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RELAXATION, AND GUIDED IMAGERY IN
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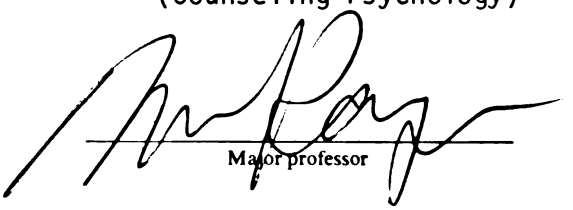

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THE ROLE OF DEFENSE MECHANISMS RELAXATION, AND GUIDED IMAGERY IN AFFECTIVE SENSITIVITY

By

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ABSTRACT

THE ROLE OF DEFENSE MECHANISMS,
RELAXATION, AND GUIDED IMAGERY IN
AFFECTIVE SENSITIVITY

By

James I. Millhouse

It is generally acknowledged that the ability to empathize is one of the most basic and critical behaviors needed in a helping interaction. The process by which people become aware of the internal experience of another, defined here as Affective Sensitivity (AS), has been difficult to understand, quantify, and influence.

The purpose of this research was to investigate dimensions thought to influence AS and evaluate the effectiveness of a procedure intended to increase this ability. Specifically, the study had two goals: 1) to determine the efficacy of a Relaxation and Guided Imagery procedure as a method to increase Affective Sensitivity as measured by performance on the Affective Sensitivity Scale form E-A-2 (ASS) developed by Kagan and Schneider (1977), and 2) to investigate the role of defense mechanisms, as measured by the Defense Mechanism Inventory (DMI) developed by Gleser and Ihilevich (1969), and the ability to employ highly developed imagery as measured by the Creative Imagination Scale (CIS) developed by Wilson and Barber (1978), in the process of Affective Sensitivity.

Fifty six female volunteers were randomly assigned to experimental and control groups. After administration of the Defense Mechanism Inventory and the Creative Imagination Scale covariates, subjects

assigned to the experimental condition were given a treatment consisting of relaxation followed by guided imagery. The imagery guided the subjects to imagine that they were interacting with people and sensing the others and their own affect in the visual, auditory, and kinesthetic representation systems. The subjects in the control group simultaneously experienced a cognitive condition by listening to a taped lecture on the genetic development of affects and affect regression. Immediately following the treatment and control procedures, both groups were simultaneously administered the ASS dependent variable as a measure of Affective Sensitivity.

A multivariate analysis of covariance was used to evaluate the treatment effect, and no difference in Affective Sensitivity, as measured by total score on the ASS, was found between the treatment and control groups. Both groups, however, scored approximately one standard deviation higher on the ASS than the national norm. Possible reasons for this outcome were discussed including a treatment effect by the covariates, a treatment effect by the control condition, and impact of the testing conditions. The Defense Mechnism Inventory subscale Reversal was found to be negatively correlated with correct AS. The Defense Mechanism Inventory subscale Projection was found to be positively correlated with correct AS and negatively correlated with incorrect AS. Subscales, but not total score, of the Creative Imagination Scale were found to be correlated with AS. Subject age was found to be uncorrelated with AS. Interpretations of the results and recommendations for future research were presented.

To my parents

Iva M.

and

Ernest Millhouse

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This dissertation represents a summation of years of work and the assistance of many people. Although numerous people and institutions have given of their time and energy, their full contribution can never be fully acknowledged. The following individuals have had a particularly important influence toward the completion of this project.

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NEED FOR THE STUDY

It is generally acknowledged that the ability to empathize is one of the most basic and critical components of a helping interaction (Rogers, 1959; Rogers, 1975; Barrett-Lennard, 1981). With the understanding that people do not respond directly to the world, but respond and operate within the definitions and constraints of their model of the world (Bandler and Grinder, 1975a), it is obvious why empathy is a necessary precursor to other meaningful interactions (Rogers, 1975). The process by which persons become aware of the internal experience of another is not fully understood. A more clear and differentiated understanding of the internal mechanisms and attributes responsible for affective sensitivity, and training procedures capable of facilitating them, would be of great value in increasing the impact of health care professionals.

PURPOSE

Most previous research on empathy has primarily centered on verbal empathic response as the dependent variable. The present research sought to investigate empathy at the most basic, or perceptual awareness and identification level. This perceptual and identification level of empathy is conceptualized in the present study as affective sensitivity (AS). Affective sensitivity was defined early as "the ability to detect and describe the immediate affective state of another, or in terms of communication theory, the ability to receive and decode affective communication" (Kagan, Krathwohl, and Farquhar, 1965)". This definition has been expanded in the present study to include Kagan's recent

formulation of stages of empathy which includes the stages of perception, awareness, naming and communication (Kagan, unpublished manuscript). The first three stages are grouped under the term "affective sensitivity" (AS). Further description of the stages is presented in this chapter in the section on Affective Sensitivity.

The present study has a two fold purpose. First, a relaxation and guided imagery procedure will be evaluated as a means of increasing the affective sensitivity of experimental subjects as measured by performance on the Affective Sensitivity Scale (ASS). Second, subscale scores on the Defense Mechanism Inventory (DMI), and scores from the Creative Imagination Scale (CIS), will be used to investigate the role of defense mechanisms and creative imagination in AS.

HYPOTHESES

The study was designed to evaluate the following hypotheses stated in null form:

Ho: There is no difference in total score on the Affective Sensitivity Scale (ASSTOT) between the experimental and control groups.

Ho: There is no relationship between scores on the Defense Mechanism Inventory subscales (TAO, PRO, PRN, TAS, and REV) and ASSTOT for the entire sample.

Ho: There is no relationship between the total score on the Creative Imagination Scale (CISTOT) and ASSTOT for the entire sample.

Ho: There is no relationship between subject age (AGE) and ASSTOT for the entire sample.

THEORY

Introduction

In this section the definitions, assumptions, and theoretical postulates upon which the present research has been developed and which may further a comprehension of its components are presented and discussed. The research is basically atheoretical as it was conceived in response to the observation of phenomena from many different but related fields. However, theory that may provide a way to integrate the data, and stimulate understanding of it, is provided in this section.

The following presentation of theory is organized into two parts. The first part includes general theoretical positions as they apply to the issue of empathy including sections on: psychoanalytic developmental psychology; adaptive regression in the service of the ego; a discussion of active, passive, and receptive ego states; neo-dissociation theory; laterality; and psychic flexibility. In the second part, theoretical conceptualizations specific to each component of the present study such as empathy, affective sensitivity, imagery, defense mechanisms, and the treatment are discussed in greater depth. Theoretical issues regarding inclusion of the covariates and dependent variable in the present study are discussed in the the related sections.

Theory: General Considerations

Psychoanalytic Developmental Psychology: Ego Psychology

Although the background data and the present study could be interpreted in the context of several theoretical orientations, the formulations of psychoanalytic developmental psychology, otherwise known as ego psychology, were chosen for this purpose as they seem to provide

the most comprehensive integration of the dimensions involved. Although a complete discussion of psychoanalytic developmental psychology is not the focus of this dissertation, the concepts will be reviewed with specific attention given to aspects of theory most centrally related to the present study.

The formulation of the structural model (Freud, 1923) which divided the mental apparatus into id, ego, and superego provided the groundwork for the subsequent development of ego psychology. Among the numerous contributions of ego psychology, the writings of Hartmann (1939) are of particular importance in the developmental considerations of the present study. Building on Freud's (1923) postulations that the ego developed out of the id as a surface organ of perception, Hartmann (1939) was the first psychoanalytic writer to assert that both the ego and the id emerged from an "undifferentiated matrix", and that certain functions, identified as belonging to the ego were present at birth. Under normal conditions, these inborn ego functions known as "apparatuses of primary autonomy" were said to evolve in a conflict-free sphere independent of conflicts with instinctual drives, love objects, the superego and so on. These apparatuses of primary autonomy which include activities such as perception, intention, object comprehension, thinking, language, recall phenomena, productivity, motor development, and the like, provide a standard basis for the developmental progression, also described as "progressive adaptation" by Hartmann, of every person. Using these basic abilities, Hartmann suggests that persons under the influence of an "average expectable environment" begin a similar process of psychological maturation and development.

Mahler (1968) provided further guidelines describing the normal

developmental progression of the infant through the stages of autism, symbiosis, separation, and individuation toward becoming an autonomous adult with object constancy and a consolidated identiy. Fundamental to this progression is the mother child dyad. It is through the experience of interaction with the primary mothering figure in this dyad, which forms the basis for the aforementioned stages, that the child learns its major conceptions about the world. More specifically, it is in this interaction that the child learns about the emotions and experiences of themself, others, and begins to develop the skills of relating to others. This situation provides the childs first and most important situation for learning how to perceive the feelings and inner states of another, or in other words, their first training in affective sensitivity.

Generally, it can be said that there is a basic sequence of ego development that all humans tend to follow (Blanck and Blanck, 1974; Fenichel, 1945; Freud, 1923; Freud, 1936; Rapaport, 1951). This basic similarity in development leads people, particularly those of the same culture, to have a common developmental learning experience. However, although an average expectable environment will get individuals started in the same general direction, differences in environment, and possibly inborn tendencies, can lead to differences in cathexis devoted to various stages and issues. This can result in differing levels of satisfactory stage completion, rate of development, and possible fixations.

These developmental differences can be relevant to the present study in two ways. As the ability to perceive the emotional state or inner experience of another can be seen to be a function of the developmental experiences of the perceiver, the differences in development mentioned above could be expected to influence the perception of emotion and inner

states in oneself and others. In addition, the differing developmental conditions cited above can lead to the development of differing defensive structures and mechanisms. As information from within or without comes under the scrutiny of the defensive structures, it is possible that defensive operations may differentially influence awareness of perception of the inner state of oneself or others. This situation can have particular relevance if the target state is emotionally charged as is the case in professional activities conducted by psychotherapists and physicians, and in response to the ASS.

In the following sections additional pieces of theory will be developed and added to this base. Further, other concepts and theories that provide a comparison or alternative explanation for the dimensions under consideration will be presented.

Adaptive Regression in the Service of the Ego

In the present study the analysis and manipulation of the psychological state of the subject, as a component of the independent and dependent variables, was of central importance. This included an attempt to understand and interrelate such processes as preconscious processing (Dixon, 1981; Hilgard, 1979), imagery, relaxation on demand, sensitivity to the emotional state of another, and the ability to engage in an activity which demanded that the subject control the focus of their attention. These processes bear sufficient resemblence to activities performed during hypnosis to support the validity of using the numerous studies and theories concerning hypnosis to facilitate understanding of these processes. Of particular importance for the current study are the ego psychological formulations of hypnosis as a regression in the service

of the ego (Kris, 1934; Bellak, 1950; Gill and Brenman, 1959). Although whether hypnosis or affective sensitivity is regression in the service of the ego is not a focus of the present investigation, a consideration of this question may provide a useful way of looking at the data.

Basic to the discussion is the differentiation of regression in the service of the ego from regression proper. In regression proper, the ego attempts to master a threatening internal or external situation by regressing temporally to an earlier stage of ego development and coping with the world as it did at that time. The termini of regression are developmental points that were points, mechanisms, and periods of mastery, great satisfactions, or great psychic distress experienced during development. Used in this way, regression is thought of as a defense, and at times maladaptive. However, Hartmann (1939, 1964) has discussed the possibility of successful adaptation achieved using regression and in this way distinguishes between the "progressive" adaptation discussed earlier and "regressive" adaptation. Similarly, Anna Freud (1936) discussed the adaptive function of fantasy which is defined as a regressive phenomenon as its roots are in earlier developmental periods.

The regressive adaptation discussed by Hartmann is in many ways identical to Kris' (1934) concept of "regression in the service of the ego." This activity is described by Kris as the ability of the ego to initiate and terminate regression for the purpose of improving mastery. During regression in the service of the ego, the ego is said to regress topographically and temporally gaining access to some primary process activities with some of its components, while other parts of the ego such as the synthetic functions continue to function at or above normal levels

(Bellak, 1958). This situation is further described by Bellak (1958) "the relationship between regression and adaption should be a good measure of a potentially creative, inventive, flexible mind." In an early description of regression in the service of the ego, Varendonck (1921) suggested that "When invention and inspiration take place in the fore-conscious state, the advantages of both directed and affective thinking are united for the fulfillment of the wish."

A consideration of the regressive aspects of hypnosis seem to be directly relevant to the present study. Although references to the regressive aspects of hypnosis can be found scattered throughout early psychoanalytic literature, Schilder (1927) provides the first cohesive formulations germinal to a conception of hypnosis as an adaptive regression by part of the ego. In this discussion he states that only part of the ego regresses and that "a considerable portion of the personality maintains its normal relations with the outside world" (Schilder, 1927). Schilder assigns a central position to this part of the ego stating that it can maintain various relationships with the hypnotized portions of the ego. This includes varying degrees of participation in the hypnosis, or various attitudes of detachment or observation. Schilder suggests that the central ego's participation in the hypnotic activities is developed through a transference relationship with the hypnotist and involves a quality of trance called "psychic depth". The greater the "psychic depth" the more the reality orientation of the central ego is mediated through the transference relationship with the hypnotist. These early formulations of Schilder, emphasizing the central involvement of the ego in hypnosis and regression in the service of the ego, formed a large part of the background for the comprehensive

theory of hypnosis as adaptive regression developed by Gill and Brenman (1959).

The theory of hypnosis developed by Gill and Brenman (1959) is based upon years of psychoanalytic research and coordinates virtually all existing psychoanalytic developmental concepts relating to ego involvement in hypnosis. It incorporates much of the writings of Hartmann, Mahler, and other ego psychologists referenced previously. In addition, it attempts reconciliation of the apparently conflicting positions about the process of hypnosis seen between the traditional sensorimotor orientation of experimental psychology and the emphasis on transference and conceptions of the self involved in psychoanalytic psychology.

Building upon structural theory, Gill and Brenman emphasize the autonomus functioning of the ego in relation to the id, environment, and control of its apparatuses. They suggest that in an effective induction, the subject's ego relinquishes some control of its autonomy to the hypnotist resulting in a deautomization of some ego functions, partial controlled regression of some ego functions, and participation in a regressive transference relationship. In this situation, the overall ego never loses autonomy or contact with reality, the amount and nature of regression is controlled by the subject, and although some components of the ego may be functioning in a primary process mode, synthetic functions of the ego may be operating at normal or increased levels. Gill and Brenman (1959) conclude that hypnosis is a regression in the service of the ego but also note instances where observations do not fit with theory.

Roy Schafer in Lindzey (1958) stated that in regression in the

service of the ego, primary and secondary autonomy of highly developed ego functions are not disrupted. This presents a situation where the primary process is given more than usual freedom to act in order that ego interests such as creativity and empathy, are promoted. Schafer enumerates six conditions in the personality that favor regression in the service of the ego including: a well developed set of afffect signals which can be use to control depth and duration of regression; a secure sense of self and/or a well-defined ego identity enabling tolerance of a temporary blurring of the boundaries between ego and id; relative mastery of early traumata or affect tolerance developed to the extent that a subject could safely reexperience childhood experiences that were once very threatening; relatively mild superego pressures and relatively flexible defenses; a history of trust promoting tolerant and positive feelings toward regressive experiences; and that cultural meaningfulness result from the process, meaning that self-awareness and communication with others are improved. Schafer also notes that regressive adaptations such as empathy and intimacy, which are related to interpersonal relations, may also be dependent on these facilitating factors, possibly even more so than are artistic and other types of creativity.

Schafer concludes that an important prerequisite to regression in the service of the ego is the temporary suspension of the reflective awareness of the self-representation. This central role of the ego is also specified by Bellak (1950) where he states that "...it is a normal function of the ego to exclude itself." This concept is believed by Bellak to be basic to his concept of adaptive regression in the service of the ego (ARISE), (Bellak, 1958), which involves a rapid oscillation between regressive and highly developed activities of the ego.

In sum, regression is an ego function directed toward adaptation to internal and external events. In the case of hypnosis, theory suggests that regression in the service of the ego allows the ego to access primary processing functions which, when paired with active secondary processing functions of the ego, can result in increased ability to meet life's demands with a response which is different from previously learned soloutions.

In the consideration of affective sensitivity, the nature of regression in the service of the ego may have some relevance. The temporal and topographical regression in the service of the ego could achieve several things including: access to primitive modes of relating; access to non-dominant hemisphere functions including imagery and non-sequential thought; and openness to the unconscious and preconscious. This access, which many people believe is entirely through the non-dominant hemisphere, could provide the raw data of affective sensitivity. This data may be in the form of feelings, images, vague physical sensations, intuitions and the like. The regression could provide the means with which to cross the threshold in order to acquire this data. The data is denoted as raw due to the likelihood that communication of it in this form would be very difficult. The raw data can be conceptualized as the product of stages 1 and 2, (perception and awareness) in Kagan's recent formulations.

To increase the usefulness of the data for oneself and make it communicable, it would be necessary to translate the data into consensual meanings and labels. This is the work of the dominant hemisphere. Therefore, the increase in synthetic organizing ego functions could be seen as providing the means to decode the subtle affective cues in

terms of dominant hemisphere structures and language. The result is identification to the point of naming the perception which is Kagan's stage 3.

The affective information would then be in a form useful to share during empathy, or in relation to the present study, for response on the ASS. The communication of the named percept in the situation of empathy corresponds to Kagan's final stage (4).

Ego States: Active, Passive, and Receptive

Since the comprehensive theory by Gill and Brenman (1959) of hypnosis as an adaptive regression in the service of the ego, additional formulations regarding basic operations of the ego in hypnosis have been advanced. Rapaport (1967) specified ego activity as one of the "parameters of the relative autonomy of the ego". Ego passivity was defined in contrast as "helplessness in the face of drive demands". Although Rapaport described several executive and defense functions of the ego he refered to activity and passivity as prevailing states of the total ego. Confusion has ensued with attempts to use this dimension to explain observational data leading to the paradox of "passive activity", "active passivity" and "passive mastery."

Deikman (1971) has advanced formulations that facilitate description of the data more completely. To the identification of "active" and "passive" ego states he added the "receptive" ego state. The active ego state tends to represent the synthetic secondary mastery and defensive processes of the ego. On the other hand, the passive ego state tends to be involved in regression proper and pathological conditions where the ego is helpless. According to Fromm (1979) in the receptive ego state

"...critical judgement, strict adherence to reality orientation, and active goal-directed thinking are held to a minimum and the individual allows himself freely to let unconscious and preconscious material float into his mind. There is an openness to experiencing. William James would have characterized it as 'watching the stream of consciousness flow by.' Ego receptivity is the prevailing state in many of the healthy uses of altered states of consciousness."

The preceding discussion was introduced into this study to stimulate consideration of the concept of "ego receptivity" as a way of thinking about dimensions involved in affective sensitivity and in the treatment approach. If we entertain the possibility of empathic information being available in the preconscious or unconscious, then the ego receptive state, as cited by Fromm (1979), would seem to be a likely avenue of access to this information.

Neodissociation Theory

Ernest Hilgard (1979) has offered additional discriminations concerning the executive and monitoring functions of the ego during altered states of consciousness. These formulations may provide further background with which to understand psychological dimensions involved in affective sensitivity.

To discuss consciousness in hypnosis Hilgard refers to Freud's early descriptions of the topographical organization of the psyche. He differentiates dissociative aspects of consciousness which would involve the conscious and preconscious, from the psychoanalytic repression activities which involve the unconscious.

In Hilgard's Neodissociation schema, access to dissociated materials

results in the recovery of material that is immediately understandable to conscious thought. This material would be accessed through what Hilgard calls the amnesia barrier which separates the conscious from the preconscious and be organized according to secondary process formats. On the other hand, access to unconscious material results in the recovery of material organized according to primary process rules and seems less ego syntonic. This material would be accessed through the repression barrier that Hilgard suggests topographically separates the conscious and preconscious from the unconscious.

Hilgard sums up the monitoring function of the ego in the following way, "The fractionation of the monitoring function is particularly impressive with its three major divisions: (1) the preserved normal observing function; (2) a fraction of this normal observing function concealed beneath an amnesic barrier; and (3) a distorted, uncritical function, which as a consequence of suggestion accepts distorted reality as though it were undistorted." The second division described by Hilgard seems to correspond to Varendonck's (1921) "fore-conscious state".

This second division is what Hilgard (1979) calls the "hidden observer". The label connotes the situation where the hidden observer does not make itself known to anyone but the subject until called forth. From his investigations with the hidden observer Hilgard postulates a system of parallel information processing (Hilgard, 1977). This theory coincides with other simultaneous task performance situations including formulations of subliminal perception (Dixon, 1971, 1981).

In the process of affective perception, a theory of parallel processing and subliminal perception would support the possibility that affective information could be acquired outside our awareness. It would

follow that this information may be brought into awareness by alterations in thinking through dimensions involved in the hidden observer mechanism. The risk, of course, is that the third state would also be activated, which could decrease AS. Although it may be anticipated theoretically that facilitating retention of secondary process activities during hypnosis would result in Hilgard's condition two situation, similar to ARISE (Bellak, 1958), the specific conditions that would facilitate entry into one state or another remain to be determined experientially and experimentally.

Laterality

Laterality may be seen as the anatomical substratum for the imagery and adaptive regression formulations. Lateralization refers to the differences in functions ascribed to the right and left cerebral hemispheres. According to current thinking, the right hemisphere processes information in a global, spatial, and non-linear fashion. It has been said that the non-dominant hemisphere, usually the right hemisphere, uses primary process modes of operation and cognition. All but the most cognitively controlled types of imagery are usually attributed to the right hemisphere.

In comparison, the left or dominant hemisphere tends to process information in a linear, sequential, logical fashion following the syntactic structure of language. The left hemisphere has been said to follow secondary process rules of cognition. A more extensive description of disparite functioning of the hemispheres can be found in Reyher (1977).

Generally, most people function almost all of their waking time

using their left hemisphere, with a propensity to return there for the performance of most common tasks following excursions into the right, hence the label of "dominant hemisphere". A shift from use of the left hemisphere to right hemisphere function often is accompanied by the following: an increase in primary process thinking; a decrease in secondary process thinking; and an increase in imagery. These activities have all been associated consistently in theory and research with affective sensitivity and empathy.

Psychological Flexibility

In addition to the theoretical concepts reviewed above, the concept of psychological flexibility as a general dimension may have relevance to the present study and may be found throughout it. In this discussion flexibility must not be equated with a lack of development or weakness, but denote the ability to move freely from one mode to another in an adaptive response to the task at hand. Flexibility in the intrapsychic functoning of a subject can have particular relevance to the ability of a subject to access optimal levels of mental operations that are facilitative of affective sensitivity.

As previously mentioned, a body of theory supports the concept that regression in the service of the ego may help the individual gain access to states facilitative of affective sensitivity. If this is true, then the flexibility to regress in the service of the ego would help the person gain the facilitative state, whereas rigidity could preclude access to the information under consideration.

The related attribute of flexibility of defensive structures may also be of importance. If the defense mechanisms are rigid, then the

data from within and without that forms the basis for feelings or affective perceptions is more likely to suffer systematic distortion or interference of some kind than if the defenses are flexible.

The ASS dependent variable itself may be somewhat sensitive to aspects of flexibility in the subject. The ASS offers a large variation of situations, participants, and emotions for the subject to assess. It would follow that a mentally flexible subject with greater experience including exposure to many different situations, people, and emotions would possess more relevant constructs and a greater ease in moving between them for the purpose of AS.

Also of importance in responding to the ASS is the flexibility of a subject in the ability to pick up information. Of primary importance is the ability to receive information in several representation systems. Although this concept is discussed more extensively in the second part of the review of theory, it is important to note at this time that there are variations in the channels that people send and receive information. If a receiver is able to receive affective information in more than one channel, the likelihood of a message being received is increased.

Summary

In the preceding section some general theoretical concepts that form a basis for the present study and that may facilitate an understanding of it were reviewed. It was suggested that there is theoretical agreement that people generally follow a similar course of psychological development. This includes a similar developmental path of feelings, interpersonal relations, and defense mechanisms. It is this similar development that forms the basis for the ability of people to relate to

the expeience and feelings of others.

Theory was also provided that described the hypothetical process of sensing the affect of others. As the process of affective sensitivity is not fully understood, a description of the process including the dimensions of sensing, representing in awareness, and labeling the internal experience of another was hypothesized, and several alternate ways of looking at the process were described.

The popular theory of regression in the service of the ego was explored as a basis for AS and some associated considerations that could serve as additions to that theory were considered.

Theory: Specific Considerations

In the second section of theory which is to follow, specific theoretical issues that relate to components of the present study are explored in more detail. First, the relationship of affective sensitivity (AS) to the various forms and definitions of empathy is discussed. The role of the Affective Sensitivity Scale (ASS) as the dependent variable is then presented. Second, the theoretical relationship of hypnosis, suggestion, altered states of consciousness (ASC) and imagery to each other and to AS is discussed. The postulated relationship between these variables and the Creative Imagination Scale (CIS) is then presented. Next, the relation between the development of ego structures, defense mechanisms and AS is reviewed. Use of the Defense Mechanism Inventory (DMI) to measure relative defense mechanism useage is then discussed in the context of the present study. Finally, the construction of the experimental treatment and how its components relate to the previously reviewed theory is discussed.

