesthetic criticism of the art work of group members.

Whether the art experience occurs with the teacher and class, or with the therapist and patient or group, the power of the human relationship linked with creative activity is never to be underestimated. "One grows to respect, with some awe and humility, the potency of art, especially in the
context of those special human relationships" (Rubin, 1978, p. 63). In their experiences with art, human beings voluntarily expose a part of themselves to other persons, with whom they look at their aesthetic statements and at themselves. "Often there are few or no words, yet the being together and sharing... offers protection, validity, even permanence, to the event (which could otherwise be so vulnerable, so delicate) (Franck, 1973, p. 7).

This section included a discussion of the various issues related to the practical applications of therapeutic art experience. In the following paragraphs, research within the field will be examined.

Research Studies

In a research study session at an art therapy conference several years ago, chairperson Gary Barlow and his colleagues (1979) expressed their belief that the expansion of the art therapy profession greatly depends upon the ability of its members to empirically demonstrate their claims that the techniques which they employ creat a positive change in the psychological and physiological functioning of their clients.

One of the few productive researchers in the field is art therapist Harriett Wadeson, who has participated in more than twenty published studies in the area of mental and emotional illness and conjoint family therapy. While some of Wadeson's work employs methodologic rigor, other explorations are phenomenological in nature. Wadeson (1979) insightfully
discusses the present research status of the art therapy profession:

I do not mean to suggest that our profession is presently totally devoid of qualified researchers. . . . though many art therapists have published interesting case histories and descriptions of treatment programs, few have produced solid research. It seems incumbent. . . . to develop new strategies appropriate to our very special medium art expression, for assessing both the effectiveness of our clinical work and tapping the pregnant potential of art expression for increasing understanding of the human condition. . . . Although an understanding of research requisites is necessary to produce solid evidence. . . . possibilities for significant investigations are available to more of us than we may realize (pp. 133-134).

Wadeson (1979) suggests that there is so little research in the art therapy field because the profession is young and its training standards are clinically oriented. She also acknowledges that the research strategies of the behavioral sciences are oftentimes inappropriate for art therapy. "Characteristics of an art product are not necessarily quantifiable, even when broken down into component characteristics such as color, form, line, space, detail. . . . the whole is more than the sum of the parts" (Wadeson, 1979 p. 134).

Miscellaneous studies. The following represent some noteworthy research endeavors which are representative of art therapy:

Rose Alschuler and La Berta Hattwick's work, Painting and Personality, first published in 1947 and regarded as a classic, is a valuable resource for persons working with children. Since the 1940's, the authors have continued to explore children's personalities and social behavior as expressed
through easel paintings, blocks, crayons, and dramatic play. "Although crayons are appropriate for expressing ideas, paints and their flowing, dripping quality are more appropriate for expressing feelings. . . feelings better reflect personality than do 'ideas' which are under greater conscious control. . . easel paintings can be used effectively for the study of personality" (Alschuler and Hattwick, 1969, p. 84).

Deriving its rationale from the neurofunctional division of labor between the right and left hemisphere, Wolfgang Luthe's (1976) creativity mobilization technique (CMT) is a departure from the creative activities of our present day educational endeavors, which are purported to stifle, distort, or block creativity functions. The CMT is a nonverbal process-oriented "no thought" method of painting, as opposed to the product-oriented methods of traditional art education. Based on the principle of "paradoxical intention," Luthe's CMT procedure consists of a series of 2-minute exercises in which students work quickly, using eight colors of tempera, to create the biggest possible mess upon sheets of newspaper. The fast brush work, according to Luthe, stimulates the right hemisphere, and minimizes the mental functions of the left: discriminating, calculating, analyzing, rationalizing, verbalizing. Six to eight weeks of regularly-practiced exercises of this nature are supposed to enable one to become spontaneous, open and relaxed in creative endeavors.

The works of Morgenthaler and Mohr, in the early 1900's, represent the first endeavors to relate certain forms with
various diagnoses of mental illness (Bach, 1969). Although he abandoned his hope of utilizing the famous Heidelberg collection of about 5,500 pictures, Prinzhorn (1922) made an interesting observation that children, as well as primitive peoples, produce similar motifs, colors, and symbols. He also notes that visiting colleagues responded similarly to particular kinds of pictures. More recent examples of research include an investigation of clues to cognitive functioning in the drawings of stroke patients (Silver, 1975), and an exploration of psychological fear through visual imagery (McNiff, 1975). Prominent art therapist and researcher, Judith Rubin (1978), has conducted studies of schizophrenic, blind, and visually multiply handicapped children.

The following are two pieces of research which are of special interest. One, an exploratory pilot project in which the group art therapy format was used with Holocaust survivors' children, for the purpose of consciousness-raising, data collection and assessment, was initiated by Judy Flesh (1979) and directed by Helen Landgarten (1981). Art therapist Grances Grossman (1975) conducted a phenomenological study of children's concentration camp art, focusing upon creativity under extreme stress.

**Projective drawing research.** Combining the psychology of expressive movement with clinical applications, human figure analyses represent another fertile area of art therapy research (Hammer, 1978; Machover, 1978; Harrower, Thomas, and
Regarded as an invaluable resource for the clinician, the work of Hammer (1978) deals with projective drawings as an adjunct to psychotherapy, from various perspectives: a) their usefulness as diagnostic methods, b) psychodynamic considerations, c) expressions of conflict and defense, d) drawing usage in therapy, and e) research applications.

Hammer (1978) writes:

In projective drawings, the subject's psychomotor activities are caught on paper. The line employed may be firm or timid, uncertain, hesitant or bold, or...a savage digging at the paper...the subject's conscious and unconscious perception of himself and significant people in his environment determine the content of his drawing. The drawing page serves as a canvas upon which the subject may sketch a glimpse of his inner world, his traits and attitudes, his behavioral characteristics, his personality strengths and weaknesses including the degree to which he can mobilize his inner resources to handle his psychodynamic conflicts, both interpersonal and intrapsychic. Psychiatric patients...can frequently express themselves more easily through graphic means of communication than through verbal ones (p. 6).

Hammer (1978) regards the following characteristics of drawings as significant: sequential treatment of objects drawn, size of drawing, pressure of pencil on paper, length of stroke(s), extent of detailing, symmetry, placement of drawing on paper, and elements of motion.

Karen Machover (1978) outlines a method of personality analysis based upon the interpretation of drawings of the human figure. "That individuals reveal important aspects of their personality in drawing has long been recognized.
has been lacking. . . is . . a systematization of analyses of the graphic product which is at once comprehensive, communicable, and does justice to the intricacies of personality" (p. 4).

To test the hypothesis that human figure drawings by young adults are potential predictors of future disease states, Caroline Thomas and her colleagues (Harrower, Thomas and Altman, 1975; Schor and Thomas, 1977; Thomas, Jones and Ross, 1968; Thomas and Duszynski, 1974; Thomas and Greenstreet, 1973) classified drawings of 204 former medical students examined thirteen to twenty-three years later. Popularly known as the Johns Hopkins Precursors study, the research, which began in 1946, classified drawings according to stance, suggesting that stance reflects one’s attitude toward the outside world. Results indicated that the 102 subjects in the experimental group developed one of six specified disorders (hypertension, coronary heart disease, malignant tumor, suicide, mental illness and emotional disturbance), which the 102 subjects in the control group remained in good health.

Other research examples of psyche-soma interactions expressed through figure drawings are studies of kinetic family drawings of children with diabetes (Sayed and Leaverton, 1974), subjects recovering from poliomyelitis (Johnson, 1972), and surgery patients (Meyer, Brown, and Levine, 1955; Salant, 1979).

Various projective techniques, other than figure drawings, which provide options for expressive therapists are
fingerpainting (Dorken, 1952; Kadis, 1950), the personal
sphere model (Schmiedeck, 1974, 1978), interpersonal life dia­
gram (Newman, 1978), animal drawings (Levy and Levy, 1978),
drawing completion test (Kinget, 1978), Rorschach (Landis­
berg, 1978), and Thematic Apperception Test (Hammer, 1978).

**Studies related to chronic and terminal illness.** Van
Niman Wissel and Wester (1980) have studied the status of art
therapy in United States Hospitals. The purpose of their re­
search was to determine the prevalence and recognition of art
therapy in U.S. hospitals, the location of the hospitals, and
the status of art therapists within the hospitals. Three
hospitals randomly selected from each state were surveyed,
with 116 of the 150 hospitals responding. Results showed that
about one-fifth of surveyed hospitals had art therapy, most
generally under the aegis of the activity therapy, occupacion­
al therapy and nursing departments. Over three-fourths of the
surveyed hospitals exhibited recognition of the need for art
therapy in medical settings.

Salant (1979) researched drawings of young children prior
to tonsillectomies. The drawings collected during the study
were used as a medium for evaluating the stresses and anxiet­
ies of the children, who were asked to make drawings of how
they felt about being in the hospital, the operation, any
dreams they had had, and their fears. Salant concluded that
the project was successful in helping to reduce anxiety and
tension in the children facing an operation.
Some of the most fascinating research reflecting the inter­relationship between the psyche, soma, in art work has been done with people in the advanced stages of cancer (Bach, 1969; Furth, 1973; Perkins, 1976; Weitz, 1976; Sibley, 1977). Perkins (1976) notes, "No doubt exists. . .relative to the validity of art as an index of a young patient's awareness of and response to his illness" (p. 12). In 1936, Susan Bach first became interested in the spontaneous painting of children, when she discovered the desperate state of a nine-year-old girl reflected in the "doodlings" on a discarded piece of blotting paper. At the time that her work was published in 1969, Bach had studied 3,500 pictures of 600 patients. She writes:

It was most encouraging to find material that reflected with almost awesome precision, a malignant process, its localization, a possible prognosis—without any knowledge of the case histories on my part. . .Comprehending. . .psyche. . .as a "spiritual life power" and soma as its great partner for a lifetime may open up another dimension. One could . . .ask not only about the cause of a severe illness and its symptoms, but also what it may mean to the individual stricken by it (p. 13). Asking about the inner meaning of this critical event for his way of life is quite another question. Could this severely hurt human being, during the endless-seeming weeks in the hospital, not possibly ask what this experience. . .may mean to him, those closest to him, to his total environment—what it may be trying to say to him? He might discover. . .how one-sidedly he has lived, that parts of his total personality have lain empty, and that there are values quite different from those he had hitherto pursued. Then he would not have suffered this heavy blow in vain (p. 14).

Through her methodical assessment of thousands of drawings, Bach (1969) continues to gather data to document
that picture characteristics mirror specific illnesses, acute disease states and, perhaps, foreshadow future trends, "even asymptomatic processes which, at the time, could not be diagnosed by existing clinical methods" (p. 13).

Basing his studies of impromptu paintings of terminally ill, hospitalized and healthy children on Bach's findings, Furth (1973) tells us that picture characteristics include colors used/mixed, main objects outlined or filled in, object positions on paper, people or no people, sun with or without face, indoor or outdoor scene, living or non-living things in the picture, and the extent to which the picture is filled in. Furth (1981) observes:

Empirical studies. . . indicate that extemporaneous drawings reflect both psychological and somatic processes. . . A patient may not be able to reveal verbally his urgent desires and needs or his condition; but these. . . may be reflected through the symbolic language of drawings. This symbolic language, which begins at the unconscious level, functions both in drawings and in dreams. It serves to help the individual maintain harmony. . . in his life. . . . When an individual can be helped to bring into consciousness. . . what his symbolic language is trying to teach him, he can immediately begin to work toward needed changes in his life that otherwise might come about only after many months of indirect movement toward improvement (pp. 92-92).

Summary

Much of human success in meeting life changes positively and satisfactorily is contingent upon a person's picture of the world around him or her. Closely associated with one's perception of surroundings is his or her ability to engage in expression. The manner in which we find self-expression
exerts a tremendous influence upon our ability to solve problems, resolve stress and tension, and adapt to our surroundings. The various conceptualizations of expression in this section, have emphasized the processes of pursuing order and harmony, establishing personal identity, discharging tension, mobilizing energy, developing awareness through physical movements and sensations, loosening defenses, exploring emotions, and restoring wholeness. Through involvement in various combinations of these processes, human beings can make new connections with their surroundings, through alterations of their perceptions and attitudes.

The emergence of modes of practice within the field of therapeutic art experience has been accompanied by economic and political changes, the development of the professional organizations, a search for identity within these organizations, and the ebb and flow of a multitude of issues enmeshed in the present environment of art therapy and art education: a) the use of art materials; b) product versus process; c) communication; and d) human relationship in art experience.

Thus far, clinical practice has dominated the field of art therapy. The goal of art therapy educational programs is the training of clinicians. Resultantly, with the present emphasis upon gaining clinical training, sound research within art therapy is almost non-existent. Many persons in the field are simply too intimidated by research to become involved in it.
Many prominent individuals in the field of art therapy are concerned about the lack of sound research within the field. Most of the studies in the field are based on case histories and anecdotal material. A primary problem is that the research strategies of the behavioral sciences are frequently not appropriate for art expression. The qualities of an art product are not always quantifiable, even when reduced to component characteristics such as color, form, line, space and detail.

Phenomena which have been studied include the projection of personality attributes through art media, the enhancement of creativity, the meaning of certain lines, colors and other qualities of art work, and the relationship between psyche and soma expressed in human figure drawings and paintings. There have been relatively few studies with the chronically ill and the severely disabled, although interest in these populations is growing among practitioners.

The final section of this will focus upon creative experience in the rehabilitation of the physically disabled and chronically ill.
Section 5
Creative Experience in the Rehabilitation of the Physically Disabled and Chronically Ill:
An Holistic Approach

The following discussion focuses upon some practical considerations of creative experiences as rehabilitative tools for use within a holistic framework.

An Holistic Approach

Since the Middle Ages, when medicine was administered by "blood letters" and "bile-examiners" and was primarily concerned with the individual as a physical being, man has been divided into separate entities of body, mind, and spirit. Thenceforth, Western civilization has exhibited a dualistic philosophy in viewing the diseases of man. There have been the illnesses of the mind, and the diseases of the body. While other societies have created healing rituals involving the whole person, as well as the entire family unit and social group, Western procedures of healing have been characterized by specialization, and the treatment of the individual parts of man, as opposed to treatment of the human being as an integrated whole (Pelletier, 1977). In its approach to illness, the traditional medical model views the patient as a
disease-entity and treats his pathology accordingly. The emotional and spiritual components of illness are thus, to a great extent, left untouched and unresolved in diagnostic and treatment procedures.

Granger Westberg, a theologian and pioneer in holistic medicine, reminds us throughout his work that a person needs to be treated as a complete being in relation to his entire life-style: his family, friends, job situation, self-image, role in society, and the childhood experiences that have shaped his or her personality (Westberg, 1977). Another proponent of holistic medicine, Engel (1977), emphasizes that a medical model needs to actively deal with life stress, which interacts with biochemical imbalances and hereditary factors to play a crucial role in the onset, severity, and course of a medical condition. Strongly recommending that physicians adopt an holistic approach if they are to receive the respect of the public, Roy Menninger believes that patients should be given information about diet and exercise, as well as other life-style modifications to overcome disorders resulting from excessive and prolonged tension and anxiety.

According to Pelletier (1979), the following elements are central to holistic practice: a) prevention; b) appraisal of health status; c) life-style change; d) management of stress, and e) diet and exercise. Emphasizing the importance of teaching people to evaluate and manage their own health, holistic rehabilitation practices emphasize professional guidance toward self-sufficiency and individual responsibility.
In maintaining optimal health and well-being, a critical factor is the interaction between the individual, his environment, and his ability to express his feelings.

For the purpose of this study, rehabilitation is defined as the education of the patient and significant others to utilize every possible resource (physical, emotional and spiritual) to become independent and live their lives to the fullest in the manner which they choose. Independence, contrary to the goals established in many traditional rehabilitation settings, is far more than physical self-sufficiency. Independence is enabling a person to be in a position to exercise choices and to make decisions about what he or she wants to do in the major areas of his or her life. Social worker David Brandon (1976) writes:

Patients and clients are encouraged to depend. . .on professionals who are seen as. . .experts— as knowing best. We develop a rewards system for. . .the client role. The client status becomes the only access to a wide range of different practical resources like. . .monetary grants and home-help services (p. 35).

Brandon (1976) believes that this is the first century to view human suffering an "unnecessary evil" (p. 35). He elaborates:

Our consumers cry out that they are in pain, depressed and despairing. Usually we attempt to alleviate their feelings. . .through drugs and professionalized comfort. Is this relief help or hindrance? . . . 'How can I help you feel better' may in the long term prove to be less relevant than 'How can we work towards making you use effectively this feeling of blackness, aloneness?' . . . Perhaps our aims should be to clarify meaning and purpose in people's lives rather than dust DDT over the conflicts (pp. 35-36).
Guiding people toward the discovery of meaning and purpose in their lives is a basic tenet of holistic practice which requires utmost patience, sensitivity and creativity on the part of the professional person, who functions as an educator, facilitator and guide. As a prerequisite to guiding others who are rebuilding their lives, it is absolutely essential that the therapist face the meaning of his or her own life and death; painful as this may be. The extent to which the guiding person is able to function effectively is largely dependent upon his or her own resolution of the issues confronting patients.

For some of those who have great difficulty in accepting awareness of their own future death, the chronic disorder of another will create discomfort, anxiety, despair and the desire to flee. It may be an enormous relief when we make our rounds to slip by some sleeping patients' rooms with the whispered assurance to the nurse that we do not wish to wake them (Effler, 1979, p. 57).

It is also critical for the professional person to completely examine his or her own motives, or reasons, for being involved in his or her work. Not until the guiding person has explored the intricacy of his or her innermost being is he or she truly ready to relate to others.

Rehabilitation Issues

The following passage expresses some of the primary issues facing individuals who are thrust into a situation which will change for the better only by virtue of their ability to mold
their perceptions, attitudes and coping behaviors to irremediable and irreversible physical circumstances.

The realization that I was paralyzed came to me with a merciful graduality. As the extreme lassitude and weakness left by the fever and the pain wore off, the irritations took over. I yearned to change my position, to move ever so slightly onto a cooler spot on the sheet, and I couldn't. My heels itched and I couldn't even move them up and down on the bed. Three weeks ago there had been nothing to any of it—breathing, speaking, eating, evacuating, sleeping. I had accepted my body as if it were myself. If I wanted to eat, I ate—whatever and whenever I liked. If I wanted to drive a car or type a column, I didn't ask my hands if they were willing. If I wanted to run, I ran, and no by-you-leave to my legs. Now there was no part of my body and function of it that I could command. Still "I" was alive. I had needs and desires and irritations (Visotsky, Hamburg, Goss and Lebovits, 1961, p. 27).

Visotsky, Hamburg, and others (1961) pose some important questions. How is it possible to deal with such powerful, pervasive and enduring stresses as are inherent in chronic illness and severe disability? What kinds of coping behaviors lead to favorable outcomes? How are the noxious effects of these situations with a long-term learning process that results in increased personal resourcefulness and growth? If so, what factors lead to these attributes? Finally, and perhaps most importantly, what kinds of things can professional persons do to address the aforementioned issues and guide patients and their families toward the goals of holistic rehabilitation?

The world of the patient and those close to him or her becomes very different in the face of long-enduring illness or disability. Characteristically, these individuals must
make significant shifts in their day to day life styles. The following represent some problems which commonly occur: a) loss of work, b) increased expense, c) prolonged physical discomfort, d) loss of self-esteem, e) changes in body image, f) forced dependency and inability of the patient to care for himself or herself, g) role reversal, h) lack of community resources, and i) fear of death, in some instances.

Counselor Joyce Doan's observations of the multiple crises of cancer are applicable to a wide range of chronic illnesses and disabilities. Doan (1975) writes:

Crisis intervention theory teaches that a real crisis for most persons lasts from four to six weeks. Cancer, on the other hand, frequently keeps patients and their families in a chronic state of crisis that may last for years. Just as one problem is solved, another of a different type may develop. Moreover, declining health and resultant emotional exhaustion consume much of the energy that is needed to deal with these crises. The ability of cancer patients and families to mobilize their inner resources is especially critical (p. 2).

Art therapist Jenny Effler (1979), who works in a medical setting with the chronically ill, discusses some of the transitions which those who are hospitalized must make. Becoming a "patient" necessitates conforming to "an entirely different set of roles, expectations and patterns of behavior" (p. 57) as well as dealing with "new faces, unfamiliar language, painful and noxious stimuli, and separation from loved ones" (p. 56).

The clinically "normal" individual inevitably undergoes certain psychological transformations as he or she loses
mobility, independence, and freedom, in addition to socialization, recreation and other re-energizing activities.

This "sick role" is a normal and necessary adaptive process characterized by a marked dependence on others, a focus on bodily processes, an egocentricity or lack of interest in the social world, and certain affective symptoms. . . . the patient suffers . . . losses such as a change in self-image due to loss of body image or parts. Loss may result from separation from loved ones, and from familiar objects, or bowel or bladder control due to the disease process (Effler, 1979, p. 57).

