1982

Metacommunication Abilities in Schizophrenia: An Empirical Investigation of the Double Bind Theory

Keith A. Baird
Loyola University Chicago

METACOMMUNICATIONAL ABILITIES IN SCHIZOPHRENIA: AN EMPIRICAL INVESTIGATION OF THE DOUBLE BIND THEORY

by

Keith A. Baird

A Thesis Submitted to the Faculty of the Graduate School of Loyola University of Chicago in Partial Fulfillment of the Requirements for the Degree of Master of Arts

May

1982

ACKNOWLEDGMENTS

The persistent support and helpful suggestions made by Alan S. DeWolfe, Ph.D., and Daniel P. McAdams, Ph.D. are gratefully acknowledged. Acknowledgment is also made of the extraordinary help given by Gerald Mozdzierz, Ph.D., and Thomas Murphy, Ph.D. of the Edward J. Hines Veterans Administration Hospital without whom this project would not have been possible. The help offered by Kevin Franke and Anne McEneaney who served as judges for the project, as well as the work on the illustrations by Peggy Dorsher have been very much appreciated. Finally, I would like to thank my wife Irene for her tremendous patience, love, and understanding.

VITA

The author, Keith Alan Baird, is the son of Douglas Paige Baird and Martha (Schwardt) Baird. He was born October 9, 1957 in Schenectady, New York.

His elementary education was obtained in the public schools of Wappingers Falls, N.Y. and secondary education at the Roy C. Ketcham High School where he graduated in 1975.

In September, 1975, he entered Hofstra University, and in December, 1978, received the degree of Bachelor of Arts with a major in psychology. While attending Hofstra University, he was elected a member of Psy Chi in 1978 and Phi Beta Kappa in 1979.

In September, 1979, he entered the Ph.D. program in clinical psychology at Loyola University of Chicago. In 1979 he also became a student affiliate of the American Psychological Association.

TABLE OF CONTENTS

TABLE OF CONTENTS.--Continued

LIST OF TABLES

LIST OF TABLES.--Continued

LIST OF FIGURES

CONTENTS FOR APPENDICES

CHAPTER I

INTRODUCTION

Research on communication patterns in schizophrenia has utilized a number of different approaches in an attempt to understand the disorder. The different approaches appear to fall into four categories: (1) word association studies, (2) research which has examined the components of the communication process and has generated "Speaker Models," (3) research which studies family communication patterns, and (4) psychodynamic theories of schizophrenia.

Word Association

Researchers who study schizophrenics' word association patterns do so so that inferences can be made about schizophrenic thought disorder. This paradigm follows in the tradition of Bleuler (1950) who suggested that one of the primary symptoms of schizophrenia is a loosening of associations. The ability to communicate in speech was thought to depend on the strength and universality of associations so that a word spoken will evoke similar associations in the audience as it does in the speaker (Reed, 1970). Although generally this type of research has shown that schizophrenics produce more aberrant communications (i.e., deviant word associations) than do normals (Johnson & Lim, 1964; Sommer, DeWar, & Osmand, 1960; Wynne, 1964), more recent work (Andreasen, 1979a, 1979b) has begun

to question whether or not thought disorder as measured by word association is unique to schizophrenia.

Speaker Models

This form of research has tried to understand the components of the communication process and has attempted to assess at what point(s) in this process that schizophrenics have deficiencies. There is no one, single, agreed-upon model of what components of the communication process are. Instead, there are several different speaker models, each of which is based on slightly different observations made of schizophrenic abnormalities. Sternberg's model (Sternberg, 1969) is based on an almost universal finding (Wishner, Stein, & Peastrel, 1978) that schizophrenics process information much more slowly than do normals. Sternberg's model follows the four stages of communication suggested by Yates (1970) which are: (1) receiving an in-coming message, (2) processing of that message, (3) choosing a response, and (4) communicating the response. Sternberg modified this model in order to produce a model more amenable to experimental validation. He found no differences among acute schizophrenics, chronic schizophrenics, and alcoholics in their ability to function at the various stages of communication.

Cohen (1978) has generated two speaker models to explain communication abnormalities in schizophrenia. The first model, the Impulsive Speaker Model, rests on the assumption that the schizophrenic has no conception of what is appropriate and what is inappropriate

in a given social situation. Therefore, he fails to self edit that which is inappropriate because he does not know what it is. The other model, the Perseverative Speaker Model, assumes that the schizophrenic knows what is appropriate and what is inappropriate but cannot omit inappropriate responses once they occur to him. Cohen, Nachmani, and Rosenberg (1974) designed a color discrimination test to assess which of the two speaker models seem to be operating in schizophrenia. The Impulsive Speaker Model was supported. Similar research has also lent support for this model (Cohen & Camhi, 1967; Smith, 1970).

Family Communication Patterns

I believe that much of the research on family communication patterns is an attempt to understand more about a common factor among all schizophrenics, and that is that it appears as though a schizophrenic person has almost always experienced significant family problems as a young child (Arieti, 1974). This commonality should not be taken lightly in view of the fact that much of the work in understanding any of the various psychiatric disorders is hampered by the fact that it is difficult to find any one factor which is common to all of the patients who have the same diagnosis.

In the Special Report: Schizophrenia 1980 (NIMH), it appears as though research on the family and schizophrenia has been concerned with two areas of focus: familial role relationships and disordered family communication. It is the latter aspect of the family which is

more strongly correlated with the presence of schizophrenia among family members (Doane, 1978; Goldstein & Rodnick, 1975; Hirsch & Leff, 1975; Jacob, 1975; Liem, 1980; Reiss, 1976).

The focus on familial communication patterns also stems from the work of Sullivan (1929) who believed that schizophrenia is learned as a form of adaptation within the context of relationships with significant others. Research on family communication patterns usually examines communication patterns in the parents of schizophrenics and compares them with the patterns of other parents. Many researchers have examined parental communication in the absence of any theoretical paradigm. Their focus was purely on understanding the differences between how parents of schizophrenics communicated and how parents of non-schizophrenics communicated without attempting to explain why such differences should exist.

Singer, Wynne, and Toohey (1978) administered the Rorschach to both parents of normal, neurotic, borderline, and schizophrenic offspring. From the Rorschach, communication deviance scores were derived using the Singer-Wynne Index of Parental Communication Deviance (Singer & Wynne, 1966). Deviances were described as any communication during the testing situation which "distract and befuddle a listener who is attempting to share the meanings attributed to the inkblot by the speaker" (Singer, Wynne, & Toohey, 1978, p. 500). The results indicated that both the parents of either normal or neurotic offspring had low communication deviance scores. With

borderline offspring, one parent had scored high, whereas both parents of a schizophrenic scored high on communication deviance. Furthermore, in a discriminant analysis of variables hypothetically related to severity of disorder, it was parental communication deviance scores which were the highest predictors of severity of pathology in their offspring. The severity of the parents' disorders (if any) as well as several demographic variables were not as powerful as parental communication deviance in predicting the severity of psychiatric disorders in their offspring.

Goldstein, Rodnick, Jones, McPherson, and West (1978) did a 10 year longitudinal study in which families with disturbed (non-psychotic) adolescents were rated on a scale of being at risk for schizophrenia and then followed up to determine whether the incidence of schizophrenia was higher in the groups of adolescents deemed to be at a greater risk. The authors reported that:

> Parents with high communication deviance scores, and hence designated as having adolescents at "high risk" for a later schizophrenic spectrum disorder do indeed have offspring who already have a significant frequency of schizophrenia spectrum diagnosis when they reach young adulthood. (Goldstein et al., 1978, p. 493)

In a later study, Doane, Goldstein, and Rodnick (1981) found similar results when examining the audiotaped conversations of 52 families who had a disturbed, non-psychotic adolescent. In most families with one parent who displayed a consistently disturbed affective communication style (malevolent criticism, guilt inducing statements, and high levels of intrusiveness), the adolescent in the

family had developed a schizophrenic spectrum disorder by the five year follow-up period. In most families with at least one parent who displayed a consistent, benign (healthier) style of communication, the adolescents were much healthier at follow-up than were the adolescents in the families with the disturbed communication.

The family communication research has pretty convincingly established that disordered communication exists in the parents of schizophrenics, and that parental communication deviances are powerful predictors of the later development of schizophrenia in their children. The need for a theory which explains what the parents' pathological communications are and how they affect the child is critically important in terms of prevention and possibly being able to treat schizophrenia.

Psychodynamic Theories

The psychodynamic approach has used clinical observation and case studies to advance an elaborate theory about personality and psychopathology (Freud, 1924b). Because of their emphasis on clinical applications, psychodynamic theories continue to have great appeal for the clinicians who work with patients; however, from a research standpoint the theories have not been particularly amenable to scientific investigation.

> The essence of the psychodynamic approach is that schizophrenic experience and behavior, which in adult clients (who are schizophrenic) usually appears to be senseless, often make more sense when they are examined in their original family context. (Laing & Esterson, 1971, p. 8)

Several theories about schizophrenia concentrate on the relationship between the mother and her child. Mahler (1968) introduced the concept that severe impairment occurs when a child becomes fixated at the symbiotic stage of development. Out of the mother's need to keep the child totally dependent on her, she communicates to her child usually non-verbally that he is to stay in a state of psychological fusion with his mother. The child does not develop any sense of ego boundaries and cannot distinguish between himself and the world around him. This leaves the child in a state of constant confusion. While Mahler's work has focused on the relationship between the symbiotic stage of development and autism, Kerberg (1978) believes that fixation at the symbiotic stage is related to adult schizophrenia.

The child who will become schizophrenic has learned to distrust his world. Arieti (1974) asserts that the child learns that the only way to "survive" is to live in fantasy and rely on inner stimuli rather than accept that which is from outside of himself. The preschizophrenic makes heavy use of projection and eventually this becomes the sole means of communicating with his world (Arieti, 1974). Eventually, this projection defense takes the form of more firmly crystallized delusions and hallucinations.

Another theory of schizophrenia, the double bind theory (Bateson, Jackson, Haley, & Weakland, 1956) has been called "the most stimulating and influential conception of the psychodynamic

etiology of schizophrenia" (White & Watt, 1973, p. 461). The theory, which has persisted for 25 years in the literature as basically a literary, non-empirical formulation, attempts to make explicit how the communication abnormalities in parents can promote the denial of reality on the part of their children.

The purpose of this investigation is to examine the double bind theory and attempt to validate some important tenets of the theory. Since the bulk of this presentation focuses on the double bind, a full chapter will be used to discuss it.

CHAPTER II

THE DOUBLE BIND THEORY

"Double bind theory is about relationships, and what happens when important basic relationships are chronically subjected to invalidation through paradoxical interaction" (Abeles, 1976, p. 115). The double bind theory is based on that part of communication theory which Russell has called the Theory of Logical Types (Whitehead & Russell, 1910). Originally used in mathematics, the Theory of Logical Types suggests that the class of things is of a different logical type or level of abstraction than are the members of that class. This distinction usually goes without notice unless the levels of abstraction become confused. Haley (1976) provides an example of a confusion in logical types in the familiar paradox below:

All statements within this frame are untrue.

The statement itself describes a class of statements, yet because it has been placed within the frame, it is also a member of the very class which it describes. This is a confusion of logical types and the confusion it generates in the observer is readily apparent. It is this confusion of logical types which Haley (1976) believes is the central thesis of the double bind theory. He contends that:

> in the psychology of real communication this discontinuity (the distinction which should exist among logical types) is continually and inevitably breached and we must expect apriori, pathology to occur in the human organism when certain formal patterns of this breaching occur in the communication between mother and child. (p. 69)

The double bind theory suggests that the pre-schizophrenic has been exposed to pathological communications where logical types have been confused, but where in addition, he is punished if he acknowledges the confusing parts of the communication (i.e., if he metacommunicates). This in essence is what contributes to thought disorder in schizophrenia. As in the example previously mentioned, "All statements within this frame are untrue," the solution to this breach of logical types is to step outside of the frame. So, too, with a double bind communication, resolution can only be achieved by stepping outside of the frame and metacommunicating, or recognizing that the communication is punitive and entrapping. I pose to the reader to imagine how disturbing the paradox: "All statements within this frame are untrue" would be if you were unable to metacommunicate or recognize that it is an unsolvable, logical puzzle. Indeed the double bind theorists suggest that this is the predicament that a pre-schizophrenic finds himself in when placed in a double bind. More specifically, the theorists (Bateson, Jackson, Haley, & Weakland, 1956) stated that the following ingredients are necessary for a double bind:

1. Two or more persons, usually the mother double binding her child.

2. Repeated experience. Such repeated experience helps create the idea in the child that the double bind structure is to be expected in all interpersonal relationships.
3. A primary negative injunction which may take either of two forms: "do not do this or else I will punish you," or "if you do this I will punish you." Thus the child is situated in a context of learning based on the avoidance of punishment rather than in the context of reward seeking. Avoiding punishment as the contingency does not allow for new learning to take place in other relationships.
4. A secondary negative injunction conflicting with the first at a more abstract level, and like the first, enforced by punishments or signals which threaten survival. The secondary negative injunction is commonly communicated to the child by non-verbal means such as posture, gesture, and tone of voice. The verbalization of the secondary negative injunction may include a wide variety of forms, for example: "do not see this as punishment"; "do not see me as the punishing agent" (Haley, 1976, p. 65). The secondary negative injunction is like the frame in the example of confused logical types. The verbal message may be framed by gesture, verbal intonation, or the physical context (Haley, 1976).
5. A tertiary negative injunction prohibiting the victim from

escaping the field. This is a third injunction which occurs as a result of the interaction of the primary and secondary negative injunctions. As in the example "Everything within this frame is untrue," the tertiary negative injunction might take the form "There is no way out of this situation" which is what is implied by the two injunctions occurring simultaneously.

6. "Finally, the complete set of ingredients no longer becomes necessary once the victim has learned to perceive his universe in double bind patterns. Almost any part of a double bind sequence may then be sufficient to precipitate rage or panic" (Bateson et al., 1956, p. 128).

Bateson et al. (1956) provided an example in their original article of a double bind in vivo:

> A young man who had fairly well recovered from an acute schizophrenic episode was visited in the hospital by his mother. He was glad to see her and impulsively put his arms around her shoulders, whereupon she stiffened. He withdrew his arm and she asked, "Don't you love me anymore?" He then blushed, and she said, "Dear, you must not be so easily embarrassed and afraid of your feelings." The patient was able to stay only a few minutes more and following her departure he assaulted an orderly and was put in the tubs. (p. 44)

I would like to analyze this double bind interaction to show how a double bind can "teach" a person to distort his thinking. To do this, I will make three assumptions. The first assumption is that the love and security of the mother are of vital importance to the son. The second assumption is that this kind of interaction has occurred since the son's childhood. The third assumption I shall

borrow from Abeles (1976) who says that ". . . an underlying assumption (in the development of schizophrenia) is that schizophrenic behavior is both organized and learned, and reflects a particular developmental context in which the behavior is both meaningful and appropriate" (p. 113).

In the clinical example provided by Bateson et al., the primary negative injunction communicated by the mother to her son is "You must show me signs of love and affection if you want my love in return." This is inferred from when the child withdrew his arms and the mother asked "Don't you love me anymore?" However, the secondary negative injunction conveyed by the mother through her stiffening, non-verbal behavior in response to the boy's affection is "Do not touch me and show me signs of affection if you want my love because it makes me anxious."

The child, having been given these two conflicting negative injunctions has three different ways in which to respond to his mother. The first way is that he may correctly see that his mother is delivering a double message due to her confusion and emotional problems (i.e., he can metacommunicate). However, this is not a viable choice for a resolution because the child will then realize that his mother is bad and therefore he is denied the possibility of any love or security from her in the future. He thus does not comment on the double bind out of fear that he will be punished for doing so. The second way in which the son may attempt a resolution is to conclude that although he did display signs of love and

affection towards his mother, there is something about himself which is inherently bad and unworthy of love so his signs of affection were legitimately rejected by his mother. Again, this is not a viable solution because the son concludes that he is bad and is denied the possibility of any love from his mother in the future. The third way in which the son may choose is to deny his correct perception of reality and conclude that he must not have been showing signs of love. He thus can reason that if he could only find the right way to behave, he would receive his mother's love. I do not wish to imply that the son is consciously struggling with which of the three choices to make. Rather, unconsciously, he seeks to receive the mother's love and therefore thinks and behaves in accordance with that desire so that he may receive her love.

After repeated experience with such double binds, the son loses the ability to correctly perceive reality and learns not ever to metacommunicate (or communicate about communicating). Many of the double bind theorists have made speculations as to the effects of a double bind on the "victim." Weakland (1976) believes that with repeated exposure to the bind, the victim loses the ability to recognize and respond

> . . . to the duality and incongruence of the message received (which) leads to further difficulties on the recipient's part at several levels of behavior: failure to discriminate the order of message being received, consequent subjective confusion and distortion of ideas and affect; and speech or action that manifests confusion. . . . (p. 26)

Bateson, Jackson, Haley, and Weakland (1956) suggest that schizophrenics confuse the literal and metaphoric in their own utterances

when they feel themselves caught in the double bind. The pathology enters when the person himself either does not know that his responses are metaphorical or cannot say so. Given the inability to judge accurately what a person really means, and an excessive concern with what is really meant, Bateson et al. suggest that an individual may defend himself by choosing one of the following alternatives: He might assume that behind every statement is a concealed meaning which is detrimental to his welfare (paranoid schizophrenia); he might take everything literally (simple schizophrenia); when communication levels contradict, he simply laughs it off (hebephrenic schizophrenia); or he treats all communications as unimportant (catotonic schizophrenia). Bateson et al. (1956) mention additional effects of exposure to the double bind: social inadequacy, cognitive deficits, ambivalence, social deviancy, and field dependency. If the "bound" person were to break out of the symbiotic tie altogether, then he would be prone to disorganizing panic, perplexity, hallucinations and delusions. Therefore, the mother and her son establish a non-verbal contract; it is arranged that he will re-enact the two year old baby stage and she will re-enact the life-giving mother scene whenever mother needs security. Searles (1958) sees this relationship as a necessary one in order to maintain the mother's emotional equilibrium.

