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The Amelioration of Interpersonal Perceptual Accuracy and Psychological Adjustment of Psychiatric Outpatients through Brief Perception Therapy: Three Case Studies

Carole Marie Bullmer

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THE AMELIORATION OF INTERPERSONAL PERCEPTUAL ACCURACY AND PSYCHOLOGICAL ADJUSTMENT OF PSYCHIATRIC OUTPATIENTS THROUGH BRIEF PERCEPTION THERAPY: THREE CASE STUDIES

by

Carole Marie Bullmer

A Dissertation
Submitted to the
Faculty of The Graduate College
in partial fulfillment of the
requirements for the
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Department of Counseling and Personnel

Western Michigan University
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Carole Marie Bullmer

ii

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Western Michigan University

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# TABLE OF CONTENTS

ACKNOWLEDGEMENTS .................................. ii
LIST OF FIGURES .................................... vi
LIST OF TABLES ...................................... vii

Chapter

I. INTRODUCTION ..................................... 1
   The Problem and Its Background .................. 1
   Review of Related Research and Literature .... 5
      The interpersonal perceptual process ........ 5
      The relationship of interpersonal perceptual
      accuracy and personality variables ........... 22
      The relationship of interpersonal perceptual
      accuracy and psychological adjustment ....... 39
   Purpose of the Study ............................. 46
   Research Question and General Hypotheses .... 46
   Limitations of the Study ......................... 47

II. METHOD ........................................ 49
   Criteria Instruments ............................. 50
      Affective Sensitivity Scale .................... 50
      Profile of Mood States .......................... 51
      Minnesota Multiphasic Personality Inventory 52
      Tennessee Self Concept Scale .................. 53
   Criteria Measures .............................. 54
   Procedures .................................... 55

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# List of Figures

<table>
<thead>
<tr>
<th>Figure</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>MMPI results for Case A as a function of time in treatment</td>
<td>75</td>
</tr>
<tr>
<td>2.</td>
<td>TSCS results for Case A as a function of time in treatment</td>
<td>76</td>
</tr>
<tr>
<td>3.</td>
<td>POMS results for Case A as a function of time in treatment compared to psychiatric outpatient norms</td>
<td>79</td>
</tr>
<tr>
<td>4.</td>
<td>MMPI results for Case B as a function of time in treatment</td>
<td>90</td>
</tr>
<tr>
<td>5.</td>
<td>TSCS results for Case B as a function of time in treatment</td>
<td>92</td>
</tr>
<tr>
<td>6.</td>
<td>POMS results for Case B as a function of time in treatment compared to psychiatric outpatient norms</td>
<td>95</td>
</tr>
<tr>
<td>7.</td>
<td>MMPI results for Case C as a function of time in treatment</td>
<td>103</td>
</tr>
<tr>
<td>8.</td>
<td>TSCS results for Case C as a function of time in treatment</td>
<td>105</td>
</tr>
<tr>
<td>9.</td>
<td>POMS results for Case C as a function of time in treatment compared to psychiatric outpatient norms</td>
<td>107</td>
</tr>
</tbody>
</table>
LIST OF TABLES

<table>
<thead>
<tr>
<th>TABLE</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. POMS Results For Case A as a Function of Time in Treatment by Weeks.</td>
<td>78</td>
</tr>
<tr>
<td>2. POMS Results For Case B as a Function of Time in Treatment by Weeks.</td>
<td>93</td>
</tr>
<tr>
<td>3. POMS Results For Case C as a Function of Time in Treatment by Weeks.</td>
<td>106</td>
</tr>
</tbody>
</table>

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CHAPTER I

Introduction

The Problem and Its Background

An abundance of literature and research has been produced during the past several decades concerning the effect of personality variables upon perceptual accuracy (Ansbacher, 1937; Atzet, 1968; Jorgensen, 1968; Knower, 1945; Pfaff, 1954; Soskin & Kaufmann, 1961; Stephens, 1936). While some of the results of these studies have sometimes been difficult to interpret because of variations in procedures, it is, nevertheless, obvious that there is ample evidence to support a significant relationship between personality variables and accuracy of interpersonal perception. During this same period of time, many personality theorists (Ellis, 1962, 1976; Lewin, 1935; Maslow, 1954; Rogers, 1951) have focused their attention on accurate perception as a determinant of psychological adjustment or maladjustment. According to these theorists, an individual's psychological well-being is clearly dependent on his ability to perceive accurately.

In view of this vast background of literature and research, it is not surprising that many of the current systems of psychotherapy focus upon the cognitive perceptual process of the patient. Whether the therapeutic ap-
proach is psychoanalytic, or one of its many variations, Rogerian Client-Centered or Ellisonian Rational Emotive Therapy, the thrust of therapy appears to be to reduce patients' perceptual distortions so that they may perceive themselves, others and their environment more accurately and to produce more effective cognitive functioning.

Ellis (1962, 1976) has emphasized the importance of both cognitive functioning and perception in his rational emotive theory. Essential constructs of this theory include the dichotomous nature of man as rational and irrational; that irrational thinking promotes psychological dysfunction; and, that emotional states can be controlled by maximizing rational thinking and minimizing irrational thinking. Since perceptual distortion influences and promotes irrational thinking, learning to perceive more accurately is viewed as a major determinant in ameliorating emotional disturbances (Arnold, 1960; Ellis, 1962).

Blake and Ramsey (1951) support this idea by suggesting that reality is uniquely perceived by each individual. If that posture is acceptable, then there are as many realities as there are perceivers. Ellis (1962) points out the relationship between perception and response when he states, "Perception biases response and then response tends to bias subsequent perception" (p. 44). Therefore, improved perceptual accuracy should produce more appropriate responses which would have carry over effects on fu-
ture perceptions. The end result of such a process would be expected to be a change in an individual's personality.

Allport (1961) stresses the importance of accurate perception and effective cognitive functioning as basic requirements of a sound personality. Persons more in touch with reality are less likely to experience perceptual error, whether interpreting their own behaviors, others' behaviors, or interacting with their environments. Perceiver personality variables such as intelligence, cognitive structure, authoritarianism and dogmatism, have been demonstrated to be associated with perceptual accuracy in the literature (Allport, 1961; Burke, 1966; Oline, 1964; Davitz, 1964; Jacoby, 1969). Other perceiver personality variables have also been correlated with perceptual accuracy, although not as extensively or significantly (Barsaloux, 1977; Davitz, 1964; Francher, 1966; Hartnett, Mahoney, & Bernstein, 1977; Hearn & Seeman, 1971).

Rogerian Client-Centered Therapy focuses on a patient's perceptual process for the purpose of maintaining harmony between experience and self-concept (Rogers, 1951). Of primary importance in sustaining healthy cognitive functioning is improving perceptual accuracy which effects the number of experiences perceived as threatening. It follows then that better understanding and acceptance of self will facilitate the proper conditions for more understanding and acceptance of others which is the basis of
valid communications in interpersonal relationships (Shaw, 1976).

Allport (1961) addresses the issue of perceptual distortion and identifies prejudice, rationalization, and projection as some of the personality manifestations that interfere with perceptual accuracy. Psychoanalytic theory supports the concept of perceptual distortion as purported by Freud's (1967) use of ego defense mechanisms. Freud (1967) theorizes that individuals attempt to reduce their psychological stress and anxiety by distorting their perception of reality. The source of error in their perceptual process is accomplished through the use of identification, projection, rationalization, reaction-formation, and other defenses. The severity of psychological maladjustment then would be dependent on the extent and manner of an individual's use of ego defense mechanisms. As perceptual distortion increases, so will the degree of maladjustment. As individuals learn to improve their perceptual accuracy, their degree of psychological discomfort will decrease and opportunities for improved psychological adjustment will increase.

As has been discussed here, many theorists have focused on the importance of accurate perception as a determinant of psychological adjustment and well-being. It seems reasonable then that if the focus of psychotherapy would be on improving patients' ability to perceive more
accurately, the therapeutic outcome would be an amelioration of psychological adjustment if the therapy was effective.

Although it is apparent that improvement of perceptual accuracy may result from many existing psychotherapeutic approaches, the amelioration of perceptual accuracy is, if it occurs, more or less a by-product of these systems, since the primary focus of these modalities is not on improvement of perceptual accuracy. It seems to follow that an approach to psychotherapy which focuses directly and effectively on improving interpersonal perceptual accuracy should be highly effective in enhancing patients' psychological states of well-being. Such a therapeutic modality would, if available, offer new hope for patients.

Review of Related Research and Literature

The review of literature and research relative to this study is focused on three distinct areas: the interpersonal perceptual process, the relationship between interpersonal perceptual accuracy and personality variables, and the relationship of interpersonal perceptual accuracy and psychological adjustment.

The interpersonal perceptual process. Before beginning a review of the perceptual process, it seems appropriate to gain a better understanding of the concepts of perception and interpersonal perception. Many definitions for these concepts have been offered by various theorists.
and all have tended to define the terms within their own system or framework. Consequently, no one single theoretical approach is used in exploring components of the perceptual process. However, even though various discrepancies exist among the numerous theories, sufficient similarities are present to provide a basis of commonality to understand the perceptual process and to develop working definitions that are generally acceptable across the numerous theoretical postures.

In the simplest of terms, the perceptual process involves an individual attaching meaning to the external world and internalizing that information. Gibson (1959) describes perception as a "function of stimulation" (p. 459). He continues the association by stating, "and stimulation is a function of the environment; hence perception is a function of the environment" (p. 459). Fergus (1966) supports this definition by identifying perception as the basic process in cognitive development and its consequent interdependence with thinking and learning in the total process of information extraction. As learning and experience increase, individuals' perceptual skills expand and they become more proficient in extracting more information from their environment. Therefore, attitudes, beliefs, and values are incorporated early in the perceptual process as a result of the interdependence of perception, thinking, and learning.
According to Fellows (1968) the process of perception involves the concepts of reception and analysis. In his terms, reception refers to the exposure of the organism's receptors to stimuli. Perception begins with this sensory stimuli and the operation of analysis becomes the second stage of the perceptual process.

Analysis has two components: attention, which mainly selects stimuli, and organization, which orders the selected stimuli. In the attention phase, stimulus information is either reinforced or inhibited. The organization phase orders the information to produce a meaningful picture of the stimulus object for the perceiver. These two operations select and order the stimuli which will eventually help in determining the response behavior of the perceiver.

This model is closely associated with the Forgus (1966) model and aids in understanding how selected cues are ordered and influences the determination of behaviors. A perceptual-cognitive structure within individuals combines previous learnings and thought processes, as well as being influenced by the perceiver's beliefs, attitudes, and values. The reinforcement or inhibition of cues is determined by the perceiver's perceptual-cognitive structure. This structure also determines which selected cues aid in formulating a useful and meaningful picture to the perceiver.
Epstein (1967) makes a distinction between the concept of perception and the concept of response. He defines perception as an intervening construct that refers to the inferred processes that intervene between measurable stimulus conditions and measurable overt responses. Epstein (1967) also notes two points in comparing the concept of perception to the concept of learning:

The concept "perception" is not identical with the overt discriminatory responses, verbal or motor, which are used to infer the properties of perception . . . and . . . occurrence of the correct response is not the learning but is only the manifestation of some inferred underlying modification (p. 10-11).

In Epstein's (1967) conclusions, the observable overt response has importance in the study of perception only as it serves as a basis for inferences concerning the perceptual process.

A different approach to the relationship between perception and response is highlighted by Ellis (1962). He states, "Perception biases response and then response tends to bias subsequent perception" (p. 44). Therefore, improved perceptual ability would have carry over effects on future perceptions and effect the entire perceptual process.

Perception refers to the process of extracting information from the environment (Forgus, 1966). When the stimulus to be perceived is another person, the process is referred to as interpersonal perception, that is, how
individuals perceive other individuals. Interpersonal perception is influenced by a variety of factors. Primary among these factors are individuals' attitudes, beliefs, motives, and values which are products of their past learning experiences and thinking processes. In support, Bullmer (1970) states, "Perception is the core process which influences and is influenced by thinking and learning" (p. 7).

Various definitions of interpersonal perception, or person perception, are documented in the literature. Warr and Knapper (1968) view person perception as learning to know the internal states of another individual through interpersonal interaction. Becoming aware of the psychological characteristics of individuals through a process of verbal and nonverbal communication is proposed by Forgus and Melamed (1966).

Allport (1961) suggests some inconsistency with the term, interpersonal perception, since many human properties, such as emotions, attitudes, and motives are internal or inferred, rather than external. Allport (1961) continues by questioning the concept of individuals being perceived. Instead, he supports a proposal indicating individuals are known or judged, rather than perceived.

Tagiuri and Petrullo (1958) more clearly define interpersonal perception, or person perception, as the process through which one person becomes aware of the inter-
nal, as well as the external properties of another person. Included in these properties are abilities, attitudes, beliefs, emotions, ideas, intentions, purposes, and traits. This is further supported by Rogers and Truax (1966) who describe person perception as an interactional process. In this process an individual becomes aware of the meaning and significance of another individual's thoughts and experiences.

Asch (1952) describes the immediacy of communication in interpersonal perception when he states, "Often there is virtually no lag between the psychological event in one person and its grasp in the other. We may even anticipate the thought and feelings of those we know, and it would appear that we are directly connected with others as with our own psychological processes" (p. 142).

In reviewing the literature on interpersonal perception, basic differences between person perception and object perception need to be noted for an understanding of the more complicated process of person perception. Three fundamental differences between person perception and object perception are reported by Tagiuri and Petrullo (1958). The first difference addresses the fact that a person is a physical stimulus and more than a physical stimulus at the same time. Qualities that are inferred, or not directly observable, about persons from their appearance, behaviors, and verbalizations, as well as prop-
erties that are observable, are included as part of perception.

A double interaction occurs in person perception to identify the second difference. Each person may be both perceiver and perceived simultaneously and each may withhold or inhibit certain stimuli information that would be valuable. Heider (1958) also supports this concept. He distinguishes between two types of inter-personal perception. In one type the perceiver is only aware of objects and persons in the environment, while in the other, the perceiver recognizes the other person as perceiving also.

The third major difference noted by Tagiuri and Petrullo (1958) states that the real and the assumed similarity between the perceiver and the perceived is greater in person perception than in object perception. Based on this premise, the consequences could be great in that, "the perceiver is probably maximally inclined and able to use his own experience in perceiving and judging or inferring another's state or intentions" (Tagiuri & Petrullo, 1958, p. xi). It follows then that perceivers' ability to respond would be limited by their own personal experiences in life.

Theories of inference present another perspective for viewing the process of interpersonal perception. Inference theories are a cognitive approach to studying interpersonal perception and are strongly based on a variety
of psychological traditions (Tagiuri, 1969). In their work on clinical inference, Sarbin, Taft, and Bailey (1960), examine extensively this type of cognitive theory and apply it to interpersonal perception. They view a logical model of inference rather than an "empathy", or intuition, model as the essential element in the process of interpersonal perception. Consistent with a logical model, inference is then defined as, "cognitive transformation of one set of events which produces new knowledge about the first ... a process in which a particular instance is assigned characteristics of a universal class on the basis of its being a member of that class" (Sarbin et al., 1960, p. 45). The classical syllogism which encompasses major and minor premises, stated in probabilistic terms is the modality for this process. This inference model provides additional information for understanding the relationship between clinical inference and interpersonal perception.

Sarbin et al. (1960) divide the process of clinical inference into six phases: a postulate-system, a major premise, observation, instantiation, inferential product, and prediction. In the first stage of the inferrer's postulate-system, the postulate for person cognition originates from four primary sources: induction, construction, analogy, and authority. The postulates, such as beliefs, axioms, attitudes, and assumptions, influence an inferrer's judgment, which in turn influence the inferential process.
The inferrer constructs a major premise in stage two within a context of actions to initiate inferential activity. Based upon an inferrer's role and postulate system, a major premise is deduced from the inferential activity.