Certain pivotal points, such as diagnosis, treatment, and remissions and exacerbations of a long-enduring condition, characteristically unearth a wide range of feelings, which emerge and recede in arrhythmic patterns. Occupational therapists at The City of Hope Medical Center, have observed some commonly-occurring feelings, which are included in Table 2. The ever-changing tide of human feelings is too ineffable to be captured in a listing, and it must be emphasized that the material in this table is merely a guide to direct the attention of helping persons toward the myriad expressions of patients and families.
TABLE 2: Commonly Occurring Feelings

Feelings of hopelessness and discouragement
Feelings of hostility and resentment because of the disease
Loss of motivation and initiative
Loss of security and self-confidence
Withdrawal
Antisocial tendencies due to appearance
Fear of movement because of pain
Fear of abandonment
Fear of dependencies
Fear of procedures
Fear of death
Periods of elation, depressions and emotional instability due to drugs
Apathy
Limitations of range, strength, coordination, endurance
Functional limitations

The diagnosis of an irreversible illness or disability represents a particularly crucial time when feelings of both patient and family are muddled. Characteristic coping mechanisms are denial, anxiety, regression, depression, and, eventually, realistic adaptation. Guilt is a frequent emotional response. Patients and families often search for "causes" of an illness or disability, and wonder what they might have done to prevent the occurrence. Strong feelings of personal
responsibility are not uncommon. At the time of diagnosis, it is sometimes difficult to communicate with the patient and family, for they have a tendency to "tune out" what they cannot bear to hear. I personally believe that this is nature's protective mechanism, which will permit these people to gradually begin to acknowledge what they have the strength to tolerate. Visotsky and others (1961) discuss the matter of facing the likelihood of a permanent disability:

This occurred gradually, in small steps, in slow transition from a self-concept of physical vigor to one of physical limitation. . . .the step-wise nature of this transition makes the whole process more bearable. Having accepted the possibility of a modest limitation, it later becomes less shocking to consider. . .an additional limitation. The loss of cherished capabilities thus occurs in small increments, with some personality reorganization taking place in each intermediate phase (p. 51).

Visotsky and others (1961) also talk about the fantasy bargain, which involves "giving up one wish if only another could be fulfilled" (p. 44). They note:

The use of hands was especially important. . .patients were willing to give up other functions if they could be sure of using their hands well again. . .The bargain seemed to involve giving up a lesser wish for a greater one [perhaps] the bargain. . .involves the attainment of a reachable objective (p. 44).

Institutionalization often poses difficult problems for patients and families. The medical system, from which the patient receives treatment, is generally part of a bureaucracy that is overpowering, chaotic, and impersonal. Most patients have exposure to one or more treatment modalities. Particularly if they are outpatients, they are shifted from one specialist to another. The patient and family, furthermore,
are constantly surrounded by different teams of health professionals in each place which they go for treatment. According to Joyce Doan (1975), the world of the patient and those close to him becomes very different.

The out-patient clinics are... treatment-oriented. The patient and/or family who goes with questions and hopes of airing their fears may feel confused about which doctor to approach, or may feel put-off by the one obviously in a hurry (Doan, 1975, pp. 7-8).

The experience of being an inpatient creates yet another set of difficulties. Hospitals are kaleidoscopes of awesome equipment, unfamiliar routines, discomforting diagnostic procedures and treatment regimes, and shifting patterns of staff and personnel. The staff providing inpatient care is preoccupied with the treatment of acute physical conditions that generally are transitory. As a result, the patient and significant others rarely have a chance to work through their long-range concerns and problems. Especially for patients with chronic conditions, inpatient care often falls short of what is needed. The energies of staff members are, for the most part, directed toward those who require minimal care and are likely to get well, since, in the medical world, patients who do not recover represent a failure.

It is terribly hard for seriously damaged people to reconcile themselves to their disabilities. Some of them spend months or years evading the issue by trying vainly to live as they did before their accident or illness. Families, struggling with their own feelings about a disabled patient, may drift away while he is in the hospital. Permanent disability and long-term hospitalization often make for apathy and despair. We must try our utmost to provide positive alterations (American Journal of Art Therapy, 1971, p. 145).
There is no doubt that readjustment in the presence of a chronic illness or severe disability is a formidable task. In spite of the multitudinous problems inherent in such stressful circumstances, many individuals exhibit remarkable resourcefulness and tenacity in resolving the extreme and prolonged difficulties of their situation. In the following section, some factors which play an important role in readjustment are considered.

Components of Readjustment

Discussing coping behavior under the extreme stress of severe poliomyelitis, Visotsky and others (1961) tell us that coping effectiveness depends upon the following factors: a) confining distress to manageable levels; b) promoting encouragement and hope; c) establishing a feeling of personal worth; d) establishing satisfactory relationships with significant others; e) maximizing physical recovery; and f) increasing possibilities of working out a satisfying physical situation when maximum recovery is achieved.

Many transitions must be made as patients endeavor to relinquish their dependency to once again live in the world. Effler (1979) warns that persons may resist abandoning their patient status if previously unfulfilled needs are being met in the present sick role, which necessitates no demands or responsibilities. There is a special need for the adjusting individual to be "stimulated with other interests to bring him 'outside himself'" (Effler, 1979, p. 57) as he re-enters
his or her surroundings to become a contributing member of society. Visotsky and others (1961) also stress the importance of developing interests (i.e., creative, intellectual) not requiring physical progress. Such interests, which may have been dormant or minimal prior to the illness or disability, must, of course, be commensurate with the residual physical abilities.

Visotsky and others (1961) emphasize the importance of hope for a satisfactory outcome. Hope, they believe, is "one of the major sustaining forces in the midst of personal crisis" (p. 34). Also critical to adaptation is the ability to shift one's attention from the deprivation imposed by the condition, to meaningful opportunities for the development of remaining capabilities. If a person is able to find meaning in his or her circumstances, then hope, as well as feelings of self-worth and a sense of fulfillment about life, will naturally ensue.

Concordant with these thoughts are the observations of Gal and Lazarus (1975), who have explored the role of activity in the face of stressful situations. The two authors suggest that taking action, as opposed to remaining passive, is a powerful coping tool which affects stress reactions by: a) enhancing feelings of control and mastery; b) operating as a defense mechanism; c) functioning as attention diversion; and d) eliciting energy discharges. Gal and Lazarus (1975) are of the opinion that activity is "a behavioral manifestation of the individual's attempts at attention diversion"
(pp. 16-17). Also emphasizing the importance of activity as attention diversion are Chodoff and others (1964), who, in a study of parents of leukemic children, observed that activity, such as walking, knitting, and sewing enabled these people to decrease their anxiety by detaching themselves from their distress. Gal and Lazarus (1975) conclude:

It seems quite evident that activity during stressful periods plays a significant role in regulating emotional states. We are inclined to interpret activity as being a principal factor in coping with stress...a person may alter his/her psychological and physiological stress reactions in a given situation simply by taking action. In turn, this will affect his/her appraisal of the situation, thereby ultimately altering the stress reaction (p. 18).

Thus far, I have explored some of the psychological transitions which the patient and his or her family must undergo in the presence of chronic illness and disability. Some of the primary factors which can facilitate these transitions are discovering meaning and purpose in the situation, establishing hope of a satisfactory outcome, developing interest in activities commensurate with the residual physical abilities, maintaining self-worth, and taking action to divert attention and enhance mastery of the circumstances.

A central idea of this research project is that creative experiences can function as a powerful catalyst to facilitate coping and adaptation throughout the course of long-enduring medical conditions thereby contributing to the rehabilitation process. The remainder of this chapter will explore various dimensions of adaptation through these expressive experiences.
There are no "pat" answers concerning the utilization of creative experiences in rehabilitation endeavors. Those who wish for ready-made answers in relevant literature will be sorely disappointed, for there are very few "how-to" paragraphs in articles and books. Rather, the professional person must be willing to explore rehabilitative therapies to find the appropriate techniques in an unstructured milieu. There are no protective ground rules, as there are in most fields. The territory is almost completely uncharted. Creative experiences, unlike the raw materials of other fields, represent a microcosm of the world, which comes, anew and unprecedented, from within human beings. Each expressive experience leaves a unique imprint upon one's surroundings. Moreover, creative experiences have different meanings at different times in our lives. As children, we may utilize these experiences to bring richness into our ways of exploring the world about us, while as adults, we may engage in creative experiences to struggle through stressful situations and crises.

Perhaps creative experiences represent a stabilizing force within our nature because they permit us to respond in a childlike and meditative manner, directing all psychomotor energies toward a singular activity. Maslow (1978) comments:

In much the same spirit as children concentrate their full attention upon each moment as they play, dance, sing, and create effortlessly, without inhibitions or previous thought, fully functioning persons express themselves fully and autonomously with neither fear of their own thoughts, ideas or impulses, nor concern with the opinions of others (pp. 138-139).
Integration. Maslow's observations suggest that the release of psychomotor energies fulfills a need for pleasurable experiences, as well as a deeply embedded drive toward personal wholeness, through the integration of psyche and soma.

The significance of body-image projection is perhaps the most important tool with which the therapist works. "When a person draws a human figure, or a related configuration such as the house or tree, he projects his personal body-image with all of its somatic and psychical meanings" (Uhlin, 1972, p. 8). Uhlin (1972) notes that "of even more significance, however, are the subtle exaggerations of form which reflect a phenomenal sensitivity to the basic structure and spatial extension of the body mass" (p. 8). Body-image projections, far more than words, give us a multitude of clues to the emotional responses of patients and families to major problem areas of their lives. Thanatologist Elisabeth Kubler-Ross poignantly observes:

Patients "talk" without speech to the person who makes an effort to understand. . . Symbolic language—used in play, and in painting and drawing—is particularly strong in children. They act out with dolls or they communicate with you by means of a picture. In the past year I have worked exclusively with dying children, and their pictures are tools in my work. An 8 year old boy with an inoperable brain tumor drew pictures telling us what he was going through as he approached death. . . . The last picture he drew before he died is an outline of a flying bird. The tip of the upper wing is colored bright yellow, as if reaching up into the sunlight. And this boy, through a telling lapse in speech, confirmed his self-identification with the peaceful, free-flying bird. He pointed out the splash of color as 'a little bit of sunshine on my wing' (p. 35).
"Sharing of painful images," writes art therapist Harriett Wadeson (1980), "may draw one's unique world closer to that of another" (p. 133). Such sharing is especially important for chronically ill and severely disabled persons, and significant others, who frequently are deprived of ordinary opportunities for dialogue with the world.

One of the most difficult components of long-enduring conditions is the separateness and isolation which are imposed upon the individual who is thrust into the 24 hour a day entrapment of a physically irremediable situation. Characteristically, caregivers, as well as professional persons, obtain relief by moving in and out of their responsibilities for the ill or disabled person, for whom there is no avenue of escape except through his or her perceptual and attitudinal windows on the world.

Art therapist Ruth Obernbreit (1979) eloquently reflects upon the issues that affect homebound persons:

They do not go outside for brisk walks, feeling fresh air on their faces; they do not feel the snow on their feet. Everything becomes the same; they reside in the same room, look at the same things. Art responds to this slow and often disguised form of sensory deprivation, as the art experience is a natural provider of sensory input. The creating of original images, smelling paint, feelings the textures of the various materials all give the person new things to respond to. The art therapy experience is also highly responsive to the existing loss of ego integrity which often accompanies severe body disablement. There are painful ruptures in self-esteem, often more obvious than malfunctioning limbs. Art presents a means to feel effective again, to feel some measure of control. The homebound experience tremendous loss in terms of contact with others. In order to cope with their illness they often forfeit being in good contact with their emotional selves, and this, of course, has a
direct bearing on the nature of the relationships they do maintain (p. 60-61).

One of the most valuable attributes of creative experiences is that they broaden the "palette available for communicating...experiences and memories of them" (Betensky, 1973, p. vii), thus expanding the range of one's perceptions beyond the boundaries of his or her physical condition. One cannot create without establishing sensual contact with the surrounding environment. Artist Frederick Franck (1973) writes:

Suddenly I noticed that the strangers' faces in front of me began to look less strange. I was making contact and encouraged by this rapport, I forgot my carefully hatched lecture and started to talk freely about seeing, about drawing as...a way of meditation, a way of getting into intimate touch with the visible world around us, and through it...with ourselves (p. xi).

Making it possible for us to develop fresh new modes of perceiving and establishing new links with the world, creative expression "can be a potent problem-solving aid for both children and adults," (p. 67) writes art educator Betty Edwards (1979):

A drawing can let you see and you feel. Putting that another way, the right brain, by means of a drawing, can show the left brain what the trouble is. The left brain, in turn, can use its own powerful skills--language and logical thought--to solve the problem (p. 67).

Edwards (1979) relates a clinical experience by noting that "once the feeling was drawn, giving form to formless emotions, the child who drew the family portrait may have been better able to cope with his overwhelming sister" (p. 67).
Perhaps the raw material of such transformation is the radically different point of view, arising from the deeply embedded level of intentionality, and awakened by the expressive act. Krishnamurti (1954) writes:

To transform the world, we must begin with ourselves, and what is important in beginning with ourselves is the intention. The intention must be to understand ourselves and not to leave it to others to transform themselves. This is our responsibility, yours and mine; because, however small may be the world we live in, if we can bring about a radically different point of view in our daily existence, then perhaps we shall affect the world at large (p. 43).

Tension-release. Cancer counselor Stephanie Matthews-Simonton (1977) notes:

The greatest responsibility in dealing with chronic degenerative disease is to help patients find an emotional outlet—to move away from the 'stiff upper lip,' and 'don't let people know you're hurting' syndromes imposed by our society.

An important part of acquiring a different point of view is coming to terms with one's feelings to the degree that one is able to recognize his or her feelings and express them in a socially acceptable manner. Art therapist Hanna Yaxa Kwiatkowska (1979) observes:

More recently the emotional problems resulting from severe physical ailments, and chronic, disabling or terminal illnesses have again started to be explored. The preliminary observations of this revised application of art therapy have roused considerable interest. The use of art therapy with patients whose strong, troubled feelings related to their illnesses were otherwise suppressed and there verbally incommunicable, proved to be of great help in their treatment. It soon became evident to the staff of hospitals where these experiments were conducted that this approach opened a unique avenue for the expression of stress, fear, grief, anger, and despair experienced by patients (p. 117).
Art therapist Judith Rubin (1978) discusses the implications of the production and release of tension in therapeutic art experience. She writes:

I thought the implications for the use of art in therapy were manifold—as multileveled as the painting experience itself. The tension-producing and tension-reducing qualities inherent in an involved creative experience are somatically therapeutic. To experience in any sphere "letting go" yet remaining simultaneously aware and ultimately in charge, is a profound lesson. Whether or not the content of the art work is affectively toned...the dynamics of the creative process itself provide an essential learning experience (p. 14).

All human beings need to develop a channeled and controlled ability to "let go," but particularly those who, because of physical or mental disease, are restricted in movement or contact with the outside world. Mala Betensky (1978) also examines the quality of tension and release in creative expression. She notes:

Specific tensions can be perceived in...the intimate relation between color and feeling, in contrasts between large and small forms, in points of contact between forms and lines, in unfinished forms and gestalts, and in sets of relationships between any of these elements (p. 35).

Betensky (1978) goes on to say that lines express meaning in many ways. A line may be soft, rigid or jagged. Lines may relate to one another in much the same manner as people do in conflict, closeness, and distance. Irregular, jagged and sharp-angled lines often represent hate, anger, and rage. "People often perceive in lines motion where there is none, objectively, a quality known as dynamization of lines" (p. 33). Betensky (1976) elaborates:
Color and shading indicate how the maker of the picture responds emotionally to the world which he perceives in his own subjective way. . . . Form assumes very special importance in relation to personality and the state of controls from within, providing boundaries for parts of the art expression as well as the structure of the whole (p. 33).

Art therapist Susan Michal (1979) expresses the manner in which tension is released by children with cancer. She illustrates:

One of the major causes of depression among cancer afflicted children, especially those with tumors, is the disfigurement and demolition of the body. In their productions the children portray their ultimate, often silent, fears. We see man-eating sharks, devouring monsters who come during the night or frail, barely visible people or animals awaiting an attack by unknown strangers. In some cases there is amputation due to tumor growth and the traumatic fear of lost limbs. Many times they illustrate pictures with parts missing but they can't talk about their own lost limbs. To these children their fears are real and their artwork, under its many guises, illustrates these fears (p. 121).

**Therapeutic Art Experience**

Art experience represents a major nonverbal rehabilitation modality. To illustrate how an expressive modality can function as an excellent therapeutic tool for professional people to use to help patients and families deal with their fears and concerns, I will describe my use of art experience.

In my use of art, I generally ask people to create what comes to their mind. Intuitive and without aesthetic intent, the process occurs as the person relaxes and lets his or her thoughts and feelings wander as he or she moves the art materials upon the paper or canvas. If someone is having
difficulty expressing himself or herself, I may suggest various warm-up exercises. Occasionally, after I have established rapport with people, I may be more directive and ask them to portray issues and/or problems which they regard as most central to their lives.

Not only can lines be used to express oneself, but also various colors, shapes and rhythmic configurations intimately reflect personal thoughts, feelings and cognitions. A multitude of combinations of paint, chalk, pencils, ink markers, charcoal, drawing ink, clay and collage materials can be splattered, splashed, rubbed, scraped, brushed, scratched, squeezed, thrown, pulled, or caressed, according to one's feelings, moods, and needs at the time.

One of the most important functions of the expressive therapist is to enable patients and families to employ creative materials to develop emotional outlets. Many feelings (i.e., anger, fear, hostility, frustration, sexuality) can more easily be expressed through art media than real life situations. Those who because of illness or disability, are deprived of ordinary channels of self-expression and tension reduction, such as physical exercise, need special help in releasing their feelings. It is particularly difficult for dependent individuals to give vent to "negative" feelings, for doing so can result in catastrophic relationships with significant others and caregivers, who represent a substantial part of the life support system of the patient. Perhaps one of the greatest services which can be rendered by guiding
persons is to assist these people in using creative media to establish socially acceptable "targets" for anger and a broad range of other inevitable feelings. The following serves as an illustration:

I once had a patient who was terribly agitated when he came to the art therapy session. He was livid, and said that he was so mad at his doctor that he could kill him. When I suggested that he use some art materials to "kill" his doctor "on paper," he worked feverishly for about a half an hour, until he had accomplished the task. Recognizing that it was acceptable for him to express such feelings on paper, he finished the work, and flopped down on the couch, with a sigh of relief and a far more peaceful countenance.

My clinical practices are in accord with Gestalt therapy. Joen Fagan (1976) notes:

The end result in Gestalt therapy was Fritz (Perls) taking the extreme position that "talking about" and interpretation were to be avoided as completely as possible in favor of awareness and experiencing. . . .We ask our patients not to talk about their problems in the removed . . .past tense and memory, but to re-experience their problems and their traumas . . .in the here and now . . .the memory of an experience--simply talking about it--leaves it isolated as a deposit of the past . . .the uncompleted event . . .waiting to be assimilated and integrated. It is in the here and now . . .that this assimilation must take place (p. 65).

Joseph Zinker (1977), an artist and Gestalt therapist, combines creative process with Gestalt therapy in working with his patients. The therapist, writes Zinker, "is able to appreciate the. . .landscape of his patient's existence, his
physical being, his grimaces, gait, and walk (p. 23) as he
enables the client to locate and mobilize his or her energy by
developing an awareness of nonverbal attributes and finding
ways to express them. Creative activity, according to Zinker,
unlocks areas of tension in the body and keeps energy flow­
ing.

Applying Zinker's ideas to practice, one can observe
that fear is sometimes unblocked by asking the patient to
draw the worst thing that can possibly happen. If, for ex­
ample, a patient is dreading a trip to his physician, he
might be asked to draw the worst thing which could happen at
the physician's office. Oftentimes when fears and concerns
are brought out into the open where they can be examined and
clarified, they become less awesome than when they remain
hidden and mysterious. This procedure is also helpful when
one repeatedly has terrifying dreams. Freud (1963) stated:

We experience it (a dream) predominantly in visual
images, feelings may be present, too and thoughts
interwoven in it as well, the other senses may
also experience something, but nonetheless it is
predominantly a question of images. Part of the
difficulty of giving an account of dreams is due
to our having to translate these images into words.
"I could draw it," a dreamer often says to us, "but
I don't know how to say it" (p. 90).

Believing that nonverbal experiences are catalysts to
verbal communication, I encourage the patient to discuss
his or her art work. It is the interpretation of the patient,
rather than the therapist, which is of utmost importance. If
obvious elements are omitted by the patient, from an expres­
sive work, perhaps he or she is not yet ready to deal with
them. One of the advantages of expressive therapies is that they permit people to disclose no more than they can handle and/or restructure into a manageable entity. After I establish rapport with people, I may be more directive and ask them to draw their illness, their pain, or whatever issue in their lives they regard as most central. Creative arts are powerful tools not to be put in the hands of a novice. There are times when people express ideas that are quite terrifying to them and the professional person must know how to handle these situations. The important point is that drawings can often tell us how sick a person is, as well as give us feedback as to where the patient feels he is in his situation. In essence, the art work frequently tells us what we as guiding people need to know and also what the patient is ready to know. This is why the therapist needs to be aware of the dangers of making premature interpretations. There are professional persons who do make interpretations, but I personally do not feel comfortable with this.