Understanding exactly how this pathological communication called a double bind fits into the grand scheme of knowledge about the etiology of schizophrenia is a noble, yet presently unanswerable question.

Reiss (1976) has quite formally stated what the requirements are to show that a variable such as the double bind is related to the etiology of schizophrenia.

> The hypothesized variable must be clearly defined and measured by reliable and objective methods. (The) causal role of the variable must be assessed by demonstrating that it: (a) is specifically linked with schizophrenia as opposed to other conditions or states, (b) has an impact on the individual before the onset of schizophrenia, (and) (c) is not confounded with a covarying or concomittant variable that is the "true" etiologic variable. (Reiss, 1976, p. 181)

Certainly in the course of the development of a theoretical paradigm, the double bind theory falls far short of being able to conform to such rigorous requirements. In terms of Kuhn's (1962) nosology, the double bind theory appears to be at the "pre-paradigm" level of development and is nowhere near the level of "normal science" (the level necessary in order to achieve the requirement specificed by Reiss). The theory does not explain how double binding originates, how double binding is maintained, and how it becomes so pervasive in schizophrenogenic families. In Scheflen's (1978) words, "The theory does not adequately explain how double binding leads to the clinical picture of schizophrenia" (p. 128). Bateson (1966b, 1970b) admits that the double bind phenomenon is both a subtle and evasive one to investigate. He acknowledged that the theory is self-validating for the practitioner working with schizophrenics, but that it is not particularly amenable to experimental investigation. Still at an even more basic level is the issue of whether or not the double bind phenomenon even exists (Rinquette & Kennedy, 1966)! Additional questions are, if the phenomenon does exist, is it a general, pervasive phenomenon which

everyone is exposed to (Sluzki & Vernon, 1971) and schizophrenics have simply been suffering from a lack of exposure to the double bind (Kafka, 1971), or have schizophrenics been given too much consistent exposure to the bind (Haley, 1978)? Given the many basic discrepancies in the theory itself, it is not surprising when Abeles (1976) reviewed the literature and concluded that the "existing support (for the theory) is meager and comes primarily from clinical illustration and anecdote--not the kind of evidence acceptable within a framework of preferring experimentally derived evidence" (p. 114).

Jones (1977) suggests that there have been basically four types of articles appearing in the double bind literature: theoretical articles, clinical articles describing illustrative cases, methodological articles, and research articles which attempt to directly test the theory.

The theoretical articles and articles containing clinical examples are necessary to allow one to move from a pre-paradigm form of science to one where a paradigm has been established. These articles help to provide clarity to the concept under study. It appears that what is needed most at this time are more of these kind of articles, given the present state of confusion at the conceptual level of the theory. Without more clarity, experimental efforts with the double bind theory will be handicapped. In a review of the basic theoretical articles on the theory, Scheflen (1978) concluded that the double bind can produce a variety of responses in its victims: anger, rage, panic, withdrawal, social inadequacy, cognitive deficiencies, ambivalence,

rebellious social deviancy, paranoia, and apathy. With so many conflicting, indeed, opposite outcomes, how can researchers ever begin to understand the effects of the double bind? Abeles (1976) contends that based on what the theorists have said, there is nothing to determine whether the person who is exposed to the double bind will be a schizophrenic, a humorist, or a poet. Wynne (1969) has resigned himself to the fact that perhaps the only way to distinguish different kinds of double binds is by the effects that they generate. I believe that this is a bit too pessimistic, however, because it is likely that the intention or mood conveyed by the person doing the binding could also help in predicting the effect which the bind might have, e.g., Jacobson (1971) uses the double bind for therapeutic purposes. The main point, however, is that given what appears to be a good amount of theoretical and conceptual confusion concerning the double bind phenomenon, one might feel at a loss as to the direction to take with research. A logical direction to turn is to more carefully examine the clinical material as it presents itself. Unfortunately, the clinical examples are not too commonly presented in very much detail.

Weakland and Jackson (1958) analyzed a therapeutic interview with a psychiatric patient and described the nature of this breakdown in terms of the double bind. Emphasis was placed on the patient having been faced with conflicting levels of the message which gave him the "illusion of alternatives" when in fact there were none. Fry (1959) offered an explanation post hoc of a hospital riot in terms of the

double bind, contending that the riot occurred because of a conflict in levels of communication among staff. It is, of course, not feasible to say that this is proof for the validity of the theory; it merely suggests that some phenonmenon is operating in the experience of many persons and it is creating some form of distress.

The methodological and research articles have generally taken one of two forms: those which seek only to observe the double bind phenomenon, and those which try to establish an experimental analogue to the double bind in the hopes of being able to experimentally verify the validity of the theory. The problem of having a vaguely defined, subtle concept such as the double bind appears to be the central problem in these empirical studies. The problem of lack of clarity poses less of a problem for those studies which seek only to observe the double bind in vivo. As Abeles (1976) points out, such investigations need only to say whether or not the double bind interaction is present or absent without really having to specify exactly what the double bind is. Those researchers, however, who seek to develop operational definitions of the double bind are more beleaguered by the lack of conceptual clarity. They must decide what the important features of the double bind are, capture them, and be able to present them in a practical and ethical manner. But, such operationally defined "simulations necessarily commit themselves to such precision that they usually lose the concept" (Abeles, 1976, p. 124).

I would like to review some of the double bind empirical

studies by examining first the observational studies which seek to note merely the presence of absence of the double bind, and then review what I call the "analogue studies"--those investigations which attempted to operationally define the double bind.

Observational Studies

Weakland and Fry (1962) attempted to observe double bind communications by examining the content of letters written by mothers to their schizophrenic children. They concluded that the letters contained double bind messages just based on an overall appraisal of the letters. Using the same letters, Rinquette and Kennedy (1966) provided more rigorous methods to study the double bind content. They gave the sixty letters to five groups of judges ranging in experience from naive to expert with respect to the double bind. They were asked to compare those letters with the letters written by mothers of normal children. It was found that none of the groups of judges could differentiate the letters written by the "schizophrenogenic" mothers from those written by "normal" mothers. Perhaps even more significant than these findings, however, was that the inter-judge reliability coefficients for presence or absence of double bind content in the letters were abysmally low, ranging from .13 to .44 across the five groups of judges. This clearly shows that there is much more disagreement as to whether or not a double bind has occurred than might have been expected. Rinquette and Kennedy (1966) concluded that the double bind is not a measurable phenomenon, and even questioned whether or not the phenomenon existed. Kafka (1971) responded to these results with the

new theoretical twist that perhaps the schizophrenic suffers from a paucity of double bind experiences or a lack of encouragement to tolerate ambiguity. Such a conclusion, however, seems unwarranted for two reasons. First, the use of letters as a medium for communicating double bind messages is dubious in the light of conditions necessary for a double bind. The double bind theory requires that two contradictory, negative injunctions each operating on a different level of abstraction occur simultaneously. One must question how this condition can be satisfied by examining only the written records from mothers to their children. At best, Rinquette and Kennedy could only hope to find one negative injunction. The second reason why Kafka's conclusions appear to be unwarranted is that even if Rinquette and Kennedy's methodology was sound, the data revealed that there was no difference between the groups on the number of double bind themes in the letters.

Beakel and Mehrabian (1969) examined videotaped interactions within 10 families (5 families with a severely disturbed adolescent, 5 with a mildly disturbed adolescent). The hyopthesis that the families with the more severely disturbed child would display more communication difficulties was not supported. The parents of the more severely disturbed child did display more negative feeling, however. Unfortunately, Beakel and Mehrabian did not specify the diagnosis of the adolescents so it is difficult to know what to do with the results. A more minor, but still pertinent point is that a troubled family will act more normally when being observed in an experimental situation (Brofenbrenner, 1977; O'Rourke, 1963).

Beavers, Blumberg, Timken, and Weiner (1965) tape recorded interviews with mothers of schizophrenic and non-schizophrenic patients in order to assess whether or not mothers of schizophrenics would communicate in a more ambiguous manner. The transcripts were scored along three dimensions: definite responses, evasions, and shifts of meaning. The two groups of mothers were significantly different on all three dimensions in the directions predicted. Mothers of schizophrenics had less definite responses, and more shifts and evasions than the other mothers. Although it is clear that the mothers of schizophrenics communicated in a more ambiguous manner, Olson (1972) is correct when he stated that the ". . . conceptual leap of counting the number of shifts and evasions during an interview as adequate measures of the double bind in questionable" (p. 73).

In a retrospective study, King (1975) examined the reports recorded by hospital staff of observations made of interactions between mothers and their children for evidence of a double bind attitude. The mothers were divided into three groups: the experimental group was comprised of mothers and their autistic children. The two remaining groups were control groups of mothers and their hospitalized, non-autistic children. The staff's comments and observations were recorded verbatim on cards and randomly given to three judges who sorted the cards according to whether or not they contained evidence of a double bind relationship. The results strongly indicated that the mothers of the autistic children displayed a higher double bind attitude. The staff's descriptions of the mothers of autistic children were said to

be double binding based on observations such as: "Mother showed no affect, instead the child is treated like a possession"; "Separation from the mother was more like the uncoupling of a railroad car than a human leaving another human." What is interesting about King's research is that he has succeeded in capturing some overall quality of aloofness, coldness, and non-nurturance on the part of mothers of autistic children. It is difficult to assess, however, whether or not those mothers were actually double binding their children, because there is no actual record of the mother-child interactions. In addition, it is a very shaky conceptual leap to say that autism in children is in any way related to schizophrenia. Finally, there is no real way of telling if the aloofness perceived in the mothers of autistic children caused the autism, or whether it merely reflects the response patterns built up over time from living with such difficult children. This problem with the direction of causality between communication disorders and illness will be discussed later in this chapter.

Sojit (1969, 1971) studied family communication patterns in five different types of families. The groups were differentiated according to whether the family contained a child who was schizophrenic, delinquent, suffering from colitus, or normal. The families were presented with a proverb and were asked to discuss its meaning. It was discovered that the parents in the families with the schizophrenic offspring made significantly less metacommunicative statements (comments about communication) than the parents of normal children, but

did not differ significantly from the parents of the other groups. It was Sojit's inference that a proverb is some form of paradox which is roughly equivalent to the double bind. Abeles (1976) is correct in her assessment of this study in that although a proverb may be confusing, it does not generate a paradox, and it is even further from a double bind. This distinction will be more clearly articulated towards the end of this chapter.

Even in the observational studies, the results seem to indicate that although the mothers of schizophrenics do not communicate as clearly as the mothers of other children, and may be somewhat more aloof and emotionally cold, there is no solid evidence that they communicate more double bind messages than the mothers of non-schizophrenic children. It was pointed out that some researchers (Abeles, 1976) feel as though one does not have to know the specifics of what a double bind is in order to simply study whether it is present or absent in human interactions. I do not believe that this is the case. The inter-judge reliability in the Rinquette and Kennedy study clearly points out that there is widespread disagreement as to what constitutes a double bind. This suggests that it is important to know the specific elements of a double bind in order to reliably point out when it has occurred. It appears as though the observational studies are picking up some phenomenon which clinicians have documented time and time again. It is also apparent that more clarity needs to be gained as to what the double bind concept is so that its role in the etiology of schizophrenia may then be more properly assessed.

Analogue Studies

Analogue studies attempt to create an operationally defined model of the double bind so that the effects of the double bind may be studied in more tightly controlled experiments. Analogue studies of the double bind face a much more formidable task than the observational studies, because researchers doing analogue studies must decide what the essential features of the double bind are, and devise a means of presenting a simulated double bind to subjects. Bateson (1966b), one of the originators of the double bind, admits that such a highly abstract theory does not lend itself to validation by controlled experimentation (I take this to mean by analogue study). Bateson sees the basic problem at a conceptual level in that controlled experimentation assumes a linear relationship between cause and effect; however, Bateson argues that the double bind is an interactional phenomenon. There is no linear chain of cause and effect, thus it is very difficult to label and specify any critical variables. It is as though controlled experimentation is a two dimensional research tool which is trying to explain a three dimensional phenomenon. In her chapter entitled "Researching the Unresearchable," Abeles (1976) writes

> though with experimental paradigms one is always dealing with weakened versions of concepts, there are propositions whose essential nature seems forever to elude operational attempts; the double bind may be such a concept. . . . If it were possible to devise an experimental setting (which could capture the essence of the double bind), ethical standards probably and should prohibit it. (p. 146)

More often than not, analogue studies have been beset by the perennial problem pointed out by Olson (1972). He believes that the most

difficult problem in translating the double bind into some kind of operational form is to do so without altering the concept so much in attempting to make the research more rigorous that it becomes irrelevant.

Despite the pessimism concerning controlled experimentation with the double bind, research on the double bind continues to appear in the literature. The earlier analogue studies attempted to determine whether or not subjects, usually schizophrenics, were able to discriminate between double bind and non-double bind conditions.

Ciotola (1961) used a paradigm where schizophrenics and non-psychotic patients were asked to perform an impossible auditory discrimination task (picking which of two identical piano tones was higher). The experimenter gave positive feedback 50 percent of the time after a discrimination trial and negative feedback the other half of the time, all on a random basis. In addition, whenever subjects were given negative feedback, they were also given 5 cents. Subjects were pre-tested on a task which was discriminable, but were given neither feedback nor money for their efforts. They were post-tested in a similar manner following exposure to the double bind analogue. Ciotola predicted that upon post-testing, the schizophrenics would display longer reaction times and increased tension. Neither of these predictions were confirmed.

Ciotola viewed the core of the double bind to be the simultaneous reward and punishment for a given behavior. Abele's (1976)

review of Ciotola's investigation is that it is not the impossible discrimination task which is central to the double bind simulation, but the simultaneous punishment and reward by saying "bad" while paying subjects for their efforts. My review of this investigation is that Ciotola has violated many of the necessary ingredients for a double bind. In Ciotola's paradigm, the subjects are merely being rewarded for their "badness." The double bind theory states that the victim is exposed not to simultaneous reward and punishment, but to two punishments, each of which is contradicted by the other, leaving the victim immobilized. In addition, he is punished for recognizing the entraping, immobilizing quality of the double bind. I fail to see how Ciotola has successfully established an analogue to the double bind.

Using a similar methodology, Potash (1965) simulated the double bind by having subjects play the game called the prisoner's dilemma. The prisoner's dilemma is played by two people, each of whom has been said to have attempted a robbery. Each "robber" has three choices concerning admission of guilt: (1) turn state's evidence and say that the other robber committed the robbery, whereupon the other robber is "sentenced" to 20 years and the confessor goes free. However, if both robbers elect this choice, they both get 20 years, (2) the robbers can both admit involvement in the crime whereupon they both serve 2 years, or (3) admit to the crime as the sole robber and receive a 10 year sentence (this is the withdrawing response). Potash hypothesized that the schizophrenic would choose the withdrawing response because

the schizophrenic might choose to withdraw from a mother's double bind communication. His prediction was not confirmed. In this situation however, the conflict occurs on only one level of abstraction--that of the spoken word, or the explicitly stated rules of the game. Jones (1977) felt that Potash was making a "shaky conceptual leap" (p. 165) in his inference that the prisoner's dilemma is analagous to the double bind. Both Vetter (1969) and Olson (1972) thought that the prisoner's dilemma more accurately reflects the issue of interpersonal trust rather than being trapped in a double bind. As Abeles (1976) points out, however, the prisoner's dilemma does seem to model one aspect of the double bind and that is that the dilemma contains vicious circle reasoning which might also occur in the double bind. The one aspect which Abeles feels the prisoner's dilemma misses, is that in a double bind, the victim is struggling to maintain the relationship with the mother, while in the prisoner's dilemma the emphasis is on saving one's own "skin" while caring little about what happens to the other participant.

Two studies in the literature (Loeff, 1966; Shoham, Weissbrod, Markowsky, & Stein, 1977) created a double bind analogue by presenting audiotapes of voices where the content of the message contradicted the tone of voice. Loeff (1966) examined the ability of adolescents to distinguish between two kinds of metaphors: happy and angry. Both kinds of metaphors were presented with one of three different types of verbal affect: neutral, appropriate to the metaphor content, and conflicting with the content of the metaphor. Loeff demonstrated that

all three groups (normals, delinquents, and schizophrenics) were capable of discriminating between a conflicting and a congruent message. In addition, Loeff found that the delinquent and schizophrenic groups seemed to be more influenced by the affective component of the message rather than the content. Shoham et al. (1977) found just the opposite result, that is, they found that schizophrenics were not able to differentiate a double bind from a non-double bind message. These contradictory findings are a bit puzzling because the methodologies appear to be identical. One can only speculate that the differences in samples in the two studies (one American, one Hebrew) can account for this difference.

The major problem with the analogue used in these two studies is that it seems as though the double bind has been confused with a contradiction. A contradiction merely presents two or more pieces of information which do not fit together (in this case a verbal and a non-verbal message). In a double bind, however, each of the pieces of information are in the form of negative injunctions; this means that they each carry with them some form of punishment, and they work in contradiction to one another so as to immobilize the victim.