The minor premise is constructed in the next phase by an inferrer observing the behaviors of a person object and making inferences on the basis of a sampling of occurrences. Since interaction with occurrences are samples of behavior, any conclusions drawn are probabilistically determined. The process of instantiation converts the occurrence into an instance of a general class and the occurrence is sorted or classified according to some taxonomy. In person cognition, taxonomies are formed to classify individuals based on membership in organized social groups. The classification process is necessary to construct the minor premise for the syllogism. Instantiations are also probabilistic in clinical inference because the instantiated occurrences are samples from a universe of occurrences.

The inferential product, or conclusion, is the fifth stage in this system and it attributes the characteristics of the general class to the instance. Since the conclusion can be factually or logically incorrect, it is also probabilistic in nature. Prediction is the last stage in this process in which conclusions are converted into predictions or statements having a future reference. As in
the other stages, the predictive statement is also made in terms of probability.

Sarbin et al. (1960) present their cognitive theory as a thorough analysis of the use of logic in clinical inference and its interaction with interpersonal perception. The person as the object of inference becomes the focal point and encompasses the components of interpersonal perception, while simultaneously employing the assets of traditional, formal logic.

Another view of interpersonal perception is presented by Warr and Knapper (1968). They report the process of interpersonal perception as having three components: the attributive, the expectancy, and the affective. An independent percept may result from the complex interaction of these three components. The attribute component involves the process of attributing particular covert and overt characteristics to a person object. To do this, sets of stimulus inputs must be classified and compared. Two types of attributive judgments of other people exist: episodic judgments, referring to an individual's state during a particular sequence or episode of behaviors; and, dispositional judgments, referring to permanent characteristics that are relatively independent of any particular episode.

In Warr and Knapper's (1968) model of interpersonal perception, expectancies deal with possible predictions.
concerning episodic and dispositional attribution. Identified perceivers' expectancies include frequently perceptual readiness and goals and intentions, which then tend to influence the areas of categories and classification. The expectancy factors are contained within the attributive component and they are apt to affect future attribution about a person object.

Perceiver values and personality appear to be related to these expectancies. The affective component of perception is closely interwoven with other components. In perceiving others, individuals have expectancies of the perceived others, while also experiencing emotional responses concerning them. The attributive and expectancy components of interpersonal perception are strongly influenced by those emotional responses. The necessity and importance of the affective component is in determining the selection and processing of stimulus inputs and in the evaluation of the person object's characteristics.

Laing, Phillipson, and Lee (1966) have developed a cognitive model based on their conceptualization of the interpersonal perceptual process. The model is named the Interpersonal Perception Method (IPM) and is designed to measure and provide understanding of communication patterns within a dyadic relationship. Perception as viewed by them is a process evolving from past learning and experiences. They state that, "In a science of persons ..."
behaviour is a function of experience. Both experience and behaviour are always in relation to some one or something other than self" (p. 12). The perception and subsequent interpretation of any act then would encompass past experience.

According to Laing et al. (1966), two crucial components of perception are selection and reception. This means that individuals select and place different significance on various acts that they respond to and even if the acts selected for interpretation are the same for different perceivers, there could be various interpretations of them. It is reasonable then, that when individuals do not interpret a particular act in the same manner, difficulties in communication may arise. The individuals may, in one instance, understand that their interpretations differ and realize that they all understand the differences. Then they have a basis to decide how to handle their disagreement. Oftentimes, however, occasions arise where a disagreement exists as a result of differences and a failure to realize there is a misunderstanding. Whether a deliberate slight of another's viewpoint, or an ignorant oversight of another's viewpoint, a serious disruption in communication ensues.

The motivation for Laing et al. (1966) to design the Interpersonal Perception Method (IPM) was primarily for use within the dyadic experience and interaction of daily
life. It is devised in such a manner because they believe that, "human behaviour is predominantly oriented towards making, maintaining, and developing relations with others" (p. 52). Of primary importance to any interaction are the human relationship issues, so it would be of utmost importance for individuals to process their external observations and experiences as accurately as possible. By doing so, they are enabling themselves to attain a more fulfilling interpersonal communication system. This would then facilitate their satisfaction with interpersonal relationships.

Cognition and thinking provide the foundation for the IPM model which has the operation of interpersonal systems as one of the determining influences on perceptual process, as well as structure. As with Forgus (1966) and Fellows (1968), there is an emphasis on cognitive theory as a basis for understanding the interpersonal perceptual process.

Another analysis of perceptual process is offered by Stotland and Canon (1972). Their definition of perception is simplistic. It views individuals understanding other individuals, including their physical qualities, as well as those that are unobservable, and, therefore, inferred characteristics. Heider (1958) lends support to this concept when he examines how individuals make use of inference. He views individuals as wanting to attribute
particular traits, motives, and intentions to others in order to understand why people behave the way they do. Consequently, individuals begin with an observable event and start to infer other behaviors, feelings, thoughts, and so on, in order to categorize people and their future behaviors.

The importance of nonverbal communication messages have also been emphasized by many theorists as a valuable source of information concerning the development of attitudes toward others (Argyle & Dean, 1965; Forgus & Mela- med, 1966; Hall, 1963; Laing, Phillipson, & Lee, 1966). Variables included in these messages are gestures, limb positions, postures, seating arrangements, and facial expressions. To determine the extent of influence these variables have on the accuracy of the perceptual process, additional research is mandatory.

Not all variables or inputs in the environment will be attended to or assimilated by individual perceivers. Norman (1968) presents a two stage process that occurs in screening through stimuli encountered and then responding to it: reception and analysis. The reception phase analyzes all the physical stimulus inputs and organizes them in such a fashion as to fit a set of values compatible with the observer. In other words, "all sensory signals excite their stored representative in memory" (Norman, 1968, p. 34).
Phase two consists of analyzing the input that entered immediately before it. This analysis indicates individuals' current concerns, interests, activities, and so forth. This sifting procedure aids in clarifying the relative inputs for each individual and the extent of use with internal and external, or sensory, properties.

Stotland and Canon (1972) have developed their conception of perception in terms of schemas and their influence on perception. This concept is summarized as follows concerning schemas:

Our basic point is that persons generate relatively abstract and generalizable rules, called schemas, regarding certain regularities in the relationships among events. These schemas may be developed in the basis of direct experience, observation of other persons, and direct communication from others... they serve as a guide to behavior and as a framework which influences the manner in which relevant new information will be assimilated... it tends to be relatively permanent and impervious to change (p. 67).

Established schemas then influence how future events will be perceived and how they will be interpreted. Ellis (1962) supported Stotland and Canon's (1972) concept when he concluded that responses bias subsequent perceptions. As Stotland and Canon (1972) view this process, its nature is very circular. Individuals begin by first developing schemas concerning their behaviors, reactions, and feelings. However, schemas already influence what is seen and how it is interpreted and those perceptions determine how other schemas will be assimilated. In actuality, the
flow of influences occurs in both directions simultaneously: schemas influence perception and other operating schemas; and, perception and other operating schemas influence new schemas. Again, the importance of accuracy in perception and in establishment of schemas appear to be highly significant for satisfying communication patterns and personal relationships.

Blake (1958) discusses social perception in terms of adaptation-level theory. His focus is on the relative importance of one individual to another individual within each social interchange and how that effects adjustment. Blake (1958) identifies three sources of influence and their interaction that produce a response in any given social interaction as follows:

(a) the central stimulus in the immediate focus of attention that defines the type of response for that situation; (b) the background, or context, consisting of all other stimuli present, ... represented only by actions of others; and (c) personality factors including individual differences in past experiences and psychological states (p. 229).

Although all of these factors influence a response, the second source of influence is the most powerful, since significant adjustment is most dependent upon perception of other individuals' reactions.

There are three influential components in this theory that operate to produce a behavior response and indicate the level of adjustment. The varied differences in behavior arise from the combination of stimulus effects, back-
ground, and personality factors. The process of perception then is viewed as considerably more complicated than is a simple reaction to a specific stimulus. As Stotland and Canon (1972) suggest with their concept of schemas, Blake's (1958) notion also suggests that, "the same situation may elicit different responses from different individuals or different responses from the same individual at different times" (p. 230).

Peak (1958) highlights psychological structure as another facet of the perceptual process. He defines structure generally as systems of relationships between events that can be identified. These identifiable events may vary greatly in nature as well as in frequency and strength of relationship.

According to Peak (1958), "Perception depends on the activation of psychological structure by patterns of stimuli which initiate events leading to the identification and classification of the stimuli" (p. 340). This posture is consistent with other theories in that the perception of one act is dependent upon the preceding acts. The perceptual process involves successive stages of activity that spread through a structure and rapidly reach a maximum level of activity. When one stage of perception has been completed, the activity shifts and moves on to another perception.

Secord and Backman (1964) also address the issue of
cognitive structure and its influence on the interpersonal perceptual process. One type of structure that examines the relationship between the perceiver and the stimulus person is role structure. Frequently, role-related characteristics are ascribed to the stimulus person and the role of the perceiver affects those ascribed characteristics to the stimulus person with equal frequency.

Affect structure is the second type of structure and it examines the emotional relationship between the perceiver and the perceived. The perception of individuals as liked or disliked is on a continuum and the distance between the two categories is affected by affect structure.

Status and power structures also influence interpersonal perception. The more marked the differences between perceiver and perceived, the more affect structure is maintained.

As presented repeatedly, the interpersonal perceptual process is a cognitive process and accuracy of the process is affected by numerous variables. Some of these variables are situational or environmental, but most are related to psychological characteristics of the perceiver. It follows that personality variables can effect the perceptual process in a consistent manner.

The relationship of interpersonal perceptual accuracy and personality variables. Having reviewed some of the major contributions of research and literature concerning
the process of perception, object perception and interpersonal perception, personality characteristics and their effect on interpersonal perceptual accuracy will now be examined. A great amount of literature and research exists concerning the effect of personality variables upon perceptual accuracy (Ansbacher, 1937; Atzet, 1968; Hartnett, Mahoney, & Bernstein, 1977; Jorgensen, 1968; Knower, 1945; Pfaff, 1954; Soskin & Kaufmann, 1961; Stephens, 1936). Perceiver personality variables such as intelligence, cognitive structure, authoritarianism and dogmatism, among others, have been demonstrated to be associated with perceptual accuracy in the literature (Allport, 1961; Burke, 1966; Cline, 1964; Davitz, 1964; Jacoby, 1969; Smithers & Lobley, 1978).

Allport (1961) was one of the early researchers in this field. He stressed the importance of accurate perception and effective cognitive functioning as basic requirements of a sound personality. According to Allport (1961), persons who are more in touch with reality are far less likely to experience perceptual error, whether interpreting their own behaviors, others' behaviors, or interacting with their environment.

Nine personality characteristics of a good person perceiver, or a good judge of others, were identified by Allport (1961). The first characteristic that he lists is experience. Experience is considered to be a broad
interaction with human nature. Allport (1961) states that without this experience on the part of the perceiver, "the elementary basis for logical inference is lacking" (p. 507). This position coincides with that of Sarbin et al. (1960) concerning the importance of inference in understanding people which was discussed previously.

The second characteristic identified by Allport (1961) was that good interpersonal perceivers exhibit good social skills and adjustment. Individuals who are socially skillful and emotionally stable are free of severe psychological disorders and have little need to project their characteristics and values upon others. Leimkuhler and Ziegler (1978) support this concept with their research on the use of diagnostic labels. Their research indicates that the more severe the diagnosis, the more negatively skewed are the individual's perceptions. Stated most simply, individuals who are more well-adjusted can more objectively perceive other human beings.

Another characteristic of accurate perceivers reported by Allport (1961) is superior intelligence. He views superior intelligence as being highly correlated with the ability to accurately perceive others. As Allport (1961) interprets intelligence, it is the ability to discern, "the relevance of cues, the relations between past and present activities, between cause and effect" (p. 508). Thus, it seems reasonable to assume that
individuals with superior intelligence are more capable of perceiving others accurately than those individuals of lesser intelligence.

Allport (1961) also views cognitive complexity as being closely related to intelligence as a variable of a good person perceiver. Bieri, Atkins, Briari, Leaman, Miller, & Tripodi (1966) provide understanding of the concept of cognitive complexity when they define it as, "a person's capacity to construe social behavior or other phenomena in a multidimensional way" (p. 185). The concept of cognitive complexity then, reflects the relative number of dimensions an individual has at his disposal in construing other people's behavior. In essence, more cognitively complex individuals will have more dimensions available to them than less cognitively complex individuals.

Self-insight is also considered a characteristic of a good person perceiver by Allport (1961). Individuals with a high degree of accurate self-knowledge are comfortable with themselves and are capable of a keener awareness of others and the unique properties granted them.

Another characteristic noted by Allport (1961) is detachment. Here he discusses a psychological distance from others that enables a perceiver to be objective. It permits perceivers to get an impartial perspective without effecting their ability to interact.

Intraceptiveness is another variable discussed by
Allport (1961). Intracptiveness refers to the more subjective states of individuals, their inner feelings and meanings and their significance. As Allport (1961) states, "intracptiveness . . . is a basic trait which may lie at the heart of social sensitivity" (p. 511).

Allport (1961) concludes that esthetic attitude is also a characteristic of the really gifted person perceiver. As Bullmer (1970) views it, "Esthetic attitude involves the ability to comprehend the intrinsic unity and harmony of another, to see the essence as well as the attributes, and to sense the dynamic relationship between them" (p. 16).

After analyzing Allport's (1961) characteristics of a good person perceiver, Bullmer (1970) concluded that sources of error in person perception could be categorized into three major areas. Bullmer (1970) identified these as, "errors caused by perceptual distortion, errors caused by inadequate intelligence, and, errors caused by the use of implicit personality theory" (p. 17).

While many personality variables have been studied and researched, some variables stand out as being more prominent and influential and having more support than others. One such variable is intelligence. According to Allport (1961), individuals with superior intelligence have keener discriminatory abilities, not only with themselves, but also with other individuals in interpersonal
relationships. Allport (1961) views other individuals as stimulus inputs and through an interactional process he postulates that perceivers discern all of the input according to their individual ability. Following his line of thinking, individuals with superior intelligence are better able to assimilate information and are less open to misinterpreting or distorting that input.

Thorndike and Hagen (1961) support Allport's (1961) contention concerning the relationship between degree of intelligence and interpersonal perceptual accuracy. They define general intelligence as, "the ability to see relations in, make generalizations from, and relate and organize ideas represented in symbolic form" (p. 222). Individuals are confronted continuously by stimulus inputs and the importance of the input lies in how the stimulus material can be organized and synthesized into the most useful and meaningful pattern by the perceiver.

Dember (1960) also supports intelligence as a major variable in interpersonal perceptual accuracy. He states that, "The individual . . . . is prepared, implicitly or explicitly, for certain kinds of input; the input is actively dealt with on the basis of this preparation" (p. 273). Consequently, what happens to any stimulus input is dependent partially on a perceiver's implicit or explicit basis for dealing with input and an individual's cognitive abilities for dealing with it.
Allport's (1961) characteristic of intelligence, as stated previously, is also very similar in nature. In Allport's terms, individuals interact with stimuli input and then determine the relevance of cues, the relationship between past and present events, and the cause and effect relationships according to their individual abilities. The concept of intelligence is one of the major personality characteristics that is positively correlated with accurate interpersonal perception.

Intricately interrelated with intelligence as a primary variable in accuracy of interpersonal perception is style of cognitive functioning. Sarbin et al. (1960) view interpersonal perception from a cognitive framework in the use of their inference theory. Their use of logic transforms one set of events into producing new information concerning the first set of events. The cognitive, inference model provides a basis for understanding interpersonal behaviors.