Empathy

In recent years the term empathy has gone from an undefined concept to a word used commonly in educational, psychological, and many medical settings. This massive increase in use has not, however, led to a clarification and consensual understanding of the concept. To the contrary, when one hears the word "empathy" it remains to be determined whether one is hearing about what was felt, heard, understood, projected, predicted, or communicated. Therefore, it is necessary to clarify the relationship of AS, the component of empathy being investigated in this dissertation, to the various conceptualizations and definitions of empathy that are in common use today.

The study of empathy has developed along two different lines proceeding from two disparite definitions of empathy and the empathic process. In Dymond's (1949; 1950) definition of empathy, the empathizer imaginatively places themself in the role of the other to understand that person's thoughts, feelings, and actions. As she described it, empathy is "the imaginitive transposing of one's self into the thinking, feeling and acting of another" (Dymond, 1950). This process is thought to involve cognitive role taking and has been labeled predictive empathy. In this process emotional neutrality and detatchment is seen as aiding accurate perception. Rogers (1957), who continued along Dymond's lines, describes this orientation as the ability "to sense the client's private world as if it were your own, but without ever losing the 'as if' quality - this is empathy, and this seems essential to therapy." Several early measures were constructed to assess predictive empathy (Dymond, 1949; Kerr and Speroff, 1954), but these efforts met only partial success in

very limited situations.

Stotland (1969) suggested that labeling predictive accuracy as empathy was a misnomer. Within this second approach, he conceptualized empathy as a vicarious emotional response to the perceived emotional experiences of another. Thus described, the experience of emotional empathy may vary from the empathizer feeling the same emotions as the object, to experiencing only the gross level of affect at the level of pleasant or unpleasant. There is a basic difference between these two ways of conceptualizing the empathic process. Within the cognitive role-taking approach the empathizer recognizes the thoughts and feelings of the other as if they were their own, but without ever losing the "as if condition". However, in Stotland's "emotional empathy" orientation, the empathizer experiences the same feelings as the other person as accurately as possible. This state has also been labeled compathy, emotional identification, or affective identification and is probably undesirable in psychotherapy, opposed to projective identification or empathy as described by Laughlin, (1970). Rogers (1959) also cautions that loss of the "as if" condition leads to a state of "identification" which he considers undesirable for therapy.

Several measures of emotional responsiveness have been constructed relying on self-report and physiological measures. A lack of consistency among various measures of empathy including; self-report, eccrine palmar sweat activity, and vasoconstriction was reported by Stotland (1969). Additionally, Lacey, Kagan, Lacey, and Moss (1963) reported a lack of correlation between different indicators of the same emotion. More recently Mehrabian and Epstein (1972) have reported high reliability and validity for their questionnaire of emotional empathy in the several

contexts they specified.

In the previous discussion two processes of empathy have been described. Predictive empathy has been described as using a cognitive role-taking approach to provide the empathizer with a cognitive and affective intellectual recognition of what the other is experiencing. Emotional empathy, on the other hand, involves the empathizer experiencing vicariously the same emotions as the empathizee. However, the process by which the raw affective data is obtained, from which these experiences are generated, has not been specified in the past by proponents of either approach. A notable exception has been formulations of Affective Sensitivity by Kagan and his coworkers (Kagan et al., 1965). Affective Sensitivity then could be conceptualized in part as an input process basic to the development of either type of empathy.

Affective Sensitivity (AS)

Early formulations by Kagan and his coworkers described affective sensitivity as "the ability to detect and describe the immediate affective state of another, or in terms of communications theory, the ability to receive and decode affective communication" (Kagan, Krathwohl, and Farquhar, 1965). This represented an advance in understanding of the "empathic" process affording increased opportunity to assess and respond differentially to the information reception and communication components of the process.

Recently Kagan (unpublished manuscript) has advanced further formulations for a model of affective sensitivity and empathy. His recent conceptualizations have broken the process into four stages. Of course, the process is one continuous progression, but it has been broken

into stages for purposes of explication.

The first stage (K1) can be seen as one of perception. In this stage affective information is received by the organism. As is discussed in other parts of this dissertation this process of acquiring affective information can be multiply impacted.

As described further in other sections of this chapter the process of perceiving may be impacted by the observer's state of consciousness, their defense mechanisms, and many other adaptations and learnings. Impact on this process has been further discussed in theories that have been advanced by Grinder and Bandler, (1976) and Chomsky, (1965) which specify the content and form of communication. According to their theories, affective information may be provided literally or indirectly, specifically or generally, or in any one, or all of the major systems used for input, output, or representation of awareness to oneself. Chomsky (1965) has provided the concept of "surface structures or grammar" which corresponds to literal meaning of communications and "deep structures or grammar" which corresponds to meanings that may not be communicated, or if so, only in an indirect manner. Grinder and Bandler, (1976) have specified the systems whih carry the major burden of these perceiving and receiving activities to include visual, auditory digital, auditory tonal, and kinesthetic.

The second stage (K2) is concerned with the issue of awareness. In this stage, the observer experiences some type of mental or physical sensation that constitutes an internal response to the perception of the object. The response may be in the form of an idea, an image, a specific or general feeling, or a sensation somwhere in the person's body. In whatever way the awareness is manifested, it is in this stage that the

observer begins to represent to themself their response to the reception of affective information.

At this point it is necessary to discuss the transition from K1 to K2. It is in this transition period between reception of data and representation of the data that the organism chooses what way the data will be handled. If the data does not provoke anxiety, it is handled easily and any processes that have been established to bring that type of data to conscious awareness operate without interference.

However, if the data is anxiety provoking it is at this time that it comes under the scrutiny of the defenses. Depending upon the degree of anxiety stumulated by the data and the type of defense used by the organism, several things may happen to the data. As described further in other sections, some defenses may handle the data by blocking it out of awareness, whereas others may distort the meaning but still allow some representation of the data in awareness.

In the third stage (K3), the representation is discriminated to the fullest extent possible, prior to checking accuracy, and given the resources available at that time. At this time the percept represented in awareness is named. By naming, the percept is translated, by use of semantic-syntactic processes (Reyher, 1977), into labels of processes or feelings which are suitable for representation to oneself in words, or communication to another.

It is the first three stages (K1-3) that were chosen as the focus of the present research and which the ASS measure. Kagan and his coworkers have described the ability to accurately empathize as the natural state of the organism, a position finding substantial support in psychoanalytic literature. Lack of the ability to empathize can then be seen as due to

impoverished development or as a price of adaptation in the case of defenses. To bring AS (K1-3) to the highest level, would require developmental facilitation in one case and aid in the reduction of interference in the other.

The experimental treatment in the present study can be seen in both perspectives. The instruction in the use of representation systems and imagery which is facilitated by relaxation, could provide an educational boost to the developmental process. The relaxation could additionally provide a reduction in the negative experience of anxiety thus decreasing the intensity and vigilance of defenses which influence affective sensitivity. This could influence the perceptual component of AS (K1-2) through increasing attention and reducing distraction and facilitate K3 through reducing defensive distortion of awareness.

A major focus of the experimental treatment in the present study was to facilitate a state of consciousness in the subject that could allow increased access to information that may be held out ot consciousness. It has been shown in studies of pain and the "hidden observer" by Hilgard (1977), and in studies of subliminal perception, preconscious processing, and perceptual defense by Dixon (1971,1981) that information may be obtained, held without awareness, and later brought into awareness. Erickson and Kubie (1940) demonstrated that an altered state of consciousness (hypnosis) was useful for interpreting information stored in the primary process format often found in material held out of awareness. In this way the involvement of an ASC in the experimental treatment was expected to facilitate availibility of information in K1 and K2. Interpretation of information into language and constructs congruent with secondary process thought is the goal of the transition

into K3. In this way this focus of the treatment could affect the translation and naming activities of K3 and therefore AS as measured by response on the ASS.

The final stage of the process (K4) is that which differentiates empathy from affective sensitivity. This is the stage where the percept that has been named is communicated to the object.

The act of communication has two consequences. First, the validity of the percept can be judged by the object, providing the observer with further information with which to check the accuracy of the affective perception. Second, the act of communication can provide to the object a feeling of being understood, of having someone with them, and possibly a chance to become more aware of themself. In other words, it is this last stage that can bring about the benifits to the object attributed to empathy.

Due to the fact that accurate AS, defined as accurate performance of the first three stages in Kagan's recent conceptualization of the empathic process, seems to be prerequisite to any further empathic or effective therapeutic activity (Barrett-Lennard, 1981; Laughlin, 1970; Fromm-Reichman, 1950; Campbel, Kagan, and Krathwohl, 1971), it was chosen as the primary focus of assessment and intervention in the present research. In the current study it was desired to obtain a measurement of accurate AS uncomplicated by communication skills. The Affective Sensitivity Scale (ASS) form E-A-2 developed by Kagan and Schneider (1977) is designed to principally measure these components (K1-3) of the empathic process and was used to evaluate AS in the present study. Information on prior use of the ASS as a dependent variable is presented in chapter two. A specific description of the instrument and data

concerning reliability and validity can be found in chapter three.

Altered States of Consciousness, Imagery, and AS

This section contains a description of the orientation supporting inclusion of an altered state of consciousness and imagery in the present study. Over the years, although the role of altered states of consciousness (ASCs) in affective sensitivity and empathy has not been studied systematically, there have been numerous reports identifying this relationship (Erickson and Kubie, 1940; Tart, 1967; O'Hare et. al., 1978; Stone, 1978; Price, 1976; Dixon, 1971; Fromm and Shore, 1979). The literature on imagery, a major component of the treatment, is replete with connections between imagery and ASCs. In addition, previous reseach has demonstrated a connection between imagery success and use of an ASC. Due to the mounting data suggesting that use of imagery and ASCs may have an impact on perception of affect, and at the very least could confound a treatment designed to increase AS, these dimensions were included in the study.

Before proceeding, it would seem neccessary to discuss the nature of an ASC and, due to the lack of a widely known definition, the way the term "ASC" is being used in this study. A problem is encountered when working with the concept of ASC as the academic investigation of ASCs in western cultures is in its infancy. This yields a paucity of consensual understanding to use as a basis for communication. Literally any activity which involves a departure from the every day consensual reality that humans use as a basis for communicating and defining the world can be identified as an ASC. This includes all types of eastern concentrative and receptive meditation, hypnosis, self-hypnosis, deep

muscle relaxation, states of heightened suggestibility, Huxley's deep reflection (Bandler and Grinder, 1975b), day dreaming, sleep, psychedelic experiences, fuge states, and psychotic episodes. These are all different from each other to a varying extent. However, they are all similar in the dimension that they include as an aspect of their existence, an alteration from what Shore (1959) has defined as our generalized reality orientation (GRO).

In this study subjects were led into an ASC that included relaxation and the focusing of attention. The ASC could be expected to facilitate empathic perception in its own right, and in addition formed a basis for maximal participation in the imagery training sequences. The ASC could be expected to facilitate response to the training sequence and therefore increase AS in the following ways. First, the relaxation and the instructions that there was nothing special for the experimental subjects to do but follow along could initiate a mild ASC. According to Fromm (1979) "In all ASCs the ego allows into awareness more unconscious and preconscious material than in the waking state". This can be seen as due to the initiation of a receptive ego mode where there is a dominance of the sensory over formal conceptual thought (Deikman, 1971). This state could be characterized in part by the presence of more prelogical thought and imagery than strictly logical processes, a situation described by Horowitz (1968) as facilitative of empathy. As described by Fromm (1979), in this state, as in many ASCs, there occurs a deautomatization which allows the adult synthetic and asociated functions access to earlier and more primary materials. She goes on to specify that "In this state the barriers between conscious awareness and the unconscious and preconscious are lowered. This leads to a greater

availability of unconscious material" (Fromm, 1979).

The relaxation, in addition to the effects cited above, also could pair with the focusing of attention to drastically reduce distraction. For example, by virtue of reducing kinesthetic awareness, undesireable noise from the subject's body due to events such as hunger, physical discomfort, and fatigue, could be deemphasized. In addition, the relaxation paired with the guided gradual withdrawl of attention from the environment and the subject's own thought processes would tend to initiate a light ASC while moving the subject away from their GRO. This situation could be expected to facilitate learning from the treatment and greater access to affective awareness because in this state, similar to that of hypnosis, "attention cathexis is withdrawn from the normal average range of its distribution in order to concentrate it with full intensity on one single spot" (Fromm, 1979).

Another aspect of this type of ASC, similar to states of permissive hypnosis, is the opportunity for the subject to oscillate between the state of receptive ego functions mentioned above, and active ego functions, a situation found in adaptive regression in the service of the ego as described by Bellak (1958). The ability to access active ego functions could be expected to facilitate construction of the imagery exercise contained in the treatment and additionally, the translation of the nonverbal emotional data gained from the receptive awareness ego functions (K1,2) into consensual definitions of feelings (K3) needed for communication (K4) and response on the ASS.

It is well known that the ability to create vivid images varies among people (Fromm and Shore, 1979). Due to the fact that variataions between the subjects could have an influence on affective sensitivity, it

was considered necessary to include a measure of imagery ability to control for this eventuality. The Creative Imagination Scale (CIS) was included in the present study to: 1) control for the potential confounding effects of variation between subjects in imagery ability, and 2) assess the importance of imagery ability as a component of AS. Further support for the inclusion of the CIS in the present study is provided in chapter two. Information describing specific features of the CIS including reliability and validity data is provided in chapter three.

Ego Development, Defense Mechanisms and Affective Sensitivity

The concepts of ego development and defense mechanisms were included in the present study due to their hypothesized relationship to AS. Theory suggests a link between ego, defense, and affect development. This situation can hold several consequences for the present investigation. First, habitual ways of defending against stimuli, particularly those that are emotionally charged, may influence behavior on the dependent variable. Second, as it is generally accepted that people vary from time to time in the ego stage from which they operate, and the defenses they use, it follows that their associated ability to discriminate affect may accordingly vary. In addition, although a case can be made from theory that the ability of persons to pick up and discriminate affect is related to ego and defense development, the direct investigation of this issue has only recently begun with ego development (Carlozzi, 1981) and further investigation with defense mechanisms may be of value.

Relative use of defense mechanisms could impact the present investigation in several ways. Subjects differing in relative use of

defense mechanisms may respond differentially to the treatment. One component, the ability to relax as well as create and maintain images, may bear a relation to certain types of predominant defense mechanism usage. For example, a more primitive personality would be less likely to relax and give up control. A person with a borderline condition would probably be frightened of regressing and use defenses such as denial, projection, projective identification, and splitting with the possibility of oscillation between these and higher order defenses. Although far less pathological, a person with obsessive-compulsive defenses would tend to remain in the intellectual-verbal mode and also find it difficult to participate in the imagery portion of the treatment. On the other hand, a person with hysterical personality characteristics would tend to find dissociative experiences much more comfortable and create images easily.

The Defense Mechanism Inventory (DMI) developed by Gleser and Ihilevich (1969) was included in this study in an attempt to deal with this situation. If the scores on the DMI are related to the ability to perceive affect, then the DMI scores could be used as a covariate to reduce variance introduced into the dependent variable resulting from differences in ego and defense functioning, thereby providing a more accurate test of the treatment effect. In addition, correlations generated from the data could be used to evaluate the relationship between defense useage and AS. Further information supporting inclusion of the DMI for this purpose can be found in chapter two. Reliability, validity, and other descriptive data on the DMI can be found in chapter three.

Treatment: ASC and Imagery

The theory and many of the observations that have stimulated this research and that form a basis for it have been presented above. In this section the integration of the previously described concepts into the treatment is described. The treatment had two major components. The use of an ASC, which is defined here as development of relaxation and focused awareness, will be reviewed first. The imagery component, which is built upon the ASC, will be reviewed second.

Relaxation and focused attention was the first component of the treatment initiated. Aiding subjects to focus their attention on relaxation of their muscles can help them relax more completely than ordinarily experienced. This relaxation paired with focused attention could tend to make certain activities more easily accomplished.

With the initiation of relaxation and focused awareness, it could be expected that the subjects would find it easier to filter out stimuli extraneous to the task. This state could help the subject ignore distracting stimuli from the environment as well as interference from their own body such as physical discomfort, hunger, and control lapses of attention.

Filtering out one's own interference could also help avoid the distraction of experiencing one's own feelings too intensely or becoming involved in one's own thoughts, leaving the mind free to be more attentive and open to the other, a situation described as important by Rogers (1959). An over involvement of one's own feelings tends to generate sympathy, a state not desireable in a therapeutic interaction as noted by numerous authorities including Rogers, (1959) and

Barrett-Lennard, (1981). In addition, controlling the stimulation of one's own feelings may avoid or reduce the triggering og one's defenses which, as described earlier, may negatively impact AS by reducing information or introducing distortion.

The act of relaxing and quieting ones mind could also result in the response of being more sensitive to oneself and facilitate picking up cues and feelings that might have been ignored or drowned out in the usual background noise. This state could lead to the emergence into awareness of feelings, resulting from engagement with the other, that would provide insight into the feelings of the other. Involvement in a relaxed ASC has been suggested to facilitate access to information from the unconscious or preconscious about feelings that may have otherwise been missed as noted by several researchers including Erickson and Kubie, (1940), and Fromm and Shore,(1979).

The initiation of relaxation with focused awareness could also be expected to facilitate deeper and more complete involvement by the subject in the imagery aspect of the treatment. This could occur as a result of being less distracted and thereby enabling one to focus on one task to the exclusion of all other intruding thoughts and sensations.

The introduction of guided imagery was the second phase of the treatment. Visual imagery was included in the treatment for several reasons. First, on an emperical basis, several researchers have noted that visual imagery seemes to be correlated with high empathy (Stone, 1978; Price, 1974). Additionally, in a recent study, Ryder (1978) found the CIS, the covariate used in the present study to assess imagery skills, to be correlated with an empathy scale developed by Mehrabian and Epstein (1972). Second, it has been speculated that, due to the multiple

pathway processing capabilities of humans, information may be contained in an image that may not be available in verbal thought (Horowitz, 1968).

Having subjects visually imagine themselves empathizing with others was also expected to yield a practice effect through the covert rehearsal techniques detailed by Bandura (1969). Bandura suggests that covert rehearsal and modeling is one of the most effective ways to learn difficult and complex behaviors. Operationally, it could be expected by the action of covert rehearsal, that the subject, having once gone through the motions mentally of empathizing and identifying affect during the treatment, would experience a practice effect resulting in an increased frequency of the target behavior, in this case, identifying the emotions of another.

Content for the visual imagery utilized communications theory drawn from the work of Virginia Satir (1964, 1972) and Milton H. Erickson, in Haley (1967), and elaborated by Bandler and Grinder (1975a, 1975b), Grinder and Bandler (1976), and Grinder, DeLozier, and Bandler (1977). To provide a more accurate test of the hypothesis the specific affect categories assessed by the ASS were included in the images.

Bandler, Grinder, and their associates describe in their writing their theory of the use of multiple input and output channels. According to their theory, persons send and receive messages in the following channels: visual, auditory digital and auditory tonal, kinesthetic, olfactory, and gustatory. In addition, people are thought to send and receive communications in several of these channels simultaneously. If a person sends the same information in one or several channels they are said to be communicating congruently. If, however, the sender is outputing a different message in two or more of the channels

simultaneously, the communication is said to be incongruent. A person communicating in this manner is often experienced as confused or confusing. Bandler and Grinder go on to postulate that, although people tend to send and receive information in several channels simultaneously, everyone has a favored channel that they prefer to use for a major part of their communications. It may be the same or different channels for input and output uses.

During a communication, if the sender and receiver are both using channels that match, then they are both likely to feel that a communication has taken place, and that they are understanding each other. However, problems can arise in the situation where the sender is communicating incongruently, and these problems are complicated if the receiver, not only has an incongruent communication to decipher, but tends to receive and understand data predominantly in a channel different from that which the sender tends to favor.

It would seem, therefore, that the likelihood of a message being received and understood would be increased if the receiver was highly flexible in the ability to use the various channels to receive data. For this reason, one aspect of the imagery treatment included practice for the experimental subjects in using all of the channels to input the object's messages and represent those messages and feelings to themselves. It was expected that training in this flexibility would mobilize these channels postulated to be already present and therefore facilitate affective sensitivity. The training can be seen in this way as an intervention into the state and skill useage of the subject.

Additional information regarding research involving the material discussed above can be found in chapter two. A presentation of the

treatment procedures can be found in chapter three and a complete transcript of the treatment is included in the Appendix.

SUMMARY

In this chapter the assumptions, definitions, and theoretical postulates upon which the present research has been based were reviewed. In the first section a general description of psychoanalytic developmental psychology, otherwise known as ego psychology, was presented as a basis for organizing and understanding the background literature and the activities involved in this dissertation. Building upon this base, the concept of adaptive regression in the service of the ego was reviewed as a way to conceptualize several of the dimensions involved in empathy, affective sensitivity, and the treatment provided in the present study. The theories of active, passive, and receptive ego states, neodissociation theory, laterality, and psychological flexibility were also presented to provide further discriminations with which to evaluate the aforementioned dimensions.

In the second section of theory, the specific dimensions under consideration in the present study were discussed. The relationship of these dimensions to the measures used in the study was addressed. Finally, the theoretical issues involved in the treatment were presented and the integration of these concepts into the development of the treatment was described.

OVERVIEW

In chapter two the literature that forms the background for this research is reviewed. In chapter three the design of the experiment is

detailed. Included in this chapter is a complete description of the sample, instrumentation, research hypotheses, variable list, treatment, method, and analysis. In chapter four the results obtained from the study are presented. In chapter five the results are discussed and recommendations for further research are presented.

CHAPTER II: REVIEW OF LITERATURE

INTRODUCTION

In this chapter background research that has served as a basis for the present investigation will be reviewed and the related hypotheses will be discussed. First, related research on empathy training and measurement will be presnted. Second, literature relevant to the relaxation and focused awareness component of the treatment will be reviewed. Next, the literature concerning imagery and representation systems will be discussed as it relates to AS and to the treatment. Research and current formulations concerning the relationship of defenses to affective sensitivity will then be discussed.

Following discussion of literature relevant to the general dimensions involved in the study, a more specific review of literature regarding use of the ASS as a dependent variable and the CIS, DMI, and subject age as covariates is presented.

REVIEW OF LITERATURE

Empathy and AS: Training and Measurement

There have been a number of studies attempting to measure empathy and intercorrelate various empathy scales. Most measures, except for the (ASS) Affective Sensitivity Scale (Kagan and Schneider, 1977; Kagan, Krathwohl, and Farquhar, 1965) which evaluates empathy at the perceptual, awareness, and identification level, Kagan's stages 1-3 (K1-3), have focused upon evaluations of empathic responses Kagan's stage 4 (K4).

Kurtz (1970) and Kurtz and Grummon (1972) correlated six different empathy measures in an attempt to clarify the concept of empathy and

determine the most effective measures for use in counseling research. The measures they used included: The Affective Sensitivity Scale, Interpersonal Check List, a modified version of the Kelly Role Concept Repertory Construct Test, Carkhuff's Empathic Understanding in Interpersonal Process Scale, and the client and counselor forms of the Barrett-Lennard Relationship Inventory. Also used were three measures of counseling process and six outcome measures. The study included thirty-one subjects. Correlations and multiple regression equations were computed to investigate relationships. Overall the study provided few correlations reaching significance. Kurtz and Grummon concluded that the six empathy measures thought to be measureing a single variable are in fact measuring different things. Client-perceived empathy was found to be stable over time ($r = .66$) and was involved in most of the statistically significant findings.

Notice that in this study Kurtz and Grummon were correlating assessments which had been collected from all of Kagan's stages of empathy. Viewing the proceedings in this light, it is not surprising that there would be a lack of correlation between the measures due to the fact that assessment would be confounded by stage. Inaddition, the complexities of measuring the communicating process are such that even measures which are focused on stage 4 (K4) itself may not relate to each other, due to method variance.

Langer (1972) found significant correlations ($r = .46$ and $r = .42$, p .05), between client-perceived and tape-rated empathy on the Barrett-Lennard Relationship Inventory. However, when it was correlated with the tape-rated Carkhuff scale ($r = .11$), the results were not significant.

Kalish (1971) attempted to increase empathy in nursing students through use of didactic training, role playing, and experiential training. Significant differences between treatment and control groups were found on the Accurate Empathy Scale, the helper form of the Barrett-Lennard Relationship Inventory, and on ratings by clinical instructors. Six week follow-up data identified a continued difference on the Accurate Empathy Scale.

LaMonica, Carew, Winder, Haase, and Blanchard (1976) conducted empathy training based upon the human relations model of Carkhuff and Gazda. The training included perceiving and responding with empathy and included both didactic and experiential elements. Using a pretest-posttest design and Carkhuff's Index of Communication, results showed a significant change for the experimental group. It can be noted however, that only three subjects were functioning at the minimal level (3.0) and that more training would be needed to bring the others up to minimal functioning.

Rosendahl (1973) identified a relationship between empathy, warmth, and genuineness as measured by Truax and Carkhuff's Relationship Questionnaire and inner-directed support measured by a subscale on the Personal Orientation Inventory.

Stetler (1977) attempted to describe communication behaviors of empathic and non-empathic nurses. Audio-taped data from nurses judged to be high and low on empathy by performance on the Barrett-Lennard Relationship Inventory was evaluated by an instrument devised by Stetler. She suggests that the lack of differences found is probably due to the factors she evaluated as having little relevance to client-perceived empathy.