Helm, Fromme, Murphy, and Scott (1976) presented a different kind of double bind analogue to female undergraduates. The analogue consisted of a vignette describing a conflict between a daughter and her widowed father. The authors state that the daughter named "Brenda" was

> portrayed as feeling close to her father and depending upon him for both present and future financial support. Her dilemma stemmed from her dependency and his inconsistency in actively encouraging her to date, yet also demanding the intimate details of her evening. (p. 171)

The purpose of the investigation was to evaluate the victim's (daughter's) experience of herself and her "father," and also to imagine oneself as the father and rate both the father and the daughter. The ratings were based on Osgood's semantic differential dimensions of potency, evaluation, and activity. As predicted, the "victim" saw herself as weak but good, and as highly cooperative and highly frustrated, while attributing just the opposite characteristics to the father. The authors argued that since the victim experienced frustration and mixed feelings towards both herself and the source of the dilemma (father), then her discomfort must be due to double bind communications. One could cogently argue, however, that a person could feel both weak and good, cooperative yet frustrated in a variety of experiences other than the double bind. Their logic involves a fallacy of deductive reasoning analogous to the following erroneous syllogism: All cats have four legs; all dogs have four legs; therefore, cats and dogs are the same. While their research findings may suggest some similarities to the double bind, their predictions are too general to begin with to make such a strong statement that the outcome was due to double bind interactions.

Schreiber (1970) presented normal college students with a double bind analogue and attempted to assess the disruption in com-

munication which is supposed to be the result of the double bind. Using college students enrolled in a statistics class, students were asked to write an essay on the importance of statistics, produce several TAT stories, and perform a visual discrimination task. The control subjects (non-contradictory group) were given straightforward instructions for the task. The second condition contained all of the elements of the control group, but in addition, subjects were informed that their performance would have special significance because it would reveal their creative potentials as well as any serious psychological problems. The third condition, which Schreiber refers to as the double bind condition, contains all of the previously mentioned conditions in the second group, but adds still additional instructions that the tasks would be simple and that everyone should be able to finish in about five minutes. As Abeles (1976) articulates, the core of Schreiber's paradigm is that subjects in the double bind condition are asked (implicitly) to deny their appropriate anxiety feelings. Schreiber's predictions were confirmed only on the essay variable, with subjects demonstrating more "disruptive" communication than was found in the essays produced by students in the other groups.

In what is perhaps the best double bind analogue experiment to date, Smith (1976) gave special attention to the requirements or list of ingredients in a double bind as specified by Bateson et al. (1956). Smith assumed that the main components of the double bind are communications which have both contradictory demands and some

form of punishment. Smith assessed the effects of both elements separately and in combination on the trait anxiety of college students. The design was a 2 x 2 x 3 factorial design consisting of 2 levels of stimulus material (contradictory, non-contradictory), 2 levels of punishment (punishment, no punishment), and 3 levels of trait anxiety (high, medium, and low).

The stimulus material consisted of 30 letters written by a "mother" to her daughter. Subjects (all of which were female), were told to imagine that they were the daughter. The letters were tape recorded and presented individually to each subject. Following each letter, a series of questions were read to make sure that the subject understood what the mother was trying to convey. In the contradictory condition, each letter contained conflicting statements. As an example:

> The mother might have mentioned her disapproval of how fat the daughter had become and then later she might have stated that she was going to show the daughter how much she loved her by sending a box of her favorite cookies. One of the statements following the letter might have read, "Really, I am implying that I want you to look ugly." (p. 357)

The subject was then supposed to indicate whether the statement was true or false. Subjects in the punishment condition received punishment (a 3-second burst of white noise) 75% of the time in response to their answers regardless of their accuracy.

Smith went to great lengths to try to make the analogue as similar as possible to the ingredients in the double bind. Smith assumed that an individual in a double bind is put in a situation

where she feels compelled to respond correctly to the communications. This situation was established in the analogue by verbal directions in which the subjects were told to answer the items correctly (and in the punishment groups, subjects were told that they would be punished if they did not answer correctly). But when subjects in the punishment group responded, they were punished 75% of the time regardless of the accuracy of their responses. Thus punishment is delivered on two different levels of abstraction (verbally, non verbally, i.e., white noise).

The subjects in all of the treatment groups were told that they would start with a sum of money and would lose money for each incorrect response that they gave. Thus, just as in the double bind, subjects in the analogue learned to avoid punishment rather than to seek reward.

To "safeguard" against subjects using their metacommunicative abilities (attributing their inability to get the answers correct to the "craziness" of the experiment), each subject was individually informed (erroneously) that 87% of the group got the answer correct on a given question. They were thus more likely to attribute failure to themselves. In addition, subjects were prohibited from asking questions (in which they could metacommunicate). Subjects were also prohibited from leaving the field under the threat of loss of all of their money which had been given to them at the start of the experiment. Finally, since the double bind requires repeated experience, subjects were tested for two hours.

As predicted, the group receiving both punishment and contradictory material (the double bind condition) experienced significantly higher levels of state anxiety than the other three groups (punishment alone group, contradictory material alone group, non-contradictory and non-punishment group). Further, although the punishment alone group and the contradictory material alone group experienced significantly higher levels of state anxiety than the control group (non-contradictory material and no punishment group), it was the combination of both punishment and contradictory material which created the highest amount of anxiety.

The main strength of Smith's study was the close attention paid to the ingredients of a double bind. The main drawback was the use of college students. It would appear that ethical considerations would preclude the use of schizophrenics or any psychiatric group in this study. While Smith does a good job in trying to keep the normal subjects from exercising their metacommunicative abilities, her use of anxiety as a dependent measure is questionable. Smith argues that anxiety is commonly observed clinically and experimentally to be associated with disruptions in cognitive efficiency (p. 357); therefore a measure of anxiety is a reasonable dependent measure. While this may be true, it should be noted that what Smith is assessing are the differential effects of punishment and contradiction on anxiety in college students. The results of this study, therefore, should be kept in their proper perspective in terms of inferences that can be made about the role that the double bind plays in the etiology of schizophrenia.

A number of analogue studies which I have reviewed have used normal college students for research subjects. The decision to use such a population is undoubtedly based on two reasons: the first is convenience, the second is that one might be able to use a rather potent double bind analogue with a normal population which might otherwise be unethical to impose on a psychiatric population. One may assess changes in anxiety levels or some other similar dependent measure and then make an inference leap that the double bind in psychiatric patients might have generated more than a temporary change in anxiety: it might have either promoted or sustained a thought disorder of some kind. In the end, however, researchers must find a way to use double bind methodologies with psychiatric populations.

Double Bind vs. Contradiction

The Smith study began to sort out the difference between contradictions operating alone and the effects of contradictions in conjunction with punishment. In the majority of studies which have appeared in the literature, however, there seems to be a good deal of confusion between a simple contradiction and a double bind. This has been acknowledged by other reviewers:

> It is essential to distinguish between paradox and other kinds of contradictions and incongruencies since the double bind is so often interpreted as meaning inconsistent communication or contradictory messages and the like. Unless such definitions further specify that the contradiction occurs between different levels of abstraction, or different logical types, the definition is one of simple contradiction. (Abeles, 1976, p. 118)

To this Haley adds that

> . . . typically, readers assume that when faced with a double bind, the "victim" is faced with a "damned if you do, damned if you don't" situation. They assume that the person was faced with two contradictory messages rather than two messages which conflict because they are at two different levels. (Haley, 1978, p. 71)

Haley continues by citing an example of a "damned if you do, damned if you don't" situation as one where a person says "I will be angry with you if you obey me, and I will be angry if you disobey me." Haley points out that the person can choose either of the two options, and will probably choose the lesser of the two evils. However, in the double bind, the person cannot choose because the two messages occur simultaneously in contradiction on two different levels of abstraction. When the two levels are put together, the complete message becomes, "If you obey, you are disobeying, and if you disobey, you are obeying" (Haley, 1978, p. 71). Similarly, Watzlawick (1965) makes the same distinction between double bind and contradiction and provides an example of paradox or double bind in the communication: "Ignore this sign." The reader of a paradox or double bind is left paralyzed. It is not that he will be punished if he chooses either of two alternatives; he really can do nothing at all!

While it is clear that a paradox is qualitatively different from a contradictory statement, there is absolutely no evidence that such "pure" paradoxical statements exist in the families of schizophrenics, or anywhere else except in books on logic and mathematical puzzles. It is rarely found in conversational discourse. I would venture to guess, however, that what might occur in the interactions of families with schizophrenics are similar, though less pure forms

of paradox, which, when placed in the context of an important, emotional relationship, can have the same, paralyzing effects.

Berger (1965) has offered what I think is a more realistic account than that provided by Haley (1978) and Abeles (1976) as to the types of paradoxical statements which can exist in the families of schizophrenics. Berger proposed that individuals who have shown severe presonality disorganization (e.g., schizophrenic reactions) would report having heard their mothers give a significantly greater number of conflicting, double bind messages than would individuals who have had little or no emotional problems. Berger compiled a list of 30 statements each of which contained a conflicting message and gave the list to schizophrenics, non-schizophrenic psychotics, hospital personnel, and college students. He asked them to rate the frequency with which they remembered their mothers to have said such statements. Of the 30 statements, five of the statements distinguished the schizophrenics from the other groups because schizophrenics remembered their mothers saying the statements with greater frequency. The five statements are:

1. You really hate me; you're just pretending to love me.
2. You don't deserve a mother like me.
3. You can always talk to me, but don't bother me about unimportant problems.
4. I saw you hugging your father yesterday and I know you never come to me like that.
5. If you do it your father won't like it, and if you don't do it, I won't like it. (Berger, 1965, p. 203)

Other statements which distinguished the schizophrenic group from the other psychiatric group include:

a) I wasn't really angry with you; you just thought I was.
b) If you had been a girl, you'd understand me.
c) You are driving a nail in my coffin even though I do everything only for you. (Berger, 1965, p. 202)

An obvious threat to the validity of this study recognized by Berger (1965) and elaborated on by Jones (1977) is that individuals who have suffered severe personality disorganization may be more likely to remember such communications. In her review of this study, Abeles (1976) says that "however frequent such statements may be . . . in the experience of the subjects, it is difficult to see the relevance in these terms to the double bind" (p. 128). Generally, I agree with this statement, but perhaps not for the same reason. There is a problem of the direction of causality. It may simply be that because people are schizophrenic or paranoid (or both), that they may be more likely to report their mothers as having said such statements when in reality they might not have made such statements at all! While there is no way of knowing for sure whether or not the subjects' mothers actually made such statements, it is plausible that such statements, when couched in an important relationship where non-verbal behavior could contradict the verbal statement, the end product could be similar in quality to a double bind.

Direction of Causality

A perennial thorn in the side of psychological researchers, and particularly with researchers who are studying the double bind, has been the issue of how does one control for the direction of causality? That it, does one become schizophrenic and exhibit thought

disorder because one has been exposed to double binds, or does the mother of a schizophrenic exhibit double binds in response to a child who is schizophrenic? This problem has been most clearly demonstrated in studies which have compared schizophrenics and their mothers with medical patients and their mothers.

Klebanoff (1958) compared mothers of schizophrenics with the mothers of brain-injured or retarded children, and mothers of normal children in their attitudes towards parenting. Using the Parental Attitude Research Instrument,

> the finding that the mothers of schizophrenic children showed less rather than more pathological attitudes than the mothers of brain damaged and retarded children tends to cast doubt upon the hypothesis that maternal attitudes cause schizophrenia. (p. 448)

In the previously mentioned articles by Sojit (1969, 1971), no differences were found in the clarity of communication between mothers and their children regardless of whether that child was schizophrenic, delinquent, or suffering from colitus.

McCraw (1980) studied family interactions and communication patterns in families with epileptic patients and noted many similarities with the double bind communication as described in clinical writings. Although not a particularly "tight" study in its methodology, McGraw is correct when he recommends that more well designed studies be conducted in order to sort out the role of family communications in the onset of illness in the family.

In this section entitled "Direction of Causality," I do not

mean to imply that there must be some linear direction of causality such that disorders are either created by communication problems or vice versa. Rather, in all probability there is a vicious circle going on between communication patterns and distress in the family (whether this distress is expressed in terms of schizophrenia, epilepsy, colitus, anxiety, etc.). No doubt, too, when a family member has some disabling disease, it can create tension in the family which in turn may lead to communication problems. And, as already suggested, communication problems in the family may lead to some kind of disorder (medical or psychiatric). Perhaps only through carefully controlled longitudinal studies will these factors be teased out. The studies cited in Chapter I (Goldstein, Rodnick, Jones, McPherson, & West, 1978; Singer, Wynne, & Toohey, 1978) lend support for the idea that parental communication deviances are predictive of emotional disturbance in their offspring. Perhaps such methodology applied to the double bind will produce more refined results than presently exist.

The direction for future research, therefore, should call for the greater use of longitudinal studies, but in addition, several other issues must also be addressed. First and foremost, more basic work needs to be done to continue to define the double bind concept. Research must distinguish the double bind from contradictory situations, and the direction of causality must be examined more carefully. The present study has tried to take many of these needed research directions into account.

CHAPTER III

THE RESEARCH DESIGN: RATIONALE AND METHOD

Rationale

The purpose of this present investigation is to study an aspect of the double bind theory which says that in order to escape from the harmful aspect of the bind, one must be able to metacommunicate, or comment on the contradictory, entraping, and punitive aspects of the communication. The rationale of this study is that if a schizophrenic has become schizophrenic because of repeated exposure to double binds, then he should be unable to metacommunicate when exposed to a double bind situation. This study will attempt to establish an experimental analogue to the double bind such that important features of the double bind may be included in the analogue while keeping within acceptable ethical guidelines so that this analogue may be presented to a psychiatric population. Responses to the analogue will be studied according to the extent of metacommunication, anger, and bizarreness of content.

The present study is clearly not designed to "prove" the validity of the double bind theory, but rather to explore certain tenets of the theory which may then help to further clarify the double bind concept. In keeping with this goal, the study will introduce a manipulation which distinguishes a double bind from a contradiction so

that subjects' responses to these two subtly different conditions may be more formally assessed. In addition, a medical control group will be used in order to continue the trend in the literature of attempting to understand the differences between psychiatric and medical patients concerning communication problems.

Method

Subjects

Fifty-seven male inpatients from a large, midwestern Veterans Administration hospital were divided into three groups. The first group consisted of 20 patients diagnosed as having either a schizophrenic of schizophreniform disorder based on DSM III criteria. The second group was comprised of 20 patients diagnosed as having one of the major affective disorders based on DSM III criteria. The purpose of this group was to control for the severity of psychiatric disorder. The third group consisted of 17 medical patients who had been hospitalized for tuberculosis. This group was included for two reasons. First, to assess what effect hospitalization might have, and secondly, to control for some evidence in the literature already mentioned that the mere fact that one has a serious illness (medical or psychiatric) may create communication problems. Although the medical patients were screened to be sure that they did not have any major psychiatric illnesses, some of these patients reported histories of alcohol abuse. Such patients were only included in the study if they had been free of substance abuse problems for at least two years. Table 1 presents some basic demographic information on the three groups.

Table 1

Age, Education, Days of Hospitalization, and Race in the Schizophrenic (SCZ), Affective Disorder (AFF), and Medical (MED) Groups

	Group		
Variable	SCZ	AFF	MED
N	20	20	17
Age (yrs.)	36.3	41.4	52.7
Education (yrs.)	11.9	12.5	10.4
Days Hospitalized	18.9	21.1	67.9
Race			
% white	65	95	76
% black	35	5	24

Materials

The double bind analogue was presented on a series of 9 stimulus cards (see Appendix A). Each card depicts a "mother" interacting with her "son." Three of the cards (cards 1, 3, and 5) show a mother making a statement which is congruent with the picture. These are the Non-Contradictory cards. An attempt was made to control for the benevolence of the mother; therefore, card 5 depicts a malevolent mother. This was done so that the attitude of the mother would not be confounded with the contradictory aspects of the cards.

Cards 2, 6, and 7 are the Contradictory cards. These cards depict the "mother" giving a verbal message which contradicts the picture on the card; however, there is no threat of punishment for discovering and commenting on the contradiction.

The remaining cards, cards 4, 8, and 9 are the Double Bind cards. These cards were constructed based on previous double bind writings and clinical research. The double bind cards each contain statements which were previously shown in the Berger (1965) research to distinguish schizophrenics from other groups because schizophrenics remembered their mothers having used such statements with higher frequency. All 3 double bind cards were constructed such that the statement contradicts the picture, but in addition, the son is emotionally trapped and is implicitly punished for commenting on the entrapping nature of the communication. Table 2 shows how the double bind cards satisfy many of the requirements for a double bind as specified by

Table 2

Double Bind Requirements	Double Bind Card 4	Double Bind Card 8	Double Bind Card 9
Two or more persons	Yes	Yes	Yes
Primary Negative Injunction	If you want my love, you must not leave; you must stay dependent.	I am angry	You must show me true signs of love and affection if you want my love.
Secondary Negative Injunction	No amount of love and affection will ever be enough to satisfy me (implied by the fact that mother is not alone)	Do not see my angry actions as anger. (You are not correctly perceiving my actions)	Do not touch me or show signs of affection; it makes me anxious (implied by nonverbal, resistive stance in relation to son's advance)
Punishment	Threat of loss of love	Threat of physical punishment and loss of love	Threat of loss of love
Tertiary Negative Injunction (implied from the simultaneous action of the primary and secondary injunctions)	No matter what you do, there is no guarantee of my love	There is nothing you can do except deny your accurate perceptions.	You are trapped. You cannot show me signs of love and you cannot, <u>not</u> show me signs of love.
Repeated Experience	No	No	No

Bateson et al. (1956). The fact that subjects are not given repeated experience with the analogue does not appear to be a particular weakness in this double bind analogue, because Bateson et al. (1956) have already stated that once the double bind has been established in the life of a schizophrenic then only parts of the double bind need be present in order to produce the effect of the bind. I am making the assumption that repeated experience is one of the less critical of the ingredients necessary to establish the analogue with subjects with whom it can reasonably be assumed that the double bind has been established.