Bieri et al. (1966) reviewed the literature concerning cognitive structure and its relationship to clinical and social judgment. They defined cognitive structure as, "each person has a system of dimensions which he uses in construing his social environment, and that the characteristics describing the relations among these dimensions refer to a person's cognitive structure" (p. 185). The concept of cognitive structure accounts for "relatively
enduring patterns of organization in the person's representations of the social and physical environment" (Bieri et al., 1966, p. 12). The concept of cognitive complexity-simplicity is the major property of cognitive structure and it serves to provide indications of how individuals structure their social world, and how individuals are aided by cognitive complexity in making more accurate social or clinical judgments. More cognitively complex individuals have a broader system of dimensions for perceiving others' behaviors than less cognitively complex individuals.

Available research on cognitive complexity and person perception generally supports positive correlations between cognitive complexity and perceptual accuracy. Mayo and Crockett (1964) found positive correlations between cognitive complexity and a perceiver's ability to change judgments when receiving subsequent contradictory information. Individuals scoring high in cognitive complexity were able to synthesize the new information consistently and attribute traits with opposite value to the same person. Bieri (1955), in an early study, found a significant relationship between cognitive complexity and the perceptual accuracy of differences between an individual and others, but not a significant relationship in the accurate perception of similarities. He suggests that high and low complex judges process information in different manners, because the cognitively more simple judges
perceived similarities between themselves and others that were not substantiated.

Leventhal (1957) also supported Bieri's (1955) research when he found that more complex individuals more accurately predicted differences while cognitively simple individuals more accurately predicted similarities. An increase in the amount of available information resulted in less complex judges improving their predictions at a more meaningful rate than more complex judges did. Another investigation by Harvey, Hunt, and Schroder (1961) explored the dimension of "concrete-abstractness". Their results indicated that high concreteness is related to low empathy, low discriminatory ability, and lack of tolerance for ambiguity. Results also indicated that individuals with high ability in abstraction are better able to analyze and integrate contradictory information about people and form more accurate impressions of them than individuals less able to abstract.

Forgus (1966) and Fellows (1968) address the issue of cognitive development and structure and view it as a process that enables individuals to understand and select cues so as to aid in comprehending behaviors. This lends itself to perceptual accuracy by providing a perceptual cognitive structure that aids individuals in acquiring useful and meaningful input.

The investigations of Tagiuri and Petrullo (1958)
also support a basis for accurate social understanding. They suggest accuracy of interpersonal perception involves knowledge of internal, as well as external, properties of other individuals. The properties they refer to include abilities, attitudes, beliefs, and so on. Asch (1952) further lends support to knowledge of internal and external properties to individuals as a basis for perceptual accuracy. In addition, he addresses the issue of difficulty in developing and attaining an understanding of cognitive structure and its importance to perceptual accuracy. 

Ridgeway (1977) examined the variables, cognitive complexity and field independence, in relationship to interpersonal perception. His subjects were male and female college students and he studied the relationships they perceived between themselves and their social and physical environment. Although some of Ridgeway's (1977) conclusions appear to be unwarranted, prospective differences surfaced. One tendency indicated the opposite patterns of positive and negative perceptions of self and others for complex and simple decision styles in females and males. Males were more complex and field independent, while field independent females were less complex in decision style. Another tendency indicated that women who perceive themselves similar to social groups possess complex decision styles, while simple decision styles cluster around women perceiving themselves as more potent than
social groups. For males, the opposite was indicated.

Frenkel-Brunswik (1949) studied another aspect of personality. Her work examined the perceptual approach of the ethnically prejudiced which is viewed as a very rigid approach in perceiving individuals. As a result of her work, she concluded that personalities fall into particular behavior patterns and can be categorized accordingly. One behavior pattern is a rigid, intolerant personality, the authoritarian; and, the other is a flexible, tolerant personality. In studying these two extremes, she concluded that rigid personalities had less perceptual tolerance for ambiguity and that flexible personality types were not as apt to develop ethnocentric attitudes and prejudicial behavior.

Attempting to examine the authoritarian variable further, Smithers and Lobley (1978) studied the relationship between dogmatism and conservatism and domatism and radicalism. Their results indicated support for Rokeach's (1960) claim that a dogmatism scale measures authoritarianism of the left as well as that of the right. They accepted dogmatism as a general measure of authoritarianism, although it proved somewhat biased to the right in that conservatism had a higher mean. Their study also showed that conservatives were more dogmatic in terms of authority and tolerance, whereas, radicals were more short-term, future goal oriented in their perspective. They found
another tendency which further supported Rokeach's (1960) work in that dogmatism was positively correlated with neuroticism.

Vacchiano (1977) also studied dogmatism and his results indicated that individuals scoring low on dogmatism were more accurate in their interpersonal perceptions than those individuals scoring high on dogmatism. He reported that those individuals scoring high on dogmatism experienced low frustration tolerance, negative self images and negative images of others, and strong tendencies toward conformity as demonstrated by stereotyped thinking, rigidity, and unquestioning acceptance of established beliefs. He also found that those scoring high on dogmatism experienced more intense psychopathology, required longer hospitalizations, and had a poorer response rate to psychotherapy.

In support of Vacchiano (1977), Burke (1966) and Jacoby (1969) both found that individuals scoring low on dogmatism were better person perceivers than those individuals scoring high on dogmatism. The more open-minded, or low on dogmatism, individuals were, the more accuracy they experienced in determining dogmatism in other individuals.

Lake (1970) studied the relationship of Machiavellianism and accuracy of interpersonal perception. Machiavellianism is the tendency to see other individuals as
impersonal objects who are then subjected to manipulation as though they were objects, rather than individual persons. He found that the extreme scores of high dogmatism were more similar than different, and, therefore, the differences were not that important.

Oral images, induced by Rorschach cards, were another vehicle used in examining degrees of dogmatism in a study conducted by Masling, Johnson, and Saturansky (1974). Their research with males and females perceiving oral images on the Rorschach Test provided more information on dogmatism. Perceiving oral images was judged as indicating subjects were more flexible and open and less defensive. Based on that judgment, results indicated that males who perceive more oral images are more accurate in perceiving other males than males who perceive fewer oral images. Orality was not found to be a significant determinant in accurate perception by males or females, nor was it found to be significant in the degree of accuracy of females' interpersonal perception.

Another variable investigated by various researchers is field independence (FI) - field dependence (FD). Good person perceivers tend to be perceptually field independent rather than field dependent. Ridgeway (1977), Karp (1977), and Shrauger and Altrocchi (1964) examined this issue and concurred. It was found that FI individuals were more analytical than FD individuals. Also, it was
found that males were more complex in their decision style. In addition, internal constructs such as attitudes and personality variables were used by FI persons in describing individuals. Individuals with low dogmatism used external constructs such as activities and physical characteristics.

Locus of control is another personality variable that has been studied for its relationship to interpersonal perception. Derived from Social Learning Theory (Rotter, 1966), locus of control has two dimensions: internality, the degree to which individuals perceive they have control over their behaviors; and, externality, the degree to which individuals perceive their behaviors as being controlled by forces unrelated to their actions; hence, beyond their control (Phares & Wilson, 1972).

Research in this area has been somewhat scanty, but what literature and research is available has related locus of control to person perception. Scalese (1978) found that individuals with internal locus of control exhibit more accuracy in interpersonal perception than those with an external locus of control. Phares and Wilson (1972) found that individuals tended to project their own dimension of locus of control onto individuals identified as the stimuli. Phares, Ritchie, and Davis (1968) determined that externals are more defensive in interpersonal relationships than are internals. They based their findings on studies indicating internals are more sensitive to and
better able to attend to cues regarding uncertainties and discomfort in others. Lefcourt and Wine (1969) further supported this hypothesis by finding that individuals with external locus of control had increased difficulty attending to and responding to uncertainties and potential threat in others. Locus of control appears to be a viable personality characteristic influencing accuracy of person perception, which could possibly be demonstrated to a greater degree with further research.

Other perceiver personality variables have also been correlated with perceptual accuracy, although not as extensively or significantly as those mentioned previously. Others-concept is a term initiated in another study by Barnett and Zucker (1975) and refers to a person's perceptions and general expectations about other people. Galuzzi and Zucker (1977) used the term, others-concept, in a study investigating the question of how improving children's perceptual ability relates to their personality adjustment. They conducted a study with 114 fourth, fifth, and sixth grade students centering on the premise that children with a high self-concept and a high others-concept would be better adjusted, personally and socially, than those children not possessing these characteristics. The results of Galuzzi and Zucker's (1977) work supported the literature that high self-concept and high others-concept contribute to overall adjustment, but one does not
necessarily follow the other. Helping children feel good about themselves will not automatically ensure positive feelings toward others. Thus, it is indicated that education and therapy should perhaps focus on a joint development of both concepts.

Research by Hale (1979) lends additional support to the relationship between personality variables and person perception. She investigated a variety of personality traits associated with accuracy in interpersonal perception. The study was conducted with 115 volunteers selected from various occupational settings and attempts were made to identify sensitivities to individual differences as well as group differences in person perception. Hale's (1979) major findings identified several psychometric traits common to the most capable judges of individual differences. According to her research, better person perceivers tended to be more intelligent, more extraverted, more cognitively complex, more empathic, and experienced more formal education. The conclusions proposed by Hale (1979) lend support to Allport's (1961) major findings on characteristics of a good judge or person perceiver, and further substantiate the relationship between perceptual accuracy and personality variables.

Norman (1979) investigated environmental effects and its relationship to cognitive processes which in turn effect person perception. Inferential paths were studied.
and defined as a series, or chain, of inferences an individual makes when determining the meaning of social interactions and behaviors. The study examined role requirements of individuals in terms of needs individuals experience when they occupy certain roles in social situations, and how those role requirements dictate their inferential paths. Norman's (1979) major findings substantiate the work of Sarbin et al. (1960) on inference as a logical model in person perception. Norman (1979) concludes that role requirements activate the logical, cognitive processes that in turn determine interpersonal perception.

In considering the literature and various studies presented, it seems reasonable that some conclusions can be reached. There does appear to be evidence supporting a definite relationship between accuracy of interpersonal perception and a variety of personality characteristics. In terms of the total effect of personality upon psychological adjustment, it also seems reasonable to surmise that the relationship between accuracy of interpersonal perception and personality characteristics should be related to the psychological adjustment of a perceiver. Since psychological adjustment is the manifestation of numerous personality variables of an individual, it seems reasonable to expect that psychological adjustment would be related to not only these personality variables which produce this behavior, but to an individual's ability to
perceive accurately.

The relationship of interpersonal perceptual accuracy and psychological adjustment. The concept of psychological adjustment is itself one that receives little direct attention in the literature. Perhaps, because it is so generally accepted as a term referring to the general psychological state of well-being of human beings and is influenced by so many variables, a kind of "bits and pieces" approach has been accepted as most practical. The implicit understanding conveyed is that ideal psychological adjustment involves a mental state that contributes to a homeostatic physiological state and appropriate responses to the cultural environment. Additionally, an important understanding of psychological adjustment concerns the importance of mental state and homeostasis as vital conditions essential to the development of appropriate environmental responses which do not create frustration in the organism.

Tucker (1970) has responded to the need for input on the biological state of individuals and its influence on behaviors. He addresses the importance of physiological status and its influence on personality and behavior. The biological state of individuals aids in determining the types of experiences they will have, as well as the manner in which they will respond to them. According to Tucker (1970), the biological mechanisms "mediate his perceptions and his interactions with the environment, and it sets
certain limits to his experimental and behavioral possibilities" (p. 23). Consequently, maintaining a homeostatic physiological state influences the accuracy of an individual's perceptions and an individual's responses, which in turn, determines the degree of adjustment an individual experiences.

Other factors influencing adjustment are also presented by Tucker (1970). One of these factors is verbal behavior. He stresses the thrust of analyzing verbalizations as being the interpretation of personality and adjustment interactions.

According to Tucker (1970), the use of defense mechanisms is crucial in effecting an individual's psychological adjustment. Perception of self is shaped by social influences, so the manner in which individuals cope with anxiety has significance to their adjustment process. They learn a defensive adjustment to cope with the realities of their environments.

Anxiety was studied by Lundgren and Schwab (1977) as a function of individuals' self-appraisals and evaluations of themselves that are attributed to significant others. Several underlying assumptions are made concerning this premise: one, anxiety heightens in social relationships; two, anxiety is directly connected to individuals' assessments of each other; and, three, discrepancies in evaluations by self and others may serve as precipitants of anxiety.
The results of this study indicate that low self-esteem and discrepancies between self-esteem and subjective public-esteem are two interpersonal factors in anxiety, although their sources differ. Low self-esteem refers to expectations that an individual lacks the abilities to cope effectively in interpersonal situations. Discrepancies between low self-esteem and subjective public-esteem may induce feelings of threat and uncertainty because of potential disconfirmation of an individual's self-evaluation or to an anticipated loss of esteem from significant others. Improved perceptual ability then would seem to provide one avenue of relief for anxiety in interpersonal relationships.

Although many theorists and researchers have confronted questions concerning the relationship of interpersonal perceptual accuracy and personality variables, few have dealt with the relationship of interpersonal perceptual accuracy and psychological adjustment directly. Nevertheless, careful analysis of the literature and research, previously reviewed in this chapter, reveals that there is a theme which points out a positive relationship between these two variables. In addition, a limited number of studies that focus more directly on this relationship are available.

Allport (1961) is one of the theorists who views accurate perception as a basic requirement for a sound personality, as well as a basis for being more in touch with the reality of one's own behavior, others' behaviors, and
other aspects of the environment. Allport (1961) also posits a relationship between accurate person perception and emotional stability, social skills, and lack of severe psychological disorders. In addition, he views more accurate person perceivers as having less need to project their characteristics and values on others. In other words, the degree of interpersonal perceptual accuracy is viewed as being directly related to the degree of psychological adjustment.

Perhaps the best example of Allport's (1961) position on the relationship between accurate person perception and psychological adjustment is found in his listing of the personality characteristics of good person perceivers. If it is assumed that poor person perceivers are lacking in these characteristics, poor person perceivers would be lacking in experience, lacking in social skills and adjustment, of lesser intelligence, cognitively simplistic, and lacking in objectivity and intraceptiveness. Certainly, an individual possessing even some of these characteristics, would be expected to be poorly adjusted psychologically.

Leimkuhler and Ziegler (1978) support Allport's (1961) position with their research conclusions that more well-adjusted individuals can more objectively perceive other human beings. Stated differently, more accurate interpersonal perception procedures produce more objective percepts of others and improved adjustment.
Maslow (1957) describes his perception of an optimum-adjusted individual as a self-actualizing personality type. Among the characteristics ascribed to that individual are acceptance of self and others, autonomy, and accurate perception of reality. Maslow (1962) also reviews extensively the difference between a self-actualized or growth-motivated individual and the maladjusted or deficit motivated individual and how these differences are related to interpersonal perception. The maladjusted person sees people as need-gratifiers according to Maslow (1962). He explains that, "what is not related to the perceiver's needs is either overlooked altogether or else bores, irritates, or threatens" (p. 34). In Maslow's (1962) terms, only a self-actualizing, growth-motivated individual has the capacity to be objective, whole, and an accurate person perceiver.

Rogers (1951) offers another viewpoint on an optimum-adjusted individual. He claims they are more realistic in their interactions with others, with their environment, and with problems in which they are confronted. Their adjustment to life is more appropriate as a result of learning to accept and trust their own perceptions, feelings, and judgments.

Lazarus (1969) states that psychological adjustment and personality are "totally interrelated subjects of study" (p. 51). Personality, according to Lazarus (1969),
is composed of stable psychological characteristics that enable individuals to respond to the environment in their unique ways. He suggests that individual personality traits influence the form of perception and thought, which in turn, influence the degree of adjustment in individuals. Once again, consistency in personality is examined for common patterns of responses that individuals demonstrate, particularly when coping with threat. It would be easier to ameliorate psychological adjustment knowing how an individual perceives; consequently, thinks and reasons.