Numerous studies have shown that using modeling to teach empathic communication behaviors has been the most consistently successful approach (Layton, 1978). In a recent study, Layton (1978) used modeling alone and in combination with other treatments to teach empathic behaviors to undergraduate nursing students at Michigan State University. The dependent variables used were a cognitive empathy test of concepts, the Barrett-Lennard Relationship Inventory, and Carkhuff's Empathic Understanding in Interpersonal Process Scale, all Kagan stage 4 responses. Treatment effects were found for the junior level but not for the senior level students. Subjects were given a follow-up test three weeks later.

The correlations with the dependent variables used are of interest. The test-retest correlation for the Carkhuff scale was ($r = .43$, p .01). The test-retest correlation for the Barrett-Lennard scale was ($r = .13$, p .05). The correlation between the scales at initial testing was ($r = .27$, p .05) and at follow-up ($r = .31$, p .05). Although the correlations are statistically significant, they are not impressive in a utilitarian sense, and perhaps demaonstrate why low correlations exist with other measures.

Studies attempting to assess empathy at the perceptual and identification level (K1-3) unconfounded by response variables (K4) have been far less in number and have met with quite limited success. This may be due to the paucity of formal constructs defining AS and the small number of measures attempting to measure it. Dymond (1949) evaluated her formulations of predictive empathy first advanced in 1948. She reported limited situational success in group settings with group members attempting to guess attributes of other group members. Bender and

Hastorf (1953) attempted to review and advance these formulations with limited success.

Kerr and Speroff (1954) report validation and evaluation of The Empathy Test (TET). In this research they defined empathy as "the ability to put yourself in the other person's position, establish rapport, anticipate his feelings, reactions, and behavior". They reported their research somewhat useful despite differences in categorical and operational definitions of empathy employed by the authors in predicting success in business and sales pursuits.

More recently several researches have attempted to study empathy characterized as an emotional response in the observer. Lacey, Kagan, Lacey, and Moss (1963) found a lack of correlation between different indicators of the same emotion. Stotland (1969), more explicitly conceptualizing empathy as a vicarious emotional response in the observer, found a lack of consistency among various measures of empathy including: self-report, eccrine palmar sweat, and vasoconstriction. These responses can be seen as Kagan stage 2 responses (K2). Proceeding from Stotland's (1969) definition of "emotional empathy", Mehrabian and Epstein (1972) have reported high reliability and validity for their questionnaire of emotional empathy evaluating subjects vicarious emotional responses.

Most research investigating stages 1-3 of empathy has used the Affective Sensitivity Scale. Literature pertaining to these investigations can be found in this chapter in the section concerning use of the ASS as a dependent variable.

Summary

Recent studies have been reviewed that have attempted to measure empathy in nursing and other professional training contexts. A lack of correlation has been found between scales that purport to be measuring the same thing. Support was found for the contention that the many different empathy scales are in fact measuring several different things and that empathy is inherantly not a unidimensional concept. This situation was explained as a failure to differentiate between the stages of empathy as described by Kagan.

Barrow (1972) suggests that possibly "empathy ratings are formulated with the aid of ground rules that are not explicitly defined by the scales and that might differ from one rating team to another. Furthermore, difficulty in measuring only stage K4 is highlighted in the criticism of the Truax scales by Chinsky and Rappaport (1979) and Rappaport and Chinsky (1972) who have shown that subjects could get a good rating by making an empathic response that had no relation to what was said to them. "

Beutler (1973) has suggested that "accurate empathy may not be a stable quality of the therapist as is usually assumed, but instead may reflect a dyadic or relationship variable." In a factor analysis of an empathy test, Stone (1978) found data to suggest that empathy is not a unidimensional trait as had been assumed in her study and in most others, but in fact is multidimensional. Her exploratory analysis suggested that an individual is most empathic for those moods that he himself is experiencing at the moment, and that the ability to pick up perceptual cues, use of inner imagery, similarity between empathizer and object, and the amount of effort made by the empathizer may be important variables.

Clearly, there are many problems associated with the measuremnent of empathy in general and the measurement of therapist empathic response in particular. The ASS, used in the present study, attempts to measure the accuracy of the empathizer's perception and identification (K1-3) of the others' current internal affective state and thus provide an identifiable basis from which to begin further analysis or communication.

Focused Awareness, Relaxation and AS

Literature on meditation, expanded awareness, peak experiences, regression in the service of the ego, psychotherapy, and hypnosis has provided indications that a careful structuring of focused mental awareness may be an important but heretofore ignored part of the empathic process.

In a study of mutual hypnosis (Tart, 1967), observers noted that the hypnotists seemed to give a more complete and advanced induction while hypnotized than when awake. Moreover, the subjects were judged to have gone deeper into trance. The subjects also felt that they achieved a deeper trance and experienced heightened empathy and communication during the mutual hypnosis. In another experiment with mutual hypnosis (O'Hare et al., 1975) the guide conducting the hypnosis session felt that being hypnotized allowed him to be more "spontaneous and empathic" to the two subjects who were hypnotizing each other. The type of "rapport" used to induce hypnosis can be seen as involving all of Kagan's stages of empathy.

In an early study, Erickson and Kubie (1940) conducted an experiment in which subjects were asked to interpret cryptic and symbolic writings produced by another subject. They found that interpretations given while

the interpreters were in hypnosis were more subtle and accurate than those given by the same interpreters while in a waking state. The interpretations described here can bee seen as moving from K2 to K3.

In a study using self-hypnosis with drama students, Shaw (1978) reported that time needed for successful identification with the portrayed character, usually requiring several hours or days, was reduced to ten minutes. Students reported finding a small fragment of their minds concerned with the technical problems of acting while most of their thoughts developed as would those of the portrayed character. It seemed to students and observers alike that under hypnosis, tension was decreased, affect was heightened, and the characters were made more believable. The identification and focus of awareness found in this study may be an analogue of that found in high levels of affective sensitivity. In a similar state it would be expected that reception, awareness, and naming would be supported and enhanced.

Absorption has been identified by Tellegen and Atkinson (1974) as a component of hypnotic susceptability. They concluded that absorbed attention could be a major component in producing a full representation of someone else's activities including an enactive or "body English" component. This enactive component is believed to provide kinesthetic feedback, enhancing identification with the attentional object and thus increasing AS. In this instance K1-3 would be emphasized.

Mental Imagery and AS

Largely due to the influence of John Watson (1913) and the behaviorist trend, and to Freud abandoning hypnosis in favor of free association in the psychoanalytic method, mental imagery has taken a

second place to verbal behavior as a focus for psychological activity. In recent years, however, more attention has been given to the value of mental imagery as a means of increasing awareness of inner experience and affect (Sheikh, 1977). In this vein, Horowitz (1968) suggests that there may be information about affect and fantasy available through imagery that is not available in verbal thought. In a later writing, Horowitz (1977) observes another value of imagery in therapy in suggesting that images generated within the therapist may serve to increase empathic understanding of the client. Price (1976) reports a study of the relationship between inagery conceptualized as muted role taking and empathy seen as the ability to place oneself in another's role. She found a significant positive relationship between imagery as measured by the Betts Questionaire Upon Imagery Vividness (Betts, 1909; and Richardson, 1969) and empathy as measured by the Carkhuff Scale for Empathic Understanding (Carkhuff, 1969) for male psychiatric in-patients.

Several recent studies provide further direction for an integrated approach to the development of affective perception. In an investigation of the relationship between empathy and depression, Stone (1978) factor-analyzed an empathy test. The first four of these factors seem to be of interest here and include: 1) ability to pick up perceptual cues, 2) use of inner imagery, 3) amount of effort made by the empathizer, and 4) similarity between the empathizer and the object. Similarly, Schachtel (1959) includes kinesthetic experience when he describes what he labels the "allocentric" perceptual mode as involving a "totality of interest" and openness to the attentional object in all aspects with all one's senses. In a discussion of the activity they have labeled "absorption", which they believe to be a component of hypnotic ability,

Tellegen and Atkinson (1974) dscribe "the ability to operate diverse representational modalities synergistically so that a full but unified experience is realized" as an important cognitive component of the ability to apprehend an attentional object. They go on to state "the motivational-affect component would seem to consist in a sentient and tolerant 'openness to experience' (Fitzgerald, 1966), and a desire and readiness for object relationships, temporary or lasting, that permit experiences of deep involvement." These concepts relate primarily to K1 and K2.

Summary

In summary, the ability to relax and focus one's awareness (alter one's level of consciousness) has been identified as consistently present during the use of intuition, access of unconscious and preconscious material, creative endeavors, hypnosis, and the use of imagery for psychotherapy and growth. Although the use of an altered state of consciousness has not been generally recognized in the literature as a component of affective sensitivity or empathy, its inclusion in the various studies above seems to support evaluation of its role in the process of affective sensitivity. These activities relate most closely with stages K1 and K2.

In addition, the studies just reviewed link imagery to the unconscious and to empathy. Horwitz (1968), Tellegen and Atkinson (1974) and Fitzgerald (1966) strongly suggest that imagery is, or at least can be, a valuable component of AS. In addition, Price (1976) and Stone (1978) provide empirical evidence suggesting a relationship between imagery and AS. It is for these reasons that imagery was selected as a

variable to be assessed in the present study and selected for inclusion as a main component of the experimental treatment. Imagery seems to be a vehicle for the representation in awareness of nonverbal or preverbal types of information. In this light, imagery would be expected to be most closely related to K2.

Defense Mechanisms and AS

In the previous chapter the theoretical relationship between ego development and AS was described. The associated theory linking defense development with ego development and to AS was then presented. A key factor is the notion that empathy is a natural state of the organism. Defense mechanisms can be hypothesized to deter or take away from that natural state. The exact interaction of defense mechanisms and AS is, for the moment, left to conjecture. However, certain defenses have a tendency to distort reality to a greater or lesser extent. In addition, it is likely that more negatively charged emotions will receive more attention by defense structures. The notion that empathy is natural state is supported by formulations of psychoanalytic developmental psychology. From the same formulations one could anticipate that persons exhibiting higher levels of ego development and corresponding defenses would have completed sucessfully more developmental tasks and have less need for extensive defenses against perception.

Research evaluating the relationship between defense mechanisms and affective sensitivity is virtually non-existent. However, previous research relating the DMI to personality and pathology (Gleser and Ihilevich, 1969) and to ego development, lends indirect support to the evaluation of the relationship of defense mechanisms to AS.

Recently Carlozzi et al. (1981) investigated the relationship between ego development as measured by the Loevinger Sentence Completion Test (LSCT) (Loevinger and Wessler, 1970) and affective sensitivity as measured by the ASS form E-A-2. Results indicated that ASS scores were significantly higher for the high ego level group than for the low ego level group. These findings lend further support to the related study of the relationship between defense mechanisms and affective sensitivity.

ASS: Use as a dependent variable

In the choice of a dependent variable, the present study was concerned principally with the first three stages of the empathic process (K1-3), defined as Affective Sensitivity (AS). The Affective Sensitivity Scale form E-A-2 (Kagan and Schneider, 1977) was included in the present study to evaluate AS. Unlike other measures of empathy, ASS scores are not confounded by the subject's response skills, memory/continuity factors, or interactional skills, all involved in K4, (Kagan and Schneider, 1980). An additional advantage of the ASS is that the scores are continuous variables and amenable to use in advanced statistical procedures.

The scale consists of thirty film segments taken from various actual interpersonsl encounters and a test booklet for each respondent containing 65 multiple choice items with three alternative statements for each item. After viewing a scene, the subject is asked to select statements that most accurately identify the feelings of individuals in the scene.

Adequate reliability and validity have been reported in early studies by Kagan et al., (1967) and Danish and Kagan, (1971). Recent

estimates of reliability for form E-A-2 tend to range about .60, which is far higher than reliability estimates reported for other scales elsewhere in this study. Campbell, Kagan, and Krathwohl, (1971), in a study of concurrent validity, showed an earlier form of the scale to be related to more subjective measures of affective sensitivity and counselor effectiveness.

Several recent studies have used the ASS as a dependent variable and found it to provide useful discriminations (Kagan, Burke, Lieberman, et al., 1982; Lieberman, 1981; Resnikoff, Kagan, and Schauble, 1970). In a recent doctoral dissertation Lieberman (1981) ran a cononical correlation between the ASS, Accurate Empathy Scale, and the client response form of the Barrett-Lennard Relationship Inventory. In addition to reporting correlations between these scales Lieberman concluded that empathy is a complex and multifacted construct. In a recent study Carlozzi et al., (1981) found a relationship between ego developmental stage and AS as measured by the ASS form E-A-2.

Kurtz and Grummon (1972) found no correlation between an earlier form of the ASS and several other empathy tests used as outcome variables. Due to a limited range of therapist performance on the ASS Kurtz and Grummon felt that their study did not provide a good test of Kagan's hypothesis that high affective sensitivity is a necessary but not sufficient condition for therapist-communicated empathy, but felt that the scale would be useful in research on empathy. As previously mentioned this finding could be a result of attempting to correlate dimensions involved in K4 in the other scales with those from K1-3 found in the ASS. The ASS was used as a research instrument by Petro and Hansen (1977) in a study attempting to assess sexual dimensions of

empathy.

There have been several studies using the ASS as a dependent variable which have found the scale responsive to empathy training. Medical students were found by Werner and Schneider, (1974) to respond to a year of interpersonal training with higher scores on the ASS. Danish and Kagan, (1971) reported that higher ASS scores were found to be associated with an intensive group experience. In a doctoral dissertation, Werner (1977) reported the ASS form D as able to distinguish effects of training in programs known to be effective for increasing affective sensitivity.

In a doctoral dissertation Werner (1977) cited the ASS form D as able to distinguish effects of training in programs known to be effective for increasing affective sensitivity. Werner (1977) has also reviewed the development of the ASS and conducted investigations of the scale's reliability and validity.

In sum, the ASS seems to be the logical instrument for measuring affective sensitivity defined as K1-3. Through numerous studies adequate reliability and validity has been established for use of the scale as a research instrument and as a dependent variable.

CIS: Use as a covariate

The Creative Imagination Scale (CIS) developed by Wilson and Barber (1978) is a test of the subjects' ability to create experiences for themselves using their imagination in creative ways. The test is a permissively worded series of test-suggestions in which subjects are asked to produce imaginative experiencess such as that of eating an orange or of time slowing down.

The assumption that the CIS does indeed measure this ability is supported by the results of recent research. In addition to correlating it with scales of hypnotic susceptability, Kiddoo (1977) found significant correlations with four instruments that purport to measure imagery or imagining. The scales included: Tellegen's Absorption Scale (Tellegan and Atkinson, 1975), the imagery portion of the individual Differences Questionnaire (Paivio, 1970, the Betts Test of Mental Imagery (Richardson, 1969), and the Barber Suggestibility Scale (Barber, Wilson, and Scott, 1977). In the same study Kiddoo also found the CIS to load predominantly on one factor with a score of .72 in the first analysis and .64 in the second analysis. She labels this factor as a suggestibility factor involving "active-volitional and goal directed imagery" which leads the person to have "...intense and vivid experiences that are produced by the word or communication he is receiving" (Barber et. al., 1974).

The CIS was included in the present study to evaluate the role of creative imagination in empathy and to control for the subjects' ability to use their mind in creative ways while participating in the treatment. A copy of the CIS can be found in appendix B. Further description of the scale and reliability and validity information can be found in chapter three.

The "think-with-instructions" used in the present study provide the maximum facilitative conditions without suggesting the transfer of ego control to the operator, which is thought by some researchers to be a confounding variable in traditional hypnotic susceptability tests. The think-with-instructions can be found in Appendix D.

DMI: Use as a Covariate

The Defense Mechanism Inventory (DMI) is a paper and pencil test developed by Gleser and Ihilevich (1969). It is based upon the assumption that the main function of a defense is to resolve conflicts that develop between what is perceived by the individual and their internalized values (Kroeber, 1963; Miller and Swanson, 1960). In an attempt to create a comprehensive instrument, defense mechanisms selected as the most important from those identified by Anna Freud (1946) have been subsumed into five categories. The categories include: Projection (PRO), Turning Against Object (TAO), Principalization (PRN), Turning against Self (TAS), and Reversal (REV). These categories are further explained in chapter three.

In several studies the DMI scales have been correlated with each other and with several other tests of personality and cognitive style. In an early study using psychiatric outpatients, Gleser and Ihilevich (1969) found, in agreement with the findings of others, TAO and PRO to be negatively correlated with PRN and REV ($r = -.44$ to $r = -.79$). TAO and PRO are generally considered to be more primitive and immature responses than is PRN (Bellak, 1958; Fenichel, 1945; Rapaport, 1951) and correspond to a less developed ego stage.

Correlating the DMI with the MMPI, Gleser and Ihilivich (1969) found TAO positively correlated with F, Pd, Sc, and Ma, and negatively correlated with L. Correlations for PRO were in the same direction but generally smaller and not significant. On the other hand PRN and REV were found to be negatively correlated with F, Pd, Pa, Pt, and Sc. Si and A were negatively correlated with REV for males and with PRN for both sexes. It would appear from these correlations that REV and PRN are

consistently associated with less pathology than TAO and PRO. In a subsequent study, Ihilevich and Gleser (1971) were unable to obtain a sufficient sample of psychiatric out-patients for a PRN test group resulting in speculation that this defense may emerge at higher levels of ego development and operate with minimal reality distortion.

Relating perceptual styles to defenses, Bogo et al. (1970) found a high level of autokinetic effect (AKE), that has been shown to be associated with greater social independence, individual autonomy, and the ability to think abstractly (Voth and Mayman, 1963), to be positively correlated with use of REV and PRN, and negatively correlated with PRO.

Information has been provided that relative defense mechanism usage measured by the DMI is related to numerous cognitive and affective dimensions. For these reasons and those presented in chapter one, the DMI was included in the present research as a covariate to control for possible confounding effects on the dependent variable (ASS), and to investigate the relationship of relative defense mechanism useage to AS as measured by the ASS.

AGE: Use as a Covariate

Subject age is a common source of confounding in social science research (Campbell and Stanley, 1963). Subject age has also been found to be related to hypnotic responsiveness (Fromm and Shore, 1979). Due to the previously described similarity of the experimental treatment and CIS to some forms of hypnosis, the concern that subject age might introduce variance into the dependent variable motivated inclusion of AGE as a covariate to control for this possibility.

The discussion of ego development, defense mechanisms, and AS also

suggests that although different people developmentally progress at different rates, and in addition may momentarily regress, chronological age may introduce variance into the dependent variable. This situation, of course, provides more support for inclusion of subject age (AGE) as a covariate to control for confounding by this variable.

The possiblity also exists that, due to the varying age of the subjects and the stimulus people in the ASS, variance could be introduced resulting from a greater or lesser ability of subjects to identify with stimulus people in the ASS due to their respective ages. The possibility that this situation could counfound the dependent variable also supported inclusion of AGE to control this source of variance.

CHAPTER SUMMARY

In the present chapter the research serving as a basis for this study was reviewed. The major conclusions drawn from the review and the resulting hypotheses are presented in this section.

It was shown that there have been numerous attempts to measure empathy defined in several different ways. It was found that many difficulties in definition and instrumentation are encountered during an attempt to measure empathy. The majority of attempts have been to evaluate empathy in terms of an empathic response made to the object (K4). This process is fine if the only goal is to measure the response or communication level (4) in Kagan's formulations. However, if the point of interest lies in processes effected prior to the response, this method of measurement includes response variables as a confounding variable.

There have been far fewer attempts to investigate and evaluate the

AS components of empathy defined here as the first three levels of Kagan's formulations (K1-3). Most of these attempts have used the ASS as the dependent variable and found it valuable in providing useful discriminations. For these reasons the ASS form E-A-2 (Kagan and Schneider, 1977) was used as the dependent variable in the present study.

Regarding treatment conditions, the studies reviewed above seem to indicate several things. First, activities with hypnosis, relaxation, and peak experiences appear to support the generalization that a temporary alteration in consciousness such as deep relaxation and focused awareness may be conducive to higher levels of AS, and at the very least provide a facilitative environment for imagery development. Second, imagery has been found to be associated with empathy and may provide a mechanism useful in developing higher levels of AS. Grinder and Bandler (1976) have provided specific formulations that may be useful to assess and develop imagery sensitive to various representational systems including: visual, kinesthetic, auditory tonal, auditory digital, olfactory, and gustatory systems. It was hypothesized that a treatment involving focused awareness and development and mobilization of imagery behaviors could be a way of facilitating AS.

The CIS was identified as an instrument potentially useful in investigating the role of creative imagination in affective sensitivity and in controlling for confounding of the dependent variable caused by individual variations in creative imagination ability leading to a differential ability to respond to the treatment. The CIS was included as a covariate in this study to: 1) evaluate the role, in affective sensitivity, of a subject's ability to focus his awareness and use visual imagery; and 2) control for confounding of the dependent variable by

individual differences in this ability.

Building upon the theory of ego development and defense mechanisms presented in chapter one, literature was reviewed that suggested a link between defense mechanism useage and AS. It was suggested that based on the association with ego development, relative defense mechanism useage may reflect ego development and for this reason be related to AS. In addition, it was shown that defense mechanism useage may influence the perception, awareness, and naming (K1-3) of affective information (Campbell, Kagan, and Krathwohl, 1971).

The DMI was included in the present research as a covariate to control for possible confounding effects on the dependent variable (ASSTOT), and to investigate the relationship of relative defense mechanism useage to AS.

The chronological age of the subjects was discussed as a possible confounding variable in the measurement of AS. Confounding of ASSTOT could be introduced due to the relationship of chronological age to ego development and the resulting impact on AS specified earlier. In addition, previous investigations (Stone,1978) have suggested that similarity in age and other dimensions with the object may influence the ability of a person to empathize, a situation not inherantly controlled by the ASS.

The present study will attempt to determine if AS can be altered by a treatment consisting of relaxation, and guided imagery. The resulting hypothesis tested will be:

Ho: There is no difference in total score on the Affective Sensitivity Scale (ASSTOT) between the experimental and control groups.

It has been shown that use of imagery may be related to affective

sensitivity. In this study, the relationship of the CIS to AS will be assessed by testing the following null hypothesis:

Ho: There is no relationship between the total score on the Creative Imagination Scale (CISTOT) and ASSTOT for the entire sample.

It was suggested that relative defense mechanism useage may be related to AS and may confound a treatment designed to increase AS. To evaluate this relationship, it will be tested using the following null hypothesis:

Ho: There is no relationship between scores on the Defense Mechanism Inventory subscales (TAO, PRO, PRN, TAS, and REV) and ASSTOT for the entire sample.

Subject age has been identified as a possible source of confounding in the measurement of affective sensitivity. To control for this source of confounding and to investigate the relationship of subject age to AS as, the following null hypothesis will be tested:

Ho: There is no relationship between subject age (AGE) and ASSTOT for the entire sample.

CHAPTER III: DESIGN

INTRODUCTION

In this chapter the design of the experiment is detailed. The components of the experimental design are presented in the following order: 1) a description of the subjects used in this study, 2) a description of the instruments, 3) a variable list, 4) a description of the method and procedures, 5) a description of the experimental and control treatments, 6) the hypotheses under investigation are listed, 7) and finally, the statistical analysis used to investigate treatment effects and relationships among the variables is presented.

SAMPLE

The sample consisted of 56 female volunteers between the ages of 17 and 47 years, with a mean age of 29.4 years. The subjects had volunteered for the study after being informed about the nature of the covariates, treatment, outcome measure, and time commitment. The subjects were from the occupational groupings of students, secretaries from medical and psychiatric settings, nurses, nursing students, and housewives. The subjects received no compensation for their participation in the study other than the satisfaction of contributing to science and the experience of participating in the measures and treatment, which many of them described as interesting and enjoyable.

INSTRUMENTATION

In this section the three instruments used in this study are described in detail and reliability and validity data is presented.

Copies of the instruments can be found in the Appendix.

Defense Mechanism Inventory (DMI), (Gleser and Ihilevich, 1969). The DMI is a paper and pencil test requiring 30-40 minutes for admimistration. A copy of the test can be found in Appendix A. The instrument is based upon the assumption that the main function of a defense is to resolve conflicts that develop between what is perceived by the individual and their internalized values (Gleser and Ihilevich 1969; Kroeber, 1963; Miller and Swanson, 1960).

In an attempt to create a comprehensive instrument, the authors have subsumed the defense mechanisms previously identified as the most important (Freud, 1946), into the following five categories. 1) Turning Against Object (TAO). This cluster of defenses deals with conflict through attacking a real or presumed external frustrating object, and includes defenses such as identification-with-the-aggressor and displacement. 2) Projection (PRO). This defense justifies the expression of aggression toward an external object through first attributing to it negative intent or characteristics. 3) Principalization (PRN). This class of defense deals with conflict through invoking a general principle that splits the affect from the content, repressing the former. Intellectualization, isolation, and rationalization are examples of this category. 4) Turning Against Self (TAS). Defenses in this category deal with conflict through directing aggressive behavior toward the self and include masochism and autosadism. 5) Reversal (REV). Defenses in this category involve response to a frustrating object in a neutral or positive fashion instead of with the expected negative affect. Included in this category are defenses such as

negation, denial, reaction formation, and repression.

Proceeding from the notion that persons may differ in the defense they use as a function of the conflict area, two stories for each of six conflict areas are presented. The conflict areas are identified as authority, independence, masculinity, femininity, competition, and situational. Subjects are given either the masculine or the feminine form of the DMI, each version containing 10 stories. After reading each story the subject is asked to respond to four questions. Each question is a response to the story of: (1) proposed actual behavior, (2) impulsive behavior in fantasy, (3) thoughts, and (4) feelings. Five responses are provided for each question, each response representing one of the five categories of defense mechanisms.