In order to provide some measure of face validity for the degree to which each of the cards represent one of the three categories (double bind, contradictory, non-contradictory), advanced graduate students in clinical psychology were given brief descriptions of the three conditions (see Appendix C) and asked to match each of the cards with their proper category. Collectively, the judges exhibited 93% accuracy with two of the judges exhibiting 100% accuracy. Interjudge reliability for the 3 judges was thus quite high ($\underline{K}$ = .89 for the 27 classifications by the 3 judges). Based on these results it was judged to be the case that not only were the 9 cards distinguishable among the three different categories, but also the double bind cards were capturing the essence of the double bind rather than simply adhering to a list of discrete ingredients.

Procedure

Each subject was presented with all nine stimulus cards one at

a time in one of nine counter balanced sequences. The nine different sequences were chosen such that each stimulus card appeared in the 1st, 2nd, 3rd, 7th, 8th, and 9th positions an equal number of times. In addition, each stimulus condition (double bind, contradictory, non-contradictory) preceded and followed every other condition an approximately equal number of times in all of the nine sequences.

Subjects were given three distinct phases or viewings of the stimulus cards. Each subject was administered the protocol individually in the presence of the examiner during a procedure much like the sequence in the Rorschach Inkblot test.

In their initial view of the stimulus cards, the "Free Association Period," subjects were asked to look at the picture, the statement which the mother had made, and write down whatever the boy's response to his mother might be.[1] This was repeated for all nine cards.

Once the subjects finished the Free Association period, they were told that they were going to view the cards once again, only this time, each subject was asked to tell the examiner what thoughts and feelings the boy was having which he did not already report to his mother. This constituted the "Inquiry Period." The subjects. re-

---

[1]Subjects were tested individually and presented with the instructions in such a way that they had the option of writing down the responses themselves or having the examiner read the cards and write down the responses for the subjects. This was done for the benefit of any subjects who were illiterate.

sponses were recorded verbatim by the examiner. The purpose of the Inquiry was to see if the subject was making a distinction between what he was thinking and what he had reported initially. Wynne (1969) acknowledged that metacommunication does not have to be explicit in terms of a statement, but only that the person be able to metacommunicate in his mind.

The last phase or "Structured Phase," contains two parts. Subjects were asked to review the cards for a third and final time. During the first part of the structured phase, subjects were asked to rate each of the mothers on a semantic differential scale (see Appendix C). The semantic differential was included in order to get a measure of the degree to which the ratings of the "mothers" were similar to previous clinical descriptions of mothers of schizophrenics (Heilburn, 1973; Helm, Fromme, Murphy & Scott, 1976). The second part of the structured phase was a discrimination trial designed to see if the subjects could discriminate among the three conditions. Subjects were provided with three statements each of which described one of the three stimulus conditions. Subjects were asked to place an "x" in the box next to the statement which best described the card (see Appendix C). This procedure was repeated for all nine cards.

The procedure was designed in such a way as to assess not only whether metacommunication abilities were present, but also to assess the degree to which they were present, and the ease with which each subject could use his metacommunicative ability to comment on the contradiction inherent in the cards. The three phases of the pro-

cedure were designed so as to begin in a relatively unstructured manner so that subjects may have an opportunity to spontaneously metacommunicate or comment on the contradictory aspect of the cards. The Inquiry allows the subject to receive some support and assistance in describing the cards and their contradictory qualities. The structured phase just assesses whether or not subjects are capable of recognizing the differences among the three stimulus conditions once they are articulated for them in the discrimination trial.

Dependent Measures

The responses to most of the cards will be scored along three different dimensions: Positive-negative Affect, Bizarreness-appropriateness of Content, and Metacommunication-denial of Conflict.

The metacommunication dimension assesses the degree to which subjects can comment on the inherent contradictory and entrapping nature of the cards. The Non-Contradictory cards, Cards 1, 3, and 5 will not be scored on this dimension, because they contain no contradictions. If a subject did produce a response to a Non-Contradictory card which commented on a contradiction, it would be scored as a bizarre response. Of the three dimensions which will be used in this experiment, the Metacommunication dimension is the one which is the most central to testing some aspect of the double bind theory. That is, this dimension is so specific to the double bind theory so that if the hypotheses related to this dimension are confirmed, it would be very hard to argue that the results were due to some unknown variable other than the double bind.

The double bind literature offers some examples as to what would constitute a good or a poor response to the double bind. These examples were taken into consideration when developing the Metacommunication dimension scoring system. In what appears to be a "good" response to a double bind, Weakland (1976) says that

> It appears that such incongruent communication can be handled adequately only by a response that recognizes and points out the incongruity. This might be done by (a) overtly labeling the incongruity, (b) giving a dual message on reply, (c) a humorous response exposing the nature of the double bind incongruence. (p. 26)

Abeles (1976) on the other hand offers an explanation for what would constitute a "poor," or schizophrenic response.

> An appropriate, within-paradoxical frame response is necessarily a schizophrenic response . . . responding to the binding nature of the world as they have come to perceive it. . . . The individual has learned to remain within its frame; to leave is to leave the relationship. The person remains in a bind to preserve an essential relationship. (p. 121)

That is, the person should not metacommunicate or comment on the contradiction (or leave the frame) for to do so would create a threat to the relationship.

Scores on the metacommunication dimension have been positioned on a 4-point rating scale. A decision tree was used to define the four points on the scale. According to the decision tree, the higher the score, the greater the metacommunication present in the response. This dimension moves from a score of 4 where the subject correctly perceives the communication as one which is entrapping, contradictory, and confusing, to a score of 1 where the subject is "trapped within the frame." Not only does the subject fail to

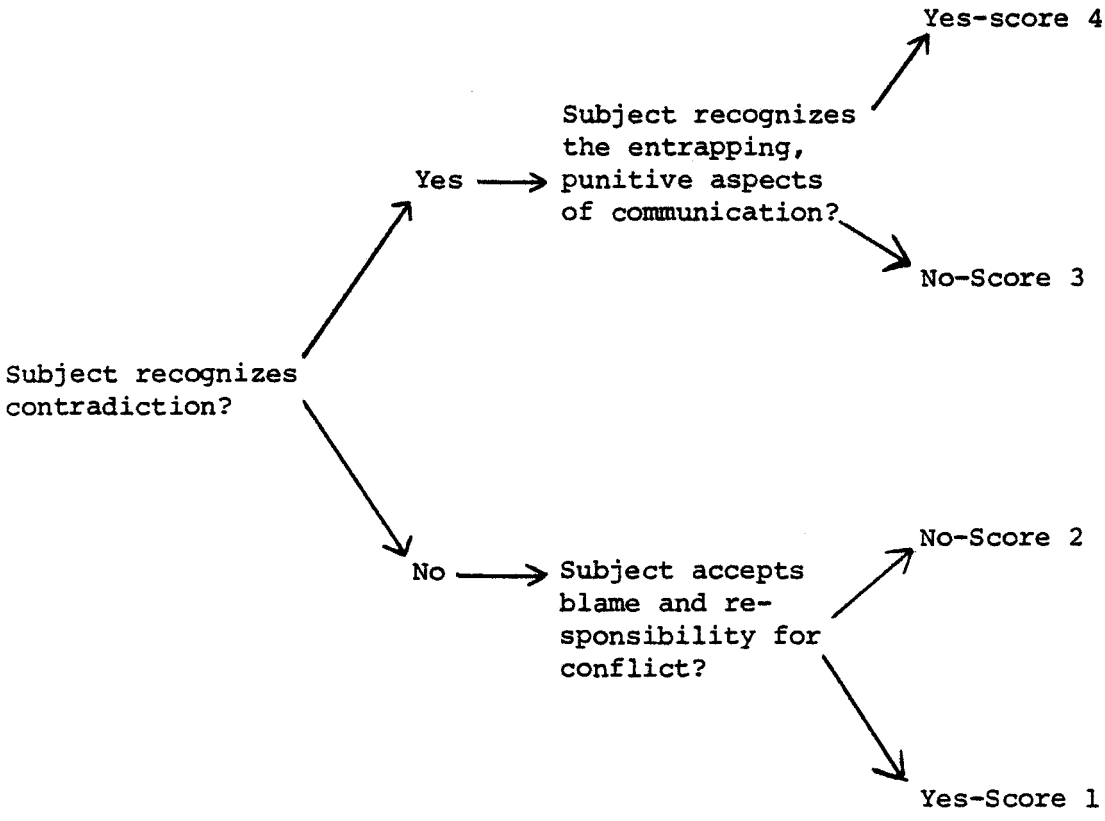


Figure 1. Metacommunication Scoring Decision Tree

recognize the entrapping nature of the communication, but he concludes that there is something wrong within himself. More specifically, here is what the individual scores mean:

Score 4--Assigned whenever a response indicates some from of metacommunication. It presumes that the subject not only has noticed the presence of the contradiction, but also has commented that the communication is entrapping punitive, and confusing.

Score 3--This score is assigned whenever the subject notices the contradiction between the verbal and non-verbal aspects of the card, but does not comment on the detrimental effects of the communication.

Score 2--This score is usually awarded in either of two situations. In the first case the subject has not commented on the main or obvious contradiction, but instead chooses a more trivial, innocuous aspect of the mother's communication. In the second case the subject attempts to ignore the communication altogether. He might offer a response such as "Leave me alone."

Score 1--A score of 1 indicates not only a complete disregard for the contradiction in the picture, but in addition the subject assumes the responsibility and blame for the conflict. The subject agrees with the mother even though he must deny his own accurate perceptions to do so. A score of 1 may also be given if the subject

produces an unintelligible response, the assumption being that the communication is creating confusion.

I am making an assumption that these four points are spaced an equal distance apart on a dimension whose poles are metacommunication at one end (recognizing the entrapping, confusing qualities of the communication) to complete denial of conflict at the other end (taking blame and responsibility for the communication). By scoring for metacommunication on both the double bind and the contradictory cards, I should be able to assess the degree to which the unique aspects of the double bind affect the ability to communicate above and beyond those effects produced by only a contradiction.

Because one of the cardinal symptoms of schizophrenia is thought disorder, the inclusion of the Bizarreness dimension represents an attempt to assess the degree to which subjects exhibit thought disorder in response to the different kinds of stimulus cards. All nine cards will be scored on this dimension. A five point rating scale will be used in order to judge whether the responses are appropriate, bizarre, or somewhere inbetween. Below is a description of what the five scores mean.

Score 5--A score of 5 is given when it appears as though the response in an appropriate one. This should be scored independently of the politeness or affective tone of the response.

Score 4--The response is generally appropriate, but there is something about it which is not quite right.

Score 3--Responses are a bit peculiar or odd, and less appropriate than a response given a score of 4

Score 2--The subject's response is taking on a stranger quality. Often delusional ideas are now entering the picture. The response may also indicate that the subject has paid little attention to the statement which the mother has made.

Score 1.--A score of 1 indicates a more firm paranoid belief such as the denial that this is the boy's mother. A score of 1 is also reserved for any response which is obviously unrelated to the context of the stimulus card, including those responses which are unintelligible or bizarre.

The third dimension on which responses will be rated is the Positive-negative Affect dimension. This dimension assesses in a rather global way whether the subject produces a happy or "positive" response, or whether he produces an angry or depressed ("negative") response. As was already pointed out in an earlier chapter, theorists have suggested that in addition to cognitive disturbance, the double bind may also produce anger, rage, social withdrawal, ambivalence, and rebellious social deviancy (Scheflen, 1978). Because the theory itself is rather vague in specifying what the affective response is to the double bind, the Affect dimension will seek only to get a broad rating of affective response to the stimulus cards. Anger and depression have been compressed together into the same dimension for

two reasons. First, they both appear to be opposite to "happiness" or positive affect. Secondly, it was only deemed necessary to get a general, overall appraisal of the subjects' affective responses to the cards to see if there was a differential response according to stimulus condition. The Affect dimension was also scored on a five point rating scale.

Score 5--Shows some explicit form of happiness and contentment usually manifested by statements such as "I love you," or "You're very kind to me."

Score 4--The response shows happiness but to a lesser extent. Such a score may be obtained when a subject reveals a cooperative attitude towards the mother. Examples include: "Thank you," or "I am willing to help you."

Score 3--This is a neutral position where the response shows neither positive nor negative affect, or where the subject reveals ambivalence about his affect. Examples of neutral responses are "Oh," "OK," "Yes."

Score 2--This response shows signs of frustration and anger or else sadness and depression. The response may contain certain accusations, sarcastic remarks, or statements of disappointment.

Score 1--This score is reserved for extreme forms of frustration, anger, or depression. Anger and frustration might be represented by responses which contain obscenities or more exaggerated forms of "put downs."

The response may also receive a score of 1 for more severe signs of distress or depression.

As mentioned in the "Procedure," subjects make two basic responses to the cards: a Free Association response and an Inquiry response. The Free Association response, the subjects' initial response to the cards, and the Inquiry response will be combined together into a composite response and then scored as one larger response. The rationale of producing this composite response is to make every attempt possible to understand the subjects' thoughts and feelings which might not have been fully expressed during the Free Association period. Again, this is to control for that which Wynne (1969) has pointed out, namely, that a subject need only metacommunicate in his thoughts, not necessarily verbally in order to escape from a double bind.

Separate Free Association response and Inquiry response analyses will be performed in a separate paper which will explore more fully the possible implications of using these two methods for collecting data.

The Scoring Manual

The scoring manual (see Appendix B) was designed so that anyone who scores the responses to the stimulus cards will approach the scoring process in a reliable, consistent manner. The three scoring dimensions in the manual were each constructed based on the scoring points already defined in this chapter. In addition, separate keys for each of the nine stimulus cards on each of the three dimensions

were included to provide specific examples of responses which would fall in the various scoring categories on each of the dimensions (see Appendix B). This was done to compensate for differences among the cards in the "demand quality" for the three dimensions being scored. The scoring keys were constructed based on the responses from five psychiatric patients who served as pilot subjects.

Interjudge Reliability

Two Ph.D. students in clinical psychology (one male, one female) served as the judges for this experiment. The judges were blind not only to the subjects' diagnoses, but also to the nature of the study. The judges were provided with copies of the scoring manual as well as with a set of scoring keys. The data from which interjudge reliability was determined was provided by a volunteer who was administered the nine stimulus cards three times. The volunteer was asked to respond to the cards the first time as though she were psychotic, the second time as she would normally, and the third time somewhere in-between. These data were then given to the judges so that they could practice scoring and so that a reliability check could be made. The interjudge reliability coefficients (Pearson *r*'s) for the three dimensions: Affect, Metacommunication, and Bizarreness were .857, .826, and .793 respectively. The scoring system appeared to be reliable enough to warrant its use with the research data.

Hypotheses and Statistical Design

Hypothesis 1: Schizophrenics will have significantly lower scores in

response to the double bind cards on the metacommunication dimension than will the other two groups. That is, they will show less ability to metacommunicate on the double bind cards than will the other subjects.

Hypothesis 2: Schizophrenics as a group will have lower metacommunication scores in response to the double bind cards as compared to the contradictory cards.

In order to test hypotheses 1 and 2, the subjects' metacommunication scores were subjected to a repeated measures analysis of variance. The between subjects variable was diagnosis (schizophrenia, affective disorder, medical), and the within subjects variable was stimulus condition (double bind, contradiction). Each subject's mean scores of the three cards under each stimulus condition were used in the analysis. The repeated measures design was chosen over a *t* test for two reasons. First, the use of a repeated measures design permitted the examination of several aspects of the metacommunication scores. The subjects' differential responses to both stimulus conditions, that is, a diagnosis by stimulus condition interaction could be examined. The main effect of both diagnosis and stimulus condition in isolation could also be studied. The second reason why a repeated measures design was chosen is that it provided a more powerful test of the hypothesis in question. Hypothesis 1 was tested as a planned comparison with a contrast on the metacommunication score means of each of the three groups in response to the double bind

cards. Hypothesis 2 was also tested as a planned comparison, but with a contrast on the metacommunication score means of the schizophrenics in response to the double bind as compared to the contradictory cards.

In examining the subjects' bizarreness scores, I made the assumption that the three stimulus conditions (non-contradictory, contradictory, double bind) represented equally spaced intervals along a stimulus dimension which elicted bizarre responses from the observing subjects. Figure 2 displays what the predictions were as to how the subjects' bizarreness scores were to appear in response to the three different stimulus conditions.

A repeated measures analysis of variance with one between subjects variable, diagnosis, and one within subjects variable appropriate for trend analysis (Winer, 1971), stimulus condition, was used to test the hypotheses concerning the bizarreness scores. Each subject's mean scores for the three cards under each of the three stimulus conditions were used in the analysis.

Hypothesis 3: The schizophrenic group will show more bizarreness than the other two groups, regardless of stimulus condition. That is, there will be a significant planned comparison of the schizophrenics versus the affective disorder and medical groups.