As Allport (1961) and Maslow (1962) address the concept of a healthy personality, so does Barron (1963) address the concept of personal soundness or "normality". His studies were conducted with graduate student samples and attempted to identify characteristics associated with healthy personalities. Conclusions by Barron (1963) supported the notion that healthier, or sounder, personalities had more realistic perceptions. He also found from testing devices that sounder individuals were high on traits such as adaptability, self-confidence, objectivity, and self-insight. These variables have also been substantiated by other researchers (Allport, 1961; Hale, 1979; Maslow, 1954) as being significantly related to good person perceivers.

Another theorist who addresses the concept of positive mental health and accurate person perception is Jahoda (1958). She defines a healthy personality as one who
masters the environment, indicates a unity of personality, and is able to accurately perceive self, others, and the environment. Again, the relationship of accurate person perception and positive mental health is supported.

Hunyady's (1971) work also relates interpersonal perception to psychological adjustment. He synthesizes the results of Heider (1958) and Asch's (1952) research with other polemic works to show that emotional and intellectual traits, self concept, and cognitive qualities are dimensions for judging psychological adjustment and are important determinants of person perception.

Hjelle's (1969) study supports the relationship of person perception and psychological adjustment in much the same manner as other presented researchers. Using subjects who were rated as either good or poor person perceivers, Hjelle (1969) found that the good perceivers were well-adjusted, tolerant, and free from complaints, worries, and self-doubts.

Although there is not an abundance of literature or research directly focusing on the relationship of interpersonal perceptual accuracy and psychological adjustment, what theory and research results are available, strongly support such a relationship. Of equal importance, perhaps, is the fact that there are no research results which can be viewed as contradicting such a relationship.

In summary of the review of literature and research
in the three areas which have been presented, it would be
difficult to conclude other than that accuracy of person
perception is strongly influenced by personality variables
and related to psychological adjustment or maladjustment.

**Purpose of the Study**

The purpose of this study is to examine improvement
of accuracy of interpersonal perception and its effects on
psychological adjustment. Specifically, a treatment ap­
proach will be employed which is designed to improve in­
terpersonal perceptual accuracy for psychiatric outpatients.
The effects of improved interpersonal perception accuracy
will then be analyzed for its effects on psychological
adjustment.

The rationale for this therapeutic approach is the
hypothesized relationship between interpersonal perceptual
accuracy and psychological adjustment. The literature
addresses the issue of accurate perception in terms of
perceptual distortions and how perceptual distortions in­
terefer with the effectiveness of psychological functioning.
As a determinant of psychological adjustment then, improved
accuracy of perception should produce more appropriate be­
avioral responses, decrease psychological stress, and
allow the opportunity for improved psychological adjust­
ment. This study will examine these relationships.

**Research Question and General Hypotheses**

The research question of this study is: Is there a
relationship between interpersonal perceptual accuracy and psychological adjustment? From this question, the following general hypotheses have been developed:

It is hypothesized that a therapeutic approach which is effective for amelioration of psychiatric outpatients' interpersonal perceptual accuracy can be developed.

It is hypothesized that if patients' interpersonal perceptual accuracy is ameliorated, there will also be an improvement in their level of psychological adjustment.

Limitations of the Study

A limitation of this study is that available instruments for measuring psychological adjustment may be questionable in terms of general consensus of experts and acceptability. Another limitation is that terminology in the areas of interpersonal perceptual accuracy, psychological adjustment, and personality variables has not always been defined clearly in the literature so as to generalize across studies. Therefore, it is sometimes difficult and often impossible to interpret the results of one study with relationship to another.

The single subject case study design employed in this study may also be considered a limitation by some individuals. Weaknesses in this approach have been noted (Isaac & Michael, 1971; Kiesler, 1971).

While these limitations are apparent and have been noted, they do not seem to be sufficient to deter this
in investigation. Instruments which indicate degree of psychological adjustment and which are generally acceptable to contemporary psychologists are available and seem appropriate for this study. Terminology is often an apparent obstacle in many areas of study. In this particular area, it appears that synthesis of relevant literature should produce a generally acceptable terminology.

Although the traditional experimental and correlation approaches have been considered to be the most respectable approaches to research, there is a basis for supporting case study research. Kiesler (1971) and Lazarus and Davison (1971) summarize this issue with their conclusions that although case studies involve limitations in-so-far as causality, variability, generalization, and hypothesis validation are concerned, they nevertheless are valid approaches to research and are very useful for generating hypotheses. The possibilities for generating hypotheses as a result of this work which could lead to further research are important enough to make this study potentially significant.
CHAPTER II

Method

Population and Subjects

The population for this study was defined as psychiatric outpatients seeking clinical mental health services from William Upjohn DeLano Memorial Clinic in Kalamazoo, Michigan. Generally, these patients can be described as males and females eighteen years of age or older, representing various socio-economic class levels, and having little or no reading difficulty as determined by patients' self report.

Since experimenter bias is a potential problem in all therapy research an effort was made to minimize this possibility in this study. Subjects were selected for study on a random basis from initial contact sheets, which were completed for all patients at the time of initial contact by telephone or in person. Anyone with reading difficulties was eliminated as a possible subject based on the bibliotherapy aspects of the therapeutic model that was used in this investigation. After administration of the Minnesota Multiphasic Personality Inventory (MMPI-168), psychotic profiles were also discarded from the sample. Those patients not discarded were then accepted as subjects for investigation in the order received.

These selection procedures satisfy the necessary
conditions for randomness and are in accordance with Edwards (1968) who defined a random sample as, "one obtained by a particular method that we believe introduces randomness in the selection of the observations" (p. 19).

Criteria Instruments

Affective Sensitivity Scale (ASS). This instrument was developed by Kagan and Krathwohl (1967) at Michigan State University. The scale is designed to measure subjects' sensitivity to the affective states of other individuals. A series of video taped excerpts from actual counseling interviews are viewed by subjects. They are then asked to respond by selecting from three possible choices a response which best represents their perception of the "feelings" expressed by the patients during the final moments of the scene. In this study the scale is used to evaluate the accuracy of subjects' perception of the affective meaning of others.

Form B of the scale was used in this study and consists of 66 multiple choice questions. Over a two week period the reliability of the instrument is reported as .70 to .80. Validity is rated at .75 (Campbell, Kagan, & Krathwohl, 1971; Danish & Kagan, 1971).

Mean scores for untreated subjects have been reported for the Affective Sensitivity Scale by Bullmer (1970), Dambach (1979), and Scalese (1978). These data (N=279) indicate mean score norms for undergraduate college
students to be 31.86 with a standard deviation of 5.81.

Profile of Mood States (POMS). This instrument was developed by McNair, Lorr, and Droppleman (1971) to measure six identifiable mood, or affective, states: tension-anxiety; depression-dejection; anger-hostility; fatigue-inertia; and, confusion-bewilderment. The POMS is a 5-point adjective rating scale consisting of 65 factor analyzed items designed primarily as a method of measuring mood states and assessing changes in psychiatric outpatients. The authors' research on the final version of the POMS (1971) has established the internal consistency of the instrument to be quite high with the reliability coefficients ranging from .84 to .95. Although test-retest reliability coefficients are lower than those expected for relatively stable personality traits, they are consistent with what might be expected for an instrument measuring less stable mood swings. Six independent factor analytic replications were conducted in the development of the POMS and support the factorial validity of the six mood factors.

Brief psychotherapy studies have given evidence for the predictive and constructive validity of the POMS (Lorr, McNair, Weinstein, Michaux, & Raskin, 1961; Lorr, McNair, & Weinstein, 1964; Haskell, Pugatch, & McNair, 1969). In these studies one or more of the factor scores have proven sensitive to change associated with psychotherapy. Content validity of the factor scores was also substantiated for
separate items defining each mood scale.

**Minnesota Multiphasic Personality Inventory (MMPI-168).** The Minnesota Multiphasic Personality Inventory, a 550 item instrument, was developed by Hathaway and McKinley (1967) "to provide an objective assessment of some of the major personality characteristics that affect personal and social adjustment" (p. 7). The first 168 items of this instrument were used in this study and based on Overall and Gomez-Mont's (1974) studies, it is an acceptable research tool for the most accurate prediction of the long-form data. Further studies support the usefulness and accuracy of the MMPI-168 versus the MMPI-550 (Butcher & Pancheri, 1976; Cohen, 1977; Faschingbauer & Newmark, 1978; Newmark, Falk, & Finch, 1976; Newmark, Newmark, & Cook, 1954; Overall, Butcher, & Hunter, 1975).

The MMPI is the most widely used personality inventory (Anastasi, 1976) and provides scores on ten "clinical" scales and three validity scales with primary application in differential diagnosis. The content of the MMPI items covers broad categories including: "health, psychosomatic symptoms; neurological disorders and motor disturbances; sexual, religious, political, and social attitudes; educational, occupational, family, and marital questions; and many well-known neurotic or psychotic behavior manifestations, such as obsessive and compulsive states, delusions, hallucinations, ideas of reference, phobias, and sadistic.

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and masochistic trends" (Anastasi, 1976, p. 497).

Test-retest reliabilities for various time spans range between .59 and .93 for psychiatric patients and .46 to .91 for normals from some of the early data. In terms of validity Hathaway and McKinley (1967) found that a high score on a scale tended to positively predict or estimate the corresponding clinical assessment in more than sixty percent of new psychiatric patients.

**Tennessee Self Concept Scale (TSCS).** This instrument was developed by Fitts (1965) to provide a description of the self concept which is "simple for the subject, widely applicable, well standardized, and multi-dimensional" (p. 1). The scale is comprised of 100 self descriptive statements, of which 90 assess the self concept and 10 assess self criticism. The TSCS has broad application to psychological adjustment "from healthy, well adjusted people to psychotic patients" (p. 1). Two forms, a Counseling Form and a Clinical Research Form (C and R), are available with the latter form being used in this study. The C and R form is designed specifically for use in research studies and clinical assessment with interpretation focused on greater understanding of subjects.

Reliability studies report that the test-retest correlations on all scales range between .60 and .92. In another study (Congdon, 1959) a shortened version of the TSCS was used with psychiatric outpatients and reported...
a reliability coefficient of .88 for the Total Positive Score.

A number of procedures were used for validation of this scale. Working from a large number of self descriptive items, the final 90 items utilized are those where there was complete agreement by paid clinical psychologists who served as judges. This procedure was employed to assure content validity and it is assumed that the categories that were selected for use are logically meaningful and communicable to a high degree.

Another approach to assess validity was the determination of the scales' ability to differentiate between groups which differ psychologically. Studies (Congdon, 1959; Wayne, 1963) of this kind have all indicated highly significant differences between patients and nonpatients.

In addition, an abundance of studies have been performed to determine the correspondence between scores on the scale and other measures which would be predicted to correlate. McGee (1960) found that most scores on the scale correlate in expected ways with MMPI scores. Other studies (Berman, 1974; Hall, 1964; Wayne, 1963) all provide additional evidence of expected correlations with a variety of other measures.

Criteria Measures

All subjects received pretreatment and posttreatment administrations of the Affective Sensitivity Scale, the
Minnesota Multiphasic Personality Inventory-168, and the Tennessee Self Concept Scale. Baseline data was collected from the Profile of Mood States for three weeks prior to onset of treatment and continued to be collected throughout the duration of treatment on a weekly basis.

Procedures

Patients were first requested to give written consent to serve as subjects for case studies which could result in published reports (see Appendix I). Patients willing to give their consent were then administered the pretreatment test battery consisting of the POMS, the ASS, the MMPI, and the TSCS. The following session subjects again completed the POMS and were interviewed by the therapist to gather information on past history and assess problem areas. The POMS was routinely administered prior to all following sessions with the first three administrations serving to provide baseline data. During the third session, Brief Perception Therapy was initiated.

Brief Perception Therapy (BPT) is a cognitive-didactic model of therapy designed to ameliorate patients' psychological adjustment through improving their interpersonal perceptual accuracy. The rationale for this therapeutic approach is developed from the abundance of literature and research which supports the relationship between interpersonal perceptual accuracy and positive psychological adjustment.
After an initial session which serves to identify and assess problem areas, BPT consists of six sessions of therapy with each session dealing with one concept or principle of accurate interpersonal perception, as presented in *The Art of Empathy* (Bullmer, 1975). This programmed text has been empirically demonstrated to be effective for ameliorating interpersonal perceptual accuracy (Bullmer, 1972) and it serves as the basis for expecting that perceptual accuracy will be improved for most patients who learn the programmed material. For this reason, patients are required to study this didactic material in preparation for each therapy session.

Their newly acquired knowledge provides a basis for patients to acquire insight as to how inaccurate perceptions are related to their problems. With their new understanding of how their problems have developed and an ability to perceive more accurately the true meaning of others, patients can begin to experience less stress and become more effective in interpersonal relationships. The expected result of this total process is that the patients will experience increasing amelioration of their general state of psychological well-being.

Each session of BPT reflects and builds upon ideas presented in previous sessions, so it is important that patients learn the material presented in sequence. BPT begins with a knowledgeable foundation concerning the
nature of interpersonal perception and factors that influence the perceptual process. The next step examines good person-perceiver characteristics and some of the common sources of error in interpersonal perception. This knowledge then assists patients in analyzing their degree of perceptual inaccuracy and gaining an understanding as to how their perceptual errors are contributing to their adjustment difficulties.

Accurate identification of emotional states can assist an individual in understanding the physiological and psychological well-being of others, so this area is the core idea transmitted in session three. Since individuals are not always aware of their emotional states, a basis for identifying hidden emotions is necessary for accurate interpretations. The fourth therapy session deals with improving competency in identifying hidden emotions in others by interpreting certain kinds of symptomatic verbalizations.

The underlying rationale for establishing BPT as a viable treatment modality is that individuals generally perceive others inaccurately based upon their own frame of reference, and, as a result, create problems for themselves. Session five focuses on interpreting others' behaviors from others' frames of reference. A perceptual approach to understanding others is then to learn how to perceive things in terms of how other persons perceive them. The last session of therapy is a summary of previous
learnings, evaluation, and interpretation of patients' learnings, assessment of the patients' progress, and improvement in their functioning.

The following schedule outlines the procedures on a basis of sequential sessions:

**first session**  - provide written consent
   - administration of POMS, ASS, TSCS, MMPI

**second session**  - administration of POMS
   - initial interview to gather data on patients' past history
   - assess problem areas

**third session**  - administration of POMS
   - begin BPT

**fourth session**  - administration of POMS
   - continue BPT

**fifth session**  - administration of POMS
   - continue BPT

**sixth session**  - administration of POMS
   - continue BPT

**seventh session**  - administration of POMS
   - continue BPT

**eighth session**  - administration of POMS
   - conclude BPT
   - administration of ASS, TSCS, MMPI

**ninth session**  - interpretation of test data
   - termination
**Treatment Conditions**

This study was concerned with employing a treatment modality designed to improve interpersonal perceptual accuracy which would in turn improve subjects' psychological well-being. The didactic approach for BPT is based on Bullmer's (1975) book, *The Art of Empathy*, for improving accuracy of interpersonal perception. This approach has been demonstrated to be effective (Bullmer, 1972) and has been used successfully in research to ameliorate perceptual skills (Dambach, 1979; Park, 1976; Sharp, 1975). Brammer (1973) refers to Bullmer's approach as the only didactic approach to improving accuracy of interpersonal perception which has been empirically demonstrated to be effective. Bullmer's text, *The Art of Empathy*, consists of six units of study. These units served as the material to be learned by subjects for amelioration of their perceptual accuracy and are incorporated into the BPT therapeutic procedure.