The following reliability and validity figures are reported in Gleser and Ihilevich (1969). The stability of defense scores over time was tested on two groups. The first sample consisted of 12 counselors tested before and after a T-Group experience, the interval being one week. The Pearson Product-Moment correlations ranged from .85 for PRO to .93 for TAO with an average of .89. In the second sample the DMI was administered to 11 first year psychology graduate students at the beginning and end of a 3 month course. The scores ranged from .69 for PRN to .87 for TAO with an average of .76.

During construct validation three psychologists and seven social workers were asked to match a list of 15 defenses to the 240 DMI responses. Rater agreement with the key was more than 60% for the categories of TAS, REV, and PRN, but not for TAO and PRO. About one-third of the TAO responses were considered not to be a defense, as were 19% of the responses keyed PRO. About 14% of the PRO responses were

identified as more appropriately placed in TAO.

In a more recent study Blacha and Fancher (1977) evaluated each item in terms of which of the 15 defenses and 3 ego threats it represented. Using 20 psychology graduate students as raters, they found over 70% agreement with the key for PRN, TAS, and REV. PRO received 29% agreement with many responses identified as justifiable expressions of anger.

In sum, although the categories of PRO and TAO do not have strong validity the remainder of the validity levels are acceptable as are the test-retest stability levels. In addition, the DMI is the most comprehensive instrument designed to assess relative use of defense mechanisms that has been developed. For these reasons the DMI was considered to be adequate as a covariate in this study.

Creative Imagination Scale (CIS), (Wilson and Barber, 1978). The CIS is a 10 item scale that requires subjects to use their imagination to produce the most complete internal representation possible of experiences described to them by the scale administrator. The items are similar to those commonly found in scales of hypnotic response and include the request to imagine experiences including having heavy dictionaries on one's hand and that one's finger is getting numb. A copy of the test can be found in Appendix B.

The 10 test-suggestions require 18 minutes to administer and are worded in non-authoritative language to emphasize to the subjects that they are to produce the suggested experiences by their own thinking and creative imagining. Immediately following presentation of the 10 items the subjects report their experiences on the Self-scoring Form of the Creative Imagination Scale. The subjects rate their experience of each

item on a five point scale ranging from a score of 0(not at all the same as a real experience) to a score of 4(almost exactly the same as the real thing). A copy of the self scoring form can be found in Appendix C.

The scale is designed to be administered following instructions of the examiner's choice. Choices identified include the following types of instructions: Task Motivational Instructions, Human Potential Instructions, Think-With Instructions, Hypnotic Induction, or simply information that the subject is about to receive a test of creative imagination. The instructions used in the present study were the Think-With Instructions (Barber, Wilson, and Scott, 1977), and are included in Appendix D. Although all of the instructions give similar results, these instructions have been shown to give results equal or superior to the others (Barber and Wilson, 1977). The instructions also emphasize the subject's control in the process, making no mention of the subject being controlled by someone else. The instructions are consistent in this way with those that were given at the beginning of the experimental treatment.

Standardization and normative information was collected on 217 introductory psychology students at Boston University using the control conditions of simply providing them information that they were about to receive a test of creative imagination. The norms and distributions are presented in Wilson and Barber (1978) and can be found in Table 4.5 of this document. Test-retest reliability was evaluated by testing 22 subjects twice in the same day. Pearson Product-Moment correlations of $r=.82$, p .01 indicated a satisfactory level of reliability. Using scores from all 217 subjects, split-half reliability was found to be $r=.89$, p .001. In an investigation of factorial validity, all 10 items were

found to load on only one factor. In an additional study (Kiddoo, 1977) scores on the CIS were found to be correlated with scores on four instruments that aim to measure imagery or imagining.

Affectivity Sensitivity Scale form E-A-2 (ASS), (Kagan and Schneider, 1977). The ASS is an instrument designed to measure sensitivity to the thoughts and feelings of persons involved in interpersonal interactions. The scale consists of thirty film segments taken from various actual counseling, teaching, and other interpersonal interactions, ranging in length from eight seconds to approximately two minutes. Following each scene, the examinee answers one or more multiple choice items designed specifically for that scene. The total time required to complete the test is approximately one hour. A copy of the test booklet can be found in Appendix E.

The scale provides scores for many subscales in addition to a total score for affective sensitivity. Subscales provide data for the following: sensitivity to interpersonal encounters, sensitivityy to individuals, sensitivity to adults, sensitivity to children, sensitivity to male, and sensitivity to females. Emotional accuracy scales are also provided that give scores for correct and incorrect assessment of several emotions. For a more complete description of the subscales see Kagan and Schneider (1980). In the present study however, only the total score for affective sensitivity (ASSTOT) was used as the dependent variable.

The following variables, which are often confounding variables on other tests of empathy or affective sensitivity, are not measured by the scale: response skills, memory/continuity factors, and interactional skills. The scale does not directly measure intrapersonal sensitivity,

but may be influenced by it.

The ASS form E-A-2 has been normed on 2461 subjects of varied nature. Reliability computed using the formula for Chronbach's Alpha is .66 overall with the individual scales ranging from .36 to .61. Additional norms, reliability data, and description of the test is available in the Affective Sensitivity Scale, Forms D and E, Examiner's Manual, (Kagan and Schneider, 1980).

Validity for the form E-A-2 has been developed over the years through research on earlier forms, and investigated more specifically in several recent studies. In an early study (Kagan et al., 1967) it was found that groups given a one year experience expected to enhance interpersonal sensitivity demonstrated a significant change in score on an earlier form (C) of the ASS. A placebo group that was retested showed no instrumentation effect. As reported in Danish and Kagan (1971) the ASS was responsive to changes in AS associated with an intensive group experience, however no significant test-retest or placebo change was observed. In another early study (Campbell, Kagan, and Krathwohl, 1971) an investigation of concurrent validity showed the ASS to be related to more subjective measures of affective sensitivity and counselor effectiveness.

Several recent studies with form E-A-2 have supported the scale as a valid measure of change in affective sensitivity. In an investigation with medical students Werner and Schneider (1974) found one form of the ASS to measure changes in affective sensitivity after a course designed to increase this skill. In addition, studies by Petro and Hansen (1977), and Carlozzi (1981) support use of the scale as a valid measure of affective sensitivity.

Table 3.1

VARIABLE LIST

(ASS) Affective Sensitivity Scale	
ASSTOT	- Total Score on the ASS
(DMI) Defense Mechanism Inventory	
TAO	- Turning Against Object
PRO	- Projection
PRN	- Principalization
TAS	- Turning against Self
REV	- Reversal
(CIS) Creative Imagination Scale	
CISTOT	- Total Score CIS
AGE	- Subject Age

METHOD

The experiment began with an explanation of the procedures to follow. After answering any questions participants had, experimental numbers were drawn out of a box by subjects to provide random assignment to experimental or control group. To insure confidentiality, the subjects were asked to tell no one of their number and to identify themselves on the testing materials only with their number. A flip of a coin designated the negative numbers to be in the experimental condition (identified as condition one to the subjects) and the positive numbers to be in the control condition (identified as condition two to the subjects). The subjects were led to believe the treatments were different but equal to avoid a differential halo effect.

The testing began with group administration to all subjects of the DMI followed by a 10 minute break. After the break, the CIS was administered to the entire group of subjects. The subjects in the control condition were then asked to move to another room and subjects in the experimental group were asked to take a 10 minute break.

The experimenter then went to the control condition room and assigned the condition which was the cognitive task of listening to a 30 minute tape of the experimenter's voice giving a lecture on affect development and affect regression (Krystal, 1974). The control subjects were told that the experimenter would return for them in 35 minutes and administer the ASS.

The experimenter then returned to the experimental condition room and administered the treatment consisting of relaxation, focused awareness, and guided imagery which lasted approximately thirty minutes.

Immediately following the experimental treatment the control

subjects who had just finished listening to the tape were brought back into the testing room and both groups were given the ASS. The subjects were then debriefed on the study and any questions they had about the study or the measures were answered. The subjects were then instructed to avoid discussion of the study for a specified period of time to avoid other subjects being contaminated. The subjects were then released from the study.

TREATMENT

Experimental Condition

A two step treatment designed to facilitate AS was given to the experimental group. The first step of the treatment used Relaxation and Guided Imagery to aid the subject in developing a state of physical relaxation and of focused mental awareness. This condition was intended to reduce anxiety and the attractiveness of any other competing stimuli which could interfere with direct perception of the object's state. This condition was also intended to facilitate indirect perception of the objects feelings by facilitating the awareness of subtle cues from oneself that could aid in affective sensitivity. Finally, this relaxed and focused mental state was intended to provide a facilitative environment within which to develop the imagery of the second phase of the treatment.

The second phase of the treatment entailed use of a Guided Imagery exercise. This imagery was intended to help the subject organize and mobilize perceptual behaviors, and develop a focus of attention considered optimal to facilitate affective sensitivity. The subjects were instructed to create an image of a man and a worman speaking with

them in some type of happy conversation. The subjects were then instructed to attend to the following variables: the person's words, the tone of their voice, the facial expression, and movements of their body. The subjects were also instructed to attend to themselves in the following manner: "notice how you feel, what thoughts come to mind, what does your body feel like, are you aware of any sensations, movements, or anything else that tells you how the other person is feeling?" After this sequence was completed for the feeling of happiness, the remainder of the feelings measured in this study were presented in the same way. The treatment lasted approximatily 30 minutes and a complete transcript can be found in Appendix F.

Following the completion of this sequence the subjects were instructed that they would now be shown the films that they had been told about and that they would find it very easy to use the skills they had just reviewed to become aware of the feelings exhibited by the people on the screen. They were also instructed that after the administration of the ASS they would be sure to be wide awake and refreshed. Following these instructions the control subjects were brought into the testing room, and the ASS was administered to both groups sumultaneously.

Control Condition

The control condition, designated as condition two to the subjects, consisted of the control subjects listening to a 30 minute audio tape cassette recorded by the experimenter, giving a lecture on affect development and affect regression as described by Krystal (1974). The lecture was a cognitive presentation of the psychoanalytic theory of affect development through object relations, and the effect of affect regression thought to be triggered by adult trauma. The result of the

trauma in affect regression was described as a dedifferentiation of affect leading to a resomatizatin of affect and a loss of abilities to work with the feelings verbally.

The control condition was intended to provide cognitive information about affect development, affect regression, and empathy. This condition was similar to the experimental treatment on the dimension that the experimenters voice said things to them about affect for an equal length of time. However, the control task was completely a cognitive task of listening about affect, whereas the experimental treatment focused upon relaxation and imagery.

HYPOTHESES

The study was designed to evaluate the following hypotheses stated in the null:

Ho: There is no difference in total score on the Affective Sensitivity Scale (ASSTOT) between the experimental and control groups.

Ho: There is no relationship between scores on the Defense Mechanism Inventory subscales (TAO, PRO, PRN, TAS, and REV) and ASSTOT for the entire sample.

Ho: There is no relationship between the total score on the Creative Imagination Scale (CISTOT) and ASSTOT for the entire sample.

Ho: There is no relationship between subject age (AGE) and ASSTOT for the entire sample.

ANALYSIS

The data was analyzed on a CYBER 750 mainframe computer, using an SPSS program Version 8.0 for the multivariate analysis of covariance

(MANOVA). This robust statistic provides a powerful 2-tail test of the treatment effect, as well as a correlation matrix. Power of the test was calculated to be greater than .80. The correlation matrix was used to investigate the correlational hypotheses.

SUMMARY

In this chapter the design of the study was presented. The composition of the subject sample was described and the reliability and validity of the instruments was reviewed.

After being briefed on the experiment and randomly assigned to treatment or control group by randomly selecting numbers, the subjects were administered the DMI and CIS covariates. One half of the subjects then received an experimental treatment given by the experimenter involving relaxation and guided imagery. The other half of the subjects simultaneously received a control treatment consisting of a recording of the experimenter describing affect development and affect regression. The entire sample of subjects were then administered the ASS dependent variable to test for experimental treatment effect.

A multivariate analysis of covariance was used to evaluate treatment effect and the correlational hypotheses. In the following chapter the results obtained from the analysis of the data are presented.

CHAPTER IV: RESULTS

INTRODUCTION

In the present study fifty-six female volunteers were randomly assigned to experimental and control groups and were administered the experimental procedures previously described. The subjects were tested in groups of approximately 20 over the time period of a week, during the Spring of 1980. The settings included classrooms at Michigan State University and Lansing Community College.

An SPSS computer program for a multivariate analysis of covariance was used to test for differences in performance between experimental and control groups on the Affective Sensitvity Scale total score (ASSTOT). Pearson Product Moment correlation coefficients were generated to investigate the correlational hypotheses.

Although not part of the original experiment, a post hoc analysis of multiple t-tests assessed differences in group means between the present sample and the national norms for all instruments. In the remainder of this chapter the results of the analyses are presented by hypothesis.

RESULTS

Hypothesis One

Ho: There is no difference on the Affective Sensitivity Scale Total Score (ASSTOT) between the experimental and control groups.

Hypothesis One was tested using a multivariate analysis of covariance (MANOVA) to evaluate the main effect. The MANOVA adjusted for the seven covariates Turning Against Others (TAO), Projection (PRO), Principalization (PRN), Turning Against Self (TAS), Reversal (REV), total

score on the Creative Imagination Scale (CISTOT), and subject age (AGE). An acceptable significance level of alpha = .05 was specified.

The computed statistic from the ANOVA was not significant with t = .95 and p = .345. Therefore, the null hypothesis was not rejected, indicating that there was no statistical difference between experimental and control groups on ASSTOT. Group means and standard deviations for the experimental and control groups on ASSTOT are presented in Table 4.1.

The scores for both groups in the study were very similar to each other but appeared dissimilar from the national norms for females. The mean for both groups in the present study was approximately one standard deviation higher than the national norm for females, N = 1461, (Kagan and Schneider, 1980). A Student's t-test was performed to compare the average ASSSTOT score for the entire sample from the present study to the national norms. Scores for the groups under study and the national norms can be found in Table 4.2.

To control for the inflation of alpha which accrues when several t-tests are performed on one set of data, an acceptable significance level of alpha = .001 was specified.

As indicated in Table 4.2 the t-value obtained was 8.05 indicating a significant difference on ASSTOT between the combined scores for both groups in the present sample and the national norm at the p .001 level. This indicates that the difference of approximately one standard deviation observed between the present sample and the national norm is statistically significant. Means and significance levels can be found in Table 4.2.

Table 4.1

MANOVA Values for ASSTOT

	Exp. Group	Cont. Group	t-value	p-value
Mean	33.78	32.78	.95	.34
S.D.	3.78	5.16		
N	28	28		

Note. The multivariate analysis of covariance adjusted for the seven covariates (TAO, REV, TAS, PRO, PRN, CISTOT, AGE) and evaluated the difference in means on ASSTOT between the experimental and control groups.

Table 4.2

Comparison of ASSTOT between Total Sample and the Norm Group

	Total Sample	Norm Group	t-value	Sig.
Mean	33.28	27.30	8.05	p .001
S.D.	4.5	5.5		
N	56	1461		

Note. Norm group used for comparison consists of females tested on the ASS form E-A-2, (Kagan and Schneider, 1980).

Hypothesis Two

Ho: There is no relationship between scores on the Defense Mechanism Inventory subscales (TAO, PRO, PRN, TAS, and REV) and ASSTOT for the entire sample.

Hypothesis two was evaluated using Pearson Product Moment correlation coefficients which may be found in table 4.3. With alpha set at .05, the correlations of PRO ($r = .29$, $p = .02$) and REV ($r = -.46$, $p = .001$) with ASSTOT were found to be significant. Therefore, Hypothesis Two was rejected.

There was also a trend toward significance of the relationship between TAO and ASSTOT ($r = .20$, $p = .07$). With a larger N this correlation may have reached significance.

To test for differences between the sample under study and the DMI norm group, multiple t-tests were performed. The subscale scores for the experimental and control groups, which can be found in Table 4.4, were very similar so combined scores of the entire sample were used for this comparison. To compensate for the inflation of alpha accrued with the use of multiple t-tests, alpha was set at .001.

TAS was the only subscale reaching significance indicating that the lower mean in the present sample was statistically different from the norm group. The means, standard deviations and p-values for the total sample and the national norm group can be seen in Table 4.5.

Table 4.3

Correlations between DMI subscale scores and ASSTOT

	TAO	PRO	PRN	TAS	REV
ASSTOT	r = .20	r = .29	r = .03	r = -.08	r = -.46
	p = .07	p = .02	p = .41	p = .29	p = .001

Note: N = 56.

Table 4.4

Scores on the Defense Mechanism Inventory

	Exp. Group		Cont. Group	
	Mean	S.D.	Mean	S.D.
TAO	38.0	8.1	39.8	7.5
PRO	38.8	6.6	39.4	6.4
PRN	46.2	6.1	46.8	6.1
TAS	38.4	7.1	37.1	8.1
REV	37.5	8.7	36.5	6.7

Table 4.5

Comparison of Means from the DMI Norm Group and the Present Sample

	Norm Group		Comb. Group		t-value	Sig.
	Mean	S.D.	Mean	S.D.		
TAO	34.8	8.1	38.9	7.9	2.86	.01
PRO	36.9	5.4	39.1	6.4	2.11	ns
PRN	47.3	6.4	46.5	6.1	.70	ns
TAS	41.9	4.9	37.8	7.6	3.85	.001
REV	37.0	7.8	39.2	6.9	1.68	ns

Note. Critical value for significance at the .01 level is 2.63. It must be remembered that using repeated t-tests gives a larger chance for error than the significance levels suggest.

Hypothesis Three.

Ho: There is no relationship between the total score on the Creative Imagination Scale (CISTOT) and ASSTOT for the entire sample.

Hypothesis three was evaluated using a Pearson Product Moment correlation coefficient with significance set at alpha = .01. The correlation coefficient was found to be r = -.152, with p = .13. Therefore, Ho was not rejected indicating no statistically significant relationship between CISTOT and ASSTOT. The correlation coefficient and p-value can be found in Table 4.6. Means and standard deviations for the experimental and control groups were almost identical and can be found in Table 4.7.

To investigate the relationship between CISTOT for the present sample and the norm group of 217 females, (Wilson and Barber, 1978), a t-test was performed. Significance was set at alpha = .001. The t-test was found to be non significant (t = 2.09) indicating no statistical difference between the present sample and the norm group on CISTOT. Scores and significance figures can be found in Table 4.8.

Table 4.6

Correlation CISTOT with ASSTOT for Total Sample

	Correlation coefficient	p-value
CISTOT X ASSTOT	r = -.152	.48

Table 4.7

Scores on the Creative Imagination Scale

	Exp. Group	Cont. Group
Mean	25.1	24.1
S.D.	6.3	5.5
N	28	28

Table 4.8

Comparison CISTOT for Total Sample and Norm Group

	Total Sample	Norm Group	t-value	Sig.
Mean	24.6	20.8	2.09	N.S.
S.D.	5.9	8.6		
N	56	217		

Note. The t-value necessary for rejection at the alpha = .01 level is 2.63.

Hypothesis Four.

Ho: There is no relationship between subject age (AGE) and ASSTOT for the entire sample.

To evaluate the relationship between AGE and ASSTOT the Pearson Product Moment correlation coefficient was computed. Significance was set at alpha = .01. The correlation was found to be not significant with $r = -.07$ and $p = .48$. Therefore, hypothesis four was not rejected indicating no significant relationship between AGE and ASSTOT. These statistics can be found in Table 4.9.

Table 4.9

Correlation AGE with ASSTOT

	Correlation coefficient	p-value
ASSTOT X AGE	r = -.07	.48

Note. This correlation was computed using the ages of the entire sample of subjects. N = 56.

SUMMARY

In this chapter the results of the study have been presented. Hypothesis One was not rejected indicating that the main effect was not significant and that there was no difference on Affective Sensitivity Scale total score (ASSTOT) between the experimental and control groups. However, both the experimental and control groups were found to have scored significantly higher on ASSTOT than the national norm for females.

Hypothesis Two was rejected finding the Defense Mechanism Inventory (DMI) subscales Projection (PRO) and Reversal (REV) to be statistically significantly related to ASSTOT. Testing the DMI subscales against the national norms identified the mean of TAS to be significantly lower for the present sample.

Hypothesis Three was not rejected indicating no significant relationship between Creative Imagination Scale total score (CISTOT) and ASSTOT. Additionally, no significant difference was found between CISTOT for the present sample and national norms.

Hypothesis Four was not rejected indicating no significant relationship of subject age (AGE) to ASSTOT. In the following chapter,

the results are discussed and recommendations for future research are presented.

CHAPTER V: DISCUSSION

INTRODUCTION

In the present study fifty six female volunteers were randomly assigned to an experimental or a control group and were administered the Defense Mechanism Inventory (DMI) and Creative Imagination Scale (CIS). These measures were used as covariates. The subjects in the experimental group were then given a treatment by the experimenter which consisted of relaxation and guided imagery to determine the impact of relaxation and imagery on Affective Sensitivity (AS). The control subjects simultaneously listened to a taped lecture of the experimenter describing the genetic development of affect and affect regression. Both groups were then given the Affective Sensitivity Scale (ASS) as a measure of AS.

A SPSS computer program for a multivariate analysis of covariance (MANCOVA) was used to test for differences in performance on the ASS total score (ASSTOT) between experimental and control groups. Pearson Product Moment correlation coefficients were computed between all variables, and were used to evaluate the correlational hypotheses. As a check on external validity, a post hoc analysis using multiple t-tests compared scores on all instruments from the present sample with national norms.

In this chapter the results of the study are reviewed and discussed in the following manner. First, the results from evaluation of the hypotheses will be presented and issues concerning procedures and interpretations of the data discussed. A summary of specific recommendations for future research will then be presented followed by a summary of the study.

DISCUSSION OF HYPOTHESES

Hypothesis One

Ho: There is no difference in total score on the Affective Sensitivity Scale (ASSTOT) between the experimental and control groups.

Hypothesis One was not rejected. The mean ASSTOT score of the experimental group was one point higher than that of the control group, but this was not considered to be a meaningful difference and it was not statistically significant.

The most obvious interpretation for the lack of a main effect is that the theory, observations and resulting conclusions which suggest that imagery and relaxation may positively influence affective sensitivity were not supported. This conclusion that a treatment using imagery and relaxation does not increase AS is further supported by the lack of correlation between imagery, measured by the CIS, and ASSTOT.

On the other hand, other reasons for the lack of an observed treatment effect may be explored. One possible reason for the observed lack of a main effect difference between the experimental and control group seems to involve methodological issues. This may be particularly true in light of the finding that both the experimental and control groups scored approximately one standard deviation higher than the national norm. Subsequent to this discussion other possible explanations will be discussed.

The ASS has been demonstrated in several contexts to be sensitive to training designed to increase affective sensitivity. However, as the treatment in the present study was a departure from other methods attempting to increase affective sensitivity, it is possible that there may have been a change in affective sensitivity that the ASS did not pick

out due to method variance. The ASS scores a limited number of choices for response and the subjects in this study may have had many creative affective sensitivity responses that were not choices on the ASS. If this is true the question may be asked as to whether the ASS does measure affective sensitivity, and if so, to what extent and under what conditions.

As indicated in Table 4.2, the finding that both the experimental and control groups scored approximately one standard deviation higher on ASSTOT than the national norm for females was found to be significant with p .001. There seems to be no readily apparent cause for this higher level of AS, but several reasons may be considered.

One explanation for the relatively high scores of the present sample is the possibility of a treatment effect by the covariates. The covariates were used because it was hypothesized that they would measure and control variance on dimensions involved in a response to the treatment which was designed to increase affective sensitivity. To be useful as covariates, they needed to have relevant dimensions in common with the treatment and the process of affective sensitivity. In retrospect it can be seen that introduction of dimensions involved in both covariates could have influenced affective sensitivity.

It is possible that the treatment effect expected from the initiation of imagery or an altered state of consciousness could have been provided by administration of the CIS. This could mean that a treatment effect was generated either by subjects experiencing how to use imagery and choosing to use it later during the ASS, or that there was a continuous carry over effect from the previously administered CIS to administration of the ASS dependent variable.

The CIS was chosen because it tests the ability to create experiences for oneself using imagination or imagery. It was thought that this ability or a basic dimension of this ability would be needed by subjects to respond to the experimental treatment. As this ability is not universally equally distributed, the CIS was used as a covariate to reduce variance introduced by individual differences in this ability which could lead to differences in the ability to participate in the experimental treatment.

In addition to the specific image activities of the CIS, it is possible that when subjects work with imagery in this way, that they also may initiate a light altered state of consciousness similar to those discussed in chapter one which include: a receptive ego state, a state of dissociation such as a Hilgard stage 2, or a regression by part of the ego to a more primitive mode of functioning while maintaining highly developed synthetic ego functions. These states have been previously shown to be associated with increased empathy and it is possible that these states were initiated and carried over into testing on the ASS. These states can be seen to have a possible positive influence on activities in Kagan's Stages One and Two of affective sensitivity (K1,2) which involve reception and representation to oneself of the affective information respectively. Again, since the CIS was given as a covariate to both experimental and control groups prior to administration of the dependent variable, this event may have raised the ASSTOT scores for both groups.