Hypothesis 4: There will be an overall significant linear trend among all of the diagnostic groups in their bizarreness scores across the three stimulus conditions.

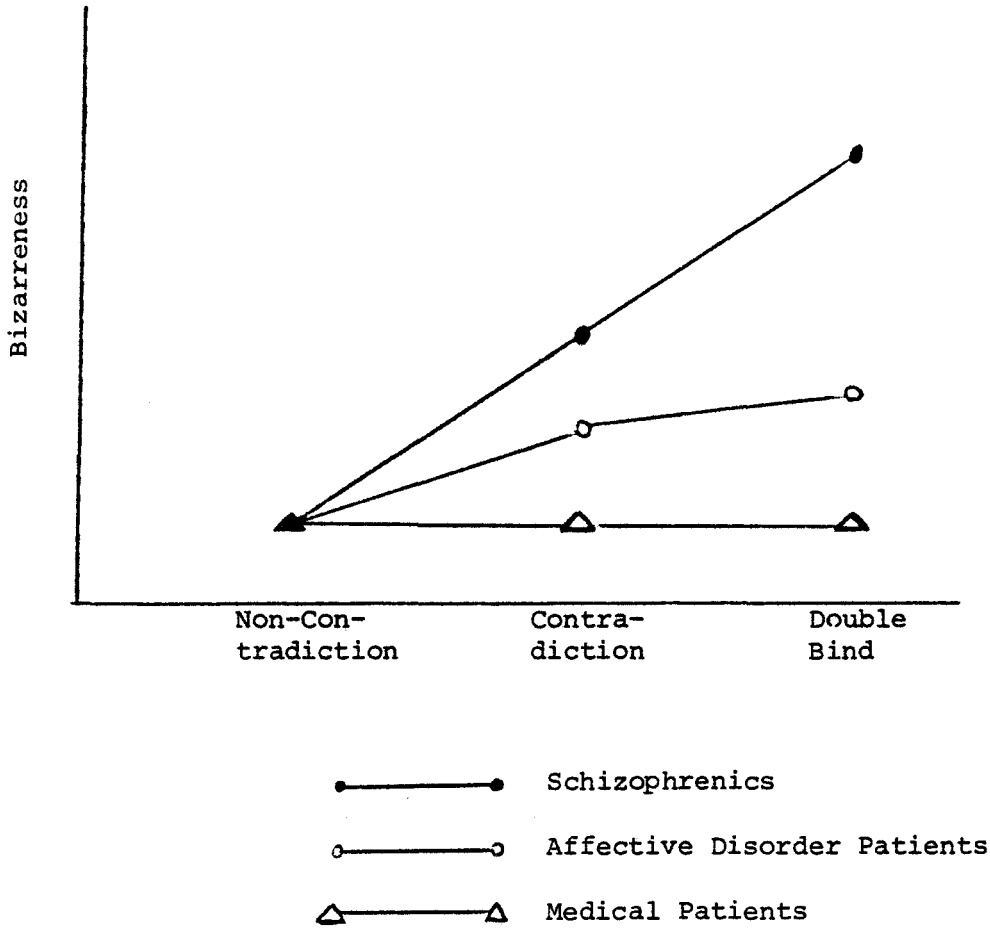


Figure 2. Bizarreness Dimension Score Predictions

That is, there will be a significant main, linear effect for stimulus condition.

Hypothesis 5: Schizophrenics will show a greater increase in bizarreness as they respond to the Contradictory and double bind cards than will the other subjects. That is, there will be a significant diagnosis by stimulus condition linear trend interaction.

The affect dimension is more of an exploratory dimension which was used in order to see how the subjects responded affectively to the cards. A repeated measures analysis of variance with one between subjects variable, diagnosis, and one within subjects variable appropriate for trend analysis, stimulus condition, was performed on the data. Each subject's mean scores for the three cards in each of the three stimulus conditions were used in the analysis.

Hypothesis 6: There will be a significant linear trend across stimulus conditions such that negative affect will increase as one moves from the non-contradictory stimulus condition to the double bind condition.

Hypothesis 7: The schizophrenic and affective disorder groups will show an overall greater amount of negative affect than with the medical control group.

Hypothesis 7 was tested by a planned comparison of the three mean totals (the means of each stimulus condition totalled for each subject group) such that the schizophrenic and affective disorder

groups were compared to the medical group.

The results from the semantic differential scale (administered during the Structured Phase) were examined in the light of research which has found that double bind "victims" rated the binding person as being high on the variables of Potency and Activity (Helm et al., 1976). The double bind theorists (Bateson et al., 1956) suggested that the schizophrenic person accepts the blame and responsibility for the conflict. One may reason, therefore, that in this study, schizophrenics would rate the double bind mothers on the semantic differential as being more fair, good, kind, happy, and strong, as compared to the ratings of the double bind mothers done by the other subjects. Thus, the following predictions were made concerning the subjects' responses on the semantic differential scale:

Hypothesis 8: Schizophrenics will rate the double bind mothers (the mothers on cards 4, 8, and 9) as stronger than will the subjects in the other groups.

Hypothesis 9: Schizophrenics will rate the double bind mothers as more "fair" than will the other subjects.

Hypothesis 10: Schizophrenics will rate the double bind mothers as more "kind" than will the other subjects.

Hypothesis 11: Schizophrenics will rate the double bind mothers as more "happy" than will the other subjects.

Hypothesis 12: Schizophrenics will rate the double bind mothers as more "good" than will the other subjects.

Hypotheses 8 through 12 were tested in a series of five repeated measures analysis of variances where the between subjects variable was diagnosis, and the within subjects variable was stimulus condition. The dependent variable in each of the analyses was one of the five word pairs from the semantic differential scale. The five hypotheses each predicted that there would be a significant planned comparison of the schizophrenics' ratings of the double bind mothers compared to the ratings made by the other subjects. These planned comparisons were performed by using contrasts on the means of the three groups under the double bind condition.

The data from the discrimination trial were the last to be examined. The discrimination trial was the second part of the Structured Phase (see Appendix C). The trial assessed whether or not the subjects were able to correctly classify the stimulus cards into their respective categories (double bind, contradictory, non-contradictory). Because a major tenet of the double bind theory is that a schizophrenic cannot recognize a double bind when he encounters it, it was predicted that the schizophrenic group would correctly classify the double bind cards significantly less often than would the other subjects.

Hypothesis 13: Schizophrenics will tend to see the double bind cards as less binding than will the other subjects. That is, the schizophrenics will classify the double bind cards incorrectly significantly more often than will the other groups.

The discrimination trial data were subjected to a repeated measures analysis of variance with the between subjects variable being diagnosis, and the within subjects variable being stimulus condition. The dependent variable was the number of cards that each subject correctly classified. Hypothesis 13 was tested by a planned comparison of schizophrenics versus the other subjects in the number of double bind cards correctly classified. This test for significance was elected over a one-way analysis of variance not only because the repeated measures analysis is a more powerful test, but also so that the effects of diagnosis as well as the interaction of diagnosis by stimulus condition could be examined. The next chapter will present the results of all of the analyses which were proposed in this chapter.

CHAPTER IV

RESULTS

The same basic statistical design was used to analyze the responses to each of the three dimensions: affect, metacommunication, and bizarreness. A repeated measures analysis of variance was used in each case such that the between subjects variable was diagnosis, and the within subjects variable was stimulus condition (non-contradiction, contradiction, double bind).

The subject groups did not contain an equal number of subjects. The medical group contained only 17 subjects, whereas the other two groups each contained 20 subjects. Since the unequal sample sizes were unrelated to diagnosis, the unweighted means solution was applied to adjust for the unequal sample size in the repeated measures analyses on each of the three dimensions. All three of the analyses involved planned comparisons. The specific comparisons, however, varied according to the specific analysis in question. The means and standard deviations for all three of the dimensions: affect, metacommunication, and bizarreness are presented in Table 3 according to both subject diagnosis and stimulus condition.

The analysis of the metacommunication scores used only two levels of the within subjects variable, stimulus condition (contradiction, double bind), since the third level, non-contradiction, was not scored on the metacommunication dimension. Hypothesis 1

Table 3

Group Means and Standard Deviations (SD) for the Non-Contradictory (NON-CON), Contradictory (CON), and Double Bind (DB) Stimulus Conditions on the Dimensions: Affect, Bizarreness, and Metacommunication

	NON-CON		CON		DB	
	Mean	(SD)	Mean	(SD)	Mean	(SD)
Affect						
Schizophrenics	2.77	(.31)	2.47	(.55)	2.54	(.70)
Affective Disorder	2.72	(.50)	2.35	(.51)	2.45	(.60)
Medical	2.80	(.54)	2.39	(.27)	2.51	(.36)
Bizarreness						
Schizophrenics	4.25	(.68)	3.57	(.49)	3.85	(.66)
Affective Disorder	4.03	(.77)	3.57	(.62)	3.93	(.90)
Medical	4.08	(.65)	3.54	(.58)	4.19	(.38)
Metacommunication						
Schizophrenics			2.85	(.66)	2.69	(.36)
Affective Disorder			3.14	(.52)	2.98	(.56)
Medical			2.94	(.58)	3.06	(.56)

predicted that there would be a significant planned comparison of the schizophrenics versus the affective and medical subjects such that the schizophrenics' metacommunication scores would be significantly lower than the scores of the other patients in response to the double bind cards. Hypothesis 2 predicted that within the schizophrenic group, metacommunication scores would be lower in response to the double bind cards as compared to the contradictory cards. This represents another planned comparison. Both of the planned comparisons were tested over the within group MS error term because the comparisons contained variance which was attributable to both main effects and interaction. The results of the repeated measures analysis of variance and the planned comparisons are presented in Table 4. Figure 3 depicts the means of the three groups in response to the contradictory and double bind cards.

As predicted in the planned comparison of Hypothesis 1, the schizophrenics had significantly lower metacommunication scores than the other subjects in response to the double bind cards, F (1, 54) = 6.34, $p < .05$. The other planned comparison, Hypothesis 2, predicted that the schizophrenics would have lower metacommunication scores on the double bind cards as compared to the contradictory cards; this comparison was non-significant.

The bizarreness scores were also subjected to a repeated measures analysis of variance, with the within subjects variable, stimulus condition, entered into the analysis as a trended variable. Hypothesis 3 predicted that the schizophrenic group would show more

Table 4

Repeated Measures Analysis of Variance and Planned Comparisons of Metacommunication Scores

Source	SS	df	MS	F
Between				
Diagnosis	1.813	2	.907	2.41
Error	20.281	54	.376	
Within				
Stimulus Condition	.189	1	.189	.863
Diagnosis x Stimulus Condition	.416	2	.208	.950
Planned Comparison[a]	1.389	1	1.389	6.34*
Planned Comparison[b]	.248	1	.248	1.13
Error	11.844	54	.219	

[a]Planned comparison of schizophrenics versus the other subjects on the presence of metacommunication in response to the double bind cards.

[b]Planned comparison of schizophrenics in their responses on the double bind cards compared to the contradictory cards.

*$p < .05$

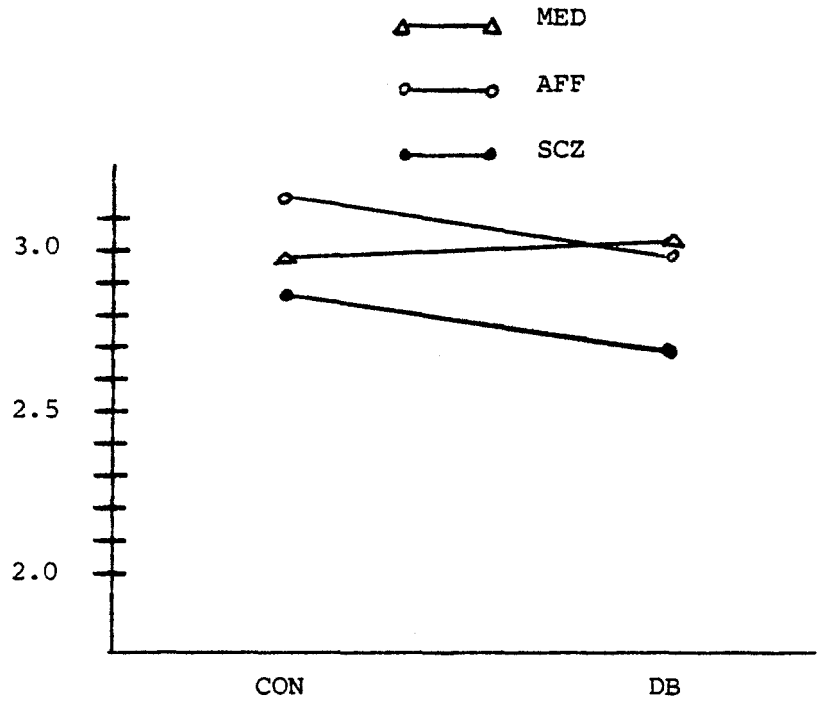


Figure 3. Schizophrenic (SCZ), Affective Disorder (AFF), and Medical Patient (MED) Metacommunication Mean Scores on the Contradictory (CON) and Double Bind (DB) Stimulus Cards

bizarreness in response to the cards than would the other subjects. This hypothesis was tested as a planned comparison of schizophrenics versus the affective disorder and medical patients. Since this comparison represented a partition of the variance due to diagnosis, the comparison was tested over the between group MS error term.

The results of the analysis of the bizarreness scores are presented in Table 5. The means of the three subject groups in each of the three stimulus conditions are portrayed in Figure 4. Contrary to what was predicted in the planned comparison of Hypothesis 3, the schizophrenics did not differ significantly from the other two groups on their overall scores on the bizarreness dimention. Hypothesis 4 predicted an overall linear trend for stimulus condition; this hypothesis was not confirmed. Instead, there was a significant quadratic effect for stimulus condition, F (1, 53) = 69.21, $p<.001$, with all of the subjects obtaining lower (i.e., more bizarre) scores in response to the contradictory cards than to either the double bind or contradictory cards. The prediction made in Hypothesis 5 that there would be a diagnosis by stimulus condition linear interaction, while not significant, F (2, 53) = 2.75, $p<.10$, did suggest that the schizophrenics tended to have less bizarre responses on the non-contradictory cards and more bizarre responses on the double bind cards. The medical patients, on the other hand, tended to have more bizarre responses on the non-contradictory cards and less bizarre responses on the double bind cards.

Table 5

Repeated Measures Analysis of Variance and Planned Comparison of Bizarreness Scores

Source	SS	df	MS	F
Between				
Diagnosis	.014	2	.007	.007
Planned Comparison[a]	.543	1	.543	.576
Error	49.945	53	.942	
Within				
Stimulus Condition				
linear	.505	1	.505	2.15
quadratic	9.066	1	9.066	69.21***
Diagnosis x Stimulus Condition				
linear	1.293	2	.647	2.753
quadratic	.004	2	.002	.015
Error				
linear	12.446	53	.235	
quadratic	6.947	53	.131	

[a]Planned comparison of schizophrenics versus the affective disorder and medical patients on overall score on bizarreness.

*** $p < .001$

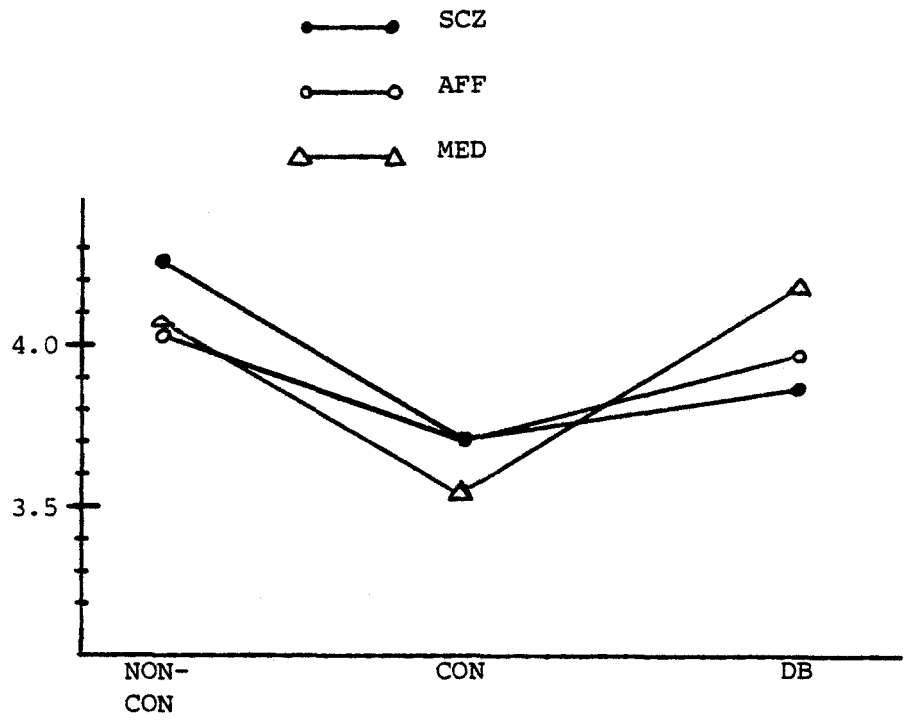


Figure 4. Schizophrenic (SCZ), Affective Disorder (AFF), and Medical Patient (MED) Bizarreness Mean Scores on the Non-Contradictory (NON-CON), Contradictory (CON) and Double Bind (DB) Stimulus Cards[a]

[a]The lower the score, the more bizarre the response.