As a treatment condition, subjects were expected to achieve a significant improvement in Affective Sensitivity Scale scores before it could be expected that a significant change would occur in their psychological state of well-being. As therapy progressed, if specific didactic information had not been sufficiently learned and processed, BPT required that another therapy session be spent on the unlearned material. Since the Affective Sensitivity Scale was the measure for determining improved perceptual accuracy,
subjects who demonstrated proficiency of the text material were also expected to demonstrate significant improvement on their Affective Sensitivity Scale scores. It was, however, accepted as a result of previous research that not all subjects who learn the material in the text will improve their accuracy of interpersonal perceptual skills as measured by the Affective Sensitivity Scale. Learning the material was, however, a condition for progressing in therapy and was expected to provide the necessary motivation.

Research Design

A single subject case study design with replication was chosen as the most appropriate method of research to examine the question being investigated in this study. Baseline data, collected by the Profile of Mood States, was accumulated on all subjects on a weekly basis for three weeks prior to onset of treatment and on a therapy session basis throughout the duration of treatment. All subjects participated in a minimum of six therapy sessions to improve their interpersonal perceptual accuracy. All subjects received pretreatment and posttreatment administrations of the Affective Sensitivity Scale, the Minnesota Multiphasic Personality Inventory-168, and the Tennessee Self Concept Scale.

Isaac and Michael (1971) have noted weaknesses in single case research. One weakness is that case studies...
are too specific to allow generalizations to populations, and, therefore, that factor effects its representativeness.

Subjective bias has also been noted by Isaac and Michael (1971) as a potential weakness of single subject research. Subjective bias, however, is not exclusively a factor in single subject research. Webb, Campbell, Swartz, and Sechrest (1966) make the point that no research design is infallible, insofar as bias is concerned. This investigation made an effort to control the major sources of investigator bias in single subject research, in that subjects were selected on a random basis rather than by the investigator's choice.

Finally, single subject research studies have positive aspects not inherent in other approaches. According to Isaac and Michael (1971), "Case studies are particularly useful as background information for planning major investigations in the social sciences because they are intensive, they bring to light the important variables, processes, and interactions that deserve more extensive attention. They pioneer new ground and often are the source of fruitful hypotheses for further study" (p. 20).

Additionally, idiographic studies offer potential emphases not available in nomothetic studies (Kiesler, 1971). Idiographic and nomothetic can be complementary rather than dichotomous in approach. Kiesler (1971) also notes single case research as a valuable source of hypotheses.
as well as a legitimate method of investigation. This position is also supported by Thoresen (1978) who states that, "concepts of quality and quantity are not mutually exclusive or necessarily antagonistic" (p. 280).

Also, empirical designs are not always the best available method for investigation of all questions. Goldman (1976) supports this posture by indicating the need for major changes in methods and contents of research and that case studies present a promising trend.

Anton (1978) addresses another positive issue in single case research when discussing alternative research designs. She establishes a need for series of observations over time as a major advantage of single subject research, because if the process of change is continuous, then there should be measurements of degree and direction of change during that process. Frey (1978) also sees value in case study intensive designs where self-help programs could direct patients to observe and record their own behavior changes.

As has been discussed, single case research has strengths uniquely inherent as a research model and particularly for research in psychotherapy.

Analysis of Data

The Profile of Mood States was administered three weeks prior to treatment onset and on a therapy session basis throughout the length of treatment. This instrument
when plotted in profile over the entire period of time, provides a basis for assessment of baseline data and mood changes throughout the treatment period.

The Minnesota Multiphasic Personality Inventory-168 and the Tennessee Self Concept Scale were administered and results for all scales were profiled for pretreatment and posttreatment conditions and compared for improvement.

The Affective Sensitivity Scale had pretreatment and posttreatment administrations. It was imperative that subjects achieve significant positive change in scores with this instrument as a pre condition to an expectation of psychological adjustment change. Analysis of pre and post scores on this scale provide a basis for determining improvement in perceptual accuracy.
CHAPTER III

The Case Studies

The purpose of this work was to examine the effectiveness of Brief Perception Therapy for improving interpersonal perceptual accuracy of psychiatric outpatients. Also, the effect of improved interpersonal perceptual accuracy on patients' psychological adjustment was to be evaluated. The rationale underlying the work was the hypothesized relationship between interpersonal perceptual accuracy and psychological adjustment.

Case study research was selected as the most appropriate approach for this work. Although the case study approach is an acceptable method for research in psychotherapy (Anton, 1978; Chassan, 1967; Dukes, 1965; Frey, 1978; Garfield, 1978; Goldman, 1976; Kazdin, 1978; Shontz, 1965), it was recognized that replications of the procedures could provide additional credibility to the findings. Proceeding on this basis, four individuals were identified as subjects for study. Of the four subjects who were originally identified as a result of the selection procedures, three completed all the required conditions. The case studies for these three subjects are presented in this chapter.

Case A

Past history. The subject in this study was a white
female twenty years of age. She was attractive, above average in height, and without identified physical impairments. She reported that her parents were well-educated and her past relationship with them had been calm and stable, and that they provided a strong religious training for her. Her only sibling was a fourteen year old brother who was mentally retarded and hyperactive. She reported that her brother was a source of frequent family disruptions due to his demands for much attention from everyone. She verbalized her impatience, annoyance, and at times, resentment of her brother and resultant feelings of guilt and disappointment with herself.

The patient described her mother as friendly, efficient, hardworking, and dominant. She saw her mother as a serious person who had been consumed by the care of her brother. She saw her father as an unhappy school teacher who had been thwarted in his efforts to become a physician. The patient reported perceiving pressure from her father that she pursue a career in medicine and associated his interest in her with his own disappointment. Since she had not pursued that career pattern, she expressed feelings of guilt and anger toward her father. These feelings were heightened since her brother's inability to achieve educational attainment and recognition indicated to her that she should be the one to fulfill her father's dream. In some manner she seemed to be accepting full responsibility.
for fulfilling her father's unattained ambition.

The patient stated that little affection was demonstrated within the immediate family and a communication pattern existed which did not provide a means for attention to be devoted to members' affective states. Consequently, the patient experienced difficulty in expressing her feelings and talking intimately with other individuals. The patient reported not developing close friendships throughout adolescence and of being a lonely individual. During her adolescence, the patient did not experience a typical, social developmental pattern. She reported not dating in high school, and lacking a female confidant. She attributed this to shyness resulting from feelings of rejection because of her height.

During the year preceding her entry into therapy, the patient became involved in a sexual relationship with a male college student. Although pre-marital sex was not compatible with her religious orientation, she justified this relationship on the basis of her belief that she was in love. As a result of that relationship, the patient stated that she felt greater self-acceptance, and more comfortable in sharing her thoughts and feelings with others. She attributed her new behaviors and feelings to the relationship and to the man's personal interest in her. Although he never verbalized that he loved her, she interpreted his behaviors as meaning that he was in love.
with her.

Since the disruption of this relationship three months prior to the onset of therapy, the patient reported intensified feelings of social inadequacy and withdrawal and increased loss of self-confidence. She also verbalized increased periods of depression and feelings of inferiority, and tensions. She had been avoiding initiating relationships for fear of being boring, uninteresting, and stupid. She had growing fears of perpetual loneliness.

**Presenting situation.** The patient sought assistance at DeLano Clinic and entered therapy in early August, 1979. The patient was completing her last year of study at a small liberal arts college where she was majoring in foreign language. She had recently returned from studying abroad for eight months and was attending a summer term at college. She was living in a dormitory until the end of the term when she planned to move home for a semester prior to her return to school. She reported intense phases of depression which she related to her recent rejection by the man she had been involved with and to her need for a respite from college where this man also was a student. She also related her concerns about returning home to live since she perceived her mother as being particularly questioning and domineering of her behaviors.

Since her return from her studies abroad, the patient had withdrawn socially and avoided as many conversations
and interactions with her roommates and friends as possible. She reported feeling insecure, boring, stupid, and inadequate in their company and she assumed that everyone judged her in that manner. The patient found herself consistently comparing herself with others and feeling inadequate in every regard. She foresaw problems arising with her parents based on her new behaviors and a sense of obligation to provide them with explanations.

She described herself as being in a state of conflict with her identity, her values, and her behavior. The patient had been reared in a religious environment and her first sexual relationship had been with her recently estranged man. She reported great difficulty in understanding and processing her feelings of pleasure, guilt, and anger concerning this eight month relationship. She related a basic dislike of herself, feelings of worthlessness and feelings of pessimism regarding her future.

She expressed an intense fear of her emotional state and the self-obsession she was experiencing. She reported symptoms of depression, inferiority feelings, and an inability to relax and enjoy herself. She had never yet experienced those symptoms as intensely as she had in the present and it was those fears of self that motivated her to seek therapy.

Pretreatment test data. The pretreatment MMPI profile indicated deviant scale elevations on six of the ten
clinical scales (D, Hy, Pa, Pt, Sc, Si) with the most severe deviations on scales 7-8. Characteristics of individuals with the 7-8 profile, according to Lachar (1974), are nervousness, tension, irritability, and insecurity. Depression and social withdrawal are dominant clinical features evident in similar profiles. The profile also suggests an attempt to work through problems, as well as having some obsessive compulsive symptoms.

The secondary 3-2 profile would suggest feelings of depression and tension, as well as strong feelings of inadequacy and self-doubt. Lowered efficiency and tendencies toward sexual maladjustment are also characteristics of this type of profile.

The deviant Sc scale suggests a possible schizoid mentation with eccentric and socially introverted behaviors.

Examination of the patient's TSCS profile indicated she responded to the instrument openly, with little defensiveness, and with little variability. Significant conflict and confusion were demonstrated with some evidence of denial of her negative traits. Her total positive score, as well as seven of the eight individual positive scores, were deviant and indicated a generally low self concept. These scores expressed a low opinion of self, while simultaneously setting high expectations for self.

The patient's lowest positive score indicated strong personal feelings of inadequacy with the next deviation.

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supporting inadequacies in her social interactions. The only non-deviant score in this group supported the patient's perception of closeness and adequacy within the family framework.

Three of the six Empirical Scales of the TSCS were deviant and suggested a high degree of maladjustment (97th percentile). The psychological defenses were severely affected in order to maintain minimal self worth (DP-Defense Positive Scale) and her profile identified itself as one similar to responses of neurotic patients (N-Neurotic Scale). Her Number of Deviant Signs score of 25 indicated a consistency with the total profile to support the severity of the patient's overall disturbance.

The pretreatment administration of the Affective Sensitivity Scale resulted in a score of 34 for the subject.

The results of the pretreatment POMS profile indicated only two of the six factors were within one standard deviation of the mean compared to a normal profile. The Depression-Dejection score fell two standard deviations from the mean. The Tension-Anxiety and Confusion-Bewilderment scales were elevated, while the Vigor-Activity scale was repressed.

The treatment. Brief Perception Therapy was initiated with this patient in early August of 1979. After administration of the required criteria instruments, the subject was seen once a week for a series of eight one hour sessions.
The focus of the first session was on developing rapport with the patient, history taking, and synthesizing initial presenting information to identify problem areas.

During the second session, past history was completed and problem areas became more crystallized. At this point, the therapist summarized the information gathered during the first two sessions and provided some preliminary interpretations of the dynamics involved and their effects on perception. A brief introduction to the role and importance of perception as it relates to psychological state of well-being was presented at this time. It was suggested that better understanding of how the perceptual process affected the patient's condition could enhance her understanding of her emotions and thoughts. A copy of Bullmer's book, *The Art of Empathy*, was presented to the patient with an explanation that learning the material presented in the book could improve her ability to perceive others more accurately. The patient was instructed to learn the material in Unit One of the book prior to her next session.

The third session was spent initially reviewing the assigned material for learning. An oral examination was conducted and the patient demonstrated she had learned the material. Material provided during the first two therapy sessions was related to perception in general and particular perceptual responses unique to the patient were identified. At the conclusion of this session, Unit Two of
The Art of Empathy was assigned for learning during the following week.

The patient seemed considerably more relaxed during session four and an oral review of Unit Two was conducted for proof of learning. The patient was very cooperative, and as in the previous session, concerns of the subject were examined from the book's frame of reference. Unit Three was assigned on conclusion of this session.

During the fifth session Unit Three was thoroughly tested orally and the subject was demonstrating consistent follow-through on the text material. The material on identifying emotions was of particular interest to the patient and she made valuable use of the information in terms of how she viewed her concerns. This session concluded with an introduction to the next unit of learning and instructions that the material in this unit be learned by the next therapy session.

The sixth meeting began with the patient being very agitated and upset because of the sudden confirmation of previously initiated plans to study in Mexico. It was necessary for the patient to leave for this study opportunity before the anticipated completion of her therapy and this was very upsetting for her. After discussing the problem, it was possible to alter the therapy schedule slightly to accommodate the sessions needed for completion.

When this problem was resolved, the session focused
on the patient's learning of the assigned material. The patient had learned the material in the book and demonstrated her understanding and ability to relate the material to her own situation. Defense mechanisms and their use and misuse had special meaning for the subject. She was able to understand how these concepts applied to her and how she had been able to distort reality to meet her needs to avoid perceived threat. This session appeared to be particularly meaningful for the patient. The session concluded with the assignment of the next unit of learning.

Session seven began with a review of the learning assignment and the subject demonstrated that she had learned the material in Unit Five. The subject's upcoming departure and misgivings about how to continue dealing with changes served as a focus for this meeting. The integration of her new learnings was of primary concern to her, since she recognized that she could possibly regress to her old thinking. Many examples from her previous experiences were used as a basis for clarifying her misperceptions and resultant feelings. Unit Six was assigned for the eighth session.

During the eighth session, the therapist reviewed with the patient all the material which had been previously learned. Again, this learning was used as a basis for making the subject's past thinking and emotions more understandable for her. The patient, at this point, was
able to demonstrate considerable understanding of how she had created many of her past problems and in general appeared to be perceiving events and significant others in a much less threatening manner. The session was concluded with confirmation of the requirements for posttreatment administration of criteria instruments and a final session to provide a final evaluation of the subject's progress.

Posttreatment test data. Four different criteria instruments were employed in this study: the MMPI, the TSCS, the ASS, and the POMS. In evaluating the MMPI profile (Figure 1) there was posttreatment reduction in six of the ten clinical scales. The profile was still abnormal but the pathological features had been greatly reduced. The basic 7-8 profile had been reduced markedly and reversed to an 8-7 profile. The scale 7 decrease indicated a decrease in the patient's anxiety level, as well as a reduction in the degree of her mental confusion. The obsessive-compulsive feature was reduced with a more basic schizoid personality now indicated. Her socialization skills suggested from scale 10 were more appropriate and showed notable improvement. The profile generally indicated less turmoil but suggested a high degree of inferior, inadequate, and insecure feelings were still present (Duckworth, 1979; Graham, 1977).

The TSCS results (Figure 2) helped substantiate the MMPI results. The subject's posttreatment profile on this
The Minnesota Multiphasic Personality Inventory
Starke R. Hathaway and J. Charnley McKinley

Scorer's Initials ______________

Female

Pre ______
Post ______

Figure 1. MMPI results for Case A as a function of time in treatment.

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Figure 2. TSCS results for Case A as a function of time in treatment.
instrument indicated diminished Variability and Conflict with a minor reduction of Self Criticism. Only two of the Self Concept scores remained deviant, while seven of the nine scores were now within normal range. Improvement could be identified on the Empirical Scales with reductions occurring on all scales. Two scores remained slightly deviant. The increase on the DP (Defense Positive) scale revealed more adequate psychological defenses. The GM (General Maladjustment) and N (Neurotic) scales also decreased to change the profile.

A posttreatment score of 44 was attained on the ASS. The ASS results indicated a change in a positive direction. The entering score of 34 corresponded to expectations for untreated subjects as established by previous norms (Bullmer, 1970; Dambach, 1979). Therefore, the posttreatment score indicated a significant change exceeding one standard deviation in interpersonal perceptual accuracy for the patient.