Cautions. My personal feeling is that the evocative power of art is so fascinating that it is very easy to be led astray in handling visual statements produced by patients. Only highly skilled guiding persons should make decisions within the realm of diagnosis and interpretation of creative imagery. "It is a delicate task to help a person grasp what is just at the threshold of consciousness, whether it involves facing death or preparing for a renewed life," writes Gregg Furth (1981).
Relatively few art therapists actually interpret the art productions of their patients. Rather, they function as facilitators who assist people in making connections between their pictorial images and their words in order to create verbal statements which reflect their thoughts and feelings. I strongly feel that my role is not to interpret, but to encourage persons and/or families to interpret their own art work. My views are concordant with art psychotherapist Helen Landgarten (1975), who states:

Of crucial importance is the art therapist's respect for the client's interpretation. I do not deny the nature of universal symbols, but I feel that the therapist's real integrity lies in listening to each individual's own symbology, which meets his needs at a particular stage of his life. An example... is a clock. Certainly this symbol would hold a different meaning for a child, a young adult, and an older person (p. 65).

Other Expressive Modalities

Although the focal point of my work is the plastic and graphic arts, I also recognize the value of other creative modalities, and employ them in my work with people. To delve deeply into their literature, however, is beyond the scope of this dissertation. Hence, I will present only a brief overview of other forms of creative expression.

Relevant literature documents that music, (Gilbert, 1977; Gaston, 1968; White and Allen, 1966), creative writing (Rainier, 1978), poetry (Leedy, 1973, 1969; Lerner, 1978), and other modalities, such as movement therapy (Feldenkrais, 1977), as well as the graphic and plastic arts, are exceedingly
valuable in making it possible for people to combat circum-
stances which are overwhelming to them. I personally use
all of these therapies in various combinations with my social
work skills, in accord with what people decide that they
need from me.

Believing that when awareness, the highest stage in
man's development, "is complete it maintains a harmonious
'rule' over the body's activities" (p. 172), Feldenkrais
(1977) has developed a program of exercise to enable people
to improve posture, vision, imagination and personal under-
standing. As brought out in earlier parts of this dissert-
atation, certain movements of the body play a tremendously
important part in activating the healing properties of ex-
pressive therapies. Perhaps these movements are so crucial
because they generate self-awareness and inestimable fulfill-
ment, which lead to integration of both psyche and soma.

Simple activities, which also serve to integrate, are
listening to music, singing, playing rhythmic instruments and
clapping hands. Perhaps the mysteries surrounding the inte-
grative powers of the various forms of creative expression
are deeply embedded in their rhythmic qualities. A recent
study has demonstrated that a standing wave produced by the
heart-aorta system creates a small seven-cycle-a-second oscil-
lation in the human skeleton (Leonard, 1978, p. 5). Leonard
(1978) notes that the vibrato, or "slightly tremulous or
pulsating effect for adding warmth and beauty" to the voice,
of certain singers, "precisely matches the theta-wave state
of the brain" (p. 4). It is the theta-state which occurs between waking and sleeping, and is often associated with the inspirations which come to creative persons. Leonard (1978) suggests that a "powerful vibrato might have the effect of capturing the rhythm in our own brains, thus creating the condition of reverie in which mysteries are revealed" (p. 4). Contemplating the powerful effect of rhythm, Leonard (1978) writes:

At the heart of each of us, whatever our imperfections, there exists a silent pulse of perfect rhythm, a complex of wave forms and resonances, which is absolutely individual and unique, and yet which connects us to everything in the universe. The act of getting in touch with this pulse can transform our personal experience and in some way alter the world around us (p. xii).

Contact with the world of nature, through tactile stimulation, seeing, and drawing/painting/sculpting, also represents an extraordinarily healing experience. Franck (1973) expresses the integrative aspects of our relationship with nature:

Now, open your eyes and focus on whatever you observed before—that plant or leaf or dandelion. Look it in the eye, until you feel it looking back at you. Feel that you are alone with it on Earth! That it is the most important thing in the universe, that it contains all the riddles of life and death. It does! (p. xiv).

An Art Studio in a Hospital Setting

Highland View Hospital, in Cleveland, Ohio, has created an art studio that provides for the psychosocial needs of disabled persons and their families. The studio has
facilities for painting, ceramics, photography, music, and gardening for inpatients and outpatients. Patients participate voluntarily and can be referred to art therapists through the social service, speech therapy, occupational therapy, and psychiatric departments of the hospital. Outpatients can use the facilities at no charge, but they are asked to make a donation for supplies, if possible (Idea For Forum, 1979, p. 20). The program at Highland View has been established for a number of years, and is one of the most noteworthy and well-developed expressive therapy programs in the country.

The complex pathology of the severely disabled, deeply troubled patient makes it especially urgent for him to take initiative and decide for himself what he wants to do. In therapeutic programs geared to patients' defects and enforced inactivity, the opposite inevitably occurs: professionals choose and introduce activities in the hope of stimulating the patient to do something. In the Art Studio we are able to get away from this dilemma. We assume that people who don't seem motivated are simply blocked. More easily than the various therapy departments, the Studio can let matters take their course. The interest is in art and in individuals with their endlessly surprising capacities. As a result, patients are less threatened and therefore often respond more readily than in other parts of the hospital (Idea Forum, 1979, p. 23).

In the Studio, many emotional problems are naturally worked out in creative ways. The Studio adapts to the physical needs of the individual by letting him draw with a pencil between his teeth or in his hand, and attends to his personal needs by providing an opportunity for him to write a poem, weave a wall hanging, tear up paper, or just watch others at work (AJAT, 1971).
Jimmie had been paralyzed in all four extremities since he was eight. At the age of 16, he sat propped in his chair in the Studio, watching. The only world he had known had been hospitals and nursing homes where he underwent a series of operations. He seldom tried. Gradually Jimmy began to move more easily and to use color, at first just as it came from the tube but later in a very personal way. His work was now changing. Absorbed in colors and shapes, he broke out of his triangle and began to fill the whole page—the painting flowed. Then the paper became a window into a much greater space, where all kinds of feelings and ideas could emerge and come into play. Today, Jimmy is 20 years old, and his latest triumphs were displays of his paintings in both hospitals. At the opening reception held in the hospital where he is now a patient, he recited nine of his poems to specially invited guests and a large portion of the staff. He was remarkably poised and effective. (American Journal of Art Therapy, 1971, p. 148)

I personally believe that places such as The Art Studio represent an oasis in the midst of the bureaucratic institutions of a rapidly paced technological-industrial society. If more of our hospitals and schools could have such places of refuge, I think that an inestimable amount of prevention of psychological and emotional problems would result. Unfortunately, as the budgets of our educational and social programs are whittled, and creative arts programs, which enable people to discover their identities in nondrug ways, are eliminated in the name of doing away with "frills," the "cost," in personhood, rises accordingly. There are very few individuals who do not respond positively to some form of creative expression. Although creative experiences are not a panacea, they enable human beings to minimize the inevitable feelings of isolation and separateness, by establishing a healing bond with their surroundings.
A Hospital Journal

I previously suggested in this section, writing poetry and/or keeping a journal, often enhance the healing proper-
ties of the various kinds of creative expression. When I
work with patients, I frequently ask them to write either a
poem, or a paragraph about their art work. Characteristical-
ly, the art expression functions as a catalyst to elicit
meaningful verbal dialogue. When words are not close to the
threshold of consciousness, images, colors, lines and forms
oftentimes are. It is not uncommon for the words to come
tumbling out as nonverbal expressions take place.

The following words are from a hospital journal written
by a young woman who was diagnosed with Hodgkin's Disease at
age thirty, while pregnant with her third child. Not only was
her own life threatened, but also that of the unborn infant,
because of the necessity of her undergoing surgery as well
as radiation therapy. During the months that she was at
war with cancer and the noxious side-effects of the treat-
ment, her husband left her and the children to marry the baby
sitter. The journal is a reflection of her inner thoughts and
feelings toward doctors, nurses, fellow patients, and all of
the other aspects of her hospital experiences, as well as
toward the effects of the circumstances upon herself and her
family. The important lesson of this book is that creative
activity and a sense of humor can enable a person to discover
hope, even in the worst kind of situation. Secondly, when
nothing else can be changed, our attitudes can transform morbidity into a constructive and meaningful activity of teaching other persons how to live life to the fullest. The author retains enough of her child-like resourcefulness to accomplish this task. The following are some excerpts from the diary of Laurel Lee (1977):

Saturday--October 4, 1975. . . The doctors were too serious for me not to be serious. I made an appointment within myself to consider dying. I wanted to look in the face of death, sit on its lap and smell its breath.

I had seen life as an ongoing stream that I was just immersed in. I always felt that its path would take me to the outermost parts of the earth. Port­land was only a temporary camping spot for the nurture of young children. In one stroke I cut with some mental shears that fifty-more-year river, leaving me a short stretch.

I cried. I wept sore. I wanted the privilege of guiding the arrows of my children and giving them the wisdom that could shoot them into the high place.

I was melancholy. My memory pulled out special days and old ways that had had their fragrance.

Even the meditation of death progresses. It was like a dark glass I had to pass through. Death is the last enemy. Music came. Chorus and voices, in tones and scales, in patterns and textures, repeating a joyous sound.

I was free. I felt I could fly around the room. I knew it would all have to be faced again; some more black-and-white runs, and once in living color (pp. 12-13).
Summary of Literature Review

While working with patients and families at the O.S.U Hematology-Oncology Clinic, I became awed by the human will for survival and the limitless capacity for adaptation. As I closely witnessed people continually deal with horrendous and unremitting stress in order to live with cancer, I grew increasingly aware of the need for professional persons to create new ways of helping human beings to achieve stress resolution and expand their ability to adapt to surroundings.

Verbal Therapies

A multitude of verbal therapies exists to help people cope with stressful life situations. These therapies, however, are limited in certain respects. One, many persons do not have the verbal fluency to use these modalities to the fullest. Two, words are often laden with emotionally-threatening connotations that prevent even highly articulate individuals from expressing a wide range of cognitions and feelings. Three, cultural taboos of our pleasure-oriented society make it difficult or impossible for most persons to openly discuss certain life events, such as infirmity, loss, grief, and death. One can, for example, conjecture that it would be easier for most of us to draw a picture of death.
than to sit and talk about it. Four, verbal therapies are
devoid of psychomotor activity and primarily address them­
selves to the intellect and emotions, but not to the body;
thus leaving out a vital dimension of sensations and behaviors
which are an integral part of the processes of personal change
and growth.

Non-Verbal Modalities

My exploration of various therapies has led to my con­
viction that non-verbal modalities as well as relaxation tech­
niques represent viable therapeutic tools to combine with
my social work counseling skills to enable people to cope with
stressful circumstances.

Perhaps the most important component of stressful events
is the manner in which people respond to them. The physical
concomitants of stressful circumstances generally cannot
be reversed, but attitudes toward them and ways of coping
can be changed. The human potential for adaptation undoubt­
edly represents a vast reservoir of untapped inner resources.

Regardless of whether it is chronic illness/disability,
terminal disease, loss of work, divorce, or the constant care
of a brain damaged child, individuals who are living with
painful and irremediable circumstances inevitably have many
experiences which are indescribable in verbal language. When
the need for self-expression is beyond the boundaries of
words, creative expression is often invaluable in permitting
people to mobilize and redirect their energy toward new meaning and purpose in their lives.

Quite frequently, creative experience will lead to verbal expression of thoughts and feelings. The function of expressive experience as a catalyst eliciting verbal dialogue is an important survival tool for human beings to utilize to deal with feelings (i.e., fear, anger, frustration, resentment, hostility) which they find so difficult to verbalize with significant others, caregivers and medical personnel. One of the most important things that professional persons can do for those living with long-enduring illness/disability is to help them find outlets for their feelings. Non-verbal expressive therapies can meet some extremely vital needs in enabling patients to develop emotional outlets. A patient, for example, can express feelings toward a physical condition without the risk of social disapproval.

Further, the psychomotor activity in these modalities enables patients/families to regain a sense of control over their surroundings as they release tension and energy through their creative work. Such activity is especially vital to incapacitated individuals who cannot make full use of physical exercise as a mode of stress-reduction. Perhaps the most important quality of expressive modalities is their ability to make it possible for patients/families to override tremendous limitations by enlarging their storehouse of options for adapting to life crises.
Art Experience

Art experience represents a major non-verbal modality. To illustrate how an expressive modality can function as an excellent therapeutic tool for professional people to use to help patients/families deal with their fears and concerns, I will describe my use of art experience.

In my use of art, I generally ask patients to create what comes to their mind. Intuitive and without aesthetic intent, the process occurs as persons relax and let their thoughts and feelings wander as they move the art materials upon the paper or canvas. Occasionally, after I have established rapport with people, I may be more directive and ask them to draw their illness, their pain, death, or whatever issue in their lives they regard as most central.

Not only can lines be used to express oneself, but also various colors, shapes and rhythmic configurations intimately reflect personal thoughts, feelings and cognitions. A multitude of combinations of paint, chalk, pencils, ink markers, charcoal, drawing ink, clay and collage materials can be splattered, splashed, rubbed, scraped, brushed, scratched, squeezed, thrown, pulled, or caressed, according to one's feelings, moods and needs at the time.

Other Modalities

The literature documents that music and creative writing, most frequently poetry, as well as the graphic and plastic arts, are exceedingly valuable in making it possible for
people to combat circumstances which are overwhelming to them. I utilize all of these modalities in various combinations with my social work skills in counseling, in accord with what patients/families decide that they need from me.

Simple activities, such as listening to music, singing, clapping hands, playing of instruments, putting words together in a poem, and keeping a journal are invaluable in enabling people to develop emotional outlets. Contact with things from nature through tactile stimulation, seeing and drawing, also represents an extraordinarily healing experience. Communion with nature is a most natural way for human beings to come to peaceful terms with the issues of life and death.

**Personal Viewpoints**

My personal viewpoint is that therapeutic modalities are primarily educational ventures in which individuals learn to achieve personhood on all levels: a) cognitive; b) affective; and c) intuitive. I believe that therapies are educative tools rather than curative agents. Each modality is appropriate for certain persons, but never for everyone. No therapy is a panacea. Each innovative modality simply adds to the storehouse of tools for human adaptation.

In contrast to my role, which focuses upon the day to day events in the lifestyle of the patient, I view the role of the health professional as dealing with diagnosis and treatment of physical symptomatology. My role is complementary with that of the health professional; beginning where
his/her role ends. My responsibility is to educate the patient and significant others to utilize every possible resource (physical, emotional, and spiritual) to live their lives to the fullest in the manner which they so choose. Central to this process are the patient's self-image and sense of personhood, quality of expressiveness, and ability to make decisions, all of which are strengthened by non-verbal kinds of experiences.

Summary

When we merely "talk about" our difficult circumstances, we oftentimes go around in circles with neither a sense of direction nor feelings of resolution or completion. In so many instances, the events of our lives are indescribable in verbal language. When our need for self-expression is beyond the boundaries of verbal language, creative experiences often permit us to release our energies, change our attitudes, and move toward new purpose and meaning in our modes of living.

Frankl writes:

(T)he freedom of...man is a freedom within limits. Man is not free from conditions, be they biological or psychological or sociological in nature. But he is, and always remains, free to take a stand toward these conditions; he always retains the freedom to choose his attitude toward them. Man is free to rise above the plane of somatic and psychic determinants of his existence (p. 3).
CHAPTER III
RESEARCH METHODOLOGY

This chapter focuses upon the following components of the research methodology: design, subjects, group monitors, procedure, inventories, variables and hypotheses.

Design

The study, a variation of the classic pretest-posttest design (Campbell and Stanley, 1968) is a multigroup posttest-only design (Huck, Cormier and Bounds, 1974) which consists of a) random assignment of subjects to four comparison groups, b) exposure of each group of subjects to a different expressive/relaxation experience, and c) collection of post-test data from each subject.

The multigroup posttest-only design is identical to the posttest only control group design except for the number of groups involved in the study and also the fact that there is not a "no treatment" group. The decision to utilize the comparison, rather than the control group design was prompted by the following remarks of Campbell and Stanley (1968):

The comparison of X with no X is an oversimplification. The comparison is actually with the specific activities of the control group which have filled the time period corresponding to that in which the
experimental group receives the $X_1$. Thus the comparison might better be between $X_1$ and $X$ or between $X_2$. That these control group activities are often unspecified adds an undesirable ambiguity of $X$. Bearing these comments in mind, we will continue in this section the graphic convention of presenting no $X$ in the control group (p. 13).

The diagram of the research design appears in Table 1, in the introductory chapter.

Subjects

The subjects participating in this study, conducted during the Fall Quarter of 1980, were undergraduate students enrolled in the Allied Medical Professions Physical Therapy Division at The Ohio State University. Response data from sixty-six subjects, randomly assigned to four comparison groups, were utilized. The data appearing in Table 3 reveal that approximately ninety percent of the subjects were female seniors. Demographic data concerning the senior class of physical therapy students at The Ohio State University, collected in a study at The University of Pittsburgh School of Health Related Professions Department of Physical Therapy, indicate that the majority of the senior class were unmarried Caucasian females approximately twenty-three years of age. The data from the University of Pittsburgh study appear in Table 4.

The participants in the research agreed to the terms delineated on the sign-up sheet, which informed them that they would: a) participate in a study of mood/feeling state fluctuations accompanying various modes of self-expression;
<table>
<thead>
<tr>
<th>Descriptive Variable</th>
<th>Descriptive Group</th>
<th>Number of Students in Each Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex</td>
<td>Male</td>
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<td></td>
<td>Female</td>
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<tr>
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<td></td>
<td>Senior</td>
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<tr>
<td>Comparison Group</td>
<td>A (Creative art media)</td>
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<td></td>
<td>B (Written words)</td>
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</tr>
<tr>
<td></td>
<td>C (Relaxation)</td>
<td>24.2</td>
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<td></td>
<td>D (Music listening)</td>
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Note: Total Sample = 66
TABLE 4: Profile of the Physical Therapy Class of 1980 at The Ohio State University

<table>
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<th>Descriptive Variable</th>
<th>Descriptive Group</th>
<th>Number of Students in Each Group</th>
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<td>Mean Age</td>
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</tr>
<tr>
<td></td>
<td>Other</td>
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</tr>
</tbody>
</table>

Note: This study of the Physical Therapy Class of 1980 at The Ohio State University was completed at The University of Pittsburgh Department of Physical Therapy.
b) enter into different kinds of simple expressive tasks, and
c) encounter a moderate amount of stress in the first part of
the experimental session. Subjects were informed that their
responses would be kept confidential. They were also en-
couraged to ask questions about the research after termina-
tion of the experimental session. The Sign-Up Sheet Form
and the Subject Consent Form are included in Appendix A.

The primary disadvantage of using a particular college age
population in this research is that it raises some questions
about the generalizability of the study. Is this group of
physical therapy students representative of college age pop-
ulations in general? Are university students likely to re-
spond in the same manner as so-called average adult indivi-
duals? Are the responses of these research subjects general-
izable to persons with long-enduring illnesses and disabili-
ties? Recognizing that the generalizability of this research
is a moot point, my views reflect the opinion of Campbell and
Stanley (1968), who believe that the concept of generalizabi-
ility is illogical, since one really cannot generalize beyond
a sample within the laws of probability. Campbell and Stan-
ley write:

We should keep in mind that the "successful" sci-
ences such as physics and chemistry made their strides
without any attention to representativeness (but with
great concern for repeatability by independent re-
searchers). An ivory-tower artificial laboratory
science is a valuable achievement even if unrepre-
sentative (p. 18).

Every effort was made to ensure the repeatability of this
project. Above and beyond the issue of repeatability, it is
important to keep in mind that the primary aim of this study was to examine the effects of various kinds of expressive and relaxation experiences, rather than to achieve representativeness. There is little doubt that the evaluation of the behavior of physical therapy students during the research may give valuable insights into the behavior of other groups, such as the chronically ill and disabled, during expressive and relaxation activities.

The main advantage of using physical therapy students for this study is the homogeneity of the group relative to demographic variables, such as age, intellectual ability, and socioeconomic status, as well as physical stamina evidenced in the stresses and pressures of the day to day life styles of the subjects. The initial plan to utilize hospitalized patients as subjects for this project was abandoned because of the likelihood that patient groups would vary greatly in all of the preceding attributes and thus markedly affect the outcome of the research. Secondly, it would be virtually impossible to control all of the variables attributable to an outpatient/inpatient environment characterized by noise, physical discomfort, interruptions and unexpected events. Thirdly, there would be no means of accounting for individual variances due to physical conditions (i.e., diagnoses, disease progression, treatment side-effects).
Group Monitors

A complete set of instructions for the experimental session was prepared in writing and distributed during the beginning of the session to all of the subjects, prior to randomization, in order to a) minimize the variable of personal interaction which would inevitably accompany verbal interchange; and b) establish uniformity from group to group in regard to all of the components of the experiment.