The affect dimension scores were also subjected to a repeated measures analysis of variance, with the within subjects variable (stimulus condition) entered into the analysis as a trended variable. The results of this analysis are presented in Table 6. In addition, the means for each group on the three levels of stimulus condition are depicted in Figure 5.

As predicted in Hypothesis 6, there was a significant linear effect across stimulus conditions, F (1, 54) = 9.54, $p<.01$, such that negative affect increased as one moves from the non-contradictory condition to the double bind condition. It should be noted that there was also a significant quadratic effect for stimulus condition, F (1, 54) = 11.05, $p<.01$. The subjects produced responses with more negative affect in response to the contradictory cards than to either the non-contradictory or double bind cards. Hypothesis 7 predicted that there would be a significant difference in affect such that the psychiatric groups (schizophrenic and affective disorder patients) would have significantly lower scores on the affect dimension than would the medical patients. This hypothesis was tested as a planned comparison which was tested over the between group error term. The results show that this comparison was non-significant, thus Hypothesis 7 was not supported.

The semantic differential scale consisted of five pairs of words: strong-weak, fair-unfair, kind-cruel, happy-angry, and good-bad. The subjects' ratings of the mothers on the semantic differential

Table 6

Repeated Measures Analysis of Variance and Planned Comparison of Affect Scores

Source	SS	df	MS	F
Between				
Diagnosis	.246	2	.123	.304
Planned Comparison[a]	.001	1	.001	.002
Error	21.829	54	.404	
Within				
Stimulus Condition				
linear	1.937	1	1.937	9.54**
quadratic	1.901	1	1.901	11.05**
Diagnosis Stimulus Condition				
linear	.013	2	.007	.034
quadratic	.044	2	.022	.128
Error				
linear	10.962	54	.203	
quadratic	9.288	54	.172	

[a]Planned comparison of schizophrenics and affective disorder subjects compared to the medical subjects.

**$p < .01$

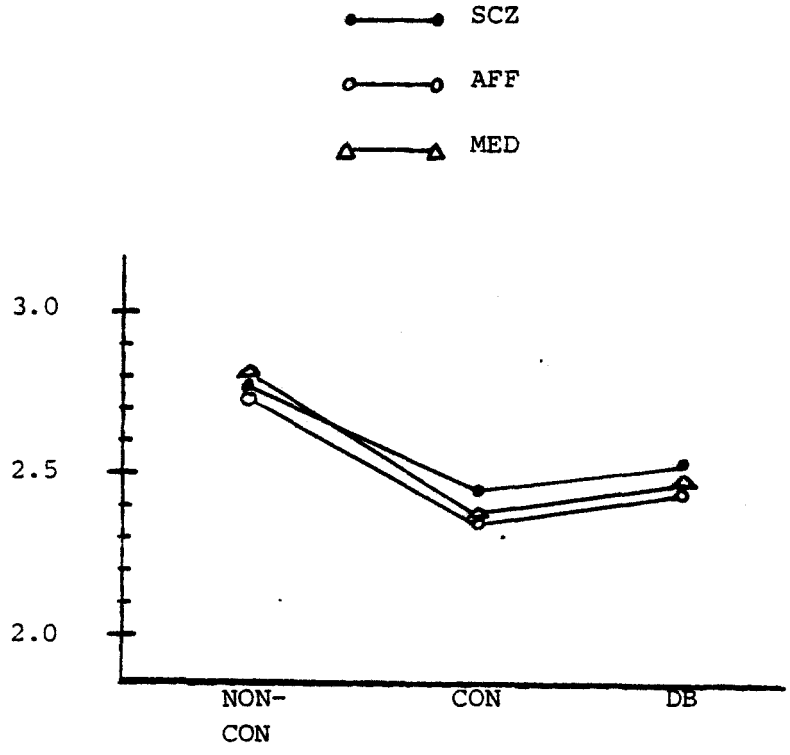


Figure 5. Schizophrenic (SCZ), Affective Disorder (AFF), and Medical Patient (MED) Affect Mean Scores on the Non-Contradictory (NON-CON), Contradictory (CON), and Double Bind (DB) Stimulus Cards

scale were evaluated in a series of five repeated measures analyses of variance where the between subjects variable was diagnosis, and the within subjects variable was stimulus condition. The least squares solution was applied to correct for the unequal sample size, which in this case was related to diagnosis. Three of the schizophrenic subjects elected not to complete the research protocol, as did three of the medical subjects. Each of the analyses used the ratings from one of the word pairs as the dependent measure. The words from each pair were positioned at the anchor points of a five-point Likert scale.

Each of the five repeated measures analyses made a prediction in the form of a planned comparison. The comparison involved schizophrenics versus the other patients in their ratings of the double bind mothers. The planned comparisons were performed using a contrast on group means under the double bind condition. The MS of each of these comparisons was evaluated against the within subject error term because the comparisons represented variance which was comprised of both main effects and interaction. The means and standard deviations on each of the five semantic differential word-pairs or dimensions are presented in Table 7 according to both stimulus condition and diagnosis. Figure 6 provides a comparison of the five semantic differential variables according to stimulus condition, but collapsed across diagnosis.

The repeated measures analysis of variance findings from the subjects' ratings of the stimulus card mothers on the "strong-weak"

Table 7

Group Means and Standard Deviations (SD) for the Non-contradictory (NON-CON), Contradictory (CON), and Double Bind (DB) Stimulus Conditions on the Semantic Differential Variables

	NON-CON		CON		DB	
	Mean	(SD)	Mean	(SD)	Mean	(SD)
Strong-Weak	3.35		3.08		2.89	
Schizophrenics	3.39	(1.10)	3.22	(1.37)	3.65	(1.32)
Affective Disorder	3.23	(.92)	3.03	(1.30)	2.52	(1.46)
Medical	3.48	(.93)	3.00	(1.31)	2.50	(1.06)
Fair-Unfair	3.50		2.18		1.82	
Schizophrenics	3.73	(.73)	2.33	(1.24)	2.27	(1.43)
Affective Disorder	3.43	(.77)	2.00	(.99)	1.45	(.51)
Medical	3.67	(.98)	2.26	(1.21)	1.81	(.93)
Kind-Cruel	3.53		2.58		2.06	
Schizophrenics	3.49	(.81)	2.45	(1.24)	2.24	(1.47)
Affective Disorder	3.55	(.93)	2.55	(1.12)	1.88	(.85)
Medical	3.57	(.77)	2.79	(1.40)	2.10	(1.13)
Happy-Angry	3.56		2.21		1.88	
Schizophrenics	3.55	(.90)	2.16	(1.18)	2.24	(1.06)
Affective Disorder	3.50	(.87)	2.00	(.69)	1.62	(.62)
Medical	3.67	(.55)	2.57	(1.26)	1.83	(.88)
Good-Bad	3.63		2.49		2.17	
Schizophrenics	3.61	(.95)	2.51	(1.19)	2.27	(1.40)
Affective Disorder	3.58	(.84)	2.47	(1.14)	2.02	(1.08)
Medical	3.72	(.89)	2.51	(1.31)	2.26	(1.38)

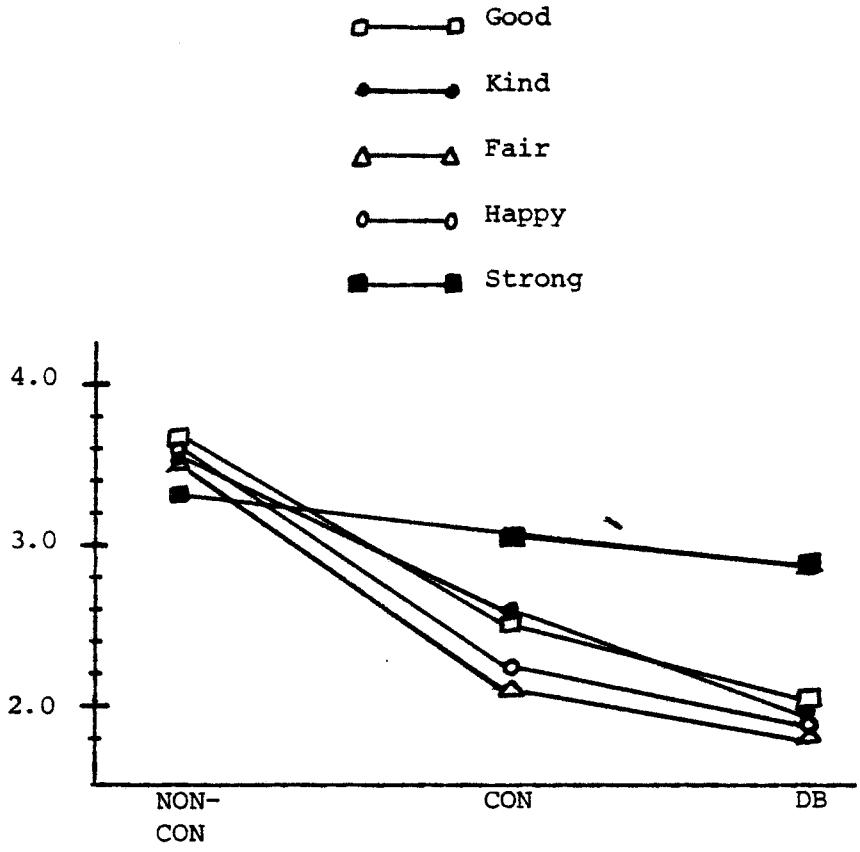


Figure 6. Summary of the Semantic Differential Scale Dimensions, Means Scores on the Noncontradictory (NON-CON), Contradictory (CON), and Double Bind (DB) Stimulus Cards

dimension are presented in Table 8. The analysis yielded a significant main effect for stimulus condition, F (2, 96) = 3.46, $p<.05$. Overall, the subjects as a group rated the non-contradictory mothers as the strongest and the double bind mothers as the weakest. The diagnosis by stimulus condition interaction was also significant, F (4, 96) = 2.61, $p<.05$. This significant interaction appeared to result from the significant planned comparison of Hypothesis 8 which predicted that the schizophrenics would rate the double bind mothers as stronger than would the other subjects, F (1, 96) = 18.36, $p<.01$. Figure 7 shows the subjects' ratings of the strength of the mothers according to stimulus condition and the subjects' diagnoses. Since the remaining four analyses of the other semantic differential word pairs produced similar results as was found on the "strong-weak" dimension, Figure 7 will be presented as representative of the findings of the other analyses, thus figures will not be presented with the results from the other analyses.

In their ratings of the "fairness" of the mothers, all of the subjects rated the non-contradictory mothers as being the most fair, with the double bind mothers rated as the least fair. The analysis of the ratings thus yielded a significant main effect for stimulus condition, F (2, 96) = 84.28, $p<.001$. The results of the analysis of the "fairness" ratings are presented in Table 9. Hypothesis 9 predicted that the schizophrenics would rate the double bind mothers as significantly fairer than would the other subjects. This hypothesis

Table 8

Repeated Measures Analysis of Variance and a Planned Comparison of Subject Ratings on the "Strong-Weak" Dimension of the Semantic Differential Scale

Source	SS	df	MS	F
Between				
Diagnosis	7.431	2	3.716	1.29
Error	138.228	48	2.880	
Within				
Stimulus Condition	5.492	2	2.746	3.46*
Diagnosis x Stimulus Condition	8.290	4	2.073	2.61*
Planned Comparison[a]	14.56	1	14.560	18.36***
Error	76.139	96	.793	

[a]Planned comparison of schizophrenics versus the other subjects on the ratings of the "strengh" of the double bind mothers.

*$p < .05$

***$p < .001$

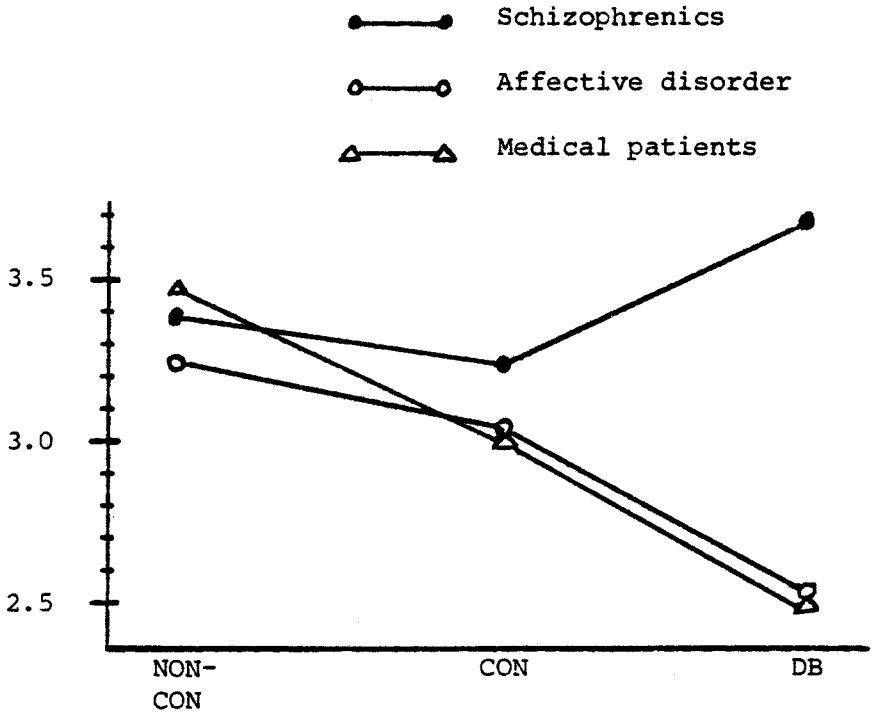


Figure 7. Subject Ratings of the Non-contradictory (NON-CON), Contradictory (CON) and Double Bind (DB) Stimulus Card Mothers on the Strong-Weak Dimension[a]

[a]The higher end of the scale corresponds with the "strong" end of the dimension.

Table 9

Repeated Measures Analysis of Variance and a Planned Comparison of Subject Ratings on the "Fair-Unfair" Dimension of the Semantic Differential Scale

Source	SS	df	MS	F
Between				
Diagnosis	6.517	2	3.259	1.68
Error	93.08	48	1.940	
Within				
Stimulus Condition	88.160	2	44.080	84.283***
Diagnosis x Stimulus Condition	1.694	4	.424	.811
Planned Comparison[a]	4.659	1	4.659	8.908**
Error	50.201	96	.523	

[a]Planned comparison of schizophrenics versus the other subjects on the ratings of the "fairness" of the double bind mothers.

**$p < .01$.

***$p < .001$

was confirmed as the contrast yielded a significant effect, F (1, 96) = 8.908, $p<.01$.

The ratings of the "kindness" of the mothers was subjected to the same analysis, the results of which are presented in Table 10. As with the other analyses, there was a significant main effect for stimulus condition, F (2, 96) = 43.963, $p<.001$. Once again, non-contradictory mothers were rated as being the most kind and double bind mothers as the least kind. Hypothesis 10, a planned comparison, predicted that the schizophrenics would rate the double bind mothers as being more kind than would the other subjects. This comparison was non-significant: therefore, Hypothesis 10 was not supported.

The results from the analysis of the subjects' ratings of the mothers on the "happy-angry" dimension are presented in Table 11. As with all of the other analyses of the semantic differential variables, there was a significant main effect for stimulus condition, F (2, 96) = 101.751, $p<.001$. The non-contradictory mothers were rated as being the most happy while the double bind mothers were rated as least happy. Hypothesis 11 predicted that the schizophrenics would rate the double bind mothers as significantly happier than would the other subjects. This hypothesis was supported, F (1, 96) = 7.446, $p<.01$.

The last of the repeated measures analyses of variance on the semantic differential variables examined the subjects' ratings of the mothers on the "good-bad" dimension. The results from this analysis

Table 10

Repeated Measures Analysis of Variance and a Planned Comparison of Subject Ratings on the "Kind-Cruel" Dimension of the Semantic Differential Scale

Source	SS	df	MS	F
Between				
Diagnosis	.608	2	.304	.132
Error	110.478	48	2.302	
Within				
Stimulus Condition	57.327	2	28.664	43.963***
Diagnosis x Stimulus Condition	1.510	4	.378	.580
Planned Comparison[a]	.677	1	.677	1.040
Error	62.558	96	.652	

[a]Planned comparison of schizophrenics versus the other subjects on the ratings of the "kindness" of the double bind mother.

***$p < .001$

Table 11

Repeated Measures Analysis of Variance and a Planned Comparison of Subject Ratings on the "Happy-Angry" Dimension of the Semantic Differential Scale

Source	SS	df	MS	F
Between				
Diagnosis	3.213	2	1.606	.998
Error	77.270	48	1.610	
Within				
Stimulus Condition	80.790	2	40.395	101.751***
Diagnosis x Stimulus Condition	3.350	4	.839	2.113
Planned Comparison[a]	2.956	1	2.956	7.446**
Error	38.090	96	.397	

[a]Planned comparison of schizophrenics versus the other subjects on the ratings of the "happiness" of the double bind mothers.

**$p < .01$

***$p < .001$

are presented in Table 12. There was once again a significant main effect for stimulus condition, F (2, 96) = 25.187, $p<.001$. The non-contradictory mothers were rated as being the most "good," with the double bind mothers rated as the least good. Hypothesis 12 predicted that there would be a significant difference in the ratings of the double bind cards between the schizophrenics and the other subjects. This difference was non-significant; therefore, Hypothesis 12 was not supported.

In a review of the findings from the five repeated measures analyses, all five analyses yielded significant main effects for stimulus condition, with the non-contradictory mothers rated the most favorably and the double bind mothers the least favorably. Among the five planned comparisons of the schizophrenics with the other subjects, the schizophrenics rated the double bind mothers as significantly stronger, fairer, and happier than did the other subjects.