Analysis of the data for the POMS (Table 1) indicated that the patient's condition was relatively stable during the baseline period of measurement. With the exception of Depression, which decreased, and Vigor, which increased somewhat by the third session, all other factors remained relatively unchanged. Pretreatment scores on the POMS showed substantial deviations for all factors, except for Fatigue and Anger. Scores exceeded norms for psychiatric
Table 1

POMS Results For Case A as a Function of Time in Treatment by Weeks

<table>
<thead>
<tr>
<th>Factors</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tension</td>
<td>69</td>
<td>63</td>
<td>69</td>
<td>58</td>
<td>55</td>
<td>73</td>
<td>74</td>
<td>58</td>
</tr>
<tr>
<td>Depression</td>
<td>70</td>
<td>72</td>
<td>58</td>
<td>55</td>
<td>52</td>
<td>63</td>
<td>58</td>
<td>56</td>
</tr>
<tr>
<td>Anger</td>
<td>57</td>
<td>65</td>
<td>56</td>
<td>45</td>
<td>64</td>
<td>56</td>
<td>56</td>
<td>65</td>
</tr>
<tr>
<td>Vigor</td>
<td>32</td>
<td>38</td>
<td>40</td>
<td>37</td>
<td>40</td>
<td>33</td>
<td>40</td>
<td>43</td>
</tr>
<tr>
<td>Fatigue</td>
<td>51</td>
<td>49</td>
<td>55</td>
<td>43</td>
<td>48</td>
<td>52</td>
<td>49</td>
<td>43</td>
</tr>
<tr>
<td>Confusion</td>
<td>68</td>
<td>64</td>
<td>72</td>
<td>50</td>
<td>59</td>
<td>61</td>
<td>59</td>
<td>50</td>
</tr>
</tbody>
</table>

outpatients for all factors except for Anger and Fatigue (Figure 3). Posttreatment scores for the POMS showed a reduction in Tension, Depression, Confusion, and Fatigue. Those scores were all well within normal range. An increase in Vigor, considered a positive change, was also recorded. The only posttreatment factor not within a normal range was Anger. This score remained relatively unchanged throughout therapy.

Case B

Past history. The subject in this study was a white female twenty-six years of age. She was attractive, single, and attending college on a part-time basis. She had a history of epilepsy since late adolescence and had been

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Figure 3. POMS results for Case A as a function of time in treatment compared to psychiatric outpatient norms.

Pretreatment — Posttreatment — Psychiatric Norms

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taking Dilantin since the age of seventeen. Her last seizure occurred six months prior to the start of therapy.

The patient's parents were both college-educated and were working in professional areas. She reported her childhood as being very chaotic in that family relationships in general were poor and she experienced difficulty in school relationships with other children and teachers. She had a brother four years her junior with whom she reported having relationship problems. This sibling rivalry persisted throughout childhood and continued to surface periodically during their adult relationship. The patient stated that she had never been as "intelligent, friendly, or popular as her brother" and she had never felt confident about herself and her accomplishments. She also stated that she believed that her family and friends perceived her in that same manner.

The patient described her mother as a strict, dominant, and insecure individual who placed high expectations on her children. She perceived her mother to be very authoritarian and as attempting to make decisions for her. She saw her father as being withdrawn, authoritarian, and unable to demonstrate affection. She experienced ambivalent feelings toward him throughout her childhood and these feelings were still unresolved for her.

During high school the patient experimented with a variety of drugs and continued to smoke marijuana. The
patient also shoplifted, skipped school, and was sexually promiscuous throughout high school. She reported constant family problems concerning her behaviors. It was during this time also that she experienced her first epileptic seizure. Shortly after she completed high school and moved away from home, her father had a nervous breakdown and the subject felt that she had been responsible for her father's illness. Resultant feelings of guilt were reported by the patient for also leaving home and having her mother and brother bear the burden of responsibility for her father.

The subject believed that all of her relationships with both males and females throughout her life had been unsatisfactory and superficial. She was unable to maintain friendships and particularly believed that her relationships with males had been failures in that she had not been able to achieve orgasmic response in these relationships.

It was apparent that her expectations of friends were high and her demands were excessive and that these conditions made it difficult for her to develop intimate relationships. She did, however, develop two relationships with males of a one and two year duration. A tubular pregnancy at age twenty-three occurred as a result of one of those relationships and surgery was required which removed an ovary and a fallopian tube. As a result, she was concerned about her ability to conceive children and
how that would effect future relationships with other men.

Although the patient attempted suicide shortly after surgery through an overdose of medication, she reported having no further thoughts or attempts at suicide since then.

A deepening sense of depression, lack of goals, and dissatisfying relationships motivated the patient to seek therapy. She reported intense loneliness, self-deprecation, and a fear of inability to change any of her behavior patterns. She also felt unable to continue to tolerate her state of being as it was. The fact that her brother was planning for college graduation, an upcoming marriage, and financial stability appeared to cause additional disturbance for the subject.

**Presenting situation.** The subject referred herself to the clinic early in September of 1979. At that time the patient was working as a waitress/bartender after teaching a children's art program over the summer for the city's parks and recreation department. She had just changed her living situation from sharing an apartment with two females to sharing an apartment with one female and two male roommates. She was struggling financially to maintain her expenses and was finding it impossible to save money to return to school to complete her degree.

The patient reported being involved in numerous activities but felt ill at ease in social settings and self
excluded herself from any group. She related a sense of
gloom and withdrawal from interactions as escalating her
loss of confidence, her feelings of worthlessness, and an
attitude of hopelessness for change. She described her-
self as "being on a spinning wheel . . . knowing intel-
lectually how to get off, but being emotionally impotent
to implement the necessary action". It should be noted
that the patient continued the use of Dilantin and mari-
juana throughout therapy.

The patient reported long-standing, deep-seated feel-
ings of anger, resentment, and hate toward her family and
subsequent accompanying feelings of guilt. She felt
strongly that they were disappointed in her and compared
her lack of accomplishments to her brother's successes.
As a result of her inability to clarify these assumptions,
many inappropriate arguments and behaviors occurred be-
tween her and her family which then immobilized her. She
claimed she fatigued easily and felt tense and panicky.

Pretreatment test data. The pretreatment profile of
the patient's MMPI scores indicated deviant scale eleva-
tions on seven of ten clinical scales (D, Pd, Pa, Pt, Sc,
Ma, Si) with the most extreme deviations on scales 4-2.
According to Lachar (1974), characteristics associated
with this profile type include depression, impulsiveness,
restlessness, and situational agitation. Individuals of
this type tend to have self-punishing, self-defeating
behaviors and are suggestive of suicide potential. They are prone to acting out (drugs, alcohol, sexual behavior) due to poor behavioral controls and these behaviors are then followed by exaggerated guilt feelings (Lachar, 1974).

The accompanying high Sc scale was suggestive of distrustful individuals who attempt to avoid close interpersonal relationships for fear of emotional involvement. They are likely to experience difficulty in their sexual functioning and are often seen as moody, dependent, and insecure (Duckworth, 1979; Graham, 1977).

The pretreatment profile on the TSCS suggested an acceptable level of variability with the capacity for self criticism. The T-F ratio was extremely deviant which suggested an individual with a poor ego and the potential of acting out conflicts because of poor behavioral controls. This score also identified a person who would be easily influenced by others. Conflict was indicated with the Net Conflict score being extremely high. This score suggested an individual who over-emphasized positive attributes and experienced greater difficulty confronting negative characteristics.

The patient's total positive score on the TSCS, along with seven of the eight individual positive scores, were deviant and indicated difficulties in self concept. Three of the scores suggested she held a low opinion of herself, but had a degree of self-satisfaction with her perception.
of self. Her lowest score dealt with her view of her physical characteristics. This score pointed out her dissatisfaction with her physical appearance, sexuality, and state of health, her general negative view of self, and suggested an individual who was anxious, unhappy, depressed, and possessing little self confidence. The patient's extremely low score (below 1st percentile) on scale D indicated insecurity or uncertainty about her evaluation of self.

The Empirical Scales indicated an extreme case of maladjustment (GM-99th+ percentile). Five of the six scales were deviant. Her psychological defenses appeared to be well protected and functioning. Little evidence of personality integration (PI) was presented and the three diagnostic scales (PSY, N, PD) overlapped. The highly deviant NDS (Number of Deviant Signs) score was indicative of a highly disturbed individual.

The pretreatment administration of the Affective Sensitivity Scale resulted in a score of 37.

The results of the pretreatment POMS profile indicated one factor, Anger-Hostility, was significantly deviant from the norm by two standard deviations. Three other dimensions, Tension-Anxiety, Depression-Dejection, and Confusion-Bewilderment, were elevated but within the normal range.

The treatment. The patient began therapy in early
September of 1979 and was seen for a series of twelve sessions. Prior to the first session, test data was collected. The initial session was spent eliciting history data and identifying current problem areas.

The second session continued with eliciting essential history data and synthesizing problematic areas. This session concluded with a summary of the material provided during the first two sessions. Also, a presentation was made by the therapist on The Art of Empathy with an overview of perception and how errors in perception might relate to the patient. Unit One was then assigned to be learned for the next session.

After reviewing Unit One in the third session, the patient was questioned orally to assess her knowledge of the material. The patient did not demonstrate sufficient understanding of the material so it was re-assigned in addition to the material to be covered in Unit Two. Since the patient was not prepared for the session, the time remaining was spent by the therapist re-emphasizing the importance of perceptual error as a contributing factor to her state of distress and the importance of learning assigned material prior to future sessions.

During the fourth session an oral examination was conducted and the patient again did not demonstrate a command of the material. The patient reported having some difficulty in "getting with" the text. She also
expressed anger and hostility centered primarily in her work situation and she viewed this emotional state as interfering with her ability to concentrate on the homework assignments. Consequently, Units One and Two were re-assigned, but no additional material was added.

Session five proved to be fruitful in that the patient had learned the assigned material satisfactorily. Errors in her perception were identified and used to help integrate the material further. Unit Three was assigned to be learned by the next session.

The patient began session six concerned about missing the next week's therapy appointment due to a vacation she had planned. Arrangements were made to resume therapy following her return. Through an oral examination of the material for Unit Three, it was apparent that the patient had not learned the material. The patient indicated that she had not completed the entire assignment for that unit due to its length. After reviewing the concepts which had been learned, these concepts were then related to her experiences. Unit Three was re-assigned with no additional material to be learned.

Although two weeks had passed, session seven was successful in terms of the subject's comprehension of the text. Not only did she understand the concepts from the text, but she was able to use this knowledge to identify her own past emotional states and understand their basis
in a perceptual framework. Unit Four was assigned for the next week.

During session eight, the patient, as with some of the earlier units, experienced some difficulty attaining the learning objectives associated with defense mechanisms and how they effected her behaviors. She did, however, find this material highly interesting and the material stimulated a variety of questions and thoughts for her. Since the therapist judged that she did not communicate adequate knowledge and understanding of the text, Unit Four was assigned again for the following week.

The next two sessions, nine and ten, were conducted in the same manner as previous sessions. The material from Units Four and Five was learned and integrated with her problems. She gave evidence of having greater understanding than at any time previously of the relationship between her perceptions, her emotions, and her behaviors. The final unit of the text was assigned for learning for the next session.

During the eleventh session a review and evaluation of the subject's progress in therapy was conducted. She reported taking the Proficiency Exam from The Art of Empathy and felt pleased with having learned the material in the book. A brief summary was presented by the therapist and then the subject was administered the posttreatment criteria instruments prior to the last session. Interpretation
of the test data was made during the twelfth session with the patient.

Posttreatment test data. Evaluation of the post-treatment MMPI profile (Figure 4) indicated a marked reduction in the pathological features. Although still abnormal, the entire profile was less elevated than the pretreatment profile. There was a marked decrease in eight of the ten clinical scales, as well as the F scale. Only three of the scales remained deviant, as compared to eight on the pretreatment profile. The basic 4-2 profile remained throughout therapy, although it was considerably reduced. This profile was interpreted as indicating a lack of impulse control with strong expectations for possible acting out behaviors. A significant reduction of the F and Sc scales suggested the subject was less confused and had achieved more control of her feelings. Basic feelings of distrust, depression, hostility, and self-consciousness were still indicated, although lessened, and relationship problems might still be anticipated. The degree of depression remained elevated and suggested a continuing, but somewhat reduced, suicide potential. The Sc scale suggested a better grasp of reality and a more productive application of skills in social interactions. Features of a passive-dependent personality were present, as well as schizoid tendencies with a depressive reaction. In summary, while the MMPI profile continued to indicate

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The Minnesota Multiphasic Personality Inventory
Starke R. Hathaway and J. Charnley McKinley

Scorer's Initials _______________________

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<tr>
<td>Raw Score with K</td>
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<td>36</td>
</tr>
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</table>

Raw Score | 14 | 9 | 13 | 37 | 29 | 34 | 37 | 17 | 37 | 38 | 25 | 43 |

Figure 4. MMPI results for Case B as a function of time in treatment.
abnormality, the overall condition of the patient could be seen as improved in that change was definitely in the direction of normality (Duckworth, 1979; Lachar, 1974).

Examination of the patient's posttreatment TSCS profile (Figure 5) indicated marked changes which were in correspondence with MMPI results. There were diminished scores for the T-F ratio and Self Criticism, while Variability and Conflict scores remained well in the normal range. Four of the nine Self Concept scores remained slightly deviant, but every scale showed improvement when compared to eight deviant scales of the nine recorded at pretreatment testing. Major improvement was indicated on the Empirical Scales. The pretreatment profile identified six deviant scores, while only one score remained deviant on the posttreatment profile. The other six pathological scales were within the normal range. More adequate psychological defenses (DP) were noted, as well as a decrease in the pathological features of the profile (PSY, PD, N).

The posttreatment score of 45 on the ASS was indicative of a positive directional change. The pretreatment score of 37 would be in the anticipated range of scores for untreated subjects as established by Bullmer (1970) and Dambach (1979). The posttreatment score would indicate that the subject's interpersonal perceptual accuracy was improved greatly.

Analysis of the data for the POMS (Table 2) suggested
Figure 5. TSCS results for Case B as a function of time in treatment.
Table 2

POMS Results For Case B as a Function of Time in Treatment by Weeks

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<td>Anger</td>
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<td>Vigor</td>
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<td>Fatigue</td>
<td>51</td>
</tr>
<tr>
<td>Confusion</td>
<td>64</td>
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</table>
that during the baseline period of measurement the patient's mood states were relatively stable. With the exception of Tension and Vigor, which decreased slightly by the third session, all other factors remained relatively unchanged. Pretreatment scores for the POMS indicated substantial deviations for all factors, except for Vigor and Fatigue. In addition, pretreatment scores for this subject exceeded norms for psychiatric outpatients for all factors except for Vigor and Fatigue (Figure 6). Post-treatment scores for the POMS indicated a reduction in all six factors with all six falling well within the normal range. The Vigor and Fatigue scores decreased slightly, but remained relatively unchanged throughout therapy.

Case C

Past history. The subject in this study was a thirty-four year old white male. He was tall, muscular, and slightly overweight. He quit high school at age sixteen and then experienced a variety of jobs. These experiences included careers as a professional boxer, a salesman, and a machinist. At age 24 he acquired a GED diploma and at age thirty-one he began part time college study in art.

The patient was reared in a lower socio-economic district of a large city where he lived with his parents and younger sister. His parents were described as blue-collar workers and the patient reported existing in a very chaotic, non-communicative environment. He described himself as a
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<td>Ten</td>
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<tr>
<td>80+</td>
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Figure 6. POMS results for Case B as a function of time in treatment compared to psychiatric outpatient norms.

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puny, under-sized child who was subjected to name-calling and physical abuse by his peers. At age fifteen, he began lifting weights, experienced a growth spurt, and quit school the following year.

The patient described his mother as a self-effacing, placating, and manipulative individual. He viewed her as someone to intercede and communicate for him with his father. His one source of comfort and support was found in his mother. The patient described his father as a hopeless alcoholic who belittled him as a child and withheld recognition and approval for anything he accomplished. He perceived his father as totally not caring and unloving. He reported feelings toward his father which ranged from anger and hate to sadness. The patient stated that relationships with his parents currently were consistent with the past.