To make certain that each subject followed these written instructions of the introductory presentation, an Ohio State University graduate student was assigned as a monitor to each of the comparison groups, which met simultaneously during the experimental session. Prior to the experiment, each monitor was given information about the goals and methodology of the study, in addition to training in the directing of group activities.

The purpose of the four monitors, other than to ensure uniformity of activity between groups, was to a) prepare the room by setting up equipment, distributing activity manuals, inventories and other supplies, and cleaning up after the session; and b) direct the sequence and timing of experimental activities by playing tape recordings at appropriate times and making verbal announcements to begin and end each activity at its scheduled time.

Appendix A contains the Introductory Presentation to Subjects Form, providing instructions for the experimental
activities, as well as a copy of the Activity Manual for the Research Session, providing special directions for the investigator and monitors.

Procedure

_training group monitors_. Prior to the experiment, the four monitors were given a brief overview of the goals and methodology of the present study. Subsequently, they were presented with copies of the Introductory Presentation to Subjects Form and the Activity Manual for Research Subjects, to read and question. Thirdly, they were given a special monitors' edition of the Activity Manual for Research Subjects, which delineated their specific tasks relative to the timing and sequence of the activities of the different comparison groups.

During the training period, the monitors were given an opportunity to experience the mental arithmetic stress situation in order to test its efficacy. Monitors were also familiarized with the purpose and function of the following inventories to be completed by the subjects during the study: the State-Trait Anxiety Inventory (STAI) (Spielberger, Gorsuch and Lushene, 1970); the Rotter Internal-External Locus of Control (LOC) (Lefcourt, 1976); and the Profile of Mood States (POMS) (McNair, Lorr, and Droppleman, 1971). A copy of the Activity Manual for Research Subjects, for the investigator and monitors, is presented in Appendix A.
Subject selection. Sixty-six undergraduate students in the Physical Therapy Division of Allied Medical Professions at the Ohio State University elected by means of a sign-up sheet, to participate in this study as an option for receiving academic credit for a special project. Not until all of the students were randomly assigned to the four comparison groups at the time of the experimental session were they informed of the specific group activities in which they would be involved in the study. All subjects who participated in the experiment signed consent forms during the research session.

Comparison groups. The experiment took place within a week after the subjects put their names on the sign-up sheet. The comparison groups met simultaneously, during the early evening hours, in four classrooms at the Ohio State University Allied Medical Professions Building. The experimental session consisted of the following activity sequence for all subjects: a) the introductory presentation of instructions to the subjects and subsequent random assignment by the investigator (10-15 minutes); b) the reading and signing of the consent form (3 minutes); c) a mental arithmetic test (5 minutes) preceded by a review of instructions for the test (1 minute); d) the expressive activity (approximately 30 minutes) preceded by the reading of instructions (3 minutes for Groups A and B) and (1 minute for Groups C and D); e) the completion of pencil and paper inventories (about 10-15 minutes--
depending upon the working speed of the subjects); and f) a question and answer period following the experiment (time dependent upon subjects' requests for questions and answers).

The total time for the experiment was approximately one hour, thirty minutes, allowing a fifteen minute question and answer period at the end of the session.

The details of all of the preceding activities are delineated in the Introductory Presentation to Subjects Form, and the Activity Manual for Research Subjects (edition for subjects) in Appendix A.

**Mental arithmetic stress situation.** For the stress situation, adapted from the work of Nidich and others (1977) and Sokoloff and others (1955), five cassette tape recordings (one extra in case of breakage) were made of a metronome beating every 1.7 seconds. Each group monitor played the tape recording, during which time the subjects were asked to subtract 17 from a remainder (beginning with the number, 3194) each time they heard the sound of the metronome. At no time could pencil or paper be used. All calculations were to be mental. The subjects were asked to keep pace with the calculations throughout a five-minute period, recording their end result (last calculation) in the proper blank on page one of their activity manual.

**Expressive and relaxation activities.** The activities in the four comparison groups were as follows: the use of creative (art) media (Group A); the use of written words (Group B);
the relaxation experience induced by a stress-management tape (Group C); and a music listening experience (Group D). The operational procedures for each of these groups are presented in the section, dealing with independent variables, near the end of this chapter.

Inventories

State-Trait Anxiety Inventory—A-State (STAI-A). The self-administered A-State scale of the STAI (Spielberger, Gorsuch, and Lushene (1970) measures transitory anxiety (A-State), as opposed to an enduring and relatively stable anxiety-proneness (A-Trait) possessed by certain individuals. State anxiety, which may vary in intensity and fluctuate from moment to moment, is conceptualized as an emotional state occurring at a particular moment in time and reflecting heightened autonomic activity as well as subjective, consciously-perceived feelings of tension, nervousness, worry, and apprehension.

The A-State scale is composed of twenty statements (sub-scales of ten direct and ten reversed items) asking subjects to express how they feel "right now," at this point in time. The answers, made on a four-point scale, vary from "not at all" to "very much so."

According to Spielberger, Gorsuch and Lushene (1970), both A-Trait and A-State scales have a high degree of internal consistency. Test-retest correlations for the A-State scale,
given to college students over a time interval of one hour, reportedly range from .16 to .54. Low r's are expected, since the A-State scale is designed for sensitivity to the unique aspects of testing situations. A-State alpha coefficients, computed by a variation of K-R 20, range from .83 to .92 for normative samples. Both alpha reliability and item-remainder coefficients tend to be higher for the A-State scale under psychologically stressful conditions. Psychologist Ralph Dreger, in *The Mental Measurements Yearbook* (1978), describes the revised STAI as "one of the best standardized of anxiety measures, if not the best" (p. 1095).

The validity of the A-State scale has been empirically demonstrated in so far as scores increase in response to stress situations and decrease as a result of relaxation. Among the studies attesting to the construct validity of the A-State scale is that of Lazarus and Opton (1966), who reveal considerably higher mean A-State scores in exam than in normal conditions, for male as well as female college students. In the same experiment, the mean score for both the A-State scale and individual items, was lowest in a relaxation experience and highest after the students viewed a stressful film.

Other studies investigating the effects of various kinds of stressful circumstances on A-State scale scores of college students are those of Sachs and Diesenhaus (1969) and Lamb (1969), which demonstrate a significantly higher mean A-State score in the stress, than the nonstress situation.
Spielberger, Gorsuch and Lushene (1970) remark that the findings of various experiments suggest that either females tend to exhibit more emotional lability than males, or the former are more apt to report their genuine feelings.

Two research efforts of particular relevance to this pilot project are the following. Using the STAI/A-State to investigate the effects of primary colors on anxiety states of forty undergraduates, Jacobs and Suess (1975) found that red and yellow groups exhibited significantly higher A-State scores than the blue and green color groups.

A comparison of muscle relaxation training and music in reducing state and trait anxiety (Stoudenmire, 1975), supported Spielberger's state-trait theory by indicating that brief anxiety reduction techniques are effective for state, but not for trait anxiety. Stoudenmire's research also suggested that relaxing music can be as effective in reducing state anxiety as training in muscle relaxation.

A copy of the STAI/A-State inventory is included in Appendix B.

Rotter Internal-External Locus of Control (LOC). The Internal-External (I-E) Scale, developed by Julian Rotter in 1966, is designed to measure generalized expectancies toward internal versus external control of reinforcement.

The LOC I-E Scale is a twenty-nine item forced choice questionnaire including six filler items adapted from the sixty-item James Scale. It is scored in the external direction (the higher the score, the more external the individual).
The scores range from zero (reflecting the belief that one is always in control) to twenty-three (one is always controlled by external forces).

Rotter (1971) states, "Rewarding a behavior strengthens an expectancy that the behavior will produce future rewards" (p. 37). He elaborates:

It seemed to me that, at least with human beings who have begun to form concepts, the important factors in learning were not only the strength and frequency of rewards and punishments but also whether or not the person believed his behavior produced the reward or punishment (p. 37).

While some persons believe that reinforcements in their lives are under their control and contingent upon their behavior (internal LOC), others think that reinforcements are not dependent upon their behavior, but, rather, originate outside their control, in the environment (external LOC).

Viewing internal-external qualities on a continuum, Rotter (1971) suggests that internal persons tend to feel relatively powerful and confident in their ability to shape their destinies. "They tend to be sure of themselves, richer and better educated, and to be more readily able to (accomplish such tasks as) quit smoking" (p. 37). Frequently perceiving themselves at the mercy of their environment, external people, on the other hand, are apt to feel manipulated by powerful others and/or outside forces. Often believing that they are pawns, controlled by the environment, externals tend to be unassertive and suspicious of others.
In the LOC literature, it is frequently suggested that an individual's belief system, relative to a sense of control, is an important determinant of his or her feelings of mastery over life and modes of coping. As people cope more effectively and resolve crises in their lives, and, as they gain feelings of control over their life circumstances, their sense of helplessness is purported to diminish. Many art therapists contend that creative experiences enhance one's feelings of mastery and control over life events. Yet, no one has ever put this idea to the test. It is my intention to find out if there is a significant relationship between creative activities and LOC.

Ronald Smith (1970), has investigated changes in locus of control as a function of life crisis. He points out that although the construct validity of the I-E Scale has been demonstrated in numerous studies, there have been relatively few clinical investigations of this measurement tool. Smith's findings reveal a significant change in mean I-E score within a crises resolution group, but no change in the noncrises group.

Houston (1972) has studied the relationship between LOC and response to stress. His findings were: a) subjects found a threatening situation in which they had no control more anxiety-evoking than one in which they experienced some measure of control; b) heart rates of subjects increased when they felt in control, as opposed to when they did not sense control; c) internal subjects experienced more
physiological (heart rate) arousal under stress than did externals. Houston also suggests that the LOC scale may measure tendencies for the use of defensive maneuvers.

Lefcourt (1976), who has compiled an extensive review of locus of control research, observes that although quite a few investigators are interested in the effects of perceived control in "real life" aversive circumstances, such as medical and surgical stress, the status of this research is "too exploratory for a detailed discussion" (p. 144). Lefcourt (1976) nevertheless concludes that there is little doubt that "perception of control has some profound effects upon the manner in which organisms come to grips with adversities" (p. 144).

Another promising observation made by current researchers is the possibility that internally controlled S's may be more disrupted by external situations, such as physical disability, than externally controlled subjects in an internal situation. Lipp, Kolstoe, and James (1968) speculate:

Since the disabled person is in an external type of situation, it would be consistent that the internally controlled subject would be more threatened and hence more denying than the externally controlled subject. . . . the I-E personality construct does account for some of the variance of denial of disability and is potentially a predictive variable of rehabilitation success (p. 75).

These researchers pose some important questions. Do feelings of control enhance stress resolution and coping? Does a sense of mastery increase or decrease physiological (heart rate) arousal? Are internal individuals more apt to
find fulfillment in creative experiences than external persons? What effects do expressive modalities have upon LOC?

The Rotter I-E Locus of Control inventory appears in Appendix B.

Profile of Mood States (POMS). The POMS (McNair, Lorr and Droppleman, 1971) is a factor analytically derived inventory to identify and assess the following transient and fluctuating affective states: a) tension/anxiety (T) -- descriptive of heightened musculoskeletal tension; b) depression/dejection (D) -- reflecting a mood of depression accompanied by personal inadequacy; c) anger/hostility (A) -- representing feelings of anger and antipathy toward others; d) vigor/activity (V) -- suggesting vigorousness, ebullience and high-energy; e) fatigue/inertia (F) -- reflecting a mood of weariness, inertia and low energy level; and f) confusion/bewilderment and muddle-headedness (C); and g) friendliness (Fr).

The POMS yields a score for the preceding mood factors, obtained by totaling the responses to adjectives descriptive of these factors. The instrument also provides a mood disturbance (MD) index, which is a composite of the scores for the individual mood factors (T, D, A, V (negatively weighted), F, and C). The friendliness factor (Fr) is regarded by Lorr as a trait or semantic, rather than mood factor.

The POMS is composed of sixty-five adjectives, reflecting mood states (transitory qualities) as opposed to traits (long-enduring characteristics), rated on a five-point (0-4)
Likert scale ("not at all," "a little," "moderately," "quite a bit," and "extremely").

Generally, the research data for the POMS are based on a one-week rating period, although shorter time periods, such as "today," "right now," and "in the past three minutes" have been used. Although the outcome of the "right now" experimentations was successful, the reliability and validity of the POMS as a measure of moment to moment mood state changes is still not firmly established. McNair, Lorr and Droppleman (1971) caution that most of the data in the manual pertain to a one-week rating period and, unless otherwise indicated, should not be regarded as applicable to time periods of less duration. In spite of its questionable nature, the POMS, to my knowledge, is the only measure of such a wide range of transitory affective states. The Multiple Affect Adjective Checklist (MAACL) evaluates moods of depression, anger and hostility, but it, too, is of questionable reliability and validity relative to momentary fluctuations.

The reliability of the POMS (one-week), based on K-R values ranging from .84 to .95, is quite satisfactory. Test-retest correlations range from .65 to .74, with a median of .69. This difference reflects the purpose of measuring transient and fluctuating affective states, in that a measure of high reliability is not apt to be sensitive to changes in a situational state. According to McNair, Lorr and Droppleman (1971), studies in responses to emotion-inducing
conditions have demonstrated the predictive and construct validity of the POMS.

Among the researchers who have used the POMS for purposes similar to mine are Dimsdale and his associates (1978), who investigated the emotional correlates of Type A behavior pattern, associated with coronary heart disease. The findings of these researchers indicated that Type A was significantly correlated with the accumulation of stressful life events, according to the 42-item Schedule of Recent Events (p<.01), current tension (POMS) (p<.0005), depression (POMS) (p<.0008) and anger (POMS) (p<.0007).

Stitt, Frane and Frane (1977) have used the POMS with medical patients. They conclude that the POMS is useful for assessing the mood of patients with rheumatoid arthritis, as well as determining mood changes elicited by the use of medication to relieve arthritis symptoms.

Despite the fact that the reliability and validity of this instrument for "right now" situations has not been clearly demonstrated, I think that the use of the POMS in this project has provided some valuable insights into the nature of mood changes generated by expressive and relaxation experiences.

A copy of the POMS appears in Appendix B.

Variables

Independent and dependent variables were discussed conceptually in Chapter II. In this section, these variables are operationally described.
**Independent Variables.** The independent variables in this project are the expressive and relaxation activities in the four comparison groups: a) use of creative materials; b) use of written words; c) relaxation induced by a stress-management tape; and d) music listening experience. These activities are specifically delineated below.

Subjects in Group A were asked to use creative materials (oil pastels, markers, water colors, clay, pencil) to let their imaginations guide them in expressing present feelings/moods as they worked from moment to moment. After they were given some brief guidelines as to how people in general can use lines, colors, and shapes to express thoughts and feelings, subjects were told that the rules for the expressive activity were to a) work independently, focusing upon their own work and refraining from interacting with others in the room; and b) express what they felt at present--moment by moment. To minimize inhibitions, subjects were advised that they did not have to share their work with anyone.

In Group B, subjects were asked to use written words to let their imaginations guide them in expressing present feelings/moods as they worked from moment to moment. After they were given some brief guidelines as to how people in general can use words to express thoughts and feelings, subjects were told that the rules for the expressive activity were to a) work independently, focusing upon their work and refraining from interacting with others in the room; and b) express what they felt at present--moment by moment. To
minimize inhibitions, subjects were advised that they did not have to share their work with anyone.

Group C subjects were requested to follow a tape-recorded session of relaxation. The tape recording for the relaxation exercise for this group is entitled "Stress Management," from a series, Relaxation Training Program, by Thomas Budzynski, Ph.D. The first part of the tape instructed subjects to experience feelings of heaviness, warmth, and relaxation in all parts of the body (i.e., arms, legs, facial muscles, neck, shoulders, abdomen, back). Subjects were then asked to visualize anxiety-inducing scenes and, eventually, to pair these scenes with the calmness which they learned to experience during the initial part of the tape.

The rationale of the tape was that if subjects visualized anxiety-provoking areas of their lives and subsequently thought about situations in which they remained calm, eventually pairing the calmness with the anxiety scene, there would be a transfer of feelings of command and control to real life situations, so that when they actually met such situations, they would not feel fear and anxiety, but, instead, calmness and control. There would thus be a transfer from the simulated (taped) situation to real life circumstances.

In Group D, subjects were instructed to listen to tape-recorded easy listening music. The cassette tape was made of songs from the album entitled, "Bluejays," performed by Justin Haywood and John Lodge. The songs were recorded in the following sequence: "This Morning," "Remember Me, My
Friend," "My Brother," "You," "Nights, Winters, Years," "I Dreamed Last Night," and "Who Are You Now?" An extra tape was made for use in the event of breakage during the experiment.

The expressive activity sessions for all groups lasted approximately thirty minutes. More detailed information about these sessions is presented in the Activity Manual for the Research Session and the Activity Manual Supplement, both of which are included in Appendix A.

Dependent Variables. Five dependent variables are used in this study: a) state anxiety; b) locus of control; c) mood disturbance; d) mood factors (T, D, A, V, F, C, Fr); and e) perceptions of present mood state, reflected in key POMS items. The dependent variables are represented by scores on three pencil and paper inventories, given to subjects immediately following the expressive and relaxation activities. An operational summary of these dependent variables is shown in Figure 2.
<table>
<thead>
<tr>
<th>Dependent Variables</th>
<th>Operational Description</th>
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</table>
| State-Trait Anxiety Inventory (STAI/I-State)             | The A-State scale is composed of 20 statements (subscales of 10 direct and 10 reversed items) asking Subjects to express how they feel "right now" at the moment. Scoring consists of the following steps:  
  a) determining the sum of the direct items (3, 4, 6, 7, 9, 12, 13, 14, 17, 18);  
  b) subtracting the sum of the reversed items (1, 2, 5, 8, 10, 11, 15, 16, 19, 20);  
  c) adding 50 points; and  
  d) totaling steps a, b, and c. The preceding procedure automatically reverses the response weights of each item for which a high score indicates low anxiety, by subtracting the obtained response value from 5. A rating of 4, for example, on a reversed item becomes 1 (5-4=1). Possible scores range from 20 (low anxiety) to 80 (high anxiety). |
| Rotter Internal-External Locus of Control (LOC)          | The LOC inventory is scored in the external direction (the higher the score, the more external the individual). Directions for scoring are to total the external items (2a, 3b, 4b, 5b, 6a, 7a, 9a, 10b, 11b, 12b, 13b, 15b, 16a, 17a, 18a, 20a, 21a, 22b, 23a, 25a, 26b, 28b, 29a). Scores range from 0 (reflecting the belief that one is always in control) to 23 (one is always controlled by external factors). |
| Profile of Mood States (POMS)                           | POMS scores for mood factors are obtained by totaling the responses to adjectives describing the factors:  
  a) tension/anxiety (T) (items 2, 10, 16, 20, 22, 26, 27, 34, 41);  
  b) depression/dejection (D) (items 5, 9, 14, 18, 21, 23)                                                                 |


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<th>Dependent Variables</th>
<th>Operational Description</th>
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- 32, 35, 36, 44, 45, 48, 58, 61, 62; c) anger/hostility (A) (items 3, 12, 17, 24, 31, 33, 39, 42, 47, 52, 53, 57); d) vigor (V) (items 7, 15, 19, 38, 51, 56, 60, 63); e) fatigue (F) (items 4, 11, 29, 40, 46, 49, 65; f) confusion (C) (items 8, 28, 37, 50, 54, 59, 64); and g) friendliness (Fr) (items 1, 6, 13, 25, 30, 43, 55). Note that items T 22 and C 54 are negatively weighted.

The sums of six of the preceding mood factors (T, D, A, V, F, and C) combine to produce a mood disturbance (MD) score. In computing the MD score, all V items are negatively weighted (i.e., 0=4, 1=3, 2=2). In addition to the preceding, the POMS yields a vigor score (positively weighted) which is not included in the MD score, as is the negatively weighted vigor. The friendliness factor (Fr) is regarded by Lorr as a trait or semantic, rather than mood factor. Three different scores are derived from the POMS: a) mood disturbance total (a composite of mood factors T, D, A, V, F, C); b) individual mood factor scores (T, D, A, V, V+, C, F, Fr); and c) pertinent mood factor items (tense, angry, wornout, unhappy, listless, blue, energetic, hopeless, relaxed, uneasy, fatigue, annoyed, discouraged, nervous, lonely, exhausted, helpless, worthless. Possible ranges on the POMS are: a) mood disturbance—from 0 (low) to 232 (high); b) individual mood factors T (0-36); D (0-60); A (0-48); V (0-32);
Dependent Variables 

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<th>Operational Description</th>
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<td>(POMS), continued</td>
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<td></td>
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<tr>
<td>F (0-28), C (0-28); and</td>
</tr>
<tr>
<td>c) mood factor items</td>
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<tr>
<td>from 0 (not at all) to 4</td>
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<td>(extremely).</td>
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FIGURE 2: An Operational Summary of the Dependent Variables

The research design, stress situation, and variables are illustrated in Table 1 of the introductory chapter.