The subjects' responses to the discrimination trial were analyzed with a repeated measures analysis of variance in order to assess the degree to which the subjects were able to recognize whether a particular stimulus card represented a double bind, a contradictory, or non-contradictory situation. Of particular interest was the comparison of the schizophrenics with the other subjects in their ability to correctly match the double bind cards with their appropriate category description (see Appendix C for the category descriptions). Hypothesis 13 predicted that the schizophrenics would classify the double bind

Table 12

Repeated Measures Analysis of Variance and a Planned Comparison of Subject Ratings on the "Good-Bad" Dimension of the Semantic Differential Scale

Source	SS	df	MS	F
Between				
Diagnosis	1.104	2	.552	.350
Error	75.228	48	1.568	
Within				
Stimulus Condition	59.361	2	29.681	25.187***
Diagnosis x Stimulus Condition	.000	4	.000	.000
Planned Comparison[a]	.226	1	.226	.193
Error	111.022	96	1.156	

[a]Planned comparison of schizophrenics versus the other subjects on the ratings of the "goodness" of the double bind mothers.

***$p < .001$

cards incorrectly significantly more often than would the other subjects. Thus Hypothesis 13 was tested by a contrast on the mean number of double bind cards correctly classified by each of the three subject groups. The results of the analysis are presented in Table 13.

The results do not support Hypothesis 13. They indicate that there was no difference among the three groups in their ability to correctly classify the double bind cards as "double binding." The results, however, did yield a significant main effect for diagnosis, F (2, 49) = 9.618, $p<.01$. In a post hoc analysis of this significant main effect using the Newman-Keuls test on means, it was discovered that the schizophrenics were significantly lower in their overall accuracy in classifying the cards into their proper categories than either the medical group, q (2, 49) = .886, $p<.01$, or the affective disorder group, q (3, 49) = 1.303, $p<.01$. In addition, the medical group was significantly less accurate than the affective disorder group, q (2, 49) = .417, $p<.05$.

Additional Analysis

Because of the exploratory nature of certain aspects of this study, particularly the introduction of the stimulus cards and scoring manual as a new testing instrument, some additional data are being presented. These data will be examined so that more light can be shed on the differences among the nine stimulus cards. Table 14 presents the means and standard deviations of each stimulus card on the three dimensions: bizarreness, metacommunication, and affect. The most

Table 13

Repeated Measures Analysis of Variance and a Planned Comparison of the Number of Stimulus Cards Correctly Classified during the Discrimination Trial

Source	SS	df	MS	F
Between				
Diagnosis	5.919	2	2.960	9.62**
Error	15.078	49	.308	
Within				
Stimulus Condition	5.118	2	2.559	1.730
Diagnosis x Stimulus Condition	5.219	4	1.305	.882
Planned Comparison[a]	.682	1	.682	.461
Error	144.996	98	1.480	

[a]Planned comparison of schizophrenics versus the other subjects on the number of double bind cards correctly classified.

**$p < .01$

Table 14

Means and Standard Deviations (SD) of the Three Dimensions: Bizarreness (BIZ), Metacommunication (MET), and Affect (AFF), According to Stimulus Card

	BIZ		MET		AFF	
Stimulus Card	Mean	(SD)	Mean	(SD)	Mean	(SD)
Double Bind						
Card 4	4.05	(.77)	2.81	(.82)	2.58	(.98)
Card 8	3.89	(1.13)	2.95	(.86)	2.41	(.70)
Card 9	3.89	(1.01)	2.96	(.83)	2.67	(.76)
Contradiction						
Card 2	3.93	(1.20)	2.60	(1.02)	2.48	(.91)
Card 6	3.73	(.68)	3.28	(.75)	2.33	(.62)
Card 7	3.52	(1.01)	3.03	(.77)	2.42	(.62)
Non-Contradiction						
Card 1	4.23	(1.01)			3.13	(.83)
Card 3	4.12	(1.34)			2.90	(.74)
Card 5	3.99	(.69)			2.27	(.64)

noticeable differences among any of the three cards under the same stimulus condition occurred with the non-contradictory cards. Card 5 appeared lower than the other two non-contradictory cards on both affect and bizarreness. In order to determine whether these differences were significant, two repeated measures analyses of variance using the post hoc Newman-Keuls procedure on means were conducted. The between subjects variable was diagnosis and the within subjects variable was the non-contradictory stimulus card condition (cards 1, 3, and 5). Each subject's individual scores to each of the non-contradictory cards were used in the analysis. The first analysis used the subjects' affect dimension scores while the second analysis used the bizarreness scores as the dependent variable.

The results of the analysis of the affect scores yielded a significant main effect for stimulus card condition, F (2, 108) = 19.66, $p<.01$. This F ratio exceeded the critical value of the post hoc Scheffe test at the .01 level. A post hoc comparison was made of the means of each of the non-contradictory stimulus cards in an attempt to understand what was contributing to the significant main effect. The Newman-Keuls procedure revealed that the responses to card 5 on the affect dimension were significantly lower than the responses to either card 1, q (3, 54) = .841, $p<.01$, or to card 3, q (2, 54) = .599, $p<.05$. Thus, the subjects responded with significantly more negative affect in response to card 5 than to either card 1 or card 3.

The analysis of the bizarreness dimension scores from the three non-contradictory cards yielded no significant effects. Thus, although the mean of the scores in response to card 5 is lower (i.e., reflecting more bizarre scores) than the other two cards, this difference was non-significant.

A third repeated measure analysis of variance was conducted on the subjects' metacommunication scores from the double bind cards. The between subjects variable was diagnosis and the within subjects variable was the double bind stimulus card condition (cards 4, 8, and 9). The subjects' individual scores on the double bind cards were used in the analysis. While the results of the analysis were non-significant, there was a marginal effect for diagnosis, F (2, 50) = 2.57, $p<.10$. The schizophrenics tended to have lower metacommunication scores than did the other subjects in response to the double bind cards.[2]

Metacommunication scores on the contradictory cards were also subjected to a repeated measure analysis. As in the other analyses, the between subjects variable was diagnosis and the within subjects variable was the contradictory stimulus card condition (cards 2, 6, and 7). The analysis yielded a significant main effect for stimulus card, F (2, 106) = 12.02, $p<.01$. A post hoc Newman Keuls procedure

---

[2]It may be remembered that in the planned comparison of schizophrenic metacommunication scores versus the scores of the other subjects, the schizophrenics had significantly lower scores. This was due to the apriori nature of the test, but also due to the fact that the apriori test was more powerful.

on totals showed that this significant effect was due to the low meta-communication scores on card 2. Card 2 was significantly lower than both card 7, q (2, 106) = 23, $p<.01$, and card 6, q (3, 106) = 38, $p<.01$.

Since all five of the repeated measures analyses on the semantic differential word pairs yielded significant main effects for stimulus condition, a Newman-Keuls procedure was used in order to determine which among the three stimulus conditions were responsible for the effects. Because the meaning of the Newman-Keuls q statistic changes as a function of the error term used in each of the analyses, only the significance levels are presented in Table 15. The table presents the levels of significance from each of the Newman-Keul pair-wise comparisons. The table indicates that the subjects rated the non-contradictory cards as containing mothers who were significantly more kind, fair, happy, strong, and good than the mothers on the double bind cards. The non-contradictory mothers were also rated as significantly different from the contradictory mothers on all but the strong-weak dimension. The double bind mothers were rated as being significantly less kind, fair, and happy than the contradictory mothers.

The other data which are being presented as "additional" are the results on the discrimination trial according to the individual stimulus cards. These data are presented in Table 16 according to the percentage of subjects who rated the stimulus cards in the various categories described in Appendix C. Because these were only nominal

Table 15

Significance Levels from Newman-Keuls Post Hoc Analyses on Semantic Differential Dimensions as a Function of Stimulus Condition Pair-Wise Comparisons

	Direction of Effect of Stumulus Condition Comparison		
Dimension	Non-Contradiction > Double Bind	Non-Contradiction > Contradiction	Contradiction > Double Bind
Kind	.01	.01	.01
Fair	.01	.01	.05
Happy	.01	.01	.05
Good	.01	.01	n.s.
Strong	.05	n.s.	n.s.

Table 16

Discrimination Trial Card Analysis According to the Percentage of Subjects Who Rated the Cards in Each of the Three Categories

	Categories on Discrimination Trial		
Stimulus Card	Non-Contradiction	Contradiction	Double Bind
Double Bind			
Card 4	5.8	21.1	73.1
Card 8	17.0	18.9	64.1
Card 9	17.3	13.5	69.2
Contradiction			
Card 2	16.7	42.6	40.7
Card 6	15.1	71.7	13.2
Card 7	11.5	38.5	50.0
Non-Contradiction			
Card 1	72.2	13.0	14.8
Card 3	79.2	17.0	3.8
Card 5	22.6	20.8	56.6

data, no analyses were performed on the data as a whole. One may estimate, however, the degree to which the three kinds of stimulus cards each represent homogenous groups. The three double bind cards, cards 4, 8, and 9, were rated by the majority of the subjects as representing double bind cards. The most agreement was achieved on card 4, with 73.1% of the subjects rating it as a double bind card, while only 5.8% of the subjects rated it as a non-contradictory card.

Among the contradictory cards, cards 2, 6, and 7, card 6 was rated the most clearly as a contradictory card. Cards 2 and 7, however, seemed to be rated by the subjects as representing either contradictory or double bind cards.

With the non-contradictory cards, cards 1, 3, and 5, there was considerable agreement on cards 1 and 3 that they represented non-contradictory cards. Card 5, however, of all of the stimulus cards, seemed to be the least clearly defined in the minds of the subjects as to which stimulus condition it belonged to. Because of the large discrepancy on this card, the ratings on card 5 were broken up according to diagnosis. A Chi square analysis was performed on the subjects' responses to card 5. The Chi square contingency table is presented in Table 17. The significant Chi square, $\chi^2(4) = 16.25$, $p<.01$, suggests that there is not an equal distribution among the three groups of subjects in the way that they rated card 5. There were two places where the observed frequencies departed greatly from the frequencies which were expected. The schizophrenics tended to rate card 5 correctly as a non-contradictory card with much greater

Table 17

A Contingency Table Based on the Percentages of Schizophrenics (SCZ), Affective Disorder (AFF), and Medical Control Patients (MED) Who Rated Card 5 as Being a Non-Contradictory (NON-CON), Contradictory (CON) or Double Bind (DB) Card

	NON-CON	CON	DB	
SCZ	31.3	25.0	43.7	100
AFF	20.0	15.0	65.0	100
MED	12.5	25.0	62.5	100
	63.8	65.0	171.2	300

$\chi^2(4) = 16.25$, $p<.01$

frequency than was expected in this sample, whereas the medical patients rated card 5 as a non-contradictory card with a frequency which was less than expected in this sample.

The last of the results to be reported is a correlation between the subjects' metacommunication scores on each card, and the percentages of subjects who felt that each card represented a double bind card. Only the non-contradictory and double bind cards were included in the correlation.[3] The correlation was significant, r (3) = -.965, $p < .01$. Thus, the greater the proportion of subjects who rated a card as being a double bind card, the lower were the metacommunication scores in response to that card. The next chapter will address the implications of these results.

---

[3]Card 2, a contradictory card, was excluded from this analysis. The unusually low metacommunication score mean on this card seems to have occurred because of a confound in the card. This confound will be addressed in the discussion section.

CHAPTER V

DISCUSSION

The results of this study support many of the hypotheses which were presented in Chapter III. Among the most important of these hypotheses which were confirmed was Hypothesis 1 which predicted that the schizophrenics would have significantly lower metacommunication scores in response to the double bind cards than would the other subjects. The other important hypotheses which were confirmed involved the semantic differential scale hypotheses. The schizophrenics rated the double bind mothers as significantly more strong, fair, and happy than did the other subjects. Finally, Hypothesis 6 was confirmed which predicted that there would be a significant linear trend among the subjects on the affect dimension. The subjects produced responses which contained increasingly greater amounts of negative affect as they moved from the non-contradictory to double bind stimulus conditions.

In order to interpret the meaning of these findings, it is important to first evaluate the instrument by which these findings were observed. The Discussion, therefore, will focus on three main areas: the reliability of the measures used in this study, the validity of these measures, and the theoretical implications of the findings which were obtained in the results section. Because this study has intro-

duced a new testing instrument, the stimulus cards and scoring manual, some attention will first be paid to the reliability of the measure before discussing its validity.

The measure of interjudge reliability taken from the practice data suggested that the scoring manual could be used to score the data in a reliable manner. The reliability coefficients ranged from .793 on the bizarreness dimension to .857 on the affect dimension. These coefficients represent considerable improvement over the interjudge reliability coefficients reported by Rinquette and Kennedy (1966). The coefficients recorded by Rinquette and Kennedy, which ranged from .13 to .44, were based on judges' ratings as to whether or not double bind themes were present in the letters of mothers written to their children. The use in the present study of a highly structured scoring system, including separate scoring keys for each card on each of the three dimensions appears to have been of great value in producing a reliable scoring system. The coefficient on the bizarreness dimension might have been higher were it not for some lack of clarity between scoring points 4 and 3 (see page 53). Perhaps a 4 point rating scale on the bizarreness dimension would have helped increase the reliability instead of using the 5 point scale. The categories which presently correspond to scores of 3 and 4 could be collapsed into a single category.

While interjudge reliability was the only form of reliability tested in this study, other forms of reliability should be tested in any future research with the stimulus cards. Of particular interest

would be test-retest reliability. It would be important from a theoretical standpoint to know whether or not the subjects' ability to respond to a double bind represents a particular trait which is impervious to such factors as the number of days hospitalized, medication levels, or state factors such as anxiety or depression. Although Smith (1976) found no differences in double bind performance as a function of trait anxiety in college students, it would be interesting to see if the same results would be found using the present analogue with a psychiatric population. It might be that anxiety or depression in combination with a clinical syndrome can alter the subjects' ability to respond to the cards.

The face validity of the stimulus cards, the degree to which they represent the stimulus conditions which they were intended to represent, can be assessed in three ways. The first way is by examining the results of the three graduate students (not to be confused with the two judges who scored the data) on the disrimination trial. The other two assessments of validity come from the subjects' ratings on the semantic differential and the discrimination trial.

The three graduate students were asked to match each of the nine stimulus cards with one of the three descriptions (see Appendix C). Each description described a double bind, contradictory, or non-contradictory communication. Two of the students correctly matched all nine stimulus cards with their respective descriptions. The third student rated card 5 as a double bind card when it was intended as a non-contradictory card. Overall, the judges were able to

correctly match the stimulus cards with their respective categories. This lends support for the idea that the double bind and contradictory cards are distinguishable from one another. In addition, it appears as though the double bind cards are capturing some gestalt about the double bind communication rather than simply adhering to a list of ingredients. It appears as though the double bind analogue used in this study survived the consistent criticism of analogue studies which is that the analogue loses the essence of the double bind when it is made into an operationally defined form (Abeles, 1976; Olson, 1972).

The ratings made by the subjects themselves provide further support that the double bind and contradiction are separate constructs. The post hoc analyses of the subjects' semantic differential ratings (summarized in Table 15) show that the subjects as a group were making a distinction among the three types of stimulus cards. The clearest distinctions were between the non-contradictory and double bind cards, and the non-contradictory and contradictory cards. The subjects as a group rated the non-contradictory mothers as significantly more kind, fair, happy, and good than either of the other two types of mothers. The differences between the contradictory and double bind mothers were slightly less distinct. While the subjects did not see these two types of mothers as significantly different on the good-bad or strong-weak dimensions, they did rate the contradictory mothers as significantly more kind, fair, and happy than the double bind mothers.

The differences between the contradictory and double bind mothers would have been much more distinct were it not for the schizophrenics' high ratings of the double bind mothers, particularly on the strong-weak dimension. Overall, however, the subjects were making a distinction among the three types of mothers in the predicted directions.

The discrimination trial results in Table 16 point out that six of the stimulus cards, cards 1, 3, 4, 6, 8, and 9 were rated by the majority of subjects as representing the stimulus condition for which they were intended. Cards 2, 5, and 7, however, were not rated as uniformly by the subjects. This appears to be due to a confound of the components of the double bind as articulated by Smith (1976). Smith explicitly stated that a double bind is comprised of the simultaneous occurrence of punishment and contradiction. According to Smith, a non-contradictory situation contains neither punishment nor contradiction, and the situation in between a double bind and a non-contradictory situation contains either contradiction or punishment alone. These distinctions were not maintained in the present study. Among the non-contradictory cards, cards 1 and 3 contain no punishment and no contradiction. Card 5, however, contains punishment. It is striking to note that because of this difference, the subjects' ratings of this card on the discrimination trial shift towards the double bind condition, with 56% of the subjects rating card 5 as a double bind card. There was still a high amount of disagreement, however, as to which stimulus condition card 5 belonged to.

In an attempt to see if the disagreement on card 5 was attributable to diagnosis, a Chi square contingency table was established in Table 17. The results showed that a higher proportion of schizophrenics tended to rate card 5 as a non-contradictory card than what was expected in this sample, whereas the medical patients rated the card as a non-contradictory card with a frequency which was less than expected. It should be pointed out, however, that only 31% of the schizophrenics rated card 5 as non-contradictory. Chance alone would suggest that 33% of all of the subjects hould have rated card 5 as non-contradictory. This means that none of the groups of subjects were really rating card 5 as non-contradictory. In the post hoc analyses of the subjects' responses to the non-contradictory cards on the affect dimension, the subjects had significantly more negative affect in response to card 5 as compared to the other cards. These findings, together with the fact that one of three graduate student judges rated card 5 as a double bind card, lend strong support for the idea that card 5 is not a non-contradictory card and should not be included among the non-contradictory cards in future research.