The patient claimed that he had always inhibited expression of his emotional states from family, friends, and others, and these behaviors intensified with the passing of time and facilitated the continuation of dissatisfying interpersonal relationships. The patient reported his feelings of self-worth and adequacy had been acquired through vicarious means, such as boxing and accommodating others' needs.

His first marriage occurred at age twenty-four and lasted for nine months. He attributed its failure to his
insecurity and emotional instability and he did not marry again until age thirty-one when he began college. This marriage relationship with his current wife, eleven years his junior, produced similar concerns and worries for him. His fears of inadequacy, insecurity, and loss of respect manifested themselves in his marital relationship as they did in his former relationships. He reported difficulty trusting and disclosing his thoughts and feelings with his wife, and unexpressed anger, hostility, and depression found expression in periodic outbursts of temper.

**Presenting situation.** This subject was a self-referral to a university health center. The attending psychiatrist anticipated the subject would need long-term attention which the university center was not prepared to provide. He was then referred to DeLano Clinic where he entered therapy in early November of 1979. The patient at that time was living in student married housing with his second wife, attending college part-time, and seeking employment as a salesman. His wife was working for the university, but his financial situation was strained and he was not accustomed to living within a restricted budget.

He reported recent losses of control which resulted in yelling, name-calling, and inappropriate behaviors. He saw these behaviors in direct conflict with the mask of diplomacy and tact he normally demonstrated to others. The incident that precipitated his seeking psychological
services was damage done to his apartment during a recent temper tantrum. That action resulted in the police being summoned to his home by neighbors and he now perceived his wife as fearing him and withdrawing from him. The possibility of another marriage failure and social rejection motivated his entry into therapy.

The patient reported an active social life, but he experienced difficulty in enjoying himself. He viewed himself in conflicting roles socially with family and with friends. Long-standing, unresolved feelings of guilt, anger, and hostility were presented as impeding his ability to develop satisfying relationships. He reported a basic distrust of people and discussed his needs for total acceptance, respect, and admiration. Therefore, his behaviors were always monitored so as not to offend anyone or give cause for dislike and/or rejection.

The patient evidenced confusion as to how these behaviors had created problems in his past efforts to achieve intimate relationships. He particularly focused on his relationship with his wife and his concerns of openly expressing himself with her for fear of rejection.

Since the patient reported his exterior appearance as one of a calm, rational individual, it appeared that family and friends were dependent on him for emotional support. He was the person friends called when they experienced personal problems, and they reportedly had high
expectations for the use of his time and energy. The patient had, it seemed, experienced an overload and the build-up of emotional states and his inability to handle them exploded with the apartment incident. His wife was very supportive of him receiving treatment.

Pretreatment test data. The pretreatment MMPI profile indicated deviant scale elevations on three of ten clinical scales (D, Pd, Ma). The elevated F scale is indicative of a propensity for unusual thoughts and experiences and perceptions of increased problems (Duckworth, 1979). Similar individuals have been described as selfish, self-centered, moody, and irritable with a low tolerance for frustration. Underlying feelings of inadequacy, dependency, and insecurity were evident, as well as a tendency to act out (alcohol, drugs, sexual behavior) and blame others. Socially, individuals with similar profiles are very uninhibited, outgoing, and talkative, however, because of their distrust of people, their relationships tend to be superficial and dissatisfying. Situational stress seems to trigger acting out behaviors caused by poor judgment, and harbored feelings, which in turn, are followed by exaggerated guilt feelings (Graham, 1977; Lachar, 1974).

The pretreatment TSCS profile indicated a high degree of variability which suggested little unity or integration of self concept. Little conflict was noted and the patient appeared to evenly balance his positive and negative responses.
His total positive scores, in addition to four individual positive scores, were deviant with a triad indicating a poor opinion of self but with a degree of acceptance of that opinion. The Personal and Family Self scales identified feelings of inadequacy as a person and a poor view of self, as well as feelings of little value and worth as a family member. The patient's high Moral-Ethical Self score supported his verbalizations of satisfaction with his religious beliefs and with his self-identification.

With two Empirical Scales scored as deviant, the profile indicated a similarity of responses with a neurotic population. The General Maladjustment scale was high, as well as the Number of Deviant Signs score. Those results were suggestive of psychological disturbance.

Administration of the pretreatment profile from the Affective Sensitivity Scale was recorded at 41.

The pretreatment results on the POMS profile indicated only two of the six factors were within one standard deviations from the mean compared to a normal profile. The Depression-Dejection score fell two standard deviations from the mean. The Tension-Anxiety and Confusion-Bewilderment scales were elevated, while the Vigor-Activity scale was repressed.

The treatment. Therapy began with this subject in mid-November of 1979 and weekly sessions, approximately one hour in length continued for a total of eight sessions.
Pretreatment data was gathered prior to the start of therapy.

The first session was devoted to structuring a therapeutic relationship by exploring the patient's history. Initial formulations of problem areas were also completed.

The second session was a continuation of the history-taking process and solidification of identified concerns. A summary of the first two sessions was given by the therapist and an introduction to The Art of Empathy was made. The concept of perception was reviewed and examples were presented of problems that arise from errors in perception. Unit One in the text was assigned to be learned for the following week. The patient was overly solicitous about the reading and had to be cautioned to read only the assigned material and learn it well.

Knowledge of Unit One material was tested orally during the third session. The subject demonstrated comprehension and even presented a mini-lecture on perception. A verbal analysis of the importance of perception as it related to his problems was provided by the therapist, and material to be learned in Unit Two of the text was then introduced and assigned for the next week.

The fourth meeting reviewed Unit Two in the same manner as with Unit One. The patient's types of errors in perception were explored, identified, and provided the material for this session. An assignment of Unit Three
was made for the next session.

The fifth session involved an oral examination of Unit Three and dealt with identifying the patient's various emotional states based on his new learning. Comparisons were done on emotions that were easy/difficult for him to express. An overview of Unit Four was presented and assigned for the next session.

Session six progressed similarly to the other sessions but three weeks had passed since the last session, due to the patient having a minor illness and taking a short vacation. Unit Four material on defense mechanisms was easy for the patient to relate to and apply to himself. The patient was very cooperative and was able to thoroughly discuss all material. Unit Five was assigned for the next session.

During the seventh session the patient verbally demonstrated command of all the material in the text. He was making use of the text terminology in analyzing his difficulties. Unit Six was assigned and he was instructed to take the Proficiency Test at the end of the text. Post-treatment data was gathered prior to the last session which was used for patient/therapist summary and evaluation.

Posttreatment test data. Evaluation of the patient's posttreatment MMPI profile (Figure 7) indicated a marked decrease in pathology. The general profile was reduced and reversed from a 4-9-2 profile to a 2-4 profile. The
The Minnesota Multiphasic Personality Inventory
Starke R. Hathaway and J. Charnley McKinley

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Figure 7. MMPI results for Case C as a function of time in treatment.

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F scale and three other scales (Pd, Pt, Ma) were also considerably reduced. The low F scale was indicative of an individual who perceives some relief from his tensions and problems (Duckworth, 1979). The patient appeared to have more control of his impulses which suggested more behavioral control and less acting out behaviors (Graham, 1977). Feelings of inadequacy, dependency, and low self esteem were still evident in the posttreatment profile, but to a lesser degree. Test data indicated he was more rational and more adjusted.

The patient's posttreatment TSCS profile (Figure 8) resulted in a slight decrease in Variability and a very slight increase in Total Conflict. Minor change occurred with the Self Concept scores with six of the nine scores remaining deviant. Several differences, however, were revealed on the Empirical Scales. One of the pretreatment deviant scores (GM) was brought into normal range on the posttreatment profile. Three of the scales increased their deviations (PD, N, PI), and indicated an intensified degree of disturbance.

A score of 40 was attained on the administration of the posttreatment Affective Sensitivity Scale. This score indicated no change from the pretreatment score.

Analysis of the data for the POMS (Table 3) indicated that the patient's condition was relatively stable during the baseline period of measurement. With the exception
Figure 8. TSQ results for Case C as a function of time in treatment.
Table 3  
POMS Results For Case C as a Function of Time in Treatment by Weeks  

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<th>Factors</th>
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<td>Tension</td>
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<tr>
<td>Vigor</td>
<td>35 41 54 48 51 48 37 46</td>
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<tr>
<td>Fatigue</td>
<td>55 57 52 48 46 43 41 45</td>
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<td>Confusion</td>
<td>59 57 59 46 44 44 44 46</td>
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</tbody>
</table>

of Depression which decreased and Vigor which increased by the third session, the remaining factors were relatively unchanged. Pretreatment scores on the POMS showed substantial deviations for all factors, except for Fatigue. The Anger score was exceedingly deviant. When compared with psychiatric outpatient norms (Figure 9), the pretreatment scores all exceed the norms for psychiatric male outpatients.

Posttreatment scores for the POMS indicated a reduction in all factors and brought them within one standard deviation from the normal means. An increase in Vigor, a change in a positive direction, was also noted, and seen as a marked improvement.
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<th>Vig</th>
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Figure 9. POMS results for Case C as a function of time in treatment compared to psychiatric outpatient norms.
Discussion

Pretreatment and posttreatment measurement data for the MMPI, the TSCS, the POMS, and the ASS provide a basis to analyze the effectiveness of Brief Perception Therapy. When reviewing the three case studies, particular commonalities among the three studies are evident. All of the subjects were randomly selected from a psychiatric outpatient population in a community mental health center. They were within an age span of 14 years, had minimal reading difficulties, were the oldest of two children, and did not acquire a psychotic diagnostic label from their initial pretreatment MMPI profile. The subjects were all registered college students engaged in undergraduate programs of study and two of them worked concurrently with enrollment in classes. The three patients agreed to the use of The Art of Empathy as the basis for treatment.

The MMPI pretreatment profile results indicated varying degrees of pathology for the subjects with general symptoms of depression, anxiety, and mood disturbance as being most prominent. Also suggested by their MMPI profiles were underlying dysfunctional characteristics which would affect adversely their relationships with other individuals. It would be expected that social situations would most likely create feelings of awkwardness, discomfort, and inadequacy within them. Also common to the three subjects were tendencies toward impulsive behavior, agitation,
and restlessness, as well as indications of being easily frustrated with few appropriate skills to ventilate the frustration adequately.

The TSCS data would appear to substantiate the pretreatment MMPI profiles. The Empirical Scales of the TSCS for each of the subjects suggested differing degrees of clinical disturbance. Also the General Maladjustment scale showed severe deviancy for all three patients, as did the Scale's most reliable index of psychological disturbance, the Number of Deviant Signs score. Of the pathological scales, the Neurotic scale was deviant and highest for all three cases and these scores suggest a strong similarity to the typical responses expected of neurotic patients.

Another deviant score shared by the three patient profiles was the Total Positive Score, measuring the broad concept of self esteem. The low level of scores on this scale indicated feelings of anxiety, depression, self-doubt, and generalized unhappiness, which tended to be in agreement with similar symptoms identified on the individual MMPIs. All patients scored low on Column C which is also a measure of personal wealth, adequacy, and ability to relate to others. This data further supports the probability that those feelings most appropriately describe the states of the three subjects.

In reviewing the pretreatment POMS profiles of the
three patients, several similarities are evident. Four of the six mood factors on each of the patient's pretreatment POMS were deviant by more than one standard deviation from the mean. Two factors deviant across all three subjects were Tension and Depression. Feelings of depression, anxiety, and personal inadequacy were again indicated and consistent with other data. Of all the instruments used with these subjects, the POMS provided the most consistent results across subjects. Each of the subjects' pretreatment profiles showed deviations which far exceeded expected norms for psychiatric outpatients. Posttreatment POMS test results indicated significant change for all patients and all factors were within a normal range for all patients with the exception of the Anger factor for Case A. This instrument proved very useful in that it provided weekly feedback from the patients.

An additional commonality for the patients in these studies was their ability to learn the material provided in their weekly homework assignments. While all patients did not learn at the same rate, all eventually mastered the material to the required degree. As a result of learning this material, it was expected that interpersonal perceptual accuracy, as measured by the ASS, would be improved. This was the case for subjects in Case A and Case B with each demonstrating significant improvement on posttreatment scores. The patient in Case C, however, did not improve.

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his posttreatment scores even though he appeared to have learned the material in *The Art of Empathy*. This result was not totally unexpected, however, since while previous research indicates that this approach is significantly effective for improving interpersonal perceptual accuracy, it is not expected that it will be effective for everyone.

In summary, there were some commonalities across the three subjects. Other than family position, selection procedure, and administered test batteries, there were some basic traits common to all three patients. Depression, anxiety, impulsivity, and lack of self-confidence and esteem were the symptoms suggested from pretreatment test profiles of all patients. Those symptoms also appeared to be validated by the therapist's observations of their behaviors in therapy, as well as the consistent information received from their self reports.

As well as factors which appear as common for the case studies, each case presented differences, and it is in the differences where it would seem that the most important insights concerning the effectiveness of Brief Perception Therapy are to be found. At this point each case study will be discussed individually to identify the various aspects unique to each case.

Case A. Initially, this patient reported and demonstrated symptoms of depression, anxiety, obsessive thoughts, and an increasing amount of psychological disturbance.
Adjustment to her life situation was deteriorating quickly and her defenses for maintaining confidence in herself were just as rapidly disappearing. She was experiencing a high degree of confusion and conflict concerning her self perceptions and it was her fear of self that motivated her quest for help. The previously discussed symptoms did appear to be substantiated on the pretreatment profiles of the POMS, MMPI, and TSCS.

Throughout the first two sessions, the subject cried intermittently and appeared very rigid and uncomfortable in discussing her feelings. One of her goals was to learn to share her feelings more easily with other individuals, particularly in relating with men more appropriatly in social situations. The patient seemed to be harboring many conflicting beliefs about herself and her relationships with others. This was particularly true in her relationships with her father, brother, and mother and she could not deal with the resultant emotional responses that they elicited. Admission of anger and hate toward her father and feelings of guilt were finally expressed in session three. This was quite a disturbing experience for her, but it seemed to be a break-through in her ability to trust and speak openly about her emotions. Therapy sessions changed dramatically from that point on with her new found ability.

The POMS entry for the fourth week was indicative of
a subtle change in the patient. Also she did appear less
tense, more hopeful, and trusting in the therapeutic rela-
tionship. It was during the fourth session that she was
confronted with her fears of how the therapist was judging
her. Her perception and interpretation of the therapist's
thinking was all negative and she appeared amazed at how
inaccurate she could be in her perceptions.

As therapy progressed, the patient began to clarify
her thoughts and plans for giving up some of the respon-
sibility she had been assuming for her father and his life.

An increase in Tension was indicated on the POMS at
the sixth session and continued through the next session.
That reaction appeared to be related to possible termina-
tion of therapy prior to the originally anticipated time
due to the patient's plans to study in Mexico.

As therapy approached its conclusion, the patient set
some minor goals dealing with her father, a friend, and
her ex-boyfriend which she completed with varying degrees
of success. When leaving therapy, she did have a better
understanding of her own dynamics and had developed some
ability to plan how she could respond to various threaten-
ing situations. Her fears of possible homosexuality also
appeared to be lessened and she expressed feeling good
about being able to deal with this problem openly. In
general, she was judged to be considerably more confident
about herself than when entering therapy.
Pathology was still indicated on posttreatment test profiles, however, but there seemed to be considerable reductions of tension, depression, and confusion as demonstrated by the MMPI, the POMS, and the TSCS. She appeared to be more in control of her thinking processes, although the elevated Sc score of the MMPI indicated possible trouble areas for her. Most importantly, all clinical instruments indicated change in a positive direction and behavioral observations made by the therapist were consistent with the indicated change. Also important, as far as this study is concerned, was that coinciding with the positive change indicated on the MMPI, the TSCS, and the POMS, there was a significant positive change in the posttreatment ASS score.