Major Hypotheses

The general hypothesis of the project was that Group B, which used written words to express current feelings/mood states, would be significantly different than the other groups, which had experiences (expressive and relaxation) that were predominantly nonverbal, relative to the dependent variables.

The following were the major hypotheses of this study:

**Hypothesis 1.** There will be a statistically significant difference between Group A and Group D in regard to a) state anxiety; b) locus of control; and c) mood disturbance and mood state fluctuations.

**Hypothesis 2.** There will be a statistically significant difference between Group B and Group D in regard to a) state anxiety; b) locus of control; and c) mood disturbance and mood state fluctuations.

**Hypothesis 3.** There will be a statistically significant difference between Group C and Group D in regard to a) state anxiety; b) locus of control; and c) mood disturbance and mood state fluctuations.

**Hypothesis 4.** There will be a statistically significant difference between Group A and Group B in regard to a) state anxiety; b) locus of control; and c) mood disturbance and mood state fluctuations.

**Hypothesis 5.** There will be a statistically significant difference between Group A and Group C in regard to a)
state anxiety; b) locus of control; and c) mood disturbance and mood state fluctuations.

**Hypothesis 6.** There will be a statistically significant difference between Group B and Group C in regard to a) state anxiety; b) locus of control; and c) mood disturbance and mood state fluctuations.

The major hypotheses, relative to the activities of the four comparison groups, appear in Table 5.

**TABLE 5: Major Hypotheses and Comparison Group Activities**

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>G</th>
<th>R</th>
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<th>P</th>
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<tbody>
<tr>
<td>Creative art media</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Written words</td>
<td></td>
<td>5</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Relaxation</td>
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<tr>
<td>Music listening</td>
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</table>

**Summary**

In this chapter, the research methodology was described relative to design, subjects, group monitors, procedure, inventories, variables and hypotheses. In the following chapter, the results of this study will be presented and discussed.
CHAPTER IV

RESULTS

The results of the study are presented in this chapter. First, the subject data are discussed. Second, the research hypotheses are presented. The presentation procedure is to consider one hypothesis at a time and present the data relevant to its evaluation.

Subject Data

Response data from sixty-six subjects, randomly assigned to four comparison groups, were utilized. Table 6 shows the number of subjects participating in each expressive and relaxation activity of the comparison groups. The final subject pool resulted in unequal cell sizes across the four comparison groups.

TABLE 6: Number of Subjects in Each Comparison Group

<table>
<thead>
<tr>
<th>Comparison Group</th>
<th>Expressive-Relaxation Activity</th>
<th>n</th>
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<tbody>
<tr>
<td>A</td>
<td>Creative Media</td>
<td>17</td>
</tr>
<tr>
<td>B</td>
<td>Written Words</td>
<td>17</td>
</tr>
<tr>
<td>C</td>
<td>Taped Relaxation</td>
<td>16</td>
</tr>
<tr>
<td>D</td>
<td>Music Listening</td>
<td>16</td>
</tr>
</tbody>
</table>

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Hypothesis Presentation

A general research hypothesis and six major research hypotheses are evaluated in this section. A similar procedure is followed for each hypothesis. The hypothesis is presented and the evaluation procedure is delineated. Subsequently, appropriate data are discussed. Finally, a brief summary of the data is provided prior to supporting or not supporting each hypothesis.

The data primarily were analyzed with the one-way analysis of variance (ANOVA), computed to compare the four groups in terms of their mean scores. To determine the location of significant differences after the computation of the F ratio, several post hoc comparisons were utilized. Since the groups were of uneven size, these included Fisher's LSD (least significant difference), the most powerful procedure, and the modified LSD (Nie and others, 1970).

Throughout this chapter, abbreviations are used to represent the inventories, as well as the mood factors of the Profile of Mood States. The abbreviations for the inventories include STAI-A (State Trait Anxiety Inventory/A-State); LOC (Rotter Internal-External Locus of Control); and POMS (Profile of Mood States). The abbreviations for the Profile of Mood States factors are MD (mood disturbance score); T (tension-anxiety); D (depression-dejection); A (anger-hostility); VP (vigor-positively weighted); VN (Vigor-negatively weighted); F (fatigue); C (confusion); and Fr (friendliness). Throughout this chapter, all group means are in parentheses.
General Hypothesis. There will be a significant difference between Group B and Groups A, C, and D in regard to a) state anxiety; b) locus of control; and c) mood disturbance and mood state fluctuations.

State anxiety. The ANOVA revealed a significant difference between groups on the STAI-A ($F = 6.42/P < .0001$).

Post hoc comparisons of STAI-A showed that Group B (47.71) was significantly different from Groups C (33.20) and D (37.56). Means for Groups B and A (42.00) were not significantly different. Possible scores of the STAI-A range from twenty (low anxiety) to eighty (high anxiety). Raw score ranges on the STAI-A are as follows: Group A (30-57); Group B (32-71); Group C (22-53); and Group D (25-58).

Locus of control. The between groups difference on LOC mean scores ($F = .26/P .85$), according to the ANOVA, was not significant. Raw score ranges of the LOC for the groups are as follows: A(4-14); B(5-16); C(2-19); and D(5-15).

Post hoc procedures revealed that the group means ranged from 10.35 for Group A, to 11.38 for Group C. This difference was not significant. On the LOC instrument, possible scores range from 0 (very internal) to 23 (very external).

Mood States. The ANOVA indicated that the between group means were significantly different ($F = 3.77/P < .01$) on the POMS-MD scores. ANOVA results on inventory scores are presented in Table 7.

Both LSD and modified LSD procedures indicated that the mean for Group B (82.71) was significantly different from Group C (53.19) and Group D (52.88). According to the LSD
### TABLE 7: Analysis of Variance on Inventory Scores

<table>
<thead>
<tr>
<th>Inventory</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F Ratio</th>
<th>F Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>STAI-A</strong></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>1857.30</td>
<td>3</td>
<td>619.10</td>
<td>6.42</td>
<td>0.0008***</td>
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<tr>
<td>Within Groups</td>
<td>5883.86</td>
<td>61</td>
<td>96.46</td>
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<td>Total</td>
<td>7741.16</td>
<td>64</td>
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</tr>
<tr>
<td><strong>LOC</strong></td>
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<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>10.12</td>
<td>3</td>
<td>3.37</td>
<td>0.261</td>
<td>.85</td>
</tr>
<tr>
<td>Within Groups</td>
<td>802.91</td>
<td>62</td>
<td>12.95</td>
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<td></td>
</tr>
<tr>
<td>Total</td>
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<td></td>
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<tr>
<td><strong>POMS</strong>&lt;sup&gt;a&lt;/sup&gt;</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>10245.36</td>
<td>3</td>
<td>3415.12</td>
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<td>.01**</td>
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<td>Within Groups</td>
<td>56122.72</td>
<td>62</td>
<td>905.21</td>
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<td>Total</td>
<td>66368.06</td>
<td>65</td>
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</tbody>
</table>

<sup>a</sup>The total mood disturbance score (MD) of the POMS is a composite of six factored items of the POMS mood factors: Tension-Anxiety (T); Depression-Dejection(D); Anger-Hostility (A); Vigor (negative) (VN); Fatigue (F); and Confusion (C).

* p < .05

** p < .01

*** p < .001
### TABLE 8: Pairs of Groups Significantly Different at the .05 Level on the Inventory Scores

<table>
<thead>
<tr>
<th>Comparison Group&lt;sup&gt;a&lt;/sup&gt;</th>
<th>n&lt;sup&gt;b&lt;/sup&gt;</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Group&lt;sup&gt;c&lt;/sup&gt;</th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td><strong>STAI</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A (Creative Art Media)</td>
<td>(17)</td>
<td>42.00</td>
<td>8.30</td>
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</tr>
<tr>
<td>B (Written Words)</td>
<td>(17)</td>
<td>47.71</td>
<td>11.59</td>
<td></td>
</tr>
<tr>
<td>C (Relaxation)</td>
<td>(15)</td>
<td>33.20</td>
<td>9.57</td>
<td></td>
</tr>
<tr>
<td>D (Music Listening)</td>
<td>(16)</td>
<td>37.56</td>
<td>9.49</td>
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</tr>
<tr>
<td>N (Total)</td>
<td>(65)</td>
<td>40.37</td>
<td>11.00</td>
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<tr>
<td><strong>LOC</strong></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>(17)</td>
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<td>2.69</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>(17)</td>
<td>10.71</td>
<td>3.69</td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>(16)</td>
<td>11.38</td>
<td>4.16</td>
<td></td>
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<tr>
<td>D</td>
<td>(16)</td>
<td>11.13</td>
<td>3.74</td>
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<td>N</td>
<td>(66)</td>
<td>10.88</td>
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<td>A</td>
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<td>21.93</td>
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</tr>
<tr>
<td>B</td>
<td>(17)</td>
<td>82.71</td>
<td>44.12</td>
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<tr>
<td>C</td>
<td>(16)</td>
<td>53.19</td>
<td>28.57</td>
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<td>D</td>
<td>(16)</td>
<td>52.88</td>
<td>18.33</td>
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<td>N</td>
<td>(66)</td>
<td>61.76</td>
<td>31.95</td>
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</table>

<sup>a</sup>Throughout this table the four comparison groups are labeled as in the first section.

<sup>b</sup>The numbers in parentheses represent subjects who completed the inventory.

<sup>c</sup>NSD indicates no significant difference.

*There is a significant difference according to the LSD procedure only.

**There is a significant difference according to both the LSD and modified LSD procedures.
TABLE 9: Analysis of Variances on Mood Factor Scores of the Profile of Mood States Inventory

<table>
<thead>
<tr>
<th>Mood Factora</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F Ratio</th>
<th>F Probability</th>
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</thead>
<tbody>
<tr>
<td>Tension-Anxiety (T)</td>
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<tr>
<td>Between Groups</td>
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<td>3</td>
<td>115.80</td>
<td>2.85</td>
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<td>Depression-Dejection (D)</td>
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<tr>
<td>Between Group</td>
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<td>0.001**</td>
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<td>Anger-Hostility (A)</td>
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<td>3.17</td>
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<td>0.98</td>
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<td>3</td>
<td>4.01</td>
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<td>MS</td>
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<td>F Probability</td>
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<td>-------</td>
<td>----</td>
<td>-----</td>
<td>---------</td>
<td>---------------</td>
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<td>Confusion (C)</td>
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<td></td>
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<tr>
<td>Between Groups</td>
<td>238.95</td>
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<td>79.65</td>
<td>3.78</td>
<td>0.01*</td>
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<tr>
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<td>1305.67</td>
<td>62</td>
<td>21.06</td>
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<tr>
<td>Total</td>
<td>1544.62</td>
<td>65</td>
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<tr>
<td>Friendship (Fr)</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>57.29</td>
<td>3</td>
<td>19.10</td>
<td>0.76</td>
<td>0.52</td>
</tr>
<tr>
<td>Within Groups</td>
<td>1567.20</td>
<td>62</td>
<td>25.28</td>
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<tr>
<td>Total</td>
<td>1624.49</td>
<td>65</td>
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</tbody>
</table>

*a* The total mood disturbance score of the POMS is obtained by summing scores across six mood factors: T, D, A, V (negatively weighted), and F and C.

*b* The POMS yields a vigor (positively weighted) which is an independent entity because it is not part of the total mood disturbance (MD) score, as is the negatively weighted vigor.

*c* Lorr found a friendliness factor in an independent study and suggested it is a trait, or semantic factor rather than a mood factor. (McNair and Dropplemon, 1971).

* p < .05
** p < .01
*** p < .001
only, the Group B mean differed significantly from Group A (57.24).

The maximum mood disturbance total for the POMS is 232. Raw score ranges on the POMS-MD are as follows: Group A (23-92); Group B (36-183); Group C (14-114); and Group D (26-90). Table 8 includes the pairs of groups significantly different at the .05 level on the inventory scores.

The ANOVA results on mood factor scores of the POMS show that there are significant differences in T (F=2.85/P<.05); D (F=5.98/P<.001); A (F=3.03/P<.05); and C (F=3.78/P<.01). No significant differences occurred in VP (F=.07/P<.98); VN (F=.08/P<.97); F (F=1.39/P<.26) or Fr (F=.76/P<.52). Table 9 includes ANOVA computations on POMS mood factor scores.

Post hoc comparisons demonstrated significant differences, at the .05 level, on POMS mood factors. Group B (12.47) was significantly greater than Groups C (6.38) and D (7.56) on T. Possible T scores range from 0-36. Factor D revealed significantly higher scores for Group B (15.94) than for Group A (6.29), Group C (5.94) and Group D (5.25). The range on factor D is from 0-60. The LSD procedure showed that factor A was significantly less for Groups A (4.29), C (4.25) and D (2.19) than for Group B (9.06). On factor C, Group B (11.76) was significantly higher than Group A (8.53) and C (6.44). The possible range for C is from 0-28. Although F was much lower in Group A (9.88) than in Group B (14.76), the difference was not significant. No significant difference between groups occurred relative to VP, VN, F, or Fr. The LSD and modified LSD
assessments of POMS mood factor scores are presented in Table 10.

Post hoc comparisons indicated that the following groups were significantly different at the .05 level on key POMS items. Group B was significantly higher than Group A on items wornout, listless, blue, hopeless, discouraged, nervous, lonely and exhausted, according to LSD only. Both LSD and modified LSD show that Group A was significantly higher than Group B on items hopeless and worthless. Group B was significantly greater than Group C on items blue, hopeless, discouraged, nervous, lonely, anxious, and worthless. Group B indicated significantly more feelings of unhappiness, listlessness, blueness, hopelessness, discouragement, nervousness, loneliness and worthlessness than Group D. On the item of relaxation, there were significant differences between Groups A (2.12) and D (2.94). On this item, Group D (2.94) was significantly greater than Groups B (1.82) and C (2.69). No significant differences between groups existed on items tense, angry, energetic, uneasy, fatigue, annoyed and helpless.

The key items of the POMS exhibited some interesting patterns. There were exceedingly low scores for hopeless in Group D (.00), Group A (.06) and Group C (.25) in contrast to Group B (.85). The item, nervous, was very low for Group C (.19). Worthless was very small for Groups A (.00), C (.13), and D (.06) as compared to Group B (.88). Anger was minimal in Group D (.06). The highest value was the item
TABLE 10: Pairs of Groups Significantly Different at the .05 Level on the POMS Mood Factor Scores

<table>
<thead>
<tr>
<th>Comparison Group</th>
<th>n</th>
<th>Mean</th>
<th>Std. Dev.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Tension-Anxiety (T)</strong> Possible Range 0-36</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A (Creative Art Media) (17)</td>
<td>8.94</td>
<td>5.23</td>
<td></td>
</tr>
<tr>
<td>B (Written Word) (17)</td>
<td>12.47</td>
<td>9.06</td>
<td></td>
</tr>
<tr>
<td>C (Relaxation) (16)</td>
<td>6.38</td>
<td>5.20</td>
<td></td>
</tr>
<tr>
<td>D (Music Listening) (16)</td>
<td>7.56</td>
<td>4.95</td>
<td></td>
</tr>
<tr>
<td>N (Total) (66)</td>
<td>8.89</td>
<td>6.65</td>
<td></td>
</tr>
<tr>
<td><strong>Depression-Dejection (D)</strong> Possible Range 0-60</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>6.29</td>
<td>5.85</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>15.94</td>
<td>12.93</td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>5.94</td>
<td>7.38</td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>5.25</td>
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<tr>
<td>N</td>
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<td>9.43</td>
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<td><strong>Anger-Hostility (A)</strong> Possible Range 0-48</td>
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<td>A</td>
<td>4.29</td>
<td>5.06</td>
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<td>B</td>
<td>9.06</td>
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<td>C</td>
<td>4.25</td>
<td>7.08</td>
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<td>D</td>
<td>2.19</td>
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<tr>
<td>N</td>
<td>5.00</td>
<td>7.14</td>
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<td><strong>Vigor (Positive)</strong> Possible Range 0-32</td>
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<tr>
<td>A</td>
<td>6.45</td>
<td>12.65</td>
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</tr>
<tr>
<td>B</td>
<td>8.04</td>
<td>13.23</td>
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</tr>
<tr>
<td>C</td>
<td>6.86</td>
<td>13.38</td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>6.53</td>
<td>13.69</td>
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<td>N</td>
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<td>6.45</td>
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<tr>
<td>B</td>
<td>18.71</td>
<td>8.04</td>
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</tr>
<tr>
<td>C</td>
<td>18.31</td>
<td>7.04</td>
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</tr>
<tr>
<td>D</td>
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<td>6.53</td>
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<td>N</td>
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<td>6.90</td>
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### Comparison

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<th>Std. Dev.</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
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<td>7.18</td>
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<td>14.76</td>
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<td>NSF</td>
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<td>C</td>
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<sup>a</sup>Throughout this table the four comparison groups are labeled as in the first section.

<sup>b</sup>The numbers in parentheses represent subjects who completed POMS inventory.

<sup>c</sup>NSD indicates no significant difference.

*There is a significant difference according to the LSD procedure only.

**There is a significant difference according to both the LSD and modified LSD procedures.
relaxed, for Group D (2.94). Contrary to the link between helplessness and hopelessness, often made in the medical literature dealing with attitudes toward chronic illness, this study reveals no significant correlation between the two terms. While feelings of helplessness (ranging from 2.41 to 2.63) remained high from group to group, the sense of hopelessness (ranging from .00 in Group D to .82 in Group B) was minimal throughout the experiment.

Each POMS item is expressed on a Likert scale ranging from 0 (not at all) to 4 (extremely). The pairs of groups significantly different at the .05 level on key POMS items is included in Table 11.

Summary. In summary, the STAI-A scores revealed a significant difference between Group B and Groups C and D, but none between Groups B and A. On LOC scores, there were no significant differences. There was a significant difference between Group B and Groups A, C, and D, relative to the POMS-MD score. Only part c of the general hypothesis was supported.

Hypothesis 1: There will be a statistically significant difference between Group A and Group D in regard to a) state anxiety; b) locus of control; and c) mood disturbance and mood state fluctuations.

State anxiety. Post hoc comparisons of Group A (42.00) and Group D (37.56) were not significantly different on the STAI-A inventory.
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</table>

*Each POMS item is a Likert Scale reflecting present mood state from 0 (not at all) to 4 (extremely).*

*Throughout this table the four comparison groups are labeled as in the first section.*

*CNSD indicates no significant difference.*
Locus of control. The LOC scores for Group A (10.35) and Group D (11.13) were not significantly different, according to the LSD and modified LSD procedures.

Mood states. Post hoc comparisons of the POMS-MD score revealed that the difference between Group A (57.24) and Group D (52.88) was not significant at the .05 level. Comparisons of mood factor scores at the .05 level revealed no significant differences between Groups A and D relative to any of the POMS mood factors. Refer to Table 10 for pairs of groups significantly different at the .05 level on POMS mood factor scores.

On key POMS items, there was a significant difference between Groups A and D only on the feeling state of relaxation. Group A (2.12) was less relaxed than Group D (2.94). Table 11 includes pairs of groups significantly different at the .05 level on key POMS items.

Summary. In summary, there were no significant differences between Groups A and D on state anxiety, locus of control, or mood disturbance. The only significant difference between the two groups was with regard to the key POMS item, relaxation, of which Group A showed less than Group D. Hypotheses 1a, 1b, and 1c were not supported.

Hypothesis 2: There will be a statistically significant difference between Group B and Group D in regard to a) state anxiety; b) locus of control; and c) mood disturbance and mood state fluctuations.
State anxiety. Post hoc comparisons of Group B (47.71) and Group D (37.56) were significantly different on the STAI-A inventory. Table 8 presents pairs of groups significantly different at the .05 level on inventory scores.

Locus of control: According to the LSD and modified LSD procedures, the LOC scores for Group B (10.71) and Group D (11.13) were not significantly different.

Mood states. Post hoc comparisons of the POMS-MD scores indicated that the difference between Group B (82.71) and Group D (52.88) was significant at the .05 level. Comparisons of mood factor scores at the .05 level showed significant differences between Groups B and D on T (B=12.47) (D=7.56); D (B=15.94) (D=5.25); and A (B=9.06) (D=2.19). There were no significant differences between these groups on mood factors VP, VN, F, C, or Fr. On key POMS items, significant differences between Groups B and D existed relative to unhappy, listless, blue, hopeless, discouraged, nervous, lonely and worthless. Group B (1.82) manifested significantly less relaxation than Group D (2.94).

Summary. Group B was significantly higher than Group D in state anxiety and mood disturbance scores. No significant differences occurred in LOC scores. With regard to POMS-MD scores, the difference between Groups B and D was significant, in that Group B exhibited much more mood disturbance. Group B revealed significantly more tension-anxiety, depression-dejection and anger-hostility than Group D. On
eight on nineteen key items of the POMS, Group B was signifi-
cantly higher. Differences in mood disturbance and mood
states between groups are included in Tables 10 and 11.
Hypotheses 2a and 2c were supported, while 2b was not.