The DMI was another instrument that might well have influenced scores on the dependent variable. The DMI was included in addition to the CIS to control variance that could be introduced into the dependent

variable. It was hypothesized that use of different defense mechanisms may cause differential effects on AS. It was thought that some defense mechanisms may exert more influence than others in the K2 and K3 stages through interference in the awareness and labeling of emotionally charged percepts. It is possible however, that exposure to the DMI where people were asked to think about what they would feel, think, and do, stimulated their identifying and labeling processes. This may have carried over to the ASS as a boost in stage three asctivities in Kagan's formulations of AS (K3) which includes identifying and naming feelings and thoughts.

Another way that the high and equivalant scoring of both groups can be explained is that the treatment did work with the experimental group but the control group also received a treatment effect from the control procedure. The control procedure was to listen to a lecture on affect taped by the experimenter. During debriefing of the experiment several of the subjects stated that they did not enjoy the lecture, thought it was "over their head", and in fact some found it down right boring. It is possible that with the experimenter droning on about some advanced psychological theory that the subjects became bored, dissociated, and lulled into a trance. In this situation the subjects may have gone off into their own imagery and started to think about what bothers them and their own feelings. In this way a treatment including relaxation, imagery, dissociation, and thoughts about feelings may have inadvertantly been generated within the control subjects. This was of course the intent of the experimental treatment and it may have had a similarly enhancing effect upon affective sensitivity.

Another factor that may be responsible for the relatively high scores of the present sample on ASSTOT may be found by looking at the

testing conditions of the sample compared to those of the norm group. Most of the scores in the norm group were obtained from subjects taking the ASS as part of a class, workshop, or some other situation where it would be expected that they would experience some fear of evaluation and therefore generate anxiety. Generating anxiety would tend to stimulate the persons defenses with a possible corresponding negative effect on affective sensitivity. In an early writing, Campbel, Kagan, and Krathwohl (1971) have noted this possibility stating that "defense mechanisms change the perception and the result is a distorted identification".

Subjects in the present sample, on the other hand, could be expected to have felt much less pressure to perform and subsequently less fear of evaluation. They knew that their confidentiality was protected and that the testing was totally disconnected from their work. It would be expected that it would be relatively easy for these subjects to relax their defenses within this situation resulting in more access to emotionally charged affective information in K2. This could be followed by less defensive interference while naming the percept in K3.

The composition of the subject sample may also have had an impact on the ASS scores. One third of the subjects were nurses and student nurses. Half of the subjects were secretaries and receptionists in in the schools of Human Medicine and Osteopathic Medicine at Michigan State University. It can be hypothesized that part of the reason for these subjects working in these situations was an interest in the welfare of others and a caring orientation for others. It is possible that it was this situation that elevated ASSTOT for both groups.

Tentative explanations are next offered to explain the high level of

scores on ASSTOT for both experimental and control groups and the lack of a differential treatment effect. One explanation is that both groups got the effect intended for the treatment group from participation in the covariates. Secondly, it is possible that the treatment did work as intended but as the subjects had already experienced a training effect on the dimensions under consideration, additional training which would have otherwise created a training effect could have no additional influence. This could occur if the subjects experienced a momentary limit regarding the extent to which their affective sensitivity was immediately modifiable. As can be seen in psychotherapy, cognitive learning, physical development and other areas of change and learning, there are limits to the amount of material that can be assimilated and the amount of change that can be produced in one session. In the present study, it is possible that if the subjects experienced a treatment effect by the covariates, then their capacity for learning and change at that sitting may have been fully used. If this is the case, in future research, if the treatment was offered after a rest period it is posible that an additional treatment effect might be generated.

The same effect would also be observed if the ASS instrument itself demonstrated a ceiling effect and was unable to discriminate between higher levels of responding due to the general elevation of the scores of both experimental and control groups of one standard deviation. Although this seems like a plausible hypothesis, this is probably not the case. If the subjects did run out of room to respond as a function of instrument limitations, it would be expected that the standard deviation of both groups would be reduced. Upon inspection of the results in Table 4.2 we find that the standard deviation of the present sample is only

slightly lower than that observed for the national norm making this explanation unlikely.

Several of the questions raised above could be investigated in a future study by changing the temporal relationship of the covariates to the dependent variable. The covariates could be administered a larger time period before administration of the dependent variable thereby reducing the possibility of a recency effect upon the ASS. The possibility of a recency effect could be further reduced by administering the covariates in a separate meeting a week previous to presentation of the treatment and dependent variable which would also reduce the potential fatigue effect induced during the present study. The sequence of administration of the CIS and DMI could also be changed and evaluated for differential effect due to order. A pre-post design would provide additional ways of evaluating the relationship of the covariates to the dependent variable by examining change in score within individuals and groups. In this type of design the same or alternate forms of the ASS could be used.

Behind the generation of Hypothesis One was the expectation that the experience and training in using imagery to develop and mobilize multiple input and representation systems provided by the treatment would increase the subjects ability to receive and represent affective information to themselves. In this process the multiple input and representation system treatment experience would provide increased data handling capabilities which would be accentuated through imagery. The imagery would facilitate learning to use the multiple systems and function as a vehicle for access to more primitive information, and subsequent interpretation of it. Although it was thought that altering the state of the subject by

relaxation and guided imagery would be sufficient to mobilize resources already present in the subject and thereby bring about an increase in affective sensitivity, the lack of difference in ASSTOT between the experimental and control groups would suggest that this does not seem to be the case. It is possible, however, that several repetitions of the training procedure could result in a training effect and increase AS. One suggestion for future research would be to give multiple training sessions.

As there was no follow up it is not known if the single session had a benificial impact later. Abilities involving altered states of consciousness seem to often become available to people just when they need them (Erickson in Haley, 1967). It is possible that this kind of treatment effect may be benificial when people are doing actual empathy work with someone else although it might not be realized in this particular test condition which immediately followed the treatment. This treatment may have stimulated processes within the subject that would facilitate growth in the individuals empathic abilities as a function of numerous actual encounters. If this were the case, a follow up testing on the ASS may identify these changes that developed over time. In addition, evaluations using measures suited to the context in which affective sensitivity or empathy may be exhibited would be another way to test for a treatment effect.

Another possible explanation for the lack of a treatment effect could be that the imagery procedure did work as expected but was counteracted or obscured by other components of the procedures. For example, hypoarousal due to fatigue could have negatively affected the ability of subjects to utilize new information in the form of a

treatment, causing a decrement in treatment effect. The dependent variable was given at the end of the study which began in the evening after most of the subjects had worked a full day. It is possible that they were tired and had no energy to put into the treatment and increased performance. Working against this explanation, however, is the fact that subjects in both groups had sufficient personal resources to score one standard deviation above the mean.

It is also possible that the treatment did not initiate the processes and dimensions intended. As previously mentioned, it was expected that one aspect of the treatment would get the subjects into a facilitative state for the reception and representation to oneself of affective information which are Kagan's Stages One and Two (K1,2). It could have been that the relaxation, intended to facilitate openness to the preconscious or unconscious making subtle affective cues more available, did not have the intended effect. It was expected that the relaxation could have initiated a state of consciousness similar to Hilgard's stage 2 (hidden observer), a state of receptive ego functions, or a state of adaptive regression in the service of the ego, where part of the ego would have increased access to the observers experience of affective input. This may not have happened, or if it did, it did not help.

It is possible that this state did not occur, but that in fact, the subjects relaxed into a state of regression not in service of the ego. In this state, primary process activities would be initiated without the help of synthesizing and organizing processes of secondary process. This state corresponds to Hilgard's stage 3, and the passive ego state described by Fromm. It would be expected that this state would not be

productive of increased empathy by itself and may even result in a decrement in performance. This would be due to the loss of labeling functions (K3) and other functions attributed to secondary process as well as distortions resulting from undirected primary process. Again, this formulation is not supported by the data because if this was the case, it would be expected that the experimental group would score lower than the control group, where in fact, the treatment group scored one point higher. So if this type of regression did occur, it was not a uniform factor across all subjects.

In sum, the similar high scores of both groups relative to the national norm could be attributed to a treatment effect by the covariates. The CIS could have contributed stimulation in imagery and relaxation leading to greater access of information. The DMI could have facilitated naming the recently gained awareness. This would all, of course, tend to increase scores on the ASS. Several explanations were offered for the lack of a treatment effect. One possibility was that although the treatment may have acted as intended, a ceiling effect had been reached in the subjects or the ASS from influence of the covariates leaving no room for improvement. Another possibility was that one exposure to the treatment was simply not enough to have an impact on AS and that several repititions of the treatment may produce the intended effect. Fatigue was discussed as a reason for failure of the treatment but this explanations seems contradictory with the general high scores of the sample. It was also hypothesized that the treatment may not have had the intended influence and that the subjects had regressed without maintaining secondary process functions of the ego. This possibility, however, was again not supported by the nearly equal and generally high

scores of both groups.

Hypothesis Two

Ho: There is no relationship between scores on the Defense Mechanism Inventory subscales Turning Against Others (TAO), Projection (PRO), Principalization (PRN), Turning Against Self (TAS), and Reversal (REV) and ASSTOT for the entire sample.

The null hypothesis was rejected with REV and PRO reaching significance. Correlations and significance values of DMI subscales with ASSTOT can be seen in Table 4.3.

The DMI was included in the study to emperically evaluate the relationship of defense mechanisms to AS suggested by theory, and control for confounding of the dependent variable. Although the DMI seems to be the most comprehensive and reliable defense mechanism assessment device available, it is possible that the defense groupings create problems. As previously mentioned, within the DMI subscales that reached significance in correlations with the ASS, some limits were identified regarding the homogeniety of the categories. This could result in confounding leading to reduced discriminations. It would have been useful in the present study if scores on individual defenses could be obtained from the scale, a process by which to get around the confoundng within the categories without changing the scale dramatically.

To evaluate the similarity of the present group to the norm group on the DMI subscales, a series of t-tests were performed. The present sample was similar in sex, age, vocational activity, and education to the general female norm group. However, the norm group was very small with N = 71, (Gleser and Ihilevich, 1969). The DMI subscale Turning Against

Self (TAS) was the only subscale found to be significantly different with the present sample obtaining a lower mean with p .001. These results must be viewed with caution because the norm group was so small. With a norm group of this size, the possibility that the group could contain certain types of people as a result of selection bias or certain scores as a result of method induced artifact, cannot be ignored.

In the review of theory and literature about affect and ego development, it was suggested that higher levels of ego development would probably be accompanied by similarly high levels of the ability to observe and label feelings in oneself and others. This expectation seems to be partially supported by the negative correlation of REV with ASSTOT ($r = -.46$, $p = .001$). This negative correlation suggests that the more a person tends to use Reversal as a defense, the less likely they are to perceive the affect of others accurately. The DMI indicates that they deny their own feelings, the ASS scores may be seen to suggest that they deny other's feelings also. Reference was made to theory that suggests REV is a primitive defense category which includes Denial, a defense thought to be one of the most primitive. The findings offer tenative support to the theory that suggests that REV, being a primitive defense, would be associated with less accurate and less highly differentiated AS.

One way to examine whether or not REV is a primitive defense and would be associated with less accurate and highly differentiated AS would be to examine its correlation with some of the subscale scores on the ASS which represent emotional accuracy and which are shown in Table 5.1. As can be seen, the most significant correlations are with Anger and Sadness. The ASS contains a relatively large number of anger items which assigns a high weight to sensitivity to anger in the scale. This leads

to the conclusion that people who score high on the ASS tend to be those who accurately see anger.

Reversal is usually seen as a defense used for impulse control and is often used to deny anger. Perhaps what happened was that people who scored high on reversal were denying the anger items in the ASS and therefore received a lower score on the ASS. Upon observation of the subscale scores, a negative correlation of REV with anger is found ($r = -.325$, p .01).

As can be seen in Table 5.1 there was also a significant negative correlation of REV with the ASS emotion scale Sadness ($r = -.28$). Consideration of both the correlation of Sadness and Anger with ASSTOT may provide additional information regarding the relationship between defenses and AS. Of the different emotions rated by the ASS the ones with the most interpersonal pull, usually requiring some sort of reaction by the receipient if they are perceived, are anger and sadness. This can lead to the situation that if one recognizes anger and sadness to be present, there is a societal expectation that one respond to those emotions. This pull is stronger with these emotions than with happiness, helplessness, or guilt for example. If this is true then subjects would be motivated to deny perception of these feelings to avoid anxiety that may be stimulated by the internally generated expectation to deal with these feelings, this resulting in a relative loss in perception of these anxiety stimulating emotions.

It must also be considered at this point that the DMI category of Reversal is not one homogeneous category but is composed of several defenses. Although Denial is thought to be a primitive defense reaction formation, which is also subsumed under REV, is thought to be more

advanced. It is possible that without the more advanced defenses also subsumed under REV, the negative correlation with ASSTOT might be higher.

Correlations between PRO and scores on the ASS which can be seen in Table 5.2 may highlight the relationship between identification, projection, and affective sensitivity. PRO was found to have a small but significant correlation with ASSTOT ($r = .29$, $p = .015$). PRO was also found to have a small but significant negative correlation ($r = -.24$, $p = .040$) with total incorrect score from the emotion scales on the ASS (TOTI), a variable created for the present study evaluating only those items scored for emotional accuracy. This relationship of PRO to AS is the most consistent of the DMI subscales, the correlation of REV was not significant, which may be interpreted as evidence that PRO is consistently involved in AS. The relationship found between PRO and ASSTOT supports, in part, the common belief that AS involves the projection of oneself into the place of another. Projection is most helpful in the process of AS when the observer can identify most completely subjectively and objectively with the object. As the object becomes less similar to the observer, identifying with the object and projecting oneself into the other's place looses utility. It is possible that the correlation of PRO with ASSTOT and with TOTI is, in part, a function of the similarity of the objects and observers.

Table 5.1

Correlations of Reversal with ASS emotion scales

	Anxiety	Helpless	Anger	Distrust	Sadness	Happy	Guilt
REV	-.136	-.158	-.325**	-.200	-.280*	-.079	.001

* p .05
** p .01

Table 5.2

Correlations of Projection with ASS emotion scales

	Anxiety	Helpless	Anger	Distrust	Sadness	Happy	Guilt
PRO	.091	.280*	.214	-.097	.149	.064	.144

* p .05

The significant positive correlation of PRO with the ASS emotion scale Helplessness ($r = .28$, $p = .018$) seems to provide verification of theory that suggests people project in an effort to control when they feel helpless. On the other hand, in consideration of the type of subjects included in the sample, one could speculate that helping people might project their helpless feelings on others and attempt to help themself by helping others. This attempt at helping themself vicariously may result in the positive correlation observed in the present study of projection with helplessness.

The correlation of PRO with the ASS emotion scale anger ($r = .21$, $p = .057$) identifies a relationship between them in the present study. Projection is a common defense used to deal with the elimination of anger. This moderate correlation may suggest a hypervigilance of people who tend to project in an attempt to deal with feelings of anger. When considering this subscale it must be kept in mind that two content validity studies of the DMI identified about 15% of the responses scored as PRO to be appropriate expressions of anger (Gleser and Ihilevich, 1969; Blacha and Fancher, 1977). It is possible that a more homogeneous projection category may yeild higher correlations with the ASS.

Hypothesis Three

Ho: There is no relationship between the total score on the Creative Imagination Scale (CISTOT) and ASSTOT for the entire sample.

Hypothesis three predicted no relationship between CISTOT and ASSTOT, and was not rejected with a correlation of ($r = -.152$, $p = .13$). This indicates that no statistically significant relationship was found between subject's ability to use their imagination and their affective

sensitivity. However, the low p-value paired with the low correlation may be seen as evidence for a possible relationship of some dimension of the scale with AS.

The CIS was given to control for individual differnces in the ability to respond to the relaxation and imagery aspect of the treatment and to emperically evaluate the relationship of creative imagination to affective sensitivity. The lack of correlation found was contrary to prediction and at variance with literature and theory reviewed previously in the present study. This seems to necessitate a condiseration of reasons for this finding due to the central role of the CIS as a covariate and that of imagery in the treatment.

In consideration of methodological impact on this correlation it can be seen that the subjects in the present study scored higher than the national norm with a similar standard deviation. If the scores had been unusually low or shown an unusually large variance, then methodological issues would be of more concern. The scores obtained would seem to indicate that the CIS received adequate attention in the experiment and that the lack of correlation was not due to a failure of the subjects to respond adequately to the CIS for methodological reasons.

An explanation for the correlation may be generated by an investigation of the dimensions involved. In early evaluations of the CIS (Kiddoo, 1977). The factor structure of the CIS was identified as mainly unidimensional with the primary factor representing the ability to create imaginal experiences for oneself. A more recent study by Hilgard, Sheehan, and their associates (1981) has identified the CIS as a two factor scale with the first factor labeled Absorption/Imagery accounting for approximately 50% of the variance and a second factor labeled

Hypnotic Responsiveness accounting for approximately 20%.

An observation of the task demand differences between the Meharabian and Epstein scale and the ASS may lead to some answers. As previously mentioned the correlation between the Mehrabian and Epstein scale and the CIS was significant. This may be explained by the nature of that scale. The scale is a test of emotional empathy which judges emotional representation of the perceived emotion in the empathizer. This behavior seems roughly equivalant to physical representation of Kagan's stage 2 (internal representation or awareness) of the the AS process. The ASS on the other hand does not ask that the subject have an emotional experience but that the subject carry their perception to stage 3 which is to identify the percept in words and thoughts. It is possible that scores on the CIS are related to the vicarious emotional experience and identification aspect of empathy, but becomes less relevant when the subject is asked to perform at the stage three level which is required for response on the ASS.

It was expected that the CIS would be related to the ability to use one's imagination to put oneself in the place of another, which most people agree is basic to any form of empathy. If we assume that this imaginal ability is unrelated to empathy, then the lack of impact by a treatment using imagery as a primary component seems consistent.

It seems quite possible, however, that these confusing results are the results of some sort of method induced artifact. As previously mentioned the experiment was conducted with subjects who were exhausted after a day of work and it is possible that these activities involving higher level mental performance were highly disrupted by fatigue. This seems contradicted, on the other hand, by the high level of performance

on the ASS. An additional recommendation for future studies would be to use rested subjects to begin with so they would have the maximum of their rescources available.

The CIS did not relate to the other variables as expected. Given the recent findings of a different factor structure in the CIS which has been presented by Hilgard, Sheehan, et al. (1981), some post hoc analyses were performed for the purpose of looking at the utility of the scale in future research and to investigate what specific variables within the scale may have been active. As can be seen in Table 5.3 despite the lack of an overall significant correlation of CISTOT with ASSTOT, several subscales of the CIS were significantly correlated with ASSTOT. The CIS subscales C1, C8, and C10 had small negative correlations of -.29, -.22, and -.26 respectively with ASSTOT that were significant at the p .05 level. Other subscales were uncorrelated or slightly positively correlated with ASSTOT. These correlations may provide a basis for questioning the homogeneity of the scale. Although no conclusions can be drawn from this data, it may be of value to use subscale scores in future research as they may reveal something that the overall total score may not.

Table 5.3

Correlations fo CIS subscales with ASSTOT

CIS	ASSTOT
c1	-.29*
c2	-.14
c3	.06
c4	-.18
c5	-.14
c6	.10
c7	.18
c8	-.22*
c9	.03
c10	-.26*

Note. These correlations were computed using scores from the entire group of subjects, N = 56.

* p .05

Hypothesis Four

Ho: There is no relationship between subject age (AGE) and ASSTOT for the entire sample.

Hypothesis four was not rejected indicting that subject age was not related to affective sensitivity. Subject age has been previously thought to be related to the ability to sense the inner feelings of another (AS) due to the expected ability of subjects to identify more closely with persons of their own age. For this reason AGE was included as a covariate. The lack of correlation with ASSTOT ($r = -.07$, $p = .48$) indicates that in this sample AGE was not related to AS and not useful as a covariate. It may be important to note at this time that although the subject age span was 17 - 56 years, no attempt was made to obtain a representative sample which would support an investigation of the relationship of age to AS.

Volunteer Bias

Interpretation of the results obtained in this experiment must take into account the effects of volunteer bias. It has been shown that volunteering for behavioral science research is not a random event (Rosenthal and Rosnow, 1969), and it is possible that specific characteristics of subjects that volunteered for the present study could have introduced confounding effects.

Rosenthal and Rosnow (1969) have postulated several characteristics that tend to be found more often among people who volunteer than among those who do not volunteer including: higher educational level, higher occupational status, higher need for approval, higher intelligence, lower authoritarianism, more social, more arousal seeking, more unconventional,

more often first born, and younger. In addition, Boucher and Hilgard (1962) report that volunteers obtained higher scores on the Stanford Hypnotic Susceptability Scale form A than subjects who did not readily volunteer for a hypnosis study.

The implications for the present study are two fold. First, it is possible that the ASSTOT scores which were significantly higher than the national norm could be higher as a result of testing subjects who would volunteer for an experiment involving the unusual experience of imagery and relaxation procedures. In fact, many subjects in the present study did volunteer that they enjoyed one or more of the measures used. Further, the volunteers were people willing to participate in a three hour experiment after having worked a full day. It could be argured that people willing to inconvenience themselves to help a graduate student complete his degree may be more caring or person oriented than those who did not volunteer, which could lead to a higher AS score. Although specific data is not available, the number of people that volunteered was somewhat less than 20% of those contacted, supporting the contention that this was a select group.

The fact that the two DMI subscales TAS, and TAO as well as ASSTOT were the only scores found to be significantly different from the national norms could reflect the situation that norms for the covariates were usually taken from volunteers in psychology experiments. On the other hand, norms for the ASS were collected from subjects in a wide variety of contexts including training programs and as part of course work. This could lead to subject by instrument confounding.

Second, in addition to the possible influence on the results of this study, the confounding that may have been introduced by the non-random

chacteristics of the subjects should be considered when attempting to generalize the results of this to study to other populations.

RECOMMENDATIONS FOR FUTURE STUDIES

The finding that there was a significant difference between both groups in the present sample and the national norms on ASSTOT, and that there were several significant correlations suggests that a partial replication of the study with a few changes may be of value. To control for the postulated treatment effect of the covariates, the position of them in the procedure could be modified. The covariates could be given a much greater time period before administration of the treatment and dependent variable. This change would reduce the fatigue of multiple tests that may have had a moderating effect on performance and possibly eliminate or reduce a treatment effect of the covariates.

It is possible that a series of different type of imagery practice sessions could produce some learning that a one session approach would not. It was thought that a one session approach would show subjects how to use abilities they already possessed and had at their immediate disposal. The abilities involved in AS, however, may be more like skills that, although the potential is there, need time and practice to develop.

In the present study although the CIS was included to control for subject's differential ability to respond to the treatment, no actual assessment of how much the subjects became involved in the treatment was conducted. In future studies a direct assessment by a self report measure similar to the CIS self report form may provide an important link between creative imagination activity and AS.

The significant correlations obtained with the DMI supports

continued investigation of the role of defense mechanisms in affective sensitivity. Modifications in the DMI or use of another instrument that would give higher validity values for the PRO and TAO categories, or provide more specific data on the particular defenses used might help to clarify the relationship of defense mechanism useage to affective sensitivity that seems to exist.

Finally, future studies could use the ASS in different formats. One way it could be used is to have the subjects generate responses to each vignette. These responses could then be analyzed for content and structure. Semantic differential techniques could be used to evaluate the content of the responses regarding the words used for description and labeling. Responses could also be assessed in terms of representation systems employed by the subject (Bandler and Grinder, 1975a) and their relationship to what was supplied in the vignette. In addition, this format could be used to assess consistency of themes found in the responses and in the vignettes.

In recent years Kagan and his co-workers (Kagan, et al., 1982; Lieberman, 1981) have investigated the relationship of physiological variables to affective sensitivity. An extension of this work and the present study would be to assess the physiological responses of subjects as they watch the ASS under several induced conditions. The conditions could include a non-hypnotic control condition which could be compared with hypnotic conditions which would vary the internal and interpersonal orientation of the subject. This research may get at the K1 and K2 or receiving and representing to oneself levels of affective sensitivity.

In addition, a partial replication of the present study could use alternate or both forms of the ASS (D and E) in a pre-post design.

The analysis of covariance design and statistic, in retrospect, is very robust and still seems to be the best method of analysis. It is suggested that it be retained for future studies.

SUMMARY

The present study investigated affective sensitivity of female subjects as measured by performance on the Affective Sensitivity Scale (ASS) form E-A-2 developed by Kagan and Schneider (1977). Specifically, the study had two goals: 1) to determine the efficacy of a Relaxation and Guided Imagery procedure as a method of increasing Affective Sensitivity (AS); and 2) to investigate the role of defense mechanisms, as measured by the Defense Mechanism Inventory (DMI) developed by Gleser and Ihilevich (1969), and the ability to develop imaginal experiences as measured by the Creative Imagination Scale (CIS) developed by Wilson and Barber (1978), in the process of affective sensitivity as measured by the ASS.

After random assignment the subjects in the experimental group were given a treatment consisting of relaxation followed by guided imagery. The imagery guided the sujects to imagine that they were interacting with people and sensing their affect in the visual, auditory, and kinesthetic representation systems. A control group consisting of the other half of the sample simultaneously listened to a taped lecture on the genetic development of affects and affect regression.

Following these conditions both groups were simultaneously administered the ASS dependent variable. After their questions were answered they were released.

An analysis of covariance was used to evaluate the main effect, and

correlations were generated to investigate relationships between the variables. No difference in affective sensitivity was found between the experimental and control groups. Suggestions were offered that the failure to obtain a treatment effect could have been due to several factors including: the possibility that a treatment constructed using relaxation and guided imagery is not an effective way to increase affective sensitivity, an inability of the subjects to momentarily further expand their abilities due to a postulated pre-treatment effect by the covariates, an ineffective treatment, an inadvertant relaxation and imagery treatment given during the control procedure, or a necessity for more than one administration of the treatment.