Case B. Feelings of depression, anger, tension, and resentment were expressed as problem areas by this subject. The subject complained of experiencing dissatisfaction in all aspects of her life including relationship problems with her family, friends, roommates, and lovers. The patient also complained of having difficulties in concentration.

As suggested by the TSCS and confirmed in therapy, the patient had difficulty in perceiving accurately her negative characteristics. Consequently, she could not respond well to criticism and interpreted criticism of any kind as negative and responded with very defensive behaviors.
The T-F ratio of the TSCS was suggestive of an individual with poor behavioral controls, a weak ego, and prone to acting out and being easily influenced by others. Her lowest positive score on the TSCS indicated difficulty in self-acceptance and dissatisfaction with her physical self, although she was quite attractive. The subject was aware of previous acting out behaviors and this awareness did heighten her anger with herself and her fears of her own behaviors. Pretreatment profile data from the MMPI, the POMS, and the TSCS indicated support for her reported emotional state and concerns.

Throughout the first four sessions the patient experienced difficulty in working through any of her anger. She had trouble concentrating during these sessions and frequently lost her train of thought or attempted to change topics. Her anger was generalized to everyone and everything. She felt her job was demeaning and brought her no status. She reported dissatisfaction with her new roommates and an intolerable frustration with car problems and lack of money. She reported avoiding contacts with her parents, because they sympathized with her and she interpreted their concern as perceiving her as inferior and as a child. During these first sessions, however, she did appear to be able to function adequately with the text material.

The fifth session progressed more smoothly. The
patient had learned the material in the text and appeared more rational. The problems she had perceived concerning her new job proved to be inaccurate and she had made arrangements to buy a new car. In general, she was making some instrumental responses and more effectively dealing with some of her concerns.

An increase in Confusion and a decrease in Vigor was indicated on the POMS at the sixth session. The patient had been ill during the preceding week, and she appeared to be vague and brooding about an upcoming trip with a male friend. She had continuously experienced difficulty in her past sexual relationships and was anticipating more of the same. She reported maintaining this current relationship because the man demanded little of her and she was very dependent on his attention. From her reports it also appeared that she displaced passively some of her anger on this man and in this manner derived additional gain from the relationship.

The following session went well, but the eighth session produced more roadblocks. The patient experienced difficulty in learning the material from the text. When re-questioned by the therapist concerning her drug usage and medication levels, the patient restated she only smoked marijuana once a week and her Dilantin dosages remained unchanged. It was considered as a possibility that with the side effects of the Dilantin and the interaction with
marijuana, some symptomatology could be occurring. Particularly, effects of her affective states and her ability to learn could have been occurring.

The eighth and ninth sessions saw an increase on her Anger scale of the POMS. Between the two sessions she spent a weekend with her parents, her brother, her prospective sister-in-law, and various other relatives. The occasion was an engagement party for her brother. This encounter again emphasized her own lack of accomplishments and resentment toward those who had attained goals. Such behavior was consistent with expectations one would have in view of her MMPI profile.

The last few sessions proved to be the most productive. The patient completed the text material according to schedule and was able to apply the learned material to herself. After the ninth session, the patient talked with her mother and brother concerning her emotions toward them, and she began to discuss more openly her feelings of anger, fear and inadequacy and how these feelings related to her brother's accomplishments. She also confronted her mother with her suspicions of disapproval and criticism of her life style, only to be assured by both parents that her perceptions were in error. She chose not to deal with her feelings of guilt concerning her father's nervous breakdown which coincided with expectations based on the MMPI profile. At this time the patient was also more aware of
how her behaviors and thinking inhibited her ability to achieve orgasm in sexual relationships. This new awareness made it increasingly difficult for her to project her anger on the males involved with her.

When leaving therapy, the patient appeared less confused about her problems and seemed to better understand some of the manipulative features of her behaviors. From posttreatment input on the TSCS, the patient seemed to view herself in a better light and felt better about herself. Indications of pathology were still present, however, marked reductions appeared in the areas of unusual thought processes, impulsivity, agitation, and general adjustment and integration. These inclinations were also demonstrated by the TSCS and the MMPI. The POMS indicated considerable positive changes and more stable controls over her emotional states. Although pathology continued to exist and several areas were identified for continued therapy prior to termination, changes did occur on all instruments in a positive direction. A significant positive change was also made in the posttreatment ASS score.

Case C. Upon entering therapy, this subject verbalized and demonstrated feelings of anger, depression, tension, and distrust of other people. He reported experiencing difficulty in admitting he needed help with his emotional states and appeared during the first two sessions to be trying to set up the therapist for an attack. When
confronted at the end of the second session with his fears and inadequacies by the therapist, he cried, and discarded some of his defenses and began to deal more openly with his concerns.

The beginning of the third session brought notable change in several scales of the POMS. Vigor increased in a positive manner, while Anger, Depression, and Tension decreased. This change was attributed to the patient's new attitude concerning his therapy and a brief respite in not manipulating relationships. It appeared that his need to create a good first impression was now being surpassed by the discomfort that it had aroused. Periodic outbursts of temper, which were manifested during therapy, became frightening for the patient as he experienced these states.

An increase in the Anger dimension on the POMS occurred prior to the fourth session and the subject appeared to be highly agitated during this session. He reported difficulty with the weather; he experienced problems with his automobile; he was late for his therapy session; and, he anticipated further problems with his automobile. Since his frustration tolerance was quite low initially, his response on the POMS seemed to be in character.

Sessions five through eight progressed very smoothly. The patient had experienced a brief illness, but that did not appear to interrupt the flow of therapy. He learned
consistently the text material and performed well on the oral examinations in therapy.

One of the beginning goals of therapy was for the patient to attempt to communicate with his wife and a nearby neighbor. The subject reported that he successfully completed this goal and he felt that these significant individuals had accepted his efforts to communicate. He found that his wife was particularly receptive to his sharing of fears and insecurity. Although the patient made minimal advances, and experienced a feeling of risk, he saw this as a major accomplishment.

The patient also made some alternative plans for dealing with his alcoholic father and dependent mother. While these were small behavioral changes involving low-risk on his part, it was considered to be significant, since he was dealing with new learning. Fortunately, he perceived the responses to his new behaviors as being positive and this seemed to be a major therapeutic occurrence. As indicated by the POMS data, all mood scales shifted in a positive direction throughout the course of therapy and continued to be maintained at more acceptable levels. As therapy approached its end, the patient appeared more in control of his thoughts, emotions, and behaviors.

Although some minor pathology was still indicated on posttreatment test profiles, there seemed to be notable changes in adjustment, anger, tension, impulsive and neurotic...
behaviors. These interpretations by the therapist were substantiated by results of the MMPI, the TSCS, and the POMS. The decrease in the F scale of the MMPI was strongly indicative of relative freedom from stress and anxiety. The manic, impulsive manifestations of his personality were indicated to be sharply curtailed by the decrease in the four and nine scales of the MMPI. Most significantly, all posttreatment clinical data suggested a change in a positive direction with the exception of the ASS score, which indicated no change. It should be noted, however, that this subject had an above average ASS score on entering therapy and was perceiving at an above average level throughout therapy.
CHAPTER IV

Conclusions and Recommendations

The purpose of this study was to evaluate the results of Brief Perception Therapy (BPT) as a means of ameliorating interpersonal perceptual accuracy. If interpersonal perceptual accuracy would be improved, the hypothesis was that there would be a corresponding change in psychological adjustment. A review of the literature and research in the areas of interpersonal perceptual accuracy, personality variables related to interpersonal perceptual accuracy, and the relationship between these concepts and psychological adjustment provided a rationale for this study.

In introducing this work various definitions of perception were presented. In review, perception refers to the process of deriving information from the environment. In the perceptual process, individuals attach meaning to external stimuli and then attempt to internalize that information for further meaning. When the stimulus input to be perceived is another individual, then other variables begin to influence perceptual ability. Past learning experiences and thought processes aid in determining individual attitudes, beliefs, abilities, and motives, and these variables influence accuracy of perception. With the interdependence of perception, thinking, and learning, the earlier these variables are incorporated into the
perceptual process, the more skillful individuals will be in perceiving accurately stimuli in their environment. The interpersonal perceptual process, therefore, is a cognitive function, the accuracy of which is influenced by a variety of factors. The literature indicates that the major variable affecting this process appears to be personality characteristics of the perceiver.

Numerous studies have supported the relationship between personality variables and interpersonal perceptual accuracy. Researchers (Barsaloux, 1977; Hearn & Seeman, 1971; Hjelle, 1969; Karp, 1977; Vingoe & Antonoff, 1968) have confirmed that reality-based individuals are less likely to distort, and, therefore, experience errors in their perceptions. Because of the complex nature of the interpersonal perceptual process, intelligence has been noted as a significant variable in this process (Allport, 1961; Edwards & McWilliams, 1976; Hale, 1979; Strasburger & Jackson, 1977). Since information extracted from the environment must be internalized, locus of control has also been associated with interpersonal perception (Lefcourt & Wine, 1969; Rotter, 1966; Scalese, 1978). Among other variables deemed to be related to interpersonal perceptual accuracy by researchers and theorists, are perceptual flexibility (Dambach, 1979; Shrauger & Altrocchi, 1964), cognitive complexity (Bieri, 1955; Mayo & Crockett, 1964), dogmatism (Smithers & Lobley, 1978), and extroversion.
(Hale, 1979; Hall, 1965). It seems apparent that various combinations of personality variables influence perceptual accuracy. Since individual personality compositions determine individuals' abilities to respond to their environments, personality characteristics are also seen to be related to psychological adjustment. Psychologically well-adjusted individuals are not easily threatened by their perceptions, and, as a result of threat, distort stimuli input. Therefore, it should be concluded that psychological adjustment is not only related to personality variables, but accuracy of perception as well.

The literature maintains the relationship of psychological adjustment and interpersonal perceptual accuracy. Physiological, as well as psychological functioning, can also determine degree of an individual's adjustment. Physiological status can influence perception, which in turn, influences response and thus affects an individual's adjustment. Psychologically maladjusted individuals may tend to feel threatened by their perceptions and employ defenses to cope with the anxiety that results. Consequently, through distortion and denial, they create a defensive perceptual adjustment to maintain themselves in their environment. The available research supports the position that good person perceivers more objectively view their environment, are more tolerant and realistic in their relationships, and can better cope with anxiety.
Individuals approaching their environment under those circumstances are more psychologically well-adjusted and make fewer errors in their perceptions. Therefore, there is a well established basis to support the relationship of interpersonal perceptual accuracy and psychological adjustment.

Three case studies have been presented which utilized Brief Perception Therapy as a therapeutic intervention modality for psychiatric outpatients. As a result of information derived from these three case studies, certain conclusions and recommendations can be determined.

The results of the three case studies that have been presented would appear to support the general hypotheses that were developed from the research question which was the basis for this work. The first hypothesis was that a therapeutic approach that was effective for amelioration of psychiatric outpatients' interpersonal perceptual accuracy could be developed. Brief Perception Therapy was developed to test this hypothesis and the results, as indicated by the case studies, suggest that BPT is an effective approach for amelioration of interpersonal perceptual accuracy. In two of the studies, the subjects' pretreatment scores on the ASS were average and posttreatment scores were considerably above average. In the third study, the subject's pretreatment score on the ASS was above average and the posttreatment score remained above
The second hypothesis was that along with amelioration of interpersonal perceptual accuracy, there would also be an improvement in the subjects' levels of psychological adjustment. All three of the patients included in this work showed improvement in a positive direction on post-treatment data of the MMPI, the POMS, and the TSCS, as well as from behavioral observations and clinical impressions of the therapist. These data would tend to support the hypothesis.

As well as the possible effectiveness indicated by these studies, Brief Perception Therapy also gave promise of being a practical, efficient modality for short-term therapy. Two of the studies covered a time span of only eight sessions. The third study, where motivation proved to be a problem, was still completed in a relatively short period of twelve sessions.

Since the subjects in this study were selected randomly from a psychiatric outpatient clinic, it seems reasonable to also conclude that BPT could prove to be effective for a particular population in mental health settings. As stated previously, criteria for selection were minimal reading difficulty and non-psychotic profiles of the MMPI-168. That description would identify many probable patients who could potentially benefit from BPT.

As noted previously in Chapter I, while case study
research has a limitation, insofar as hypothesis validation is concerned (Isaac & Michael, 1971; Kiesler, 1971), it does offer the possibility for generating hypotheses (Kiesler, 1971; Lazarus & Davison, 1971). Several hypotheses seem warranted as a result of this work.

According to Isaac and Michael (1971), case study research is particularly useful as background material for planning major empirical studies. It would seem highly appropriate, based on the results of this work, that empirical research should be conducted to provide data on the effectiveness of BPT for the amelioration of psychological adjustment of psychiatric outpatients.

Some of the hypotheses for such empirical research, which are suggested by the three case studies presented here, might, in addition to the effectiveness of BPT, be directed to examination of nonspecific treatment factors which may have influenced therapy outcome in the case studies. As in all psychotherapeutic treatments, it should be expected that BPT is not free of such nonspecific variables, and, as in all treatment approaches, the thrust of research should be to determine if BPT can go beyond the results that could be attributed to treatment generated expectancies for improvement, the individual therapist variable, and other variables that may have influenced the positive outcomes achieved in these case studies.

With the restrictions on the implementation of
psychological research, however, it is difficult, if not often impossible, to devise experimental designs to collect this needed data. If, however, empirical designs could be devised to test some of the hypotheses suggested from this work, it might well be a major advance in psychotherapy. Until empirical data can be made available though, it could serve a useful purpose if additional case study research, completed by other therapists using the BPT model, was provided to see if replications are possible.

Researching BPT with different types of patients having varying degrees of maladjustment would also seem to be a promising research approach. A problem which always confronts researchers of psychotherapy is identifying the treatment approaches which can provide positive results for specific diagnostic classifications. Since this study concerned itself with only three patients, there are numerous diagnostic classifications to be tested in future research studies.

Another question which can be asked concerning the use of BPT is to what extent can BPT be used effectively with poor or nonreaders. Perhaps the reading material used in BPT could be recorded on audio tape or the teaching aspect of BPT could be intensified during the therapy sessions. Another variable to consider manipulating in researching BPT could be the time factor. Increasing or decreasing the number of sessions should be expected to
produce varying therapeutic effects.

Finally, a major concern with all short-term therapeutic interventions is the question of how lasting are the effects. This question must certainly be addressed for BPT and a follow-up study of the three patients studied in this work is planned. Even so, this effort will not be sufficient to provide needed evidence and it is to be hoped that future efforts based on empirical designs will be directed to this question.

In summary, the case studies presented suggest psychological and perceptual change did occur for the subjects when a BPT modality was implemented. From the data accumulated, it can be concluded that BPT was effective in the amelioration of psychological adjustment of the three patients studied. Cognitive change was accomplished using Brief Perception Therapy in a relatively short time period and it seems highly desirable that additional research be done to further define the potential for this new treatment procedure.
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APPENDIX

Informed Consent Form
Patients' Informed Consent Form

Occasionally, patients contribute to the furtherment of knowledge about and treatment of psychological problems which human beings experience. This is accomplished by patients allowing information concerned with their experience in therapy to be used as a basis for study and research. It is possible that with your consent an account of procedures concerning the treatment you are about to begin could be used for this purpose.

If your case should be selected as part of a research project and a published report, your identity will be completely confidential and in no way identifiable. Your permission to use information concerning your treatment for the purposes stated above is requested.

Sincerely,

Carole M. Bullmer, Ed.S.

I hereby consent to the use of information concerning the counseling/psychotherapy which I am about to receive commencing on this date, ____________ by Carole M. Bullmer for the purposes of study and research.

Signed ______________