Hypothesis 3: There will be a statistically significant dif-
ference between Group C and Group D in regard to a) state
anxiety; b) locus of control; and c) mood disturbance and
mood state fluctuations.

State anxiety. The LSD and modified LSD procedures in-
dicated that Group C (33.20) was lower in state anxiety than
Group D (37.56), but the difference was not significant.

Locus of control. Differences in LOC scores between
Groups C (11.38) and D (11.13) were not significant.

Mood states. Post hoc comparisons showed that Group C
(53.19) was not significantly different from Group D (52.88)
on the POMS-MD score. Comparisons of POMS and mood factor
scores at the .05 level of significance revealed no differ-
ences between Groups C and D. On key POMS items, no signifi-
cant differences existed between Groups C and D.

Summary. The research hypotheses 3a, 3b, and 3c were not
supported, since there were no significant differences be-
tween Groups C and D relative to STAI-A, LOC and POMS scores.
Refer to Tables 8, 10, and 11 for pairs of groups signifi-
cantly different at the .05 level on inventory scores, POMS
mood factor scores, and key POMS items.
Hypothesis 4: There will be a statistically significant difference between Group A and Group B in regard to a) state anxiety; b) locus of control; and c) mood disturbance and mood state fluctuations.

**State anxiety.** Post hoc comparisons revealed that Group A (42.00) and Group B (47.71) did not differ significantly in state anxiety scores.

**Locus of control.** There were no significant differences in LOC scores, between Group A (10.35) and Group B (10.71).

**Mood states.** LSD and modified LSD procedures showed that Group A (57.24) exhibited significantly less mood disturbance than Group B (82.71). Post hoc comparisons demonstrated that mood factor scores for Group B were significantly greater than for Group A in regard to D (B=15.94) (A=6.29); A (B=9.06) (A=4.29); and C (B=11.76) (A=8.53). Group B revealed significantly greater scores than Group A on items wornout, listless, blue, hopeless, discouraged, nervous, lonely, exhausted, and worthless. Tables 10 and 11 include POMS mood factor scores and key items, respectively.

**Summary.** Groups A and B indicated no significant differences in state anxiety or locus of control. Mood disturbance was significantly greater for Group B than for Group A. Group B also revealed significantly greater feelings of depression-dejection, anger-hostility, and confusion. Since there was a statistically significant difference between Groups A and B, relative to mood disturbance and mood state fluctuations, research hypothesis 4c was supported. Hypotheses 4a and 4b were not supported.
Hypothesis 5: There will be a statistically significant difference between Group A and Group C in regard to a) state anxiety; b) locus of control; and c) mood disturbance and mood state fluctuations.

State anxiety. Group A (42.00) exhibited significantly greater state anxiety than Group C (33.20), according to post hoc comparisons. See Table 8.

Locus of control. Table 8, which includes significantly different pairs of groups, according to inventory scores, reveals that there were no significant differences in LOC scores of Groups A (10.35) and C (11.38).

Mood states. LSD and modified LSD procedures show that there were no significant differences between Groups A and C on the POMS-MD scores, mood factors, or key items. Refer to Table 11.

Summary. Groups A and C were not significantly different relative to locus of control or mood states. Hypothesis 5a was supported, but 5b and 5c were not.

Hypothesis 6: There will be a statistically significant difference between Group B and Group C in regard to a) state anxiety; b) locus of control; and c) mood disturbance and mood state fluctuations.

State anxiety. Group B (47.71) was significantly higher in state anxiety scores than Group C (33.20).

Locus of control. There were no significant differences in LOC scores of Groups B (10.71) and C (11.38).

Mood states. Group B (82.71) exhibited significantly greater mood disturbance than Group C (53.19). Post hoc comparisons revealed that scores of Group B were
significantly higher than Group C on mood factors $T$ (B=12.47) (C=6.38); $D$ (B=15.94) (C=5.94); $A$ (B=9.06) (C=4.25); and $C$ (B=11.76) (C=6.44). On key POMS items, Group B was significantly greater on items blue, hopeless, discouraged, nervous, lonely, anxious, and worthless. Group B (1.12) exhibited significantly less relaxation than Group C (2.69).

**Summary.** Since there was a statistically significant difference between Group B and Group C in regard to state anxiety and mood disturbance, the research hypotheses 6a and 6c were supported. Hypothesis 6b was not supported.

**Summary of Research Findings**

The ANOVA results on inventory scores revealed significant differences between groups on state anxiety and mood disturbance. There was no significant difference on locus of control. The ANOVA computations exhibited significant differences between groups on POMS mood factors ($T$) tension-anxiety; ($D$) depression-dejection; ($A$) anger-hostility, and ($C$) confusion.

Pairs of groups significantly different at the .05 level on the STAI-A were a) art, showing higher anxiety than relaxation and b) words, with much greater anxiety than relaxation and music. Post hoc results revealed no significant differences on LOC. Mood disturbance was significantly more for words than for art, relaxation, and music. Significant differences ($P = .05$) indicated by post hoc comparisons of POMS mood factor scores were: a) tension-anxiety was higher
for words than for relaxation and music; b) depression-
dejection was greater for words than for art, relaxation and
music; c) anger-hostility was more pronounced with words than
with art, relaxation or music; d) confusion was greater with
words than with art and relaxation. No significant differ­
ences occurred on any other mood factors.

Significant differences (P = .05) revealed by post hoc
comparisons of key POMS items were: a) feelings of being
wornout and exhausted were greater with words than with art;
b) unhappiness was more evident with words than with music;
c) listlessness was more pronounced with words than with art
or music; d) discouragement, nervousness, loneliness, worth­
lessness, hopelessness, blueness, were greater with words than
with art, relaxation and music; and e) anxiety was at a
higher level with words than with relaxation; f) relaxation
was greater with music and relaxation than with words/with
music than with art.

The key items of the POMS showed some interesting patterns.
There were exceedingly low scores for hopeless in music, art
and relaxation groups, in contrast to a higher level for words.
Nervousness was low for the relaxation group. Feelings of
worthlessness were higher for the group using words, than for
those using art, relaxation and music. Anger was very low
for the music group. The highest value on the Likert items
was relaxed, for the music group. Contrary to the associa-
tion between helpless and hopeless, often made in the medical
literature dealing with attitudes toward chronic illness,
this study reveals no significant correlation between the two attributes. While feelings of helplessness remained high from group to group, the sense of hopelessness was minimal during the experiment.

The following research hypotheses were supported: General c; 2a and c; 4c; 5a; and 6a and c. Those which were not supported were General a and b; 1a, b, and c; 2b; 3a, b, and c; 4a and b; 5b and c; and 6b.
CHAPTER V
DISCUSSION AND CONCLUSIONS

In this final chapter, a summary of the objectives and findings of the study is presented. Subsequently, the strengths and limitations of this experimental work are considered. Finally, some implications for future research are explored.

Summary of Research Objectives

Central to this research is the idea that perhaps the most important aspect of stressful events is the manner in which people respond to them. While the physical components of stressful circumstances frequently cannot be reversed, attitudes toward them and ways of coping can be changed. Kutash, Schlesinger and others (1980) note that "unless we can learn to understand, control and prevent (or adapt to) the pressures of contemporary life, the toll...may come to outweigh the gains" (Frontispiece) of our civilization.

A person's interpretation of environmental threats is crucial to mastery. Evaluative perceptions, thoughts, and inferences continually guide human beings in making conscious appraisals of each adaptational interchange in their environment. The cognitive appraisal processes that enable
individuals to make the subtle distinctions which give life its rich and intricate emotional texture, are complex and symbolic. Although there is a great deal of research support for the role of mediating cognitions in the psychological aspects of stress, the interrelationship among cognitive processes, adaptational behavior, and physiological outcomes is very obscure. It is at this juncture that some of the most compelling research questions are being asked. A crucial issue is the distinction between a potentially stressful event and the appraisal of that event.

Based on the premise that a significant part of our drive toward adaptation is the intrinsic yearning for personal wholeness and connectedness with our surroundings, the ultimate research question attends to the kinds of experiences which enable human beings to bridge the gap between brokenness and wholeness—iso­lation and connectedness. Are those activities which purportedly reduce anxiety and other mood disturbances (i.e., depression, anger, hostility) valuable tools for stress resolution? Do the experiences which promote adaptation exist primarily within the domain of our perceptions, cognitions, emotions, or physiological apparatus? Are the experiences which facilitate coping predominately active or passive, from the standpoint of muscular contraction and physical motion? What role does self-expression play in creative problem-solving and adaptational interchanges?

The crux of this pilot project, which represents a first step toward attending to these ultimate questions, is the
thesis that much of human success in meeting life changes positively and satisfactorily is contingent upon a person's picture of the world around him or her. Closely associated with one's perception of surroundings is his or her ability to engage in expression. The manner in which individuals express themselves exerts a tremendous influence upon their ability to solve problems, resolve stress and tension, and adapt to their surroundings.

The exploration of expression in this study focused upon the rehabilitative aspects of the graphic and plastic arts, as well as various relaxation techniques, both of which were under the aegis of creative expression for the purpose of this research. This project represents a beginning step toward the following goals of a research endeavor which is anticipated to take place over a period of years: a) to develop and explore some new, and largely nonverbal, therapeutic methods of working toward stress resolution and adaptation with individuals living with chronic illnesses and disabilities (i.e., neuromuscular conditions, cardiovascular diseases, diabetes, renal failure, cancer); b) to add to the present body of knowledge of expressive modalities and relaxation techniques as educational resources and tools of practice; c) to develop methods of teaching professional people to make clinical use of these modalities; and d) to contribute to the limited supply of sound research in the rehabilitative aspects of creative expression. Art therapist
Harriett Wadeson (1980) aptly describes the tremendous need for research in the area of creative expression:

I do not mean to suggest that our profession is presently totally devoid of qualified researchers. . . . though many art therapists have published interesting case histories and descriptions of treatment programs, few have produced solid research (p. 133).

This study closely examined and compared four expressive and relaxation experiences from the perspective of their effectiveness as tools for stress-resolution. Specifically, the method of accomplishing this task was to a) reduce several widely-used therapies (i.e., verbal psychotherapy, art therapy, music therapy, relaxation) to their basic components (use of words, use of art materials, music listening, relaxation); b) establish four comparison groups based upon the preceding activities (the independent variables); c) randomly assign the subjects, sixty-six undergraduates enrolled in the Ohio State University physical therapy program, to the groups; and d) examine and compare the effects of the four expressive and relaxation activities, manifested in post-stress (mental arithmetic stress situation), mood-states and mood-state fluctuations.

In this experiment, the dependent variables were scored on the following measurement tools, completed by subjects immediately after the post-stress comparison group activities: a) State-Trait Anxiety Inventory—A-State (STAI-A); b) Rotter Internal-External Locus of Control (LOC); and c) Profile of Mood States (POMS). The inventory scores reflected anxiety, locus of control and various mood states (tension/anxiety,
depression/dejection, anger/hostility, vigor, fatigue, confusion). The following questions were addressed in this study:

Do the various forms of creative expression and relaxation experience increase or diminish such states as anxiety, tension, and depression? What is the effect of art experience and musical expression upon one's locus of control? How do various expressive and relaxation experiences compare with one another, relative to enabling persons to neutralize stress responses?

A discussion of the research findings is included in the following section.

Summary of Findings

Anxiety. The ANOVA results on inventory scores revealed significant differences between groups on state anxiety. Pairs of groups differing significantly at the .05 level on the anxiety inventory were: a) art expression, showing higher anxiety than relaxation and b) words, revealing greater anxiety than relaxation and music. Subjects using words were more anxious than those using art media, but not significantly so. In summary, the words group exhibited more anxiety than the other three groups.

Locus of control. A surprising outcome was the lack of significant differences between comparison groups with regard to locus of control. The data reveal that locus of control remains constant at mid-range between completely internal
and completely external extremes. The difference between the most internal group (art) and the most external group (relaxation) is minimal (See pages through for a discussion of locus of control).

**Mood disturbance and mood state fluctuations.** The ANOVA results revealed a significant (P<.01) difference between groups on mood disturbance, a composite of POMS mood factor scores. ANOVA computations also demonstrated significant differences between groups on POMS mood factors (T) tension-anxiety, (D) depression-dejection, (A) anger-hostility, and (C) confusion.

Mood disturbance was markedly greater in the words groups than in the art, relaxation and music enjoyment groups. A breakdown of significant differences in mood factors revealed: a) tension-anxiety was higher for words than for relaxation and music; b) depression-dejection was greater for words than for art, relaxation and music; c) anger-hostility was more pronounced with words than with art, relaxation or music; d) confusion was greater with words than with art and relaxation. No significant differences occurred on any other mood factors.

In examining the comparison groups, we note that art media exert a positive influence upon feelings of depression-dejection, anger-hostility and confusion. The relaxation experience, as expected, had the most far reaching effect, with significantly low scores on T, D, A, and C factors. Music listening, also, affected T, D, and A. Words did not,
in contrast, exert a positive influence on any mood factor. Mood factors vigor, fatigue and friendliness were not affected by any of the comparison groups activities.

Key POMS items revealed some significant differences between worded expression and the three other activities. The words group revealed: a) a greater sense of exhaustion, listlessness and being wornout, than art; b) more feelings of listlessness and unhappiness than with music; c) more discouragement, nervousness, loneliness, worthlessness, hopelessness, and blueness than art, relaxation and music listening. As expected, words elicited more anxiety than relaxation. Feelings of relaxation were more evident with music listening and relaxation experience than with words, and greater with music than with art.

It is interesting to note that the art group did not exhibit a significant difference, relative to (T), as did music and relaxation. Also, the key POMS item, relaxation, was relatively uninfluenced by art experience. Some art therapists speculate that art expression is relaxing, while others believe that it is tension-producing. Perhaps, art experience is similar to physical exercise in that it is physiologically stimulating, with an after-effect which is tension-resolving. None of these notions has been put to the test, however. Part of the purpose of this research is to provide a "testing ground" for some of these widely-held assumptions about creative expression.
Further discussion of the findings appears in the next section.

Discussion of Findings

Noted art therapy researcher, Harriett Wadeson (1980) tells us that there are four types of art therapy research, based upon the nature of the data and the method by which they are collected and processed. Arranged from the least, to the most structured approaches, the four types are: a) observations of emerging data, not elicited or searched for, but apparent only after the art work is collected from the patients; b) art tasks constructed to elicit certain data; c) judgments concerning the art works, without awareness of the variable being researched (blind methodology); and d) predictive hypotheses tested. Wadeson (1980) comments that "the most substantial research entails the ability to predict because. . .it is possible to come closest to supporting the assertions being made" (p. 326). Predictive research generally "offers the greatest possibility of substantial statements which advance the field of knowledge" (p. 330). Moreover, such findings "may have important treatment implications" (p. 328). In a clinical setting, for example, a patient's coping style may be assessed through art evaluation, and his or her treatment planned accordingly.

The present study, which is one of a limited number of methodologically sound pieces of research in the area of the rehabilitative aspects of expressive therapy, is perhaps
a first endeavor to examine and compare the emotional con­comitants of four different expressive and relaxation experi­ences through the process of hypothesis testing. Character­istically, studies in creative expression involve, at the most, small numbers of subjects. This project, however, is somewhat different in that it has gathered together the re­sponses of a relatively large group of persons in order to obtain a clear picture of the effects of expressive and re­laxation modalities.

Exploratory in nature, because it attends to new knowledge and previously unexamined relationships, the present project utilizes the process of comparison in order to transform raw data into meaningful new relationships between independent and dependent variables. Thus far, the data have been examined from the perspective of the differences between the four groups relative to the effects of the post-stress expressive and relaxation experiences. Most of the significant differ­ences between the groups clustered around Group B (written words), which revealed more anxiety, as well as a markedly greater amount of mood disturbance, than the other groups.

A surprising outcome was the lack of significant differ­ences between comparison groups with regard to locus of control. Throughout the art therapy literature, it is sug­gested that one of the most important advantages of art ex­pression is that it enhances an individual's sense of inner, as opposed to external, control over a situation. One would thus expect the art groups to exhibit a greater degree of
internality than the other groups, which it did, even though not significantly so.

The LOC means of this study were slightly more external (two to three points) than norms of previous studies utilizing this instrument with college age subjects. The preceding tells us that the performance of subjects in the four comparison groups fell within the range of LOC exhibited by college undergraduates in general.

On the basis of his examination of control and health beliefs. Kirscht (1972) attests to the stability of control, as well as the complexity of people's perceptions of their control over the environment. Recognizing that control is not a singular entity, but a multidimensional network of belief, expectancy and motivation, Kirscht concludes that "those differences (relative to control) that existed before exposure to the films tended to be maintained" (p. 234) throughout his study.

Perhaps the very fact that LOC remained constant across the comparison groups of this project demonstrated its immutability as a human attribute. One can thus speculate that LOC is a trait, which develops over months, or even years, as an integral and relatively unchanging part of the human personality. If this observation is correct, then LOC should not change with a small amount of expressive or relaxation experience. The fact that it did not undergo change increases the validity of the Rotter instrument.
In future research of this nature, the Rotter LOC inventory could perhaps more effectively be employed as an independent variable, but advisedly not again as a dependent measure of a transitory attribute. It would be worthwhile to continue to investigate the issue of LOC by: a) isolating its components (i.e., control, expectancy, mastery); b) discovering if a transitory (moment to moment) component of LOC, and an instrument to assess it, exists; and c) investigating the possibilities for using such an instrument in a study similar to this.

In contrast to LOC, anxiety and mood disturbance are transitory qualities, which fluctuate from minute to minute. Since the expressive and relaxation experiences were of short duration, it is not surprising that all of the significant differences centered around these mutable and unstable qualities. The results of the post hoc comparisons certainly provide testimony for the validity of the STAI-A and POMS inventories as measures of states, rather than long-enduring traits. Although the reliability and validity of the POMS as a measure of moment to moment mood state changes has not been firmly established empirically, the outcome of this research undoubtedly lends a great deal of support to the predictive and construct validity of this instrument in research of this type.

The outcome of this study is in accord with the previous findings of Sachs and Diesenhaas (1969), Lamb (1969), and Lazarus and Opton (1966), who noted higher A-State scores
in stressful, than nonstressful situations. The low anxiety scores for the relaxation and music groups support Stoudenmire's (1975) suggestion that both music listening and relaxation are effective as anxiety reducing techniques.

Stoudenmire's reference to muscle relaxation brings up an important issue: the relationship between physical activity, passivity, and stress resolution. A crucial dimension of the findings of this research is that two of the comparison group experiences involve muscular contraction, or physical activity, and two involve muscular relaxation, or physical passivity. Where the art media and written words groups are instructed to "do something, or participate in a task, the music and relaxation groups are permitted to sit and listen. What are the research implications for passivity and activity?

Gal and Lazarus (1975) define activity as overt, motoric action. These two authors, along with Chodoff and others (1964), have explored the role of activity in the face of stressful situations and maintain that taking action, as opposed to remaining passive, is a powerful coping tool which reduces stress. Gal and Lazarus (1975) suggest that activity, by facilitating attention diversion, serves to neutralize unpleasant circumstances and regulate emotional states.

On the STAI-A, the active groups, particularly the words group, exhibited more anxiety than the passive groups. If the suppositions of Gal, Lazarus, and Chodoff, and their associates, are correct, how does one justify the higher anxiety of the active groups? Should not
the active groups be more able to reduce stress, if stress is synonymous with anxiety, as Spielberger (1975) says that it is? Perhaps factors other than anxiety are involved in stress-resolution.

If we look at the POMS mood factor scores, we note a pattern which is proportionately similar to the anxiety profile: Group B scores are much higher than all other groups, and Group A is slightly greater in T, D, and A, than Groups C and D, but far less than the words group. Since all of these measures reflect but a few moments in time, they give us but a hint of the complexity of the anxiety-mood disturbance-stress resolution process. Perhaps the efficacy of activity in reducing tension lies within the rhythmic interplay between anxiety-tension reduction and production.

Another issue is what accounts for the greater anxiety in the words, than the art group? Are words (verbal expressions) less apt to reduce anxiety because they primarily stimulate the cognitive functions of the left hemisphere, in contrast to art experience (essentially nonverbal expression), which purportedly activates both hemispheres of the brain? Gestalt-ist Fritz Perls' observation that "talking about" and interpreting are less favorable than awareness and experiencing, encourages one to wonder if the process of translating experiences into words results in an increased sense of anxiety and mood disturbance. Simply putting an event into words "leaves it isolated as a deposit of the past... (an) uncompleted event" (Fagan, 1976, p. 65). In order to enhance our sense of
completeness, do we need to invent more ways to "talk" without speech? Even though there is general agreement that the psychomotor stimulation of nonverbal expressions is beneficial in helping people to reduce stress, there is virtually no understanding of the mechanisms through which such stimulation leads to feelings of stress-resolution and tension-release.