A major finding was that the entire sample scored one standard deviation higher on ASSTOT than the national norm. Explanations for this occurrance included: a treatment effect by the covariates, volunteer bias, the possibility of an inadvertant treatment of relaxation and imagery given to the control subjects, and non-threatening conditions during the experiment relative to conditions from which the ASS norms were drawn.

A relationship was found between subscales of the DMI and affective sensitivity as measured by ASSTOT. The DMI subscale Reversal (REV) was found to be negatively correlated with affective sensitivity. The DMI subscale Projection (PRO) was found to be positively correlated with affective sensitivity.

Contrary to expectation the Creative Imagination Scale (CIS) was found to be only slightly correlated with AS, and subject age (AGE) was found not to be correlated with AS.

Suggestions for modifications of method in future research were

suggested. To investigate questions concerning treatment effects by the covariates several sequential and temporal presentation modifications were suggested. To provide a better test of the treatment it was suggested that it could be repeated several times to evaluate if several practice sessions may facilitate learning.

In sum, although there was no difference in empathy observed between the experimental and control groups the results obtained did indicate that some salient dimensions were being contacted. The fact that both groups scored approximately one standard deviation above the national norm on ASSTOT suggests that something of interest was going on and suggests the need for follow up research to ascertain the cause. The correlations observed between the DMI subscales and ASSTOT indicate some connection between affective sensitivity and defense usage, and support further research in this area. The finding that there was lack of correlation between the CIS total score and ASSTOT combined with the higher significant corrrelations of CIS subscales with ASSTOT support the use of the subscales in future research. Subject age (AGE) was not found to be a confounding variable or correlated with AS in this study.

APPENDIX

APPENDIX A

DEFENSE MECHANISM INVENTORY TEST

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DMT F

DO NOT MAKE ANY MARKS ON THIS BOOKLET

INSTRUCTIONS: READ CAREFULLY

On each of the following pages is a short story. Following each story are four questions with a choice of five answers for each. The four questions relate to the following four kinds of behavior: actual behavior, behavior in fantasy, thoughts, and feelings. Of these, only actual behavior is outwardly expressed; the other three take place in the privacy of one's mind and, therefore, have no external consequences. On the answer sheet the stories are identified with the same letters as in the story booklet: b.---, a.---, u.---, s.,d. ---, m.---, etc.

What we want you to do is to select the one answer of the five which you think is the most representative of how you would react. Then find the number corresponding to that answer on the answer sheet and make a plus sign (+) on that line. Next, select the one answer which you think is least representative of how you would react and make a minus sign (-) on that line. For example, let us assume that out of the five possible answers to a question (e.g., numbers 236, 237, 238, 239, 240), answer number 237 is the one you consider most representative of the way you would react, and answer number 240 is the least representative. In this case, the corresponding part of the answer sheet would look like this:

236 ____
237 +
238 ____
239 ____
240 -

Be sure to fill in two lines in each group of five, one with a + and one with a -. The remaining lines will be blank.

Read all the five answers following the question before you make your choices. In marking your answers on the answer sheet, be sure that the number of the statement agrees with the number on the answer sheet. Note that each story is answered in a separate column. Fill out the answer sheet using only a soft, black pencil. If you change your answer, be sure to erase the undesired one completely. Make no marks other than on the lines.

There are no right or wrong answers here; the only thing that should guide your selections is your own knowledge of yourself. Allow your mind to imagine for a moment that the event described in the story is really happening to you, even though you may never have experienced such an event. When you select your answers, remember we are not asking which answer you like most and like least, but rather the answers which would most and least represent the way you would act and feel in these situations.

If you have no questions, fill out the answer sheet on the top line and mark the lines corresponding to your age, sex and number of years of education, then turn this page and begin. Be sure to note that the story booklet is printed on both sides.

 7-10-78

b.

You are waiting for the bus at the edge of the road. The streets are wet and muddy after the previous night's rain. A car sweeps through a puddle in front of you, splashing your clothing with mud.

What would your ACTUAL reaction be?

1. I would note the car's license number so that I could track down that careless driver.
2. I'd wipe myself off with a smile.
3. I'd yell curses after the driver.
4. I would scold myself for not having worn at least a raincoat.
5. I'd shrug it off; after all, things like that are unavoidable.

What would you IMPULSIVELY (in fantasy) want to do?

6. Wipe that driver's face in the mud.
7. Report that incompetent driver to the police.
8. Kick myself for standing too close to the edge of the road.
9. Let the driver know that I don't really mind.
10. Let that driver know that bystanders also have rights.

What THOUGHT might occur to you?

11. Why do I always get myself into things like this?
12. To hell with that driver!
13. I'm sure that basically that driver is a nice fellow.
14. One can expect something like this to happen on wet days.
15. I wonder if that fellow splashed me on purpose.

How would you FEEL and why?

16. Satisfied; after all, it could have been worse.
17. Depressed, because of my bad luck.
18. Resigned, for you've got to take things as they come.
19. Resentment, because the driver was so thoughtless and inconsiderate.
20. Furious that he got me dirty.

a.

In the army you hold a post of responsibility for the smooth operation of an important department which is constantly under great pressure to meet deadlines. Because things haven't been running as smoothly as they should lately, despite your initiative and resourcefulness, you have planned some changes in personnel for the near future.

Before you do so, however, your superior officer arrives unexpectedly, asks some brusque questions about the work of the department and then tells you that he is relieving you of your post and assigning your assistant to your place.

What would your ACTUAL reaction be?

21. I'd accept my dismissal gracefully, since the superior is only doing his job.
22. I'd blame my superior for having made up his mind against me even before the visit.
23. I'd be thankful for being relieved of such a tough job.
24. I'd look for an opportunity to undercut my assistant.
25. I'd blame myself for not being competent enough.

What would you IMPULSIVELY (in fantasy) want to do?

26. Congratulate my assistant on his promotion.
27. Expose the probable plot between my superior and my assistant to get rid of me.
28. Tell my superior to go to hell.
29. I'd like to kill myself for not having made the necessary changes sooner.
30. I'd like to quit, but one can't do that in the army.

What THOUGHT might occur to you?

31. I wish I could come face to face with my superior in a dark alley.
32. In the army it is essential to have the right man in the right job.
33. There is no doubt that this was just an excuse to get rid of me.
34. I'm really lucky that I only lost my job and not my rank as well.
35. How could I be so dumb!

How would you FEEL and why?

36. Resentful, because he had it in for me.
37. Angry, at my assistant for getting my job.
38. Pleased that nothing worse had happened.
39. Upset that I am a failure.
40. Resigned; after all, one must be satisfied with having done the best one can.

You are living with your aunt and uncle, who are helping to put you through college. They have taken care of you since your parents were killed in an automobile accident when you were in your early teens. On a night that you have a late date with your "steady," there is a heavy storm outside. Your aunt and uncle insist that you call and cancel your date because of the weather and the late hour. You are about to disregard their wishes and go out the door when your uncle says in a commanding tone of voice, "Your aunt and I have said that you can't go, and that is that."

What would your ACTUAL reaction be?

41. I would do as my uncle said because he has always wanted what was best for me.
42. I'd tell them, "I always knew you didn't want me to grow up."
43. I would cancel my date, since one must keep peace in the family.
44. I'd tell them it was none of their business and go out anyway.
45. I'd agree to remain at home and apologize for having upset them.

What would you IMPULSIVELY (in fantasy) want to do?

46. Knock my head against the wall.
47. Tell them to stop ruining my life.
48. Thank them for being so concerned with my welfare.
49. Leave, slamming the door in their faces.
50. Keep my engagement, rain or shine.

What THOUGHT might occur to you?

51. Why don't they shut up and let me alone?
52. They never have really cared about me.
53. They are so good to me, I should follow their advice without question.
54. You can't take without giving something in return.
55. It's all my own fault for planning such a late date.

How would you FEEL and why?

56. Annoyed, that they think I am a baby.
57. Miserable, because there is nothing much I can do.
58. Grateful for their concern.
59. Resigned; after all, you can't get your own way every time.
60. Furious, because they interfere with my business.

d.

You are spending your vacation visiting an old friend who has found an exciting new job in another town and has gone to live there. She invites you to go with her to a dance given that weekend at the community clubhouse.

Shortly after you arrive, she accepts an invitation to dance, leaving you with a group of strangers to whom you have barely been introduced. They talk with you, but for some reason no one asks you to dance. Your friend, on the other hand, seems to be very popular that evening; she looks as if she is having a wonderful time. As she dances past, she calls out to you, "Why aren't you dancing?"

What would your ACTUAL reaction be?

61. I'd say sarcastically, "I'm not dancing because I'd rather watch you."
62. I'd tell her that I really didn't feel like dancing.
63. I'd go to the powder room to see what's wrong with me.
64. I'd tell her that it's easier to become acquainted through conversation, than it is by dancing.
65. I'd get up and leave because she apparently wants to embarrass me.

What would you IMPULSIVELY (in fantasy) want to do?

66. Assure her that I am perfectly content and happy, so she won't worry.
67. I'd like to slap her face.
68. Point out that one cannot expect to be the belle of the ball one's first evening in a strange place.
69. Tell her that I know now what sort of a "friend" she really is.
70. I'd like to sink into the floor and disappear.

What THOUGHT might occur to you?

71. She has it in for me.
72. I should never have come here in the first place.
73. I'm glad my friend is enjoying herself.
74. Experiences like this one can't be avoided at a party where you don't know the crowd.
75. I'll make her regret her behavior.

How would you FEEL and why?

76. Upset, because I was so unsuccessful.
77. Furious at her for embarrassing me.
78. Resigned, because this is a situation every newcomer must endure.
79. Angry at being entrapped by her like that.
80. Grateful, for having had such a pleasant evening.

At your job you want to impress upon your foreman the fact that you are more skilled than your fellow workers. You are eagerly awaiting an opportunity to prove yourself.

One day a new machine is brought into the factory. The foreman calls all the workers together and asks whether anyone knows how to operate it. You sense the chance you have been waiting for, so you tell the foreman that you have worked with a similar machine and would like a chance to try your hand at this one. But he refuses, saying, "Sorry, we can't take a chance," and calls a veteran worker to come over and try to get the machine started.

No sooner has the veteran worker pulled the starter, than sparks begin to fly and the machine grinds to a halt. At this point the foreman calls and asks you if you still want a chance to try and start the machine.

What would your ACTUAL reaction be?

81. I'd say that I doubt if I could do it either.
82. I'd tell my fellow workers that the foreman wants to hold me responsible for the machine's crack-up.
83. I'd tell the foreman that I appreciated his giving me the chance.
84. I'd decline, cursing the foreman under my breath.
85. I'd tell the foreman that I would try because one must never back down from a challenge.

What would you IMPULSIVELY (in fantasy) want to do?

86. Tell that foreman that he'll not make me the scapegoat for a broken machine.
87. Thank the foreman for not letting me try it first.
88. Tell the foreman that he should try to start a broken machine himself.
89. Point out to the foreman that experience doesn't guarantee success.
90. Kick myself for talking myself into an unbearable situation.

What THOUGHT might occur to you?

91. That foreman is really a pretty decent guy.
92. Damn him and his blasted machine.
93. This foreman is out to get me.
94. Machines are not always reliable.
95. How could I be so stupid as to even think of operating that machine.

How would you FEEL and why?

96. Indifferent, because when one's abilities are not appreciated one's enthusiasm is lost.
97. Angry that I was asked to do an impossible job.
98. Glad that I didn't wreck the machine.
99. Annoyed that I was purposely put on the spot.
100. Disgusted with myself because I risked making a fool of myself.

On your way to catch a train, you are hurrying through a narrow street lined with tall buildings. Suddenly, a piece of masonry comes crashing down from a roof where repairmen are working. A piece of brick bounces off the sidewalk, bruising you in the leg.

What would your ACTUAL reaction be?

101. I'd tell them I ought to sue them.
102. I'd curse myself for having such bad luck.
103. I'd hurry on, for one should not permit oneself to be diverted from one's plans.
104. I'd continue on my way, grateful that nothing worse had happened.
105. I'd try to discover who the negligent persons are.

What would you IMPULSIVELY (in fantasy) want to do?

106. Remind the men of their obligation to public safety.
107. Assure those men that nothing serious had happened.
108. Give them a piece of my mind.
109. Kick myself for not having watched where I was going.
110. See to it that those careless workers lose their jobs.

What THOUGHT might occur to you?

111. Those men don't know how to do their job right.
112. I'm lucky that I wasn't seriously hurt.
113. Damn those men!
114. Why do these things always happen to me?
115. One can't be too careful these days.

How would you FEEL and why?

116. Angry, because I was hurt.
117. Furious, because I could have been killed by their negligence.
118. Calm, for one must practice self control.
119. Upset by my bad luck.
120. Thankful that I'd gotten away with no more than a scratch.

P.

Driving through town in the late afternoon, you arrive at one of the busiest intersections. Although the light has changed in your favor, you see that pedestrians are not obeying the "wait" sign and are blocking your path. You attempt to complete your turn with due caution before the light turns against you. As you complete the turn, a traffic policeman orders you over to the side and charges you with violating the pedestrians' right-of-way. You explain that you had taken the only possible course of action, but the policeman proceeds to give you a ticket nevertheless.

What would your ACTUAL reaction be?

121. I'd blame myself for having been careless.
122. I'd go to court and bring counter charges against the policeman.
123. I'd ask the policeman why he has such a grudge against drivers.
124. I'd try to cooperate with the policeman, who, after all, is a good guy.
125. I'd take the ticket without question, since the policeman was just doing his duty.

What would you IMPULSIVELY (in fantasy) want to do?

126. Tell the policeman he can't use his position to push me around.
127. Kick myself for not having waited for the next green light.
128. Thank the policeman for saving me from a possible accident.
129. Stand up for my rights as a matter of principle.
130. Slam the door in his face and drive off.

What THOUGHT might occur to you?

131. He's doing the right thing; actually, I ought to thank him for teaching me an important lesson.
132. Each man must carry out his job as he sees it.
133. This guy ought to go back to pounding a beat.
134. How could I be so stupid!
135. I bet he gets a kick out of giving tickets to people.

How would you FEEL and why?

136. Boiling anger, because he's making trouble for me.
137. Resentment, because he's picking on me.
138. Ashamed, because I was negligent.
139. Indifferent; after all, this sort of thing happens all the time.
140. Relieved, because I'd been prevented from getting into worse trouble.

f.

You return home after spending two years in the army. At the time you joined you had had a choice between enlistment and a position in your father's business. You preferred the army despite parental advice. Now that you are home again, you find that your range of opportunity hasn't widened appreciably. You can either join your father's business or get a job as an untrained worker. You would like to open a coffee shop, but you lack the capital necessary to carry out such an enterprise. After a great deal of hesitation, you decide to ask your father to put up the money. After listening to your proposal, he reminds you that he had wanted you to take a job with his firm instead of joining the army. Then he tells you, "I'm not prepared to throw away my hard-earned money on your crazy schemes. It's time you started helping me in my business."

What would your ACTUAL reaction be?

141. I'd accept his offer, since everyone depends on everyone else in this world.
142. I would admit to him that I guess I am a bad risk.
143. I'd tell him off in no uncertain terms.
144. I'd tell him that I'd always suspected that he had a grudge against me.
145. I'd thank him for holding a job open for me all these years.

How would you IMPULSIVELY (in fantasy) want to react?

146. Go to work for him and make him happy.
147. Give up trying and end it all.
148. Take my father's offer since offers like that don't grow on trees.
149. Let him know what a miser everyone thinks he is.
150. Tell him that I wouldn't work for him if he were the last man on earth.

What THOUGHT might occur to you?

151. He'll get what's coming to him one day.
152. Family considerations can't enter into business decisions.
153. Why was I so stupid as to bring the subject up.
154. I must admit that my father is acting for my own good.
155. This proves what I've suspected all along, that my father has never believed in me.

How would you FEEL and why?

156. Angry, because he doesn't want me to succeed on my own.
157. Grateful for his offer of a job with a future.
158. Resentful that he is sabotaging my future.
159. Resigned, since you can't have everything your own way all the time.
160. Hopeless, because I couldn't get my father's support.

One afternoon while you and your best friend are cramming for exams, your boyfriend drops in unexpectedly. Although you and he have been going steady for over a year, you have not been able to see much of each other lately; therefore, you are very happy he has come. You invite him in for a cup of coffee and introduce him to your girlfriend.

When you ring up to invite him to your house for dinner to celebrate the end of exam week, he tells you that he has come down with a bad cold and thinks that it is best for him not to leave the house. After dinner you feel sort of let down but you decide to join your parents who are going to the movies.

Coming out of the movie theater with your parents you come upon your boyfriend arm-in-arm with your best friend.

What would your ACTUAL reaction be?

161. I'd ignore them, since I'm sure they'd try to pretend that they didn't see me.
162. I'd greet them politely as a civilized person should.
163. I'd curse them under my breath.
164. I'd tell them that I am delighted that they have become friends.
165. I'd go home and have a good cry.

What would you IMPULSIVELY (in fantasy) want to do?

166. Hide somewhere in order to avoid facing them.
167. Slap his face.
168. Show them that I don't mind that they are together.
169. Ask her if stealing is the only way she knows of getting a man.
170. Indicate that one can understand their attraction for each other.

What THOUGHT might occur to you?

171. Naturally he likes her, she's so much prettier than I am.
172. Self-interest can cause the best of friends to be disloyal.
173. They certainly are a pair of double-crossers.
174. I hope they get what they deserve.
175. They really do make a handsome couple.

How would you FEEL and why?

176. Pleased that both my friends get along so well.
177. Upset, because I shouldn't have been so trusting.
178. Resigned, because you've got to take life as it comes.
179. Enraged, because of their dishonesty.
180. Furious, because they behaved as they did.

C.

You and an old schoolfriend are competing for a newly vacated executive position in the firm where you work. Although both your chances seem about equal, your friend has had more opportunity to show resourcefulness in critical situations. Recently, however, you have successfully pushed through some excellent deals. In spite of this, the board of directors decides to promote your friend rather than you.

What would your ACTUAL reaction be?

181. I'd try to find out which director "blackballed" me.
182. I'd continue to do my duty as a responsible person must.
183. I'd accept the outcome as proof that I'm not executive material.
184. I'd protest the decision of the board most vehemently.
185. I'd congratulate my friend on the promotion.

What would you IMPULSIVELY (in fantasy) want to do?

186. Ask the board to reconsider, since a mistake would be detrimental to the company.
187. Kick myself for having aspired to a job for which I wasn't qualified.
188. Show the board how biased they've been in their unjust treatment of me.
189. Help my friend make a success at the new job.
190. Break the neck of each and every member of the board of directors.

What THOUGHT might occur to you?

191. I guess I just don't have what it takes.
192. I probably wouldn't enjoy an executive position as much as the one I have now.
193. There certainly is something fishy about the board's decision.
194. One must take a blow such as this in one's stride.
195. Damn that board of directors.

How would you FEEL and why?

196. Happy that I still have the job I am used to.
197. Upset because my inadequacy was made public.
198. Furious at the directors because of their treatment of me.
199. Resigned, for that's the way it goes in the business world.
200. Angry, because I have been the victim of an unjust decision.

APPENDIX B

CREATIVE IMAGINATION SCALE TEST

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Creative Imagination Scale Test

1. *Arm Heaviness.* "By letting your thoughts go along with these instructions you can make your hand and arm feel heavy. Please close your eyes and place your left arm straight out in front of you at shoulder height with the palm facing up."

[Begin timing.] "Now imagine that a very heavy dictionary is being placed on the palm of your left hand. Let yourself feel the heaviness. Your thoughts make it feel as if there is a heavy dictionary on your hand. You create the feeling of heaviness in your hand by thinking of a large heavy dictionary. Now think of a second large heavy dictionary being placed on top of the first heavy dictionary. Feel how very heavy your arm begins to feel as you push up on the dictionaries. Push up on the heavy dictionaries as you imagine the weight; notice how your arm feels heavier and heavier as you push up on them. Now tell yourself that a third big heavy dictionary is being piled on top of the other two heavy dictionaries in your hand and your arm is very, very heavy. Let yourself feel as if there are three heavy dictionaries on the palm of your hand and your arm is getting heavier and heavier and heavier. Feel your arm getting heavier and heavier and heavier, very, very, very heavy, getting heavier and heavier and heavier . . . very heavy." [Approximately 1'20" since beginning of timing.]

"Now tell yourself that your hand and arm feel perfectly normal again and just let your hand and arm come back down and relax."

2. *Hand Levitation.* "By directing your thoughts you can make your hand feel as if it is rising easily, without effort. Keep your eyes closed and place your right arm straight out in front of you at shoulder height with the palm facing down."

[Begin timing.] "Now, picture a garden hose with a strong stream of water pushing against the palm of your right hand, pushing up against the palm of your hand. Think of a strong stream of water pushing your hand up. Let yourself feel the strong stream of water pushing up against the palm of your hand, pushing it up. Feel the force of the water, pushing your hand up. Feel it pushing against the palm of your hand. Tell yourself that the force of the water is very strong and, as you think about it, let your hand begin to rise. Feel your hand rising as you imagine a strong stream of water pushing it up, and up, and up, higher and higher. Tell yourself that a strong stream of water is pushing your hand up and up, raising your arm and hand higher and higher as the strong stream of water just pushes it up, just rises and pushes and just pushes it up, higher and higher." [End of timing: about 1' 10".]

"Now tell yourself its all in your own mind and just let your hand and arm come back down and relax."

3. *Finger Anesthesia.* "By focusing your thinking you can make your fingers feel numb. Please place your left hand in your lap with the palm facing up. Keep your eyes closed so you can focus fully on all the sensations in the fingers of your left hand."

[Begin timing.] "Now, try to imagine and feel as if Novocain has just been injected into the side of your left hand next to the little finger so that your little

finger will begin to feel like it does when it 'falls asleep.' Focus on the little finger. Become aware of every sensation and the slight little changes as you think of the Novocain slowly beginning to move into your little finger, just slowly moving in. Notice the slight little changes as the little finger begins to get just a little numb and a little dull. The little finger is becoming numb as you think of the Novocain moving in slowly."

"Now think of the Novocain moving into the second finger next to the little finger. Tell yourself that the second finger is getting duller and duller, more and more numb as you think of how the Novocain is beginning to take effect."

"Tell yourself that these two fingers are beginning to feel kind of rubbery and are losing feelings and sensations. As you think of the Novocain moving in faster, the fingers feel duller and duller . . . more and more numb . . . dull, numb and insensitive. As you think of the Novocain taking effect, the two fingers feel duller and duller . . . more and more numb . . . dull . . . numb . . . insensitive."

"Keep thinking that the two fingers are dull, numb, and insensitive as you touch the two fingers with your thumb. As you touch the two fingers with your thumb notice how they feel duller and duller, more and more numb, more and more insensitive . . . dull, numb, rubbery and insensitive." [End of timing: about 1'50".]

"Now tell yourself its all in your own mind and you're going to bring the feeling back; bring the feeling back into the two fingers."

4. *Water "Hallucination."* "Keep your eyes closed. By using your imagination constructively you can experience the feeling of drinking cool, refreshing water."

[Begin timing.] "First, imagine you've been out in the hot sun for hours and you're very, very thirsty and your lips are dry and you're so thirsty. Now, picture yourself on a mountain where the snow is melting, forming a stream of cool clear water. Imagine yourself dipping a cup into this mountain stream so you can have a cool, refreshing drink of water. As you think of sipping the water tell yourself its absolutely delicious as you feel it going down your throat . . . cold and beautiful and delicious. Feel the coolness and beauty of the water as you take a sip. Now, think of taking another sip of water and feel it going over your lips and tongue, going down your throat, down into your stomach. Feel how cool, refreshing, delicious and beautiful it is as you take another sip . . . so cool . . . cold . . . sweet . . . beautiful . . . delicious and refreshing. Think of taking another sip now and feel the cool water going into your mouth, around your tongue, down your throat and down into your stomach . . . so beautiful and cool and wonderful . . . absolutely delicious . . . absolute pleasure." [End of timing: about 1'30".]

5. *Olfactory-Gustatory "Hallucination."* "Keep your eyes closed. By using your imagination creatively, you can experience the smell and taste of an orange."

[Begin timing.] "Picture yourself picking up an orange and imagine that you're peeling it. As you create the image of the orange, feel yourself peeling it and let yourself and see and feel the orange skin on the outside and the soft white pulp on the inside of the skin. As you continue peeling the orange, notice how beautiful and luscious it is and let yourself smell it and touch it and feel the juiciness of it. Now think of pulling out one or two of the orange sections with your fingers. Pull out part of the orange and bite into it. Experience how juicy, luscious and flavorful

it is as you imagine taking a deep, deep bite. Let yourself smell and taste the orange and notice that it's absolutely delicious. Let yourself feel how delicious, beautiful, and luscious it is. Just the most beautiful, juicy orange . . . absolutely juicy and wonderful. Let yourself taste and smell the juicy orange clearly now as you think of taking another large bite of the delicious, juicy orange." [End of timing: about 1'30".]

6. *Music "Hallucination."* "Keep your eyes closed."