Another important finding is that passive activities (music listening and relaxation), which are devoid of psychomotor stimulation, are particularly effective in reducing anxiety and mood disturbance. Perhaps the phrase, "passive activity," provides some clues. Although music listening and relaxation are not regarded as "doing" tasks, from the perspective of overt physical motion, the subtle physiological changes inherent in these activities are accompanied by perceptions of lessened anxiety and mood disturbance. Perhaps the key word is perception. The actual anxiety and mood disturbance are accompanied by perceptions of these qualities. The perceptions represent a second dimension of stress resolution.

Returning to the phrase, "passive activity," Jacobson (1938) notes that if a person merely thinks about a particular area of the body, muscle contractions in that area will occur. So-called passive experiences thus result in some degree of physiological activity, which could perhaps have something to do with the relaxation effect. One must bear in mind that an especially important element of the relaxation in this study was the suggestion, as well as the
expectation, that relaxation would occur as the subjects listened to the tape. Perhaps the suggestion, coupled with expectation, exerted some influence upon the reduction of anxiety and mood disturbance. Another important factor is the visualization, or imagery, which was an integral part of the taped instructions. All of the preceding factors, suggestion, expectation, and visualization, distinguished the relaxation from the music group. Even though the music listening experience was devoid of these three factors, a reduction in anxiety and mood disturbance still occurred.

It is apparent that more questions than answers have been uncovered in this discussion. All of these unanswered questions constitute fertile territory for further research.

**Discussion of the Strengths and Limitations of the Study**

Two primary strengths of this study were its clean methodology and its design, which employed an extra comparison group, rather than a "pseudo" control group. Actually, there was no activity which would serve as a "true" control (no X). Even a free choice of activity, for the subjects to exercise, could have functioned as a therapeutic comparison group experience. Free choice might also have increased the risk of conversations, or nonverbal exchanges among the subjects.

A positive aspect of the design is that it was posttest only, thus eliminating a testing effect, which would likely have occurred in a pre and posttesting situation. Since the four sessions occurred simultaneously, history was controlled
intercessionally, even though perhaps not intrasessionally, due to the possibility of minor events occurring within the sessions which might have influenced the outcome.

Because one of the main purposes of this project was to serve as a valuable teaching tool to encourage and guide others in researching creative experience, clear and precise instructions for the comparison group activities and their sequence were presented to subjects, as well as monitors. Aside from some slight variations, wording of instructions was comparable from one session to another, and a complete overview of instructions for group activities was given to the entire population, prior to the experiment, in the form of a written presentation, to ensure uniformity from subject to subject and from group to group. The written presentation also served to eliminate the influence of interpersonal communication, which would have resulted from verbal instructions.

The primary disadvantage of using a particular college age population in this research is that it raises some questions about the generalizability of the study. Is this group of physical therapy students representative of college age populations in general? Are university students likely to respond in the same manner as so-called average adult individuals? Are the responses of these research subjects generalizable to persons with long-enduring illnesses and disabilities? Recognizing that the generalizability of this research is a moot point, my views reflect the opinion of Campbell and
Stanley (1968), who believe that the concept of generalizability is illogical, since one really cannot generalize beyond a sample within the laws of probability. Campbell and Stanley write:

We should keep in mind that the "successful" sciences such as physics and chemistry made their strides without any attention to representativeness (but with great concern for repeatability by independent researchers). An ivory-tower artificial laboratory science is a valuable achievement even if unrepresentative (p. 18).

I feel that this study is an extremely important didactic contribution to a field which contains so few solid research endeavors. Hoping that this dissertation will serve as a teaching tool for research methodology, as well as function as a living example of an innovative approach to the therapeutic use of creative expression, every effort was made to ensure the repeatability of this project. Above and beyond the issue of repeatability, it is important to keep in mind that the primary aim of this study was to examine the effects of various kinds of expressive and relaxation experiences, rather than to achieve representativeness. There is little doubt that the evaluation of the behavior of physical therapy students during the research will not only promote valuable insights into the behavior of other groups, such as the chronically ill and disabled, during expressive and relaxation activities, but will also add to the body of knowledge in the area of the rehabilitative aspects of creative experience.

The main advantage of using physical therapy students for this study is the relative homogeneity of the group
regarding demographic variables, such as age, intellectual ability, socioeconomic status and physical stamina as compared to a chronically ill or severely disabled population. The initial plan to utilize hospitalized patients as subjects for this project was abandoned because of the likelihood that patient groups would vary greatly in all of the preceding attributes and thus affect the outcome of the research. Secondly, it would be virtually impossible to control all of the variables attributable to an outpatient/inpatient environment characterized by noise, physical discomfort, interruptions and unexpected events. Thirdly, there would be no means of accounting for individual variances due to physical conditions (i.e., diagnoses, disease progression, treatment side-effects).

It must be pointed out that although the subject group was homogeneous, relative to a patient population, it was atypical of other college age populations in the sense that practically all of the subjects were female seniors. It remains to be seen whether or not the subjects' behavior throughout the research was similar to a group of junior, predominantly male, physical therapy students. Would there, for example, have been a difference in LOC if the group had been largely male juniors? Persons who wish to conduct similar research need to be aware of the implications of issues, such as the variable of sex and its impact upon the history of a population. Differences in sex with regard to inventory scores on the STAI-A are discussed by Spielberger, Gorsuch and Lushene (1970), who note that the findings of
various experiments suggest that either females tend to exhibit more emotional lability than males, or the former are more apt to report their genuine feelings. It is advisable for researchers to be familiar with the population(s) with which they are working.

Another important consideration is the level of significance. In an exploratory study, such as this, it is permissible to use a .10 level, which might have revealed some significant differences which presently remain hidden because the more stringent levels of significance (.05, .01, and .001) were used in this project.

An extremely important aspect of studies of this type is that the stress component needs to be clearly defined operationally. One of the pitfalls of stress research is that when a stress situation is nebulous and undefined, it is impossible to know if outcomes are from actual stress or other variables. A strength of this study is that the stress condition was constant from subject to subject and from group to group. My original intention to use a high-stress population would have made it virtually impossible to operationally define "high stress," in such a heterogeneous group of subjects as cancer patients or widows.

A positive aspect of this project, with clinical importance, is that the method of setting up the comparison group activities resulted in a way of discovering individuals possessing a potential for gaining from the various expressive and relaxation experiences. The anxiety inventory scores, in
particular, revealed from four to five persons in all cells, except the B (words) group, who clustered around the lowest score, responding with minimal levels of anxiety to art, music and relaxation. These persons could possibly derive a great deal of benefit from the three expressive and relaxation experiences in a clinical situation.

Implications for Future Research

One of the frustrations of being involved in an exploratory study of this nature, where much fertile material for new research emerges from obscurity, is that it is impossible to pursue each and every provocative issue that arises. The best that I can do in this single study is to focus upon some of the major issues that relate to future research.

In dealing with creative experience, one of the issues that must be faced is the problems in putting creative expression into empirical terms. Creative expression is an elusive product of the human spirit. Its predominantly nonverbal nature makes it extremely difficult or impossible, to put into measurable terms. Unfortunately, relatively few, if any, nonverbal instruments exist, and the researcher must utilize inventories which require subjects to express themselves in numbers and/or words. This situation imposes definite limitations upon a project.

Harriett Wadeson (1980), discusses some of the problems intrinsic to researching art works: a) an art work, in itself, gives us information about the patient only in
relation to other data (i.e., the patient's behavior, his or her comments about the art work, and personal history); b) examining pictorial components, such as colors, lines, spaces, and subject matter, generally necessitates a reductionistic approach; and c) statements about an art work are meaningful only with supportive information, rather than mere speculation, about a patient. Wadeson (1980) aptly describes art media as "particularly vulnerable to speculation due to the provocative nature of art expression, which can be both the beauty and the beast of art therapy research" (p. 329). Regarding the observation of emerging data as the "most natural sort of research" (p. 331), Wadeson (1980) writes:

Rather than some sort of system being imposed on the data by the researcher or the situation being manipulated to produce results in a certain area, the material emerges spontaneously. In this sense, it has greater credibility. The problem here is that once the researcher becomes aware of a particular pattern, he or she must be careful not to interfere with its spontaneous emergence in order to confirm its existence. An art therapist may take advantage of this possibility simply by being a sensitive observer. A setting providing the supports for a rigorous methodology is not necessary. For those wishing to employ methodologic rigor, however, the emerging data patterns may point our directions for more structured study (p. 331).

Both Wadeson and Kenneth Beittel, art education researcher, have provided some important guidelines which need to be considered in future research endeavors. Beittel (1973) notes:

We can never know the expressive act, but we can study it, if only indirectly, and through a concern with its context and structure we can do two things: arrive at an understanding and appreciation of it, and reflect upon it from some more abstract and theoretical vantage point (p. 76).
The words of Wadeson and Beittel were instrumental in encouraging me to study the effects of expressive and relaxation experiences, rather than deal with the pitfalls of researching the comparison group experiences in this pilot project.

In my future research endeavors, I would like to do some single subject studies of the physiological effects of expressive and relaxation experiences, and perhaps compare the data with scores on the self-report anxiety and mood disturbance inventories used in this study. Physiological data need to be studied because "the muscles of an individual are honest. When we try to hide what is in our minds, (our muscles) give us away" (Hammer, 1978, p. 59). It is important to research physiological responses, along with mediating cognitions, because the latter are so complex that they can be more fully understood as they relate to other human functions. For example, anxiety and heart rate can be more adequately understood from the standpoint of their relationship with one another.

The interrelationship among creative expression, mediating cognitions and adaptation is surrounded by some of the most compelling research questions. At what point, between an environmental event and one's perception of the event as a threat, does a human being begin to develop a feeling of distress? Do creative experiences allay the development of this feeling of distress stress in certain persons? The
following paragraphs may suggest some methods by which we can begin to seek answers to these questions.

Dennis Turk and his associates (1980), who have established a systematic approach for understanding the adaptive process and identifying patients who might benefit from intervention, observe that perceptions of patients have rarely been examined in an organized way. The process of coping is "dynamic, evolving over time" (p. 38) and cannot be understood through cross-sectional approaches that evaluate various groups of patients at certain points in the course of an illness. Turk and others (1980) support an "ipsative-normative" approach in which a small number of patients are studied intensively over long periods of time.

These authors have raised several valuable points. One, there are ways, other than tightly-controlled empirical research, to study behavior. A long term study of single subjects at close range, as suggested by Turk and others, certainly has merits in so far as researching the rehabilitative aspects of creative experiences is concerned. Two, our attention has again been directed toward the issue of mediating cognitions and perceptions.

A question in my mind is, can a specific creative experience, such as a series of drawing exercises (Edwards, 1979; Luthe, 1976), which are purported to stimulate the right hemisphere, enhance a person's capacity for creative problem solving? If one studies two small groups of mastectomy patients, a control and an experimental group regularly
engaging in such drawing exercises as the preceding, what differences between the groups would emerge relative to the patients' ability to develop a creative and meaningful outlook toward their physical circumstances? If the potential for creative problem-solving were enhanced, would the efficacy of the exercises be due to a change in self image, from cancer patient to artist? Would it be due to a distraction from the fear, pain or disfigurement associated with the condition?

In my discussion of future research, I have barely scratched the surface of the myriad issues which have been illuminated by this research. Although I could go on ad infinitum, it is not possible to do so at this point in time. I feel overwhelmed by the multitude of issues, all of which are pregnant with possibilities for further research, that have entered my consciousness throughout the writing of this last chapter.

I think of the world of imagery, and wonder what it holds in terms of the therapeutic modalities of the future. I contemplate the implications of the threshold, or dosage factor, for the different variables, as well as the therapies derived from creative experiences, and question what role the preceding can possibly play in rehabilitative endeavors in the decades to come. I ponder the infinite shifts in the personal identity of those who regularly engage in creative experiences, and wonder how these can be woven into rehabilitative processes. Most awesome, however, is the vast expanse of nonverbal processes which undoubtedly contain countless
mysteries governing the creative problem-solving and adaptive capacities of human beings.

Concluding Remarks

A concluding chapter cannot possibly do justice to a research endeavor of this magnitude. The review of the literature, in and of itself, represents an unprecedented binding together of the rehabilitative processes of creative experience: change, communication, expression, stress resolution, coping and adaptation. Each and every one of the preceding is a tremendous singular issue. Further, the empirical study is an initial attempt to utilize predictive hypotheses to capture some of the untold secrets of the healing qualities of creative experiences. It is hoped that the pilot project will function as a model for further research in the vital area of human creative endeavor.

In its most simple terms, the outcome of the pilot project tells us to make every possible effort to take a closer look at the merits of nonverbal therapeutic modalities, and to explore the use of relaxation techniques, therapeutic art experience and other expressive modalities, as stress-resolving experiences. In its most complex terms, having unearthed a few of the mysteries of creative expression, this research has given us a brief glimpse of the treasures which are yet to come.
Of even greater impact than the art itself, is the fact of its existence. One cannot escape the question as to why, in the face of such unprecedented hardships (of the concentration camps) did these deemed children and adults engage in creative work. Why does a man barter his precious crust of bread for paper, then risk his life to paint a picture? Why does a child sit at night in a secret classroom, weak with hunger and numb with cold, engaged in drawing or writing poetry? (Grossman, 1975, p. 25).

I consent to participating in (or my child's participation in) a study entitled Study of feeling/mood state fluctuations.

Beverly Baer, experimenter, has explained the purpose of the study and procedures to be followed. Possible benefits of the study have been described as have alternative procedures, if such procedures are applicable and available.

I acknowledge that I have had the opportunity to obtain additional information regarding the study and that any questions I have raised have been answered to my full satisfaction. Further, I understand that I am (my child is) free to withdraw consent at any time and to discontinue participation in the study without prejudice to me (my child). The information obtained from me (my child) will remain confidential and anonymous unless I specifically agree otherwise.

Finally, I acknowledge that I have read and fully understand the consent form. I have signed it freely and voluntarily and understand a copy is available upon request.

Date: October 7, 1980 Signed: X

(Person Authorized to Consent for Participant--If Required)
SIGN-UP SHEET FOR EXPERIMENT

(Protocol 80B 362)

Experimenter: Beverly Baer—Phone 421-1046 (evenings); Advisor: Dr. Kenneth Harantz; Location: Department of Art Education, 240 Hopkins Hall, N. Oval Mall

The experimenter needs 60 students (juniors and seniors) from the O.S.U. School of Physical Therapy, who are willing to volunteer for a study of mood/feeling state fluctuations accompanying various modes of self-expression. During the experimental session, volunteers will be requested to enter into different kinds of simple expressive tasks. Although the tasks in the first part of the session will be moderately stressful, at no point in the experiment will any of the activities be physically painful or threatening. The tasks of the second part of the session will serve to neutralize the stressful aspects of the beginning of the session. Those who wish to volunteer will need to set aside a total of 2-1/2 hours of time for the experimental session, which is to be held from 7-9:30 on Tuesday evening, October 7, in Room 343 of the Allied Med Building.

Volunteers whose names appear on this sheet are signing up to participate, as subjects, in the October 7 research session, which will begin with random assignment to one of four expressive activity groups. After each of you has been assigned to a group, you will be given instructions for proceeding with the activities of your group. There will be a question and answer period at the end of the session.

There is a possibility that you will receive a small amount of remuneration for your participation IF the experimenter succeeds in acquiring a grant for this research. This, however, is conditional at present, and there will be no definite word about a grant for some time. Please be certain that your full address and phone number are on this sheet, in the event that you must be contacted.

From now on, until the research session, there will be NO FURTHER NOTICES from the experimenter. Your signature on this sheet indicates that you will be present on the evening of October 7, from 7-9:30 in Room 343. If you need to withdraw your participation, please notify the experimenter by Monday, October 6.

260
<table>
<thead>
<tr>
<th>Name</th>
<th>Address</th>
<th>Phone</th>
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<td>1.</td>
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<td>5.</td>
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</tbody>
</table>
Research Objective

My name is Beverly Baer. This research is for my Doctoral dissertation in the Department of Art Education.

The research objective is to observe and compare moment to moment changes in feeling and mood states, which will occur as you participate in different kinds of expressive activities throughout the study. Should you have comments and/or questions about the objectives and methodology of this study, you are encouraged to participate in the question and answer period at the end of the session (at approximately 8:30 p.m.).

Instructions

Most of your instructions throughout the research are written, in order to minimize the variable of personal interaction which inevitably accompanies verbal interchange. Please read all instructions carefully. Familiarize yourself with them to the extent that you believe that you can move through the research activities without asking questions or needing assistance (other than the prompting of the group monitor) once the experiment has actually begun.

Purpose

The purpose of this written presentation is threefold. One, it is important for you to gain a "sense" of what the
entire research session is about before you begin to participate. Two, to ensure an accurate experimental outcome, it is necessary for there to be uniformity with regard to what each of you does throughout this session. Three, clear directions will hopefully enable you to proceed with the experiment, relying on the monitor assigned to your group for ONLY verbal announcements to begin and end each phase of the group activities.

Overview of Experimental Session

The research session is composed of four groups (A, B, C, and D), each of which has a monitor whose job is to direct sequence and timing of expressive activities by making verbal announcements to begin and end each activity. The names of the monitors are posted on the doors of the rooms where you will be assigned to work.

The activities of expressive activity groups A, B, C, and D are broken down into five phases. When you actually become involved in the experiment, it will be necessary for you to quickly move from one phase to the next. Since timing and sequence of the phases are critical, your group monitor will verbally announce the beginning and end of each phase. The following section describes the phases.

* * * * *
Phases

In your work areas, each of you will find an activity manual containing specific instructions for you to complete each phase of the research session. The following is a descriptive overview of the material in the manual. At this point, you need not work, but, rather, READ the short description of the phases.

Phase I: consent form. The first item of your activity manual is a consent form. When you come to it, please read it carefully and sign it if you are in accord with its terms.

Phase II: mental arithmetic test. Each group will begin with a mental arithmetic test. This is the ONLY part of the research situation that is a test. Throughout this test, you will hear a metronome beat at regular intervals. Beginning with the number 3194, subtract 17 each time you hear the beat of the metronome. Continue throughout the test to subtract 17 from each remainder EACH TIME/ONLY WHEN you hear the sound of the metronome. At the end of the test, record your final calculated result in the proper blank of the Phase II section of your activity manual. Your group monitor will verbally announce the beginning and end of the mental arithmetic test (Phase II). Directions for the test are recapped in the activity manual.

Phase III: expressive activity. Each of the four groups will have a separate set of instructions for this phase of the experiment. Prior to the Phase III expressive activity
will be approximately 5 minutes for reading the instructions in the manual. Your monitor will give you verbal instructions to begin and end the expressive activity phase of this experiment. NONE of the expressive activities are tests. The purpose of these activities is for you to focus upon and express your feelings and mood states AT PRESENT/AT THE MOMENT throughout your involvement in these activities.

**Phase IV: inventories.** At the end of your manuals are three pencil and paper inventories. These inventories are NOT tests. There are no right or wrong answers. Complete them in the order in which they occur in your manual. As you complete each one, read instructions carefully, and answer quickly; always focusing upon HOW YOU FEEL NOW—AT EACH MOMENT in time. If you finish before other persons, please sit quietly until all have completed the materials. Your monitor will give you verbal instructions to begin and end this phase.

**Phase V: Question and Answer Period.** At the end of the session you are encouraged to ask questions and make comments about the methodology and goals of this research.

* * * * *

**Assignments to Groups**

In a short time, after you have had time to familiarize yourself with the material in this presentation, I will assign you to your groups. To be assigned, you will need to form a line and file past me. I will give you a card marked with a
letter designating your assignment to one of the four groups. Proceed to the classroom with the letter, corresponding with your card, on its door.

When you enter your rooms, please sit at the desks/tables where your activity manuals are placed. DO NOT do any work until instructed by your monitor. DO NOT read ahead in your manual, but, rather, work through one phase at a time.

Are there any questions about this presentation or the format of the research sessions?

Thank you for your cooperation!
Introductory Remarks and Random Assignment by the Investigator:

(10-15 minutes)

Procedure: The investigator distributes copies of the Introductory Presentation to Subjects Form to all Ss, assembled as a group, who read the material and ask questions about any part which is not clearly understood. When there are no more questions, Ss are randomly assigned to one of four comparison groups. For random assignment, the investigator sets up a stack of 68 cards, composed of 4 groups of 17, marked with the letters A, B, C, and D. As Ss file by the investigator, each takes a card designating assignment to a comparison group.

Phase I: Consent Form (3 minutes)

"Your consent forms are on the second page of this manual. When you have read and signed the form, turn back to this page."

Read the consent form carefully and sign it if you are in accord with its terms. Although your names will appear on the consent form, your identity WILL NOT be revealed in any manner in the written forms of this research project. Consent forms represent a requirement in all research activities, and are simply on file for a specified period of time after the experiment has been completed.
Phase II: Mental Arithmetic Test* (5 minutes)

"Take a minute to review the instructions for the mental arithmetic."

This is the ONLY part of the research situation that is a test. Throughout this test, you will hear a metronome beat at regular intervals. Beginning with the number 3194, subtract 17 each time you hear the beat of the metronome. Continue throughout the test to subtract 17 from each remainder EACH TIME/ONLY WHEN you hear the sound of the metronome. At the end of the test, record your final calculated result in the proper blank in this section of the activity manual. Your group monitor will verbally announce the beginning and end of the mental arithmetic test.