[Begin timing.] "Now, think back to a time when you heard some wonderful, vibrant music; it could have been anywhere, and by thinking back you can hear it even more exquisitely in your own mind. You make it yourself and you can experience it as intensely as real music. The music can be absolutely powerful . . . strong . . . exquisite . . . vibrating through every pore of your body . . . going deep into every pore . . . penetrating through every fiber of your being. The most beautiful, complete, exquisite, overwhelming music you ever heard. Listen to it now as you create it in your own mind." [End of timing: about 45".]

[15 second pause] "You may stop thinking of the music now."

7. *Temperature "Hallucination."* "Keep your eyes closed and place your hands in your lap with the palms facing down and resting comfortably on your lap. By focusing your thinking you can make your right hand feel hot."

[Begin timing.] "Picture the sun shining on your right hand and let yourself feel the heat. As you think of the sun shining brightly, let yourself feel the heat increasing. Feel the sun getting hotter and feel the heat penetrating your skin and going deep into your hand. Think of it getting really hot now . . . getting very hot. Feel the heat increasing. Think of the sun getting very, very hot as it penetrates into your hand . . . getting very hot. Tell yourself, 'The rays are increasing . . . the heat is increasing . . . getting hotter and hotter.' Feel the heat penetrating through your skin. Feel the heat going deeper into your skin as you think of the rays of the sun increasing and becoming more and more concentrated . . . getting hotter and hotter. Feel your hand getting hot from the heat of the sun. Its a good feeling of heat as it penetrates deep into your hand . . . hot, pleasantly hot, penetrating your hand now. It's a pleasantly hot feeling, pleasantly hot." [End of timing: about 1'15".]

"Now tell yourself its all in your own mind and make your hand feel perfectly normal again."

8. *Time Distortion.* "Keep your eyes closed. By controlling your thinking you can make time seem to slow down."

[The following is to be read progressively more and more slowly, with each word drawn out and with long, i.e., 2-6 second, pauses between statements.] [Begin timing.] "Tell yourself that there's lots of time, lots of time between each second. Time is stretching out and there's lots of time . . . more and more time between each second. Every second is stretching far, far out . . . stretching out more and more . . . lots of time. There's so much time . . . lots of time. Every second is stretching out. There's lots of time between each second . . . lots of time. You do it yourself, you slow time down." [End of timing: about 1'40".]

[The following is to be read at a normal rate.] "And now tell yourself that time is speeding back up to its normal rate again as you bring time back to normal.".

9. *Age Regression.* "Keep your eyes closed. By directing your thinking you

can bring back the feelings that you experienced when you were in elementary school — in first, second, third, fourth, or fifth grade."

[Begin timing.] "Think of time going back, going back to elementary school and feel yourself becoming smaller and smaller. Let yourself feel your hands, small and tiny, and your legs and your body, small and tiny. As you go back in time feel yourself sitting in a big desk. Notice the floor beneath you. Feel the top of the desk. You may feel some marks on the desk top, or maybe it's a smooth, cool surface. There may be a pencil slot and perhaps a large yellow pencil. Feel the under side of the desk and you may feel some chewing gum. Observe the other children around you, and the teacher, the bulletin board, the chalkboard, the cloak room, and the windows. Smell the eraser dust or the paste. You may hear the children and the teacher speaking. Now just observe and see what happens around you." [End of timing: about 1'20".]

[15 second pause] "Now tell yourself its all in your own mind and bring yourself back to the present."

10. *Mind-Body Relaxation.* "Keep your eyes closed. By letting your thoughts go along with these instructions you can make your mind and body feel very relaxed."

[The following is to be read slowly.] [Begin timing.] "Picture yourself on a beautiful, warm summer day lying under the sun on a beach of an ocean or lake. Feel yourself lying on the soft, soft sand or on a beach towel that is soft and comfortable. Let yourself feel the sun pleasantly warm and feel the gentle breeze touching your neck and face. Picture the beautiful clear blue sky with fluffy little white clouds drifting lazily by. Let yourself feel the soothing, penetrating warmth of the sun and tell yourself that your mind and body feel completely relaxed and perfectly at ease . . . peaceful, relaxed, comfortable, calm, so at ease, at peace with the universe . . . completely relaxed . . . relaxed, peaceful, lazy, tranquil . . . calm . . . comfortable. Your mind and body are completely relaxed . . . completely relaxed . . . calm, peaceful, tranquil, flowing with the universe." [End of timing: about 2'05".]

"Now as you open your eyes let yourself continue to feel relaxed and yet perfectly alert . . . peaceful, alert and normal again. Open your eyes."

APPENDIX C

CREATIVE IMAGINATION SCALE SELF SCORING FORM

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1. In the first test you were asked to imagine that one, two, and then three dictionaries were being piled on the palm of your hand. Compared to what you would have experienced if three dictionaries were actually on your hand, what you experienced was:

0	1	2	3	4
0% Not at all the same	25% A little the same	50% Between a little and much the same	75% Much the same	90+% Almost exactly the same

2. In the second test you were asked to think of a strong stream of water from a garden hose pushing up against the palm of your hand. Compared to what you would have experienced if a strong stream of water were actually pushing up against your palm, what you experienced was:

0	1	2	3	4
0% Not at all the same	25% A little the same	50% Between a little and much the same	75% Much the same	90+% Almost exactly the same

3. In the third test you were asked to imagine that Novocain had been injected into your hand and it made two fingers feel numb. Compared to what you would have experienced if Novocain had actually made the two fingers feel numb, what you experienced was:

0	1	2	3	4
0% Not at all the same	25% A little the same	50% Between a little and much the same	75% Much the same	90+% Almost exactly the same

4. In the fourth test you were asked to think of drinking a cup of cool mountain water. Compared to what you would have experienced if you were actually drinking cool mountain water, what you experienced was:

0	1	2	3	4
0% Not at all the same	25% A little the same	50% Between a little and much the same	75% Much the same	90+% Almost exactly the same

5. In the fifth test you were asked to imagine smelling and tasting an orange. Compared to what you would have experienced if you were actually smelling and tasting an orange, what you experienced was:

0	1	2	3	4
0% Not at all the same	25% A little thesame	50% Between a little and much the same	75% Much the same	90+% Almost exactly the same

6. In the sixth test you were asked to think back to a time when you heard some wonderful music and re-experience hearing it. Compared to what you would have experienced if you were actually hearing the music, what you experienced was:

0	1	2	3	4
0% Not at all the same	25% A little the same	50% Between a little and much the same	75% Much the same	90+% Almost exactly the same

7. In the seventh test you were asked to picture the sun shining on your hand making it feel hot. Compared to what you would have experienced if the sun were actually shining on your hand, what you experienced was:

0	1	2	3	4
0% Not at all the same	25% A little the same	50% Between a little and much the same	75% Much the same	90+% Almost exactly the same

8. In the eighth test you were asked to imagine time slowing down. Compared to what you would have experienced if time actually slowed down, what you experienced was:

0	1	2	3	4
0% Not at all the same	25% A little the same	50% Between a little and much the same	75% Much the same	90+% Almost exactly the same

9. In the ninth test you were asked to think back to a time when you were in elementary school. Compared to the feelings you would have experienced if you were actually in elementary school, the feelings you experienced were:

0	1	2	3	4
0% Not at all the same	25% A little the same	50% Between a little and much the same	75% Much the same	90+% Almost exactly the same

10. In the tenth test you were asked to picture yourself lying under the sun on a beach and becoming very relaxed. Compared to what you would have experienced if you were actually relaxing on a beach, what you experienced was:

0	1	2	3	4
0% Not at all the same	25% A little the same	50% Between a little and much the same	75% Much the same	90+% Almost exactly the same

APPENDIX D

THINK-WITH INSTRUCTIONS

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Think-With Instructions

In this study I'm going to give you a series of tests in which I'll ask you to focus your thinking and to use your imagination creatively to produce certain effects and to experience certain events. You'll benefit from these tests if you let yourself think along with the instructions. When you think along with the instructions you'll find that you can use your mind to do many interesting and useful things.

Let me give you an example of the kind of tests I might give you. I might for example, ask you to close your eyes and feel as if you're looking at a T.V. program. Now, there are a number of possible ways to respond to these tests. For instance, if someone asks me to close my eyes and to imagine I'm watching a T.V. program, one way I could respond is to close my eyes and say to myself, "There's no T.V. screen there. I can't see a T.V. show when there's no T.V. there. This is ridiculous. It's a lot of baloney. I can't do it." Obviously, it I take this kind of negative attitude and say these negative things to myself, nothing's going to happen. I'm not going to visualize a T.V. screen or feel as if I'm looking at a T.V. program, and I won't find this to be an interesting or worthwhile experience.

There is another way of responding to this test in which I also do not benefit from the test. This way is to close my eyes and passively wait for a T.V. screen to appear. Once again nothing will happen, because only my own mind, my own thoughts, can make a T.V. screen appear before my eyes. It won't happen magically by itself.

A third way I could respond, and this is the way in which I benefit most from this test, is when somebody tells me, "Close your eyes and imagine you're watching a T.V. program, "I let myself think of a T.V. program that I like or one that I can remember easily, like "All in the Family." Then I close my eyes (experimenter closes her eyes) and tell myself that I'm looking at Archie Bunker and I see him in my mind's eye. I visualize him walking in his front

door, in his own way, hanging up his hat and jacket on the hook by the door as he calls to Edith that he's home and then yells at Michael to get up off of his chair. And I feel as if I'm looking at the T.V. program (experimenter opens her eyes), and I find this to be a very interesting experience. In the same way, I could feel as I'm watching the newscast or a football game or any other program on T.V. By using my creative imagination and thinking of a T.V. program I've seen previously, I create it myself and I see it in my mind's eye. Now, everybody can do this although not everyone does. Some people block themselves by negative attidudes such as telling themselves that it's silly and can't happen, or by passively waiting for something to happen to them.

Now, I'll give you another example of the kind of test I might give you. I might, for example, ask you to hold a pendulum like this and to think of it moving back and forth. Again, there are a number of ways you could respond.

For instance, if someone says to me, "Hold this pendulum (experimenter holds pendulum and models how to think along with the instructions) and think of it moving back and forth. Think that it's moving faster and watch for it to actually begin to move back and forth, back and forth, faster and faster, back and forth." When I think along with these instructions and I focus my thinking and think of it moving back and forth, I find that it actually does move back and forth (experimenter stops holding pendulum). Now, there's nothing magic or mysterious about it moving. My own thouthts cause the pendulum to move. Focusing on the thought that the pendulum is moving back and forth causes slight little movements in the muscles of my fingers. The movements are unconscious in the sense that I'm not aware that my muscles are moving. Then, this movement is amplified by the pendulum and it seems to me that the pendulum is moving by itself. In psychology, this is called ideomotor action; that is, our muscles or our body and our mind are so intimately related that it

would be impossible for us to think vividly of the pendulum moving back and forth without moving our muscles slightly.

Now, this is the kind of thing that I'm referring to when I tell you that by letting your thought go along with the instructions you can have some interesting experiences and see how your mind and your body function together in amazing and useful ways.

However, when asked to think of the pendulum moving back and forth, there are a couple of other ways I could respond that would block the whole thing so that I could not benefit from these tests. I could say to myself, "It isn't moving back and forth. This is silly. It just can't move like that. That is ridiculous." And, of course, with this kind of negative attitude nothing will happen.

Another way in which nothing will happen is if I just wait for it to move by itself without thinking of it moving back and forth. Again, nothing will happen because it won't move by magic, only my own mind can make it move.

Now, I'm going to give you a number of interesting tests like these. Although you could respond in any of the ways I've described, I'd like you to respond in the way in which you'll benefit most from the tests, and that is to focus your thinking and to imagine to the best of your ability. Just let your thinking and your creative imagination go along with the instructions so that you can fully experience the many interesting and useful things that your mind can do.

APPENDIX E

AFFECTIVE SENSITIVITY SCALE FORM E-A-2 TEST BOOKLET

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AFFECTIVE SENSITIVITY SCALE

FORM E-A-2

DEVELOPMENTAL FORMAT III

October 31, 1977

AFFECTIVE SENSITIVITY SCALE

Forms D & E

Instructions

You will be viewing short scenes of actual encounters between two or more individuals. You are to identify what feelings the people have about their concerns or toward the person they are working with.

Although in any one scene the persons may exhibit a variety of feelings, for the purpose of this instrument you are to concentrate on identifying their last feelings in the scene.

After you view each scene ask yourself:

> If the people involved were to view this same scene, and if they were completely open and honest with themselves, (i.e., if they could identify their real feelings) how would they describe their feelings?

After you decide which response comes closest to what the people are feeling whether about their concerns or the other they are with, fill in the space provided on your answer sheet.

Please do not mark in this booklet.

Scene 1 - 1 FORMER TEACHER - 4TH GRADE STUDENT

SETTING: INFORMAL ENCOUNTER, DISCUSSING AN EARLIER INTERVIEW.

Opening Statement (Teacher): *"When we talk, we normally touch each other."*

Closing Statement (Teacher): *"You said something that really made me feel good, and I wanted to hug you."*

Time: 50 seconds

ITEM 1. WHAT IS THE STUDENT FEELING AT THAT POINT?

a. I'm sorta uncomfortable and uptight. I'm embarrassed.
b. I'm feeling comfortable now.
c. I'm not feeling much of anything.

ITEM 2. WHAT IS THE STUDENT FEELING ABOUT THE TEACHER AT THAT POINT?

a. I'm afraid. What are you going to do next?
b. I feel good about you. I'd like to hug you, too.
c. I'm really scared. I don't want to be touched right now.

Scene 1 - 2 FORMER TEACHER - 4TH GRADE STUDENT

SETTING: INFORMAL ENCOUNTER, DISCUSSING AN EARLIER INTERVIEW.

Opening Statement (Teacher): *"Did you feel it was different?"*

Closing Statement (Teacher): *"We didn't sit on pillows this time, did we?"*

Betsy (Student): *"No."*

Time: 25 seconds

ITEM 3. WHAT IS THE STUDENT FEELING AT THIS POINT?

a. I'm a little happier now, but not much.
b. I wish we had brought some pillows. I would have liked that.
c. I'm really uncomfortable, but I'm scared to show it.

ITEM 4. WHAT IS THE STUDENT FEELING ABOUT THE TEACHER AT THIS POINT?

a. I'm still not really relaxed. I still don't trust you.
b. I'm relieved. She didn't change the subject.
c. I feel more comfortable now. Still a little embarrassed, tho.

Scene 2 - 1 FIRST YEAR MEDICAL STUDENT (FEMALE) - COUNSELOR

SETTING: DISCUSSION OF THE FIRST TERM OF MEDICAL SCHOOL

Opening Statement (Student): *"I've been trying to realize and experience..."*

Closing Statement (Student): *"I just can't let myself think beyond two years."*

Time: 1 min., 10 seconds

ITEM 5. WHAT IS THE STUDENT FEELING AT THIS POINT?

a. It's all so depressing. Why bother to look at the future?
b. I'm scared and angry with myself.
c. I feel relieved. It feels good to get this out.

ITEM 6. WHAT IS THE MEDICAL STUDENT FEELING ABOUT THE COUNSELOR AT THIS POINT?

a. You're not much help. I'm really frustrated by you!
b. Please tell me I'm okay - that I'm not crazy.
c. I'm slightly annoyed - we don't seem to be clicking right now.

Scene 2 - 2 FIRST YEAR MEDICAL STUDENT (FEMALE) - COUNSELOR

SETTING: DISCUSSION OF THE FIRST TERM OF MEDICAL SCHOOL.

Opening Statement (Counselor): *"The word that comes the closest is the responsibility."*

Closing Statement (Counselor): *"And feeling cut off in that."*

Time: 50 seconds

ITEM 7. WHAT IS THE MEDICAL STUDENT FEELING ABOUT THE COUNSELOR?

a. It feels like we're both groping and neither one of us has really caught it.
b. You're right on, but I don't want to hear it. It scares me!
c. That's not what I feel but I don't want to admit to you my <u>real</u> concerns.

ITEM 8. WHAT IS THE COUNSELOR FEELING ABOUT THE MEDICAL STUDENT?

a. She doesn't trust me. She's not going to give me anything without a battle.
b. Now we're getting somewhere! We're finally on the same track.
c. I'm still searching. What is it she's afraid to admit?

Scene 3 - 1 COUNSELOR (FEMALE) - DEATH EDUCATOR (MALE)

SETTING: DISCUSSION ABOUT ONE OF THE MEMBERS OF THE MAN'S GROUP

Opening Statement (Male): *"I can remember very vividly the feelings."*

Closing Statement (Male): *"It was entirely different than any other time we said good-bye."*

Time: 53 seconds

ITEM 9. WHAT IS THE MAN FEELING ABOUT HIS CONCERN?

a. I'm feeling really sad - a lot more than I'm showing.
b. I'm really very scared of death now. I guess I'm scared of my own death.
c. I'm really feeling guilty. I should have known she was dying.

Scene 4 - 1 HUSBAND - WIFE

SETTING:

Opening Statement (Man): *"I get the feeling in just a whole day at home."*

Closing Statement (Woman): *". . . close out the kids for awhile."*

(Man): *". . . and me."*

Time: 40 seconds

ITEM 10. WHAT IS HE FEELING AT THIS POINT?

a. I may be smiling but I'm absolutely furious.
b. I feel cut off and angry when you close me out, too.
c. I can accept that, really. I understand that you just have to do that.

ITEM 11. WHAT IS HE FEELING ABOUT HER AT THAT POINT?

a. Sometimes I get angry at you for shutting me out, but I'm glad we're talking about it, now.
b. That's good to know. Now I don't have to worry about you getting time alone.
c. I feel sad that I really don't understand you. You're so different from me.

Scene 4 - 2 HUSBAND - WIFE

SETTING:

Opening Statement (Woman): *"Usually my first feeling is that I'm not measuring up."*

Closing Statement (Man): *"That makes me . . . ah . . . anxious."*

Time: 1 min., 3 seconds

ITEM 12. WHAT IS HE FEELING AT THIS POINT?

a. I'm actually annoyed. She could do better if she tried.
b. That makes me feel guilty. I really shouldn't be doing that.
c. I feel caught. Am I really doing that? I want to believe I'm not, but . . .

ITEM 13. WHAT IS HE FEELING ABOUT HER AT THIS POINT?

a. Anxious hell! I'm angry. Why did you wait until now to bring it up?
b. Jeez - that was a bomb! I wonder what else you're gonna lay on me!
c. I really am anxious - but I want to keep talking this out with you.

Scene 5 - 1 DOCTOR - WOMAN PATIENT

SETTING: DISCUSSION OF A SUCCESSFUL SURGERY A MONTH PREVIOUS. SHE HAS HAD MANY SURGERIES IN THE PAST. MOST HAVE NOT BEEN SUCCESSFUL.

Opening Statement (Doctor): *"One of the difficulties . . ."*

Closing Statement (Patient): *"You were honest. I think that's the biggest thing."*

Time: 1 min., 20 seconds

ITEM 14. WHAT IS THE PATIENT FEELING ABOUT HER PAST MEDICAL HISTORY?

a. I feel bitter, the others didn't give a damn.
b. I feel resigned. What's done is done. Let's move on from here.
c. I still feel annoyed but I've grown beyond real bitterness.

ITEM 15. WHAT IS THE PATIENT FEELING ABOUT THIS DOCTOR AT THIS POINT?

a. You'd better keep it up, too - or else you'll become just like the rest of those bastards.
b. I want you to like me.
c. I wish I was still sick so you could take care of me.

ITEM 16. WHAT IS THE DOCTOR FEELING ABOUT THE PATIENT?

a. Okay, okay, I'm bored. I don't need a lecture about it.
b. I'm really feeling tight. You could turn on me at any time.
c. Thank you. I really appreciate your saying that.

Scene 6 - 1 DOCTOR - WOMAN PATIENT

SETTING: INITIAL INTERVIEW AND MEDICAL HISTORY

Opening Statement (Doctor): *"When did you have mono?"*

Closing Statement (Doctor): *"Well, we'll take their word for it for now."*

Time: 53 seconds

ITEM 17. WHAT IS THE PATIENT FEELING ABOUT THE OTHER DOCTORS WHO TREATED HER?

a. I'm annoyed with them. It's a bother to be told something I know is wrong.
b. He was wrong. I can accept that. We all make mistakes.
c. I'm angry. Can I trust any doctor?

ITEM 18. WHAT IS THE PATIENT FEELING ABOUT THIS DOCTOR?

a. I'm annoyed. Your condescending manner irritates me.
b. You're pretty cold. You're more interested in facts than me.
c. I'm comfortable with you. You know that doctor was wrong and in your way you're agreeing with me.

ITEM 19. WHAT IS THE DOCTOR FEELING AT THIS POINT?

a. I'm uncomfortable. I've got to be careful not to cricicize another doctor.
b. Damn! The incompetents in this profession. Oh well, it doesn't help to dwell on it.
c. That's funny. Somebody really blew it. It's fortunate it wasn't serious.

Scene 6 - 2 DOCTOR - PATIENT

SETTING: PATIENT IS DISCUSSING HER BROTHER'S HEALTH. (INTERVIEW TOOK PLACE IN DECEMBER).

Opening Statement (Patient): *"And he is in very bad shape."*

Closing Statement (Patient): *"I haven't heard from him now since last February."*

Time: 55 seconds

ITEM 20. WHAT IS THE PATIENT FEELING ABOUT HER BROTHER?

a. He makes me angry and also helpless. It's easy to get discouraged.
b. I'm a little concerned about my brother right now.
c. I wish he would call. I really worry about his well-being.

ITEM 21. WHAT IS THE PATIENT FEELING ABOUT THE PHYSICIAN'S LAST QUESTION?

a. You're really concerned. You really do care about my feelings.
b. You turned me off. You don't really care about my feelings.
c. Why did you change the subject? I'm puzzled. What are you looking for?

Scene 6 - 3 DOCTOR - PATIENT

SETTING: CONTINUED DISCUSSION OF HER BROTHER.

Opening Statement (Patient): *"He had a nervous breakdown . . ."*

Closing Statement (Physician): *"Just the two of you in the family?"*

Time: 40 seconds

ITEM 22. WHAT IS THE PATIENT FEELING ABOUT HER CONCERNS?

a. I feel ashamed to have a brother like that.
b. I really resent what my brother does to me.
c. Basically I like him, even though there are times when he bugs me.

ITEM 23. WHAT IS THE PATIENT FEELING ABOUT THE PHYSICIAN?

a. There you go again! I'm really getting angry at you for not following what I'm saying.
b. I respect you. Perhaps he'll come back to this. I'll go along with where you take it.
c. You're genuinely concerned about my problems. You want to know all you can.

ITEM 24. WHAT IS THE PHYSICIAN FEELING AT THIS POINT?

a. I'm uncomfortable with this. There's nothing I can do to help.
b. I'm concerned. Do you have anyone else to help take off the pressure?
c. I'm bored. Let's get on to something important.

Scene 7 - 1 HEALTH CARE TEAM

SETTING: THERE ARE FOUR PARTICIPANTS IN THIS SCENE. THE MAN WHO APPEARS FIRST IS A PEDIATRICIAN. THE WOMAN ON HIS RIGHT WHO SPEAKS TO HIM IS THE SOCIAL WORKER. THE OTHER MAN IS AN INTERNIST AND THE SECOND WOMAN IS A NURSE PRACTITIONER. THEY ARE DISCUSSING TAKING ON THE CARE OF A FAMILY WITH A NEWBORN INFANT.

Opening Statement (Pediatrician): *"I don't know where her husband's receiving care."*

Closing Statement (Pediatrician): *"So I don't think there's any problem there."*

Time: 1 min., 5 seconds

ITEM 25. WHAT IS THE PEDIATRICIAN FEELING AT THIS POINT?

a. I feel confident, in control - at least for the moment.
b. I'm not feeling much of anything. I just want to make a point.
c. I feel on the spot. She may try to make me look bad.

ITEM 26. WHAT IS THE SOCIAL WORKER'S FEELING ABOUT THE PEDIATRICIAN AT THIS POINT?

a. I respect and admire him. He really knows.
b. I'm really hurt. I want to crawl away and hide.
c. I feel put down by him. I resent him.

Scene 7 - 2 HEALTH CARE TEAM

SETTING: THERE ARE FOUR PARTICIPANTS IN THIS SCENE. THE MAN WHO APPEARS FIRST IS A PEDIATRICIAN. THE WOMAN ON HIS RIGHT WHO SPEAKS TO HIM IS THE SOCIAL WORKER. THE OTHER MAN IS AN INTERNIST AND THE SECOND WOMAN IS A NURSE PRACTITIONER. THEY ARE DISCUSSING TAKING ON THE CARE OF A FAMILY WITH A NEWBORN INFANT.

Opening Statement (Pediatrician): *"We'll make an appointment for the baby to come in for the one month physical."*

Closing Statement (Pediatrician): *" . . . well, why do you want the whole family to come in?"*

Time: 1 min., 5 seconds

ITEM 27. WHAT IS THE SOCIAL WORKER FEELING ABOUT THE PEDIATRICIAN?

a. I feel put down, shut out, discounted. It's exasperating to try to get through to him.
b. I guess he does have a point there. I hadn't really thought about it that way.
c. I want him to understand just how involved and concerned I really am.

ITEM 28. WHAT IS THE NURSE PRACTITIONER FEELING ABOUT THE PEDIATRICIAN?

a. I really admire him.
b. I'm disgusted with this. He's trying to railroad this. He thinks he knows everything.
c. I'm scared of his anger. I'll agree with everything he says.

ITEM 29. WHAT IS THE PEDIATRICIAN FEELING ABOUT THE SOCIAL WORKER?

a. I'm annoyed with her. She doesn't seem to be terribly concerned about the family.
b. She really irritates me. I feel defensive with her?
c. I must be patient with her. She really doesn't understand the situation.

Scene 8 - 1 DORM COUNSELORS

SETTING: DISCUSSING CAREER GOALS. THEY HAVE NOT SEEN EACH OTHER VERY MUCH SINCE THE WOMAN WAS PROMOTED TO HEAD COUNSELOR.

Opening Statement (Woman): *"Seems like that's really limiting your skills."*

Closing Statement (Man): *"I was working yesterday, but I didn't want to bother you with it."*

Time: 50 seconds

ITEM 30. WHAT IS THE MAN FEELING AT THIS POINT?

a. I feel angry. When I needed you you weren't there for me.
b. I feel resentful. They all take me for granted. I'm not appreciated.
c. I'm annoyed at being stereotyped. I know they mean well but I wish they'd stop.

ITEM 31. WHAT IS THE MAN FEELING ABOUT THE WOMAN?

a. You say you care, but I really don't believe it. I don't trust you.
b. You're important now. You wouldn't want to waste your time on me and I can accept that.
c. I'm embarrassed to admit it. I was scared you might not want to see me.

Scene 8 - 2 DORM COUNSELORS

SETTING: DISCUSSING CAREER GOALS. THEY HAVE NOT SEEN EACH OTHER VERY MUCH SINCE THE WOMAN WAS PROMOTED TO HEAD COUNSELOR.

Opening Statement (Man): *"This is very uncomfortable for me."*

Closing Statement (Man): *"That's adding extra pressure."*

Time: 50 seconds

ITEM 32. WHAT IS THE MAN FEELING AT THIS POINT?

a. I feel frustrated. I know what has to happen but I can't get it done.
b. I feel tired, exhausted. I feel like giving up.
c. I feel burdened and resentful. I feel tired.

ITEM 33. WHAT IS THE MAN FEELING ABOUT THE WOMAN HE'S TALKING TO?

a. I feel warm toward you - you're listening and you understand.
b. I'm unsure about you. I don't think you understand.
c. I wish you could say something to take it all away. I really count on you.

Scene 8 - 3 DORM COUNSELORS

SETTING: DISCUSSING CAREER GOALS. THEY HAVE NOT SEEN EACH OTHER VERY MUCH SINCE THE WOMAN WAS PROMOTED TO HEAD COUNSELOR.

Opening Statement (Woman): *"You feel you get a chance to lean on anybody?"*

Closing Statement (Man): *"Last year I used to lean on you quite often."*

Time: 15 seconds

ITEM 34. WHAT IS THE MAN FEELING ABOUT THE WOMAN HE'S TALKING WITH?

a. I like you, maybe too much so.
b. I feel somewhat abandoned by you and embarrassed about saying I leaned on you.
c. You're a real help to me. I can always count on you.

Scene 9 - 1 CLASSROOM

SETTING: TEACHER LEADING A DISCUSSION ON VOCATIONAL CHOICES.

Opening Statement (Teacher): *"There are two kinds of jobs. . ."*

Closing Statement (Teacher): *"Jobs that have to do with <u>things</u>."*

Time: 15 seconds

ITEM 35. WHAT IS THE TEACHER FEELING AT THIS POINT?

a. I'm actually quite pleased.
b. I'm disappointed and a little tense.
c. I'm beginning to get angry. Can't anybody get it right?

ITEM 36. WHAT IS SCOTT FEELING AT THIS POINT?

a. Nuts! I'm ashamed that I didn't get the right answer.
b. I'm confused. Why did she change what I said?
c. I'm feeling okay. My answer was pretty good.

Scene 9 - 2 CLASSROOM

SETTING: TEACHER LEADING A DISCUSSION ON VOCATIONAL CHOICES.

Opening Statement (Sherry): *"I don't think money is what you really want."*

Closing Statement (Sherry): *"It's the one I like best."*

Time: 1 minute

ITEM 37. WHAT IS SHERRY FEELING AT THIS POINT?

a. Actually I feel good - I like attention.
b. I'm real mad - she's just out to get me.
c. I feel alone, picked on, hurt.

ITEM 38. WHAT IS THE TEACHER FEELING?

a. I'm pleased that things have livened up and I'm also pleased that Sherry is being challenged.
b. I'm feeling cautious here. This could become explosive.
c. I'm not too involved in this. I'm a little bored.

ITEM 39. WHAT IS JODY FEELING ABOUT SHERRY?

a. Her goody-goody behavior really irritates me. I'd like to make a fool of her.
b. I'm not feeling much of anything. I just really don't agree with her.
c. She knows I'm really right - that makes me feel good.

Scene 10 - 1 PRINCIPAL - STUDENT

SETTING: DISCUSSION BASED ON REPEATED DISCIPLINE PROBLEMS.

Opening Statement (Principal): *"You like this verbal and mental battle."*

Closing Statement (Principal): *"I'm not going to do that."*

Time: 45 seconds

ITEM 40. WHAT IS THE STUDENT FEELING AT THIS POINT?

a. I'm bored and irritated. I don't need this.
b. I'm really enjoying this. This is my kind of game.
c. I'm scared, but I'll never show it.

ITEM 41. WHAT IS THE STUDENT FEELING TOWARD THE PRINCIPAL AT THIS POINT?

a. Oh, oh. What will he do next? I'm getting scared.
b. I don't need this guy. I wish he'd get off my back.
c. I'm on guard - ready to defend.

Scene 10 - 2 PRINCIPAL - STUDENT

SETTING: DISCUSSION OF STUDENT'S REQUEST FOR HALF-DAY SCHEDULE.

Opening Statement (Principal): *"I think you want that half-day schedule . . ."*

Closing Statement (Principal): *"I had a lack of responsibility."*

Time: 40 seconds

ITEM 42. WHAT IS THE STUDENT FEELING ABOUT THE PRINCIPAL AT THIS POINT?

a. He's hassling me and I resent it, but I'm still in control - he won't get me.
b. I feel guilty. I shouldn't do the things I do.
c. I'm confused. I don't know what he's getting at but I don't want to hurt his feelings and ask him.

Scene 11 - 1 COUNSELOR - STUDENT

SETTING: DISCUSSION OF SCHOOL RULES AND THE STUDENT'S PROBLEMS WITH THEM.

Opening Statement (Counselor): *"Anywhere around the building."*

Closing Statement (Student): *"Now on school schedule."*

Time: 28 seconds

ITEM 43. WHAT IS THE STUDENT FEELING AT THIS POINT?

a. I'm not feeling much - I just need to get some answers.
b. I'm a little scared - I could be in real trouble.
c. I'm real mad - someone musta ratted on me!

ITEM 44. WHAT IS THE STUDENT FEELING ABOUT THE COUNSELOR?

a. I feel tight, closed in. I don't want to tell him the truth.
b. I like him - he's an okay guy.
c. I'm not hiding anything, but he thinks I am.

Scene 12 - 1 TEACHER - ADMINISTRATOR

SETTING: DISCUSSION OF SCHOOL SUPPLIES STOLEN DURING THE TEACHER'S ABSENCE.

Opening Statement (Teacher): *"And so I'm left."*

Closing Statement (Administrator): *"Do you think I forsook you?"*

(Teacher): *"Kinda."*

Time: 1 min., 2 seconds

ITEM 45. WHAT IS THE TEACHER FEELING AT THIS POINT?

a. I feel furious and bitter.
b. I feel annoyed and irritated.
c. I feel betrayed and resentful.

ITEM 46. WHAT IS THE TEACHER FEELING ABOUT THE ADMINISTRATOR?

a. Can't you understand I'm mad because my feelings were hurt.
b. Forget the whole thing, you'll never get it straight.
c. Forsook is too strong - I know you really tried. Don't feel hurt.

ITEM 47. WHAT IS THE ADMINISTRATOR FEELING?

a. I feel guilty and defensive.
b. I'm so furious - I want to make you feel it.
c. I feel relieved. I was afraid you were going to blame it all on me.

Scene 12 - 2 TEACHER - ADMINISTRATOR

SETTING: DISCUSSION OF SCHOOL SUPPLIES STOLEN DURING THE TEACHER'S ABSENCE.

Opening Statement (Administrator): *"O.K., now I'm really feeling."*

Closing Statement (Teacher): *"That's my hang-up and not theirs."*

Time: 35 seconds

ITEM 48. WHAT IS THE ADMINISTRATOR FEELING AT THIS POINT?

a. I like her - she can admit it when she's wrong.
b. I feel defensive. I wish I could get off the hook.
c. I'm pleased. She's finally looking at her part in all this.

ITEM 49. WHAT IS THE TEACHER FEELING AT THIS POINT?

a. That hurts, but actually I'm glad you said it.
b. I'm amused and pleased with myself - I saw right through you on that one.
c. I feel bitter and resentful. You're trying to nail me.

Scene 12 - 3 TEACHER - ADMINISTRATOR

SETTING: DISCUSSION OF SCHOOL SUPPLIES STOLEN DURING THE TEACHER'S ABSENCE.

Opening Statement (Teacher): *"When I was out one day and came back."*

Closing Statement (Administrator): *"I thought that seven more wouldn't bother you."*

Time: 55 seconds

ITEM 50. WHAT IS THE ADMINISTRATOR FEELING?

a. I'm disappointed in her. I really thought she was more competent than I guess she really is.
b. I'll get back at her for bringing this up.
c. I feel relieved that I've been able to explain it to her.

ITEM 51. WHAT IS THE TEACHER FEELING?

a. Bullshit! I'm pissed that she thinks I'll buy that line.
b. I'm really flattered. I really hadn't looked at it that way.
c. I feel so guilty. I really misinterpreted her motives. She really was trying to help.

Scene 13 - 1 PSYCHOTHERAPIST - CLIENT

SETTING: A SESSION IN THE MIDST OF LONG-TERM TREATMENT.

Opening Statement (Client): *"There's been no direction at all."*

Closing Statement (Client): *"It's like I'm still that little lost kid."*

Time: 45 seconds

ITEM 52. WHAT IS THE CLIENT FEELING AT THIS POINT?

a. I'm searching - but for what?
b. I feel helpless - and angry at myself for feeling so helpless.
c. I don't really feel all that bad.

ITEM 53. WHAT IS THE CLIENT FEELING ABOUT THE THERAPIST?

a. You're confusing me more. What do you want me to say?
b. Please protect me. Please take care of me. I <u>am</u> helpless.
c. Don't just sit there. Please help!

Scene 13 - 2 PSYCHOTHERAPIST - CLIENT

SETTING: A SESSION IN THE MIDST OF LONG-TERM TREATMENT.

Opening Statement (Therapist): *"When you say a kid . . ."*

Closing Statement (Therapist): *"You were powerless then, weren't you?"*

Time: 42 seconds

ITEM 54. WHAT IS THE CLIENT FEELING?

a. I feel ashamed of how weak I am.
b. I'm bitter about what they did to me as a kid.
c. I feel numb, drained.

ITEM 55. WHAT IS THE CLIENT FEELING ABOUT THE THERAPIST?

a. I feel weak and small with you too.
b. I'm embarrassed by your questions. I wish you wouldn't ask them.
c. I'm confused. What are you driving at?

ITEM 56. WHAT IS THE THERAPIST FEELING ABOUT THE CLIENT?

a. But you aren't now. Grow up!
b. I want you to hear this. See what's different.
c. I know this is painful. I wish there was another way to do this, but there isn't.

Scene 13 - 3 PSYCHOTHERAPIST - CLIENT

SETTING: A SESSION IN-THE MIDST OF LONG-TERM TREATMENT.

Opening Statement (Therapist): *"Who comes to mind who's done that to you in the past?"*

Closing Statement (Client): *"When I was growing up, I never felt like nothing."*

Time: 1 min., 15 seconds

ITEM 57. WHAT IS THE CLIENT FEELING?

a. I'm sad for all of us. I feel so helpless.
b. I feel angry, confused and lost.
c. I'm resigned. It's too late to change.

ITEM 58. WHAT IS THE CLIENT FEELING ABOUT THE THERAPIST?

a. Stop pushing me, please! I'm not ready to look at this.
b. It's not all that bad. It's just that I'm trying to give you what you want to hear.
c. I feel safe with you. I can face the pain.

ITEM 59. WHAT IS THE THERAPIST FEELING ABOUT THE CLIENT?

a. Maybe I'm pushing too hard. Maybe she can't take it.
b. Good! Now we're getting someplace.
c. This is getting too deep. I'm going to have to pull her back.

Scene 14 - 2 THERAPIST - FAMILY (WITHOUT FATHER)

SETTING: THERAPIST - OLDER SON (Scott) - YOUNGER SON (Muggsy) - MOTHER

Opening Statement (Younger Son): *"I was sad."*

Closing Statement (Older Son): *"They didn't like what each other did."*

Time: 50 seconds

ITEM 64. WHAT IS THE YOUNGER SON FEELING AT THIS POINT?

a. I'm scared - what if Mom gets mad at me?
b. I feel sad, and hurt.
c. I know everything will be okay, but I'm still a little sad.

ITEM 65. WHAT IS THE OLDER SON FEELING AT THIS POINT?

a. I'm furious.
b. It's depressing - there's sure no fun in all this.
c. I hurt so much.

APPENDIX F

EXPERIMENTAL TREATMENT TRANSCRIPT

I would like you to become comfortably seated in your chair with your feet flat on the floor and your arms comfortably supported. Your hands may be clasped or unclasped, it really doesn't matter, which ever way is most comfortable to you. You can go ahead and move around and get yourself adjusted so that you'll be seated most comfortably. I'm now going to guide you through the experience that we have discussed. All you need to do to participate fully in this experience, is to allow yourself full reign to your imagination. Your unconscious already knows how to do all the things that will be required, so all you need to do is allow yourself to participate fully with the things that I suggest and describe to you. Now you can close your eyes and begin to relax and I'll describe things to you that will help you to relax even more. Notice the particular sensations of sitting there, listening to my voice, with the chair supporting your weight. Notice the pressure of the seat pushing you up, suspending you off the floor. Noticing the feeling of the chair against your back, holding you up, you can allow yourself to sink deeper into the chair, letting the chair support you, hold you up and take care of you. So sitting there with your eyes closed, as you listen just to me, there's nothing that you have to do, nothing to say, only to follow my voice, as I instruct you how to become even more comfortable and relaxed. You will bind that the things I suggest will come very easily, almost automatically. You can do them without any effort at all. You have only to follow my voice as I guide you through these experiences. At times there may noises not part of the work we've come here to do, but as these noises have no importance for out work, you'll find that they have a rhythm of their own, and that they can go in one ear and out the other, not disturbing you in the least. All other things not part of our work, will bade into the background. So sitting there with your eyes closed, allow your attention to focus inward to your body. Notice

your breathing, how it goes in and out, and in and out. Notice how your breathing changes when you first put your attention to it, but as you let your attention gently stay with it for awhile, your breathing returns to a natural, automatic rhythm. So continue to watch your breathing, as you breathe in and as you breathe out. Just watching it flow, breathing in, and breathing out. Direct your attention now to the rest of your body. Notice the places in your body that feel very relaxed and the places that are more tense and less relaxed. With your mind, tell those places that we're going to help them relax even more soon. Turn your attention now to your feet. Now I'd like you to tighten the muscles in your feet about half way, not so much that they hurt, but tighten them some so that you feel the muscles in your toes tightening, your arches, the bottoms of your feet. Hold this tightness, and then release them, letting the muscles go, loosen, expand, relax and feel good. Now tighten the muscles in your feet again, feeling the muscles contract, become tighter, harder, hold that and then relax, letting go ot the tension, letting go of the strain, feeling the muscles unwind, relaxing and becoming more loose and more comfortable. Feel the relaxation and comfort spreading through your feet. Now proceed up your legs and tighten the muscles in your lower legs, the fronts of your legs, and your calves, feeling the muscles grow tighter and firmer, hold, and relax. Letting go ot the tension, feeling the muscles unwind, expanding, relaxing, and becoming more comfortable, soft, and quiet. Moving up your legs, direct your attention now to your thighs, beginning to tense the muscles, feeling them constrict. Tighten, hold for a moment, and relax, letting go of the tension. Muscles unwinding, relaxing, loosening, becoming softer, and more warm and heavy. You can feel the relaxation spreading from your feet up through your legs. Now move up to the muscles in your hips, tightening these muscles, bringing them all into play, feeling the muscles tighten, constrict. Hold, and relax, letting go of the tension. Muscles relaxing, expanding, unwinding, feeling relaxed,

warm and heavy. You may notice now that your breathing has become deeper and slower, you can just allow it to become even deeper and more relaxed and peaceful. Now moving up your body, direct your attention to the muscles in your trunk, the muscles in your chest, up your back, your sides, your stomach, gradually tightening these muscles, all the muscles becoming more active, becoming tighter Hold them, and relax, letting go completely, muscles loosening, unwinding, and relaxing. Breathing deeply and relaxed, breathing deeply, and relaxed. Feeling the sensation of relaxing continuing to spread through your body. Now moving to your shoulders, your upper arms, your lower arms, your hands, clenching your fists, all these muscles tightening. Hold, and relax, muscles unwinding, relaxing, feeling warm and heavy. Now go to the muscles of your neck, and up the back of your head, and to your forehead. Beginning to tighten these muscles, making them tighter. Hold, and relax, feeling the tension slipping away. Muscles becoming more relaxed, more quiet and relaxed. Now moving into your face, your cheeks, lips,jaw, your eyes, all these muscles tightening, constricting. Hold, and relax, letting go of the tension, tension slipping away, muscles relaxing. Tension flowing out of your body. Feeling relaxed, your whole body feeling relaxed, warm, and heavy. Now direct your attention to your breathing again, just watching it going in and out, watching it going in and out. Feel yourself breathing in fresh, good air and breathing out tension, breathing in fresh air and breathing out tension. Breathing in and as you breathe out you can see the tension flowing out in your breath from anywhere that there's any left in your body. Just watch yourself breathing in good, fresh oxygen, and breathing out tension from your body. Breathing in oxygen, breathing out tension making you more relaxed, feeling peaceful, warm and heavy. You can see a circuit being built up, breathing in good, fresh air and breathing out tension. Notice yourself relaxing with every breath, breathing in and relaxing, breathing in and relaxing. Imagine yourself standing now on a deserted

beach by the ocean. Its a warm, sunny day with a gentle breeze blowing. The ocean is a beautiful, azure blue, the sky has a few white billowy clouds in it. You can hear the waves rolling in, you can hear the rhythm of the waves flowing in, one after another, continuously rolling in, one after another and you feel peaceful, comfortable, and secure. You can feel the warmth of the sun on your skin and you become immersed in the experience of being on the beach on this warm and sunny day. You can smell the particular smells that come with being near the ocean, and it seems you can taste the salty air. As you lie down on the beach, you can feel the sand forming to the shape of your body and supporting you. It feels good and relaxing to lay down on the beach, the warm sand warming your body, helping you to relax even more. You can feel the sun warming you and you feel comfortable, peaceful and naturally in tune with yourself and the world. As you're sitting up you look down the beach and notice a man and a woman walking along the water. You watch them enjoying the beach, enjoying the sand, the sea, the sun and the air just as you are. You somehow have the feeling that they are nice people. You notice them walking down the beach generally in your direction and even though yor're enjoying your solitude on the beach you'd also enjoy it if they'd stop by and chat with you. You see that they are coming in your direction and they're looking like they might stop by and talk, and in fact they do. They sit down on the sand and the three of you engage in conversation finding many things to talk about that are of interest to all of you. You feel that you can trust these people and you're comfortable and enjoying talking with them. At the moment one of the people is expressing <u>happy</u> feelings. As the person talks you notice things that help you understand the way they are feeling, what they are thinking, and what they are experiencing at the moment. As they speak:

listen to the works that they are using
hear the tone of their voice

see the expressions on their face
notice the movements in their body
what are these things telling you
you notice that your body is in tune with them
what does your body feel like
how is your body reacting to what the other person is thinking, feeling, and expressing
are you aware of sensations and movements in your body that tell you what the other person is experiencing
how do you feel
what thoughts come to mind

The conversation is now changing and one of the people is becoming anxious.

As they speak:

listen to the works they are saying
listen to the tone of their voice
notice the expression on their face
notice the movements in their body
what are these things telling you
you notice that your body is in tune with them
what does your body feel like
how is your body reacting to what the other person is thinking, feeling, and expressing
are you aware of sensations and movements in your body that tell you what the other person is experiencing
how do you feel
what thoughts come to mind

The conversation is now changing again and one of the people is beginning to

get angry. As they speak:

Listen to the words that they are saying
notice the tone of their voice
see the expressions on their face
notice the movements in their body
what are these things telling you
you notice that your body is in tune with them
what does your body feel like
how is your body reacting to what the other person is thinking, feeling, and expressing
are you aware of sensations and movements in your body that tell you what the other person is experiencing
how do you feel
what thoughts come to mind

The conversation is now changing again and one of the people is expressing

some guilty feelings. As they speak:

listen to the words that they are saying
notice the tone of their voice

see the expression on their face
notice the movements in their body
what are these things telling you
you notice that your body is in tune with them
what does your body feel like
how is your body reacting to what the other person is thinking, feeling, and expressing
are you aware of sensations and movements in your body that tell you what the other person is experiencing
how do you feel
what thoughts come to mind

The conversation is now changing again and one of the people is expressing some

feelings of <u>distrust</u>. As they speak:

listen to their words
notice the tone of their voice
see the expression on their face
notice the movements on their body
what are these things telling you
you notice that your body is in tune with them
what does your body feel like
how is your body reacting to what the other person is thinking, feeling and expressing
are you aware of sensations and movements in your body that tell you what the other person is experiencing
how do you feel
what thoughts come to mind

The conversation is now changing again, and one of the people is now sharing some

<u>sadness</u> that they feel. As they speak:

listen to their words
notice the tone of their voice
see the expression on their face
notice the movements in their body
what are these things telling you
you notice that your body is in tune with them
what does your body feel like
how is your body reacting to what the other person is thinking, feeling and expressing
are you aware of sensations and movements in your body that tell you what the other person is experiencing
how do you feel
what thoughts come to mind

The conversation is now changing again and one of the people is expressing

feelings of <u>helplessness</u>. As they speak:

listen to their words
notice the tone of their voice

see the expression on their face
notice the movements in their body
what are these things telling you
you notice that your body is in tune with them
what does your body feel like
how is your body reacting to what the other person is thinking, feeling and expressing
are you aware of sensations and movements in your body that tell you what the other person is experiencing
how do you feel
what thoughts come to mind

The conversation is now changing again, the people are feeling better, the situation is becoming resolved, and they are becoming satisfied and happy. The three of you talk a while longer and share the pleasant afternoon on the beach. Notice that you enjoyed being on the beach, feeling the wind in your face and in your hair, smelling and tasting the salty sea air, hearing the waves roll in, and feeling the warmth of the sun on your skin.

In a moment, I will give you the ASS test we have discussed. The other subjects who will be entering the room will not interfere in the least with your maintenance of your focused awareness and relaxation before or during the test. After the test when you feel rested and awake we will debrief the experiment, your questions will be answered, and then you will be ready to leave. After finishing the ASS you will notice that you are fully awake and aware, and that you feel fully rested and refreshed as if you had just awakened from a good nap. In a moment I will leave to get the other subjects and when I return we will begin the ASS. As you take the ASS you will find it as easy for you to understand the thoughts and feelings of the people you see on the screen as it was the people on the beach. I am going to get the other subjects. I'll be right back and we will thke the test. In the meantime, you can rest comfortably until we begin.

APPENDIX G

SUBJECT CONSENT FORM

1. I have freely consented to take part in a scientific study being conducted by: James I. Millhouse, M.A.

   under the supervision of: John M. Schneider, Ph.D.

   Academic Title: Associate Professor, Department of Psychiatry

2. The study has been explained to me and I understand the explanation that has been given and what my participation will involve.

3. I understand that I am free to discontinue my participation in the study at any time without penalty.

4. I understand that the results of the study will be treated in strict confidence and that I will remain anonymous. Within these restrictions, results of the study will be made available to me at my request.

5. I understand that my participation in the study does not guarantee any beneficial results to me.

6. I understand that, at my request, I can receive additional explanation of the study after my participation is completed.

Signed _____

Date _____

APPENDIX H

HUMAN SUBJECTS COMMITTEE APPROVAL

MICHIGAN STATE UNIVERSITY

UNIVERSITY COMMITTEE ON RESEARCH INVOLVING
HUMAN SUBJECTS (UCRIHS)
238 ADMINISTRATION BUILDING
(517) 355-2186

EAST LANSING • MICHIGAN • 48824

May 6, 1980

Mr. James I. Millhouse
Department of Psychiatry
A236 East Fee Hall

Dear Mr. Millhouse:

Subject: Proposal Entitled "Mobilization of Empathic Skills: An Analysis"

The above referenced project was recently submitted for review to the UCRIHS.

We are pleased to advise that the rights and welfare of the human subjects appear to be adequately protected and the Committee, therefore, approved this project at its meeting on May 5, 1980.

Projects involving the use of human subjects must be reviewed at least annually. If you plan to continue this project beyond one year, please make provisions for obtaining appropriate UCRIHS approval prior to the anniversary date noted above.

Thank you for bringing this project to our attention. If we can be of any future help, please do not hesitate to let us know.

Sincerely,

Henry E. Bredeck
Chairman, UCRIHS

HEB/jms

cc: Dr. John M. Schneider

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BIBLIOGRAPHY

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