DO NOT use pencil or paper. Make all calculations in your mind. Make every attempt to keep pace with the metronome. If you do lose pace, continue as best and as accurately as you can. DO NOT stop calculating!

Verbal Announcement to Begin: "Begin the mental arithmetic phase when you hear the sound of the metronome."

Verbal Announcement to End: "Stop mental arithmetic phase. Place your result in the blank at the bottom of this page. Prepare for the Phase III expressive activity."

Mental Arithmetic Result ________

*The metronome beats every 1.7 seconds.
Phase III: Expressive Activity (Group A) Instructions for Monitors

The time for this activity is 30 minutes (not revealed to Ss). Before the expressive activity begins, the monitor puts the following materials at each Ss work area (desk/table):
plastic bag of art supplies, 5 sheets of 9 x 12 art paper, 1 sheet of waxed paper to protect the surface of the desk/table, 2 sheets of paper toweling.

The bag of art materials contains one of each of the following:

Set of 12 oil pastels
Package of 10 water color markers
Box of 10 water colors with brush
1/4 lb. stick of clay
pencil

The session begins with the following announcement by the monitor: "Take a few minutes to read the instructions." (3 minutes)

Phase III: Expressive Activity (Group A)

There is a bag of creative materials for each of you. After reading these instructions carefully, use these creative materials in any way that you wish, to express your feelings/moods. This is NOT a test. It is your time to explore different ways of expressing yourself. Just let your imagination flow and continue to express how you feel NOW/AT THIS POINT IN TIME as you work from moment to moment.
The ways in which you can use lines, colors, and shapes to express your thoughts and feelings are infinite. Some people like to make sketches, pictures, stories or cartoons. Others like to doodle and put together stick figures and/or various other symbols. The materials can be used singly or in combination with each other. They can be rubbed, scratched, smeared, or scraped across the page. Clay can be molded, squeezed or beaten.

The only rule for this task is for you to 1) work independently, focusing upon your own work and refraining from interacting with others in the room; and 2) express what you feel NOW—moment by moment. Otherwise, there are no rules, regulations, right or wrong ways to do this task. Be loud, gentle, assertive, messy, comical or dirty-minded—whatever you feel at the time. Your expressive work in this part of the session is your own domain. You do not need to share it with anyone. No one will examine it. Do as you wish with your work. You may take it with you, or tear it up if you like. Your monitor has a supply of art paper, paper towel, water, and waxed paper to protect the desks. Help yourself! If cleaning up needs to be done, wait until the end of the session.

Verbal announcement to begin: "Begin Phase III expressive activity."

To end: "Stop working. Prepare for Phase IV inventories."
Phase III: Expressive Activity (Group B) Instructions for Monitors

The supplies for this activity, a pencil and two sheets of paper, are placed on the desks or tables before the session begins.

The session begins with the following announcement by the monitor: "Take a few minutes to read the instructions." (3 minutes)

The time for this activity is 30 minutes (not revealed to Ss).

Phase III: Expressive Activity (Group B)

You will need a pencil/pen and paper to work. After reading these instructions carefully, use written words in any way that you wish, to express your feelings/moods. This is NOT a test. It is your time to explore different ways of expressing yourself with written words. Just let your imagination go and continue to express how you feel NOW/AT THIS POINT IN TIME as you write from moment to moment.

The ways in which you can use written words to express your thoughts and feelings are infinite. Some people like to make sketches, pictures, stories or cartoons with words. Others like to put together words in repetitive patterns, slogans, puns or poems. Words can be put together singly or in combination with each other; in phrases, sentences or paragraphs.

The only rule for this task is for you to 1) work independently, focusing upon your own work and refraining from
interacting with others in the room; and 2) express what you feel NOW—moment by moment. Otherwise, there are no rules, regulations, right or wrong ways to do this task. Be loud, gentle, assertive, messy, comical or dirty-minded—whatever you feel at the time. Your expressive work in this part of the session is your own domain. You do not need to share it with anyone. No one will examine it. Do as you wish with your work. You may take it with you, or tear it up if you like. Your monitor has a supply of paper and extra pencils. Help yourself!

Verbal announcement to begin: "Begin Phase III expressive activity."

Verbal announcement to end: "Stop working. Prepare for Phase IV completion of inventories."

Phase III: Expressive Activity (Group C) Instructions for Monitors

The time for this activity is approximately 30 minutes (not revealed to Ss).

The tape used for this session is entitled "Stress Management," from Relaxation Training Program by Thomas Budzynski, Ph.D. The time for the tape is 29:07. The number is MV 3P-6, copyright 1974, Bio-Feedback Systems, INC., BMA Audio Cassettes Pub., 270 Madison Avenue, New York, N.Y. 10016.

Verbal announcement to begin: "Make yourselves comfortable, and follow the tape-recorded session which is about to be played."
Verbal announcement to end: "As you count backwards from 4, become fully alert on 1. Prepare for Phase IV completion of inventories."

Phase III: Expressive Activity (Group D) Instructions for Monitors

The cassette recording for this session includes the following songs in the order listed: 1) This Morning--5:55; 2) Remember Me, My Friend--5:27; 3) My Brother--3:27; 4) You--4:34; 5) Nights, Winters, Years--3:36; 6) I Dreamed Last Night--4:27; 7) Who are You Now?--2:30. The songs are from the album entitled "Bluejays," by Justin Haywood and John Lodge, StereoTHS 14, recorded by Threshold Studios, Decca, London, copyright 1975. The cassette lasts approximately 30 minutes.

Verbal announcement to begin: "Make yourselves comfortable and listen to the music which I am about to play."

Verbal announcement to end: "This is the end of the Phase III music listening session. Prepare for Phase IV completion of inventories."

Phase IV: Pencil and Paper Inventories

These inventories are NOT tests! There are no right or wrong answers. Complete them in the order in which they occur in your manual. As you complete each one, read instructions carefully, and answer quickly; always focusing upon HOW YOU FEEL NOW--AT EACH MOMENT in time. If you finish before other persons, please sit quietly until all have completed the
materials. Your monitor will give you verbal instructions to begin and end.

Verbal announcement to begin: "This is Phase IV. Begin to work on your inventories."

Verbal announcement to end: "Stop Phase IV. Check your inventories to make certain that all items are filled in. Prepare to move back to Room 136 for the question and answer session. As you leave this room, please give me your complete activity manual. Thank you."

It is suggested that monitors make certain that they have 16/17 stapled sets of inventories before all Ss depart.

Phase V: Question and Answer Period (Ss assemble in a group)

You are encouraged to ask any questions that you may have about the research. Thank you for your help and cooperation.

During the question and answer period, the monitors are to straighten up the rooms and place all inventories and materials in a shopping cart.
**Activity Manual Supplement**

*(For Investigator and Monitors)*

The following instructions are for the tape recordings and supplies for the various comparison group activities.

**Mental Arithmetic Stress Situation**

For the stress stimulus, five cassette tape recordings (one extra in case of breakage) are made of a metronome beating every 1.7 seconds. Each group monitor is to play the tape recording, during which time the subjects are asked to subtract 17 from a remainder (beginning with the number, 3194) each time they hear the sound of the metronome. At no time can pencil or paper be used. All calculations must be mental. The subjects must keep up the pace of the calculations throughout a five-minute period, recording their end result (last calculation) in the proper blank of page one of their activity manual.

**Group A Creative Materials**

- **Materials in plastic bag:** 1 set of 12 oil pastels; 1 bag of 10 water color markers; 1 box of 10 water colors with brush; 1-1/4 lb. stick of clay; 1 pencil.

- **Materials to be placed on desk/work area:** 5 sheets 9 x 12 art paper; 1 paper cup of water; 2 sheets paper towel; 1 sheet of waxed paper to protect surface. Extra materials are available from the monitor.
**Materials to be placed on desk/work area:** 5 sheets 8 x 11 writing paper; 1 pencil. Extra materials are available from the monitor.

All of the materials for Groups A and B are to be placed on the desks/workspaces before the subjects enter the room.

**Group C Tape Recording**


The first part of the tape instructs subjects to experience feelings of heaviness, warmth and relaxation in all parts of the body (i.e., arms, legs, facial muscles, neck, shoulders, abdomen, back). Subjects are then asked to visualize anxiety-inducing scenes with the calmness which they learned to experience during the initial part of the tape. The message of the tape is:

If you visualize anxiety-provoking areas of your life and subsequently think about situations in which you remain calm, eventually pairing the calmness with the anxiety scene, there will be a transfer of feelings of command and control to real life situations, so that when you actually meet these situations, you will not feel fear and anxiety,
but, instead, calmness and control. "There is a nice
transfer from this simulated situation to the real life
situation."

**Group D Tape Recorded Music**

A cassette tape recording was made of songs from the easy-listening album entitled, "Bluejays," performed by Justin Haywood and John Lodge (Stereo THS 14, recorded by Threshold Studios, Decca, London, copyright 1975). The following songs were recorded in the sequence presented:

1. "This Morning" (5:55)
2. "Remember Me, My Friend" (5:27)
3. "My Brother" (3:27)
4. "You" (4:34)
5. "Nights, Winters, Years" (3:36)
6. "I Dreamed Last Night" (4:27)
7. "Who Are You Now?" (2:30)

The total time for the tape recording is approximately thirty minutes. An extra cassette was made of these songs, in the event of breakage during the experiment.
Phase I: Consent Form

Read the consent form carefully and sign it if you are in accord with its terms. Although your names will appear on the consent form, your identity WILL NOT be revealed in any manner in the written forms of this research project. Consent forms represent a requirement in all research activities, and are simply on file for a specified period of time after the experiment has been completed.

Phase II: Mental Arithmetic Test

This is the ONLY part of the research situation that is a test. Throughout this test, you will hear a metronome beat at regular intervals. Beginning with the number 3194, subtract 17 each time you hear the beat of the metronome. Continue throughout the test to subtract 17 from each remainder EACH TIME/ONLY WHEN you hear the sound of the metronome. At the end of the test, record your final calculated result in the proper blank in this section of the activity manual. Your group monitor will verbally announce the beginning and end of the mental arithmetic test.

DO NOT use pencil or paper. Make all calculations in your mind. Make every attempt to keep pace with the metronome. If you do lose pace, continue as best and as accurately as you can. DO NOT stop calculating!
Verbal Announcement to Begin: "Begin the mental arithmetic phase when you hear the sound of the metronome."

Verbal Announcement to End: "Stop mental arithmetic phase. Place your result in the blank at the bottom of this page. Prepare for the Phase III expressive activity."

Mental Arithmetic Result __________

Phase III: Expressive Activity (Group A)

There is a bag of creative materials for each of you. After reading these instructions carefully, use these creative materials in any way that you wish, to express your feelings/moods. This is NOT a test. It is your time to explore different ways of expressing yourself. Just let your imagination go and continue to express how you feel NOW/AT THIS POINT IN TIME as you work from moment to moment.

The ways in which you can use lines, colors, and shapes to express your thoughts and feelings are infinite. Some people like to make sketches, pictures, stories or cartoons. Others like to doodle and put together stick figures and/or various other symbols. The materials can be used singly or in combination with each other. They can be rubbed, scratched, smeared, or scraped across the page. Clay can be molded, squeezed or beaten.

The only rule for this task is for you to 1) work independently, focusing upon your own work and refraining from interacting with others in the room; and 2) express what you feel NOW--moment by moment. Otherwise, there are no rules,
regulations, right or wrong ways to do this task. Be loud, gentle, assertive, messy, comical or dirty-minded—\textit{whatever you feel at the time}. Your expressive work in this part of the session is your own domain. You do not need to share it with anyone. No one will examine it. Do as you wish with your work. You may take it with you, or tear it up if you like. Your monitor has a supply of art paper, paper towel, water, and waxed paper to protect the desks. Help yourself! If cleaning up needs to be done, wait until the end of the session.

\textbf{Verbal announcement to begin}: "Begin Phase III expressive activity."

\textbf{To End}: "Stop working. Prepare for Phase IV inventories."

\textbf{Phase III: Expressive Activity (Group B)}

You will need a pencil/pen and paper to work. After reading these instructions carefully, use written words in any way that you wish, to express your feelings/moods. This is NOT a test. It is your time to explore different ways of expressing yourself with written words. Just let your imagination go and continue to express how you feel \textit{NOW/AT THIS POINT IN TIME} as you write from moment to moment.

The ways in which you can use written words to express your thoughts and feelings are infinite. Some people like to make sketches, pictures, stories or cartoons with words. Others like to put together words in repetitive patterns, slogans, puns or poems. Words can be put together singly or in combination with each other; in phrases, sentences or paragraphs.
The only rule for this task is for you to 1) work independently, focusing upon your own work and refraining from interacting with others in the room; and 2) express what you feel NOW—moment by moment. Otherwise, there are no rules, regulations, right or wrong ways to do this task. Be loud, gentle, assertive, messy, comical or dirty-minded—whatever you feel at the time. Your expressive work in this part of the session is your own domain. You do not need to share it with anyone. No one will examine it. Do as you wish with your work. You may take it with you, or tear it up if you like. Your monitor has a supply of paper and extra pencils. Help yourself!

Verbal announcement to begin: "Begin Phase III expressive activity."

Verbal announcement to end: "Stop working. Prepare for Phase IV completion of inventories."

Phase III: Expressive Activity (Group C)

Verbal announcement to begin: "Make yourselves comfortable, and follow the tape-recorded session which is about to be played."

Verbal announcement to end: "As you count backwards from 4, become fully alert on 1. Prepare for Phase IV completion of inventories."

Phase III: Expressive Activity (Group D)

Verbal announcement to begin: "Make yourselves comfortable and listen to the music which I am about to play."
Verbal announcement to end: "This is the end of the Phase III music listening session. Prepare for Phase IV completion of inventories."

Phase IV: Pencil and Paper Inventories

These inventories are NOT tests! There are no right or wrong answers. Complete them in order in which they occur in your manual. As you complete each one, read instructions carefully, and answer quickly; always focusing upon HOW YOU FEEL NOW—AT EACH MOMENT in time. If you finish before other persons, please sit quietly until all have completed the materials. Your monitor will give you verbal instructions to begin and end.

Verbal announcement to begin: "This is Phase IV. Begin to work on your inventories."

Verbal announcement to end: "Stop Phase IV. Check your inventories to make certain that all items are filled in. Prepare to move back to Room 343 for the question and answer session. As you leave this room, please give me your complete activity manual. Thank you."

Phase V: Question and Answer Period

You are encouraged to ask any questions that you may have about the research. Thank you for your help and cooperation.
APPENDIX B
Inventory I

Self-Evaluation Questionnaire

DIRECTIONS: A number of statements which people have used to describe themselves are given below. Read each statement and then encircle the number to the right of the statement to indicate how you feel RIGHT NOW, that is, AT THIS MOMENT. There are no right or wrong answers. Do not spend too much time on any one statement but give the answer which seems to describe your present feelings best.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Not at all</th>
<th>Somewhat</th>
<th>Moderately so</th>
<th>Very much so</th>
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<tbody>
<tr>
<td>1. I feel calm.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>2. I feel secure.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>3. I am tense.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
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<td>4. I am regretful.</td>
<td>1</td>
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<td>5. I feel at ease.</td>
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<td>6. I feel upset.</td>
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<td>7. I am presently worrying over possible misfortunes.</td>
<td>1</td>
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<td>8. I feel rested.</td>
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<td>2</td>
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<td>9. I feel anxious.</td>
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<td>2</td>
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<tr>
<td>10. I feel comfortable.</td>
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<td>11. I feel self-confident.</td>
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<td>12. I feel nervous.</td>
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<td>13. I am jittery.</td>
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<td>14. I feel &quot;high strung&quot;</td>
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<td>15. I am relaxed.</td>
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<td>16.</td>
<td>I feel content.</td>
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<td>17.</td>
<td>I am worried.</td>
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<tr>
<td>18.</td>
<td>I feel over-excited and &quot;rattled&quot;</td>
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<tr>
<td>19.</td>
<td>I feel joyful</td>
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<tr>
<td>20.</td>
<td>I feel pleasant</td>
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Inventory II

Your answer, EITHER a or b to each question on this inventory, reported beside the question. Please answer these items carefully and do not spend too much time on any one item. Be sure to find an answer to match your choice. For each numbered question make an X on the line beside a or b, whichever you choose as the statement most true.

In some instances you may discover that you believe both statements or neither one. In such cases, be sure to select the one you more strongly believe to be the case as far as you're concerned. Also try to tend to each item independently when making your choice; DO not be influenced by your previous choices.

REMEMBER: Select that alternative which you personally believe to be more true, relative to how you feel NOW--AT PRESENT!

AT THIS MOMENT, I more strongly believe that:

1. ___a. Children get into trouble because their parents mishape them too much.  ____b. The trouble with most children nowadays is that their parents are too easy with them.

2. ___a. Many of the unhappy things in people's lives are partly due to bad luck.  ____b. People's misfortunes result from the mistakes they make.

3. ___a. One of the major reasons why we have wars is because people don't take enough interest in politics.  ____b. There will always be wars, no matter how hard people try to prevent them.

4. ___a. In the long run people get the respect they deserve in this world.  ____b. Unfortunately, an individual's worth often passes unrecognized no matter how hard he tries.

5. ___a. The idea that teachers are unfair to students is nonsense.  ____b. Most students don't realize the extent to which their grades are influenced by accidental happenings.
6. a. Without the right breaks one cannot be an effective leader.
   b. Capable people who fail to become leaders haven't taken advantage of their opportunities.

7. a. No matter how hard you try some people just don't like you.
   b. People who can't get others to like them don't understand how to get along with others.

8. a. Heredity plays the major role in determining one's personality.
   b. It is one's experiences in life which determine what they're like.

9. a. I have often found that what is going to happen will happen.
   b. Trusting to fate has never turned out as well for me as making a decision to take a definite course of action.

10. a. In the case of the well prepared student there is rarely if ever such a thing as an unfair test.
   b. Many times exam questions tend to be so unrelated to course work that studying is really useless.

11. a. Becoming a success is a matter of hard work, luck has little or nothing to do with it.
   b. Getting a good job depends mainly on being in the right place at the right time.

12. a. The average citizen can have an influence in government decisions.
   b. This world is run by the few people in power, and there is not much the little guy can do about it.

13. a. When I make plans, I am almost certain that I can make them work.
   b. It is not always wise to plan too far ahead because many things turn out to be a matter of good or bad fortune anyhow.

14. a. There are certain people who are just no good.
   b. There is some good in everybody.

15. a. In my case getting what I want has little or nothing to do with luck.
   b. Many times we might just as well decide what to do by flipping a coin.
16. ___a. Who gets to be the boss often depends on who was lucky enough to be in the right place first.
     ___b. Getting people to do the right thing depends upon ability; luck has little or nothing to do with it.

17. ___a. As far as world affairs are concerned, most of us are the victims of forces we can neither understand, nor control.
     ___b. By taking an active part in political and social affairs the people can control world events.

18. ___a. Most people can't realize the extent to which their lives are controlled by accidental happenings.
     ___b. There really is no such thing as "luck."

19. ___a. One should always be willing to admit his mistakes.
     ___b. It is usually best to cover up one's mistakes.

20. ___a. It is hard to know whether or not a person really likes you.
     ___b. How many friends you have depends upon how nice a person you are.

21. ___a. In the long run the bad things that happen to us are balanced by the good ones.
     ___b. Most misfortunes are the result of lack of ability, ignorance, laziness, or all three.

22. ___a. With enough effort we can wipe out political corruption.
     ___b. It is difficult for people to have much control over the things politicians do in office.

23. ___a. Sometimes I can't understand how teachers arrive at the grades they give.
     ___b. There is a direct connection between how hard I study and the grades I get.

24. ___a. A good leader expects people to decide for themselves what they should do.
     ___b. A good leader makes it clear to everybody what their jobs are.

25. ___a. Many times I feel that I have little influence over the things that happen to me.
     ___b. It is impossible for me to believe that chance or luck plays an important role in my life.
26. ___ a. People are lonely because they don't try to be friendly.
    ___ b. There's not much use in trying too hard to please people, if they like you, they like you.

27. ___ a. There is too much emphasis on athletics in high school.
    ___ b. Team sports are an excellent way to build character.

28. ___ a. What happens to me is my own doing.
    ___ b. Sometimes I feel that I don't have enough control over the direction my life is taking.

29. ___ a. Most of the time I can't understand why politicians behave the way they do.
    ___ b. In the long run the people are responsible for bad government on a national as well as on a local level.
Inventory III

Encircle appropriate response below:

Expressive Activity Group: A B C D
Class: Junior Senior

Below is a list of words that describe feelings which people have. Please read each one carefully. Then encircle the number under the phrase which best describes HOW YOU FEEL RIGHT NOW--AT THIS MOMENT.

The numbers refer to the phrases:

0 = not at all
1 = a little
2 = moderately
3 = quite a bit
4 = extremely

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Make sure you have answered every item!


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