Among the contradictory cards, cards 2, 6, and 7, there was considerable disagreement among the subjects as to whether cards 2 and 7 were contradictory or double bind cards (see Table 16). These two cards contain both contradiction and punishment, whereas card 6 contains only contradiction. This confounding of punishment and contradiction appears to be the reason why a higher proportion of subjects rated cards 2 and 7 as more double binding than card 6.

Card 2 received a significantly lower score on the metacommunication dimension than did the other non-contradictory cards (cards 6 and 7). This appears to result from a confound. The confound is that the degree to which the mother's statement on the card cues the subject in to the contradiction is different on card 2 than on the other contradictory and double bind cards.

In card 6, the mother says ". . . let me help you put your hat on." The subject's attention is thus drawn to the hat, whereupon the subject notices the contradiction that the boy already has his hat on. Similarly, on card 7 the mother says "Must you always be dressed like a slob?" The subject's attention is then drawn to the boy's manner of dress only to notice that he is wearing a suit. Once again, the mother's statement cues the subject to look at the contradiction. With card 2, however, the mother does not draw the subject's attention so clearly to the intended contradiction, that is, that the boy has the heavier end. Instead, the mother says "C'mon lift, I'm doing all of the work." The subject could be drawn to at least two stimulus properties of the card. The subject may notice that the mother is considerably bigger than the boy and provide a response such as, "Well, you're bigger than I am" (a response which many subjects gave) whereupon he would receive a score of 2 on the metacommunication dimension. If the subject had commented that the boy was carrying the heavier end, however, he would have received a score of 3. Perhaps if the mother's statement had been "C'mon lift, I'm doing all of the work because I have the heavier end," then more subjects might have noticed the con-

tradiction. The other possible way to correct this mis-cueing problem is to award the same score regardless of whether the subject comments on the mother's size of the fact that the boy has the heavier end.

If the stimulus cards are to be used in subsequent research, they should either be re-designed so that the non-contradictory and contradictory cards are free of punishment, or else more cards should be introduced so that enough combinations of cards containing punishment and contradiction exist so that the differential effects of punishment and contradiction can be properly assessed.

Smith (1976) has implicitly stated that a continuum exists from non-contradiction to double bind. The non-contradictory situation contains no punishment and no contradiction. The double bind contains punishment and contradiction. The contradictory situation contains either punishment or contradiction. In the Smith study, the double bind condition created the greatest amount of anxiety in the college students, the non-contradictory situation created the least amount of anxiety, and the contradictory situation (either punishment or contradiction) created anxiety somewhere in between.

The results from the present study offer partial support for what was found in the Smith study. The subjects in the present study had the most favorable responses to the non-contradictory cards (cards 1 and 3) which contained no punishment and no-contradiction. In addition, the contradictory cards which also contained punishment

(cards 2 and 7) were rated more negatively than was the contradictory card which contained no punishment. The findings in this study are different from the Smith study, however, in two respects. The results from the semantic differential and from the metacommunication scores on the double bind cards suggest that the double bind is more than just the simultaneous presentation of punishment and contradiction. When two negative injunctions are presented simultaneously, each with their own threat of punishment, this creates a communication which is different from the Smith double bind analogue. In addition, the presence of punishment alone (card 5) seems to produce a stimulus which is rated more similarly to the double bind cards than when contradiction is presented alone (card 6). Again, further research is needed to clarify the role of these different components of a double bind.

The construct validity of the stimulus cards is much more difficult to assess than is the face validity. The stimulus cards were developed in an attempt to accrue evidence for the existence of the very construct which it is supposed to reflect. Thus, the testing measure and the construct (the double bind) are being validated at the same time. If the hypotheses are confirmed, particularly those which are closely ties to the double bind theory (e.g., the metacommunication dimension hypotheses) then support is given not only to the measure, but also to the construct. The risk in doing such exploratory research, however, is that if the hypotheses are not confirmed, it is difficult to assess whether this is due to the con-

struct not being valid, or to the lack of validity of the instrument which is measuring the construct. Hopefully this vicious circle reasoning was minimized in this study by the use of more than one kind of measure. For example, the correlation between subjects' metacommunication scores and their ratings of the cards on the discrimination trial was -.965. This lends support for the existence of some phenomenon which determines the subjects' ability to notice contradiction and entrapment in communications. Further evidence for the construct validity will be addressed in the remainder of this chapter.

At this point I would like to discuss the hypotheses which were confirmed and discuss their theoretical implications. Implicit in the double bind theory is a sequence of events beginning with the mother's communication and ending in the "victim's" thought disorder. The sequence appears to go as follows: (1) the mother emits a double bind communication; (2) the son is "trapped" by the communication in such a way that he fails to see the malevolence in his mother; (3) out of his need to see his mother in a positive way, the son fails to see the mother's communication as entrapping and harmful (i.e., he fails to metacommunicate), and finally, (4) the son begins to distort his thinking to the point that he has a generalized thought disorder.

The validity of these four steps can be addressed based on the results of this study. It has already been supported that the double bind cards seem to be producing a response in the subjects which is more than the simultaneous occurrence of contradiction and punishment. Thus, one can be reasonably sure that the "mother" in this analogue

was emitting a double bind communication.

The second step suggests that the son is trapped by the communication. Part of the "proof" about the entrapping nature of the mother's communiation is that the son is unable to see the double binding mother in a negative way. This kind of cognitive appraisal of the mother was examined in the analogue through the use of the semantic differential ratings. The five analyses on the semantic differential word pairs lend strong support for the idea that the schizophrenics were distorting their perceptions of the double bind mothers in a positive way in relation to the other subjects. The schizophrenics rated the double bind mothers as significantly stronger, fairer, and happier than did the other subjects. Such differences between the schizophrenics and the other subjects were non-significant on the contradictory and non-contradictory cards. It is very difficult to argue that the schizophrenics' distortions were due to something other than the double bind when such distortions did not occur in response to the contradictory cards.

The third step in the sequence, whether or not the "victim" was able to comment on the contradictory and entrapping nature of the stimulus cards was measured in two ways. The first way was based on the subjects' metacommunication scores, and the second way was based on the ability of the subjects to correctly classify the double bind cards on the discrimination trial.

The results from the analysis of the metacommunication scores

show that the schizophrenics exhibited significantly lower scores than the other subjects in response to the double bind cards. There was no such difference between the schizophrenics and the other subjects on the contradictory cards. Again, it is very hard to argue that the schizophrenics' lesser ability to metacommunicate on the double bind cards was due to something other than the double bind when there was a non-significant difference between the schizophrenics and the other subjects on the contradictory cards.

A good example of a response rated low in metacommunication is provided by a schizophrenic subject. On card 8 the mother says "I am not angry with you, you just think I am," while at the same time, she is striking her son. The schizophrenic responded with "Mother, you are correct in thinking (and) talking that way. Mother you are right in this argument." One might argue that this subject responded in this way just to get the "mother" to "back off" of him; however, in the Inquiry this subject maintained that the mother on card 8 was not angry despite her obvious gestures to the contrary.

The results from the discrimination trial do not support the idea that the schizophrenics were unable to comment on the entrapping nature of the double bind mothers' communications. This is an interesting finding when compared to the results from the analysis of the metacommunication scores. When the schizophrenics are given a description of the double bind which mentions how it is contradictory and entrapping, then the schizophrenic can match the double bind with its description. However, when asked to think about the double bind

communication and come up with an appropriate response to it, he is able to do so to a significantly lesser extent than the other subjects.

Thus, the evidence so far suggests that the "mothers" in the analogue emitted double bind communications, and that the schizophrenics distorted their impressions of the double bind mothers and were unable to metacommunicate on their own that these communications were double binding. It was only when they were provided with a description of the bind were they able to see it. The fourth step of the double bind communication process suggests that since the schizophrenic has been trapped and prevented from metacommunicating, he will then develop a thought disorder. This last step was assessed by using the subjects' bizarreness scores.

The schizophrenics' responses to the double bind cards were judged to be non-significantly different from the other subjects in level of bizarreness of content. This suggests that even though the double bind caused the schizophrenics to be trapped in the bind, it does not follow that they would exhibit thought disorder. Thus, this study cannot support the critical link in the theory which ties the double bind communication to thought disorder.

A curious result on both the bizarreness and affect dimensions was the presence of a quadratic trend on the stimulus condition variable. The contradictory cards were rated as being lower than either the non-contradictory or double bind cards on both bizarreness and positive affect. Perhaps the subjects as a group were intimidated by

the "crazier" communications on the double bind cards and so tended to offer more positively affective and more appropriate responses on the double bind cards. With the contradictory cards, however, the subjects might have felt more at east to offer more bizarre and negatively toned responses. The implication in these findings is that many of the studies which confused a contradiction with a double bind (Ciotola, 1961; Loeff, 1966; Potash, 1965) might have not found the effects that they did if a true double bind analogue was used.

Other implications of this research have to do with the problem of the direction of causality. The medical patients, all of whem were suffering from tuberculosis, had been hospitalized an average of nearly 68 days at the time of testing. This means that the subjects were pretty seriously ill for a considerable length of time. One could cogently argue that if a communication disorder were the result of an illness rather than the cause, then the tuberculosis patients should have begun to acquire communication difficulties by the time that they were tested. The fact that the schizophrenics were found to be different from the medical patients on a number of predictions weakens the support for the hypothesis that disease precedes communication difficulties.

A much stronger assessment of the role of illness in communication problems could have been made, however, if a non-hospitalized, non-psychiatric group had been included in this study. Future research should include such a group in order to answer a number of questions

concerning the direction of causality. Among them are:

1. Could it be that it is true that communication problems are preceded by illness, but that the type of illness has a differential effect on the amount of communication problem? For instance, schizophrenia may promote a greater degree of communication disruption than does an affective or medical disorder.
2. Do communication disorders precede schizophrenia but occur after other disorders to lesser degrees?
3. Perhaps communication disorders exist before and after the onset of schizophrenia, but take different forms.

The ultimate answers to such questions can be found by conducting a longitudinal study where the subjects are administered the stimulus cards at regular intervals.

A final effect which was not explored in this study was that of the effect that the order of the stimulus cards had on a subject's responses. It is possible that after exposure to the first double bind card, all of the rest of the other cards contained responses which were more bizarre, lower in metacommunication, and higher in negative affect. Thus, any true effects created by the different kinds of stimulus cards would have been "washed out." Although order effects were controlled for to the extent that the sequences in which the cards were presented were counter balanced, their effects were not assessed, and the "washing out" of effects could have occurred anyway. The need to understand order effects is important from a theoretical

standpoint because a tenet of the double bind theory states that "almost any part of a double bind sequence may then be sufficient to precipitate rage or panic" (Bateson et al., 1956, p. 128). Does this mean that after repeated exposure to the double bind, subsequent exposure to a contradiction can produce the same effect?

Overall, this study showed that, like the Smith (1976) study, it is possible to create an effective double bind analogue. Investigating the double bind is not a matter of "researching the unresearchable" (Abeles, 1976) when attention is paid to the list of ingredients which make up a double bind. The analogue which was used in this study, however is not flawless; it is in need of revision. The confound of including punishment in some of the contradictory and non-contradictory cards make it difficult to understand what the differences among the stimulus conditions really are. In addition, the potential mis-cueing introduced in card 2 should be corrected.

The findings from this study suggest that there is something unique about the double bind which creates distortions among schizophrenics and makes it difficult for them to comment on the entrapping nature of the double bind. This study does not support the inference that entrappment in the double bind promotes thought disorder. It should be stressed that double bind research should continue with schizophrenics and other psychiatric groups in an attempt to further clarify how the subtleties in communication can be related to psychopathology.

REFERENCES

Abeles, G. Researching the unresearchable: Experimentation on the double bind. In C. E. Sluzki and D. C. Ransom (Eds.), Double bind. New York: Brune & Stratton, 1976.

Andreasen, N. C. Thought, language, and communication disorders. Clinical assessment, definition of terms, and evaluation of their reliability. Archives of General Psychiatry, 1979, 36, 1315-1321. (a)

Andreasen, N. C. Thought, language, and communication disorders. Diagnostic significance. Archives of General Psychiatry, 1979, 36, 1325-1330. (b)

Arieti, S. Interpretation of schizophrenia. New York: Basic Books, 1974.

Bateson, G. Slippery theories. Comment on "family interaction and schizophrenia: A review of current theories." International Journal of Psychiatry, 1966, 2, 415-417. (b)

Bateson, G. A systems approach. International Journal of Psychiatry, 1970, 9, 242-244. (b)

Bateson, G., Jackson, D. D., Haley, J., & Weakland, J. Towards a theory of schizophrenia. Behavioral Science, 1956, 1, 251-264.

Beakel, N. G., & Mehrabian, A. Inconsistent communications and psychopathology. Journal of Abnormal Psychology, 1969, 74, 126-130.

Beavers, W. R., Blumberg, S., Timken, K. R., & Weiner, M. F. Communication patterns of mothers of schizophrenics. Family Process, 1965, 4, 95-104.

Berger, A. A test of the double bind hypothesis of schizophrenia. Family Process, 1965, 4, 198-205.

Bleuler, E. Dementia praecox and the group of schizophrenias. (Translated by J. Timkin.) New York: International Universities Press, 1950.

Brofenbrenner, U. Toward an experimental ecology of human development. American Psychologist, 1977, 32, 513-531.

Ciotola, P. V. The effect of two contradictory levels of reward and censure on schizophrenics. (Doctoral dissertation, University of Missouri, 1961.) Dissertation Abstracts International, 1961, 22(1), 320.

Cohen, B. D. Self-editing deficits in schizophrenia. In L. C. Wynne, R. L. Cromwell, and S. Matthysse (Eds.), The nature of schizophrenia. New York: John Wiley & Sons, 1978.

Cohen, B. D., & Camhi, J. Schizophrenic performance in word communication tasks. Journal of Abnormal Psychology, 1967, 72, 240-246.

Cohen, B. D., Nachmani, G., & Rosenberg, S. Referent communication disturbances in acute schizophrenia. Journal of Abnormal Psychology, 1974, 83, 1-13.

Doane, J. A. Family interaction and communication deviance in disturbed and normal families: A review of research. Family Process, 1978, 17, 357-376.

Doane, J. A., Goldstein, M. J., & Rodnick, E. H. Parental patterns of affective style and the development of schizophrenia spectrum disorders. Family Process, 1981, 20, 337-349.

Freud, S. The loss of reality in neurosis and psychosis. Collected Papers, 1924, 2, 277-282. (b)

Fry, W. F. Destructive behavior on hospital wards. Psychiatric Quarterly Supplement, 1959, 33, 197-231.

Goldstein, M. J., & Rodnick, E. H. The family's contribution to the etiology of schizophrenia: Current status. Schizophrenia Bulletin, 1975, 14, 48-63.

Goldstein, M. J., Rodnick, E. H., Jones, J. E., McPherson, S. R., & West, K. Familial precursors of schizophrenia spectrum disorders. In L. C. Wynne, R. L. Cromwell, and S. Matthysse (Eds.), The nature of schizophrenia. New York: John Wiley & Sons, 1978.

Haley, J. Development of a theory: A history of a research project. In C. E. Sluzki and D. C. Ransom (Eds.), Double bind. New York: Grune & Stratton, 1976.

Haley, J. Ideas which handicap therapists. In M. M. Berger (Ed.), Beyond the double bind. New York: Brunner/Mazel, 1978.

Heilburn, A. B. Aversive maternal control: A theory of schizophrenic development. New York: John Wiley & Sons, 1973.

Helm, B., Fromme, D. K., Murphy, P. J., & Scott, W. C. Experiencing double-bind conflict: A semantic differential assessment of interaction perceptions. Journal of Research in Personality, 1976, 10(2), 166-176.

Hirsch, S. R., & Leff, J. P. Abnormalities in parents of schizophrenics. London: Oxford University Press, 1975.

Jacob, T. Family interaction in disturbed and normal families: A methodological and substantive review. Schizophrenia Bulletin, 1975, 18, 35-65.

Jacobson, E. Depression. New York: International Universities Press, 1971.

Johnson, R. C., & Lim, D. Personality variables in associative production. Journal of General Psychology, 1964, 71, 349-350.

Jones, S. L. That damned if you do and damned if you don't concept: The double bind as a tested theoretical formulation. Perspectives in Psychiatric Care, 1977, 15(4), 162-169.

Kafka, J. Ambiguity for individuation: A critique and reformulation of the double bind theory. Archives of General Psychiatry, 1971, 25, 232-239.

Kernberg, O. F. Discussion. In J. F. Masterson (Ed.), New perspectives on psychotherapy of the borderline adult. New York: Brunner/Mazel, 1978.

King, P. D. Early infantile autism: Relation to schizophrenia. Journal of the American Academy of Child Psychiatry, 1975, 14(4), 666-682.

Klebanoff, L. B. A comparison of parental attitudes of mothers of schizophrenics, brain injured, and normal children. American Journal of Orthospychiatry, 1958, 24, 445-454.

Kuhn, T. The structure of scientific revolutions. Chicago: University of Chicago Press, 1962.

Laing, R. D., & Esterson, A. Sanity, madness, and the family. New York: Basic Books, 1971.

Liem, J. H. Family studies of schizophrenia: An update and commentary. Special report: Schizophrenia 1980, National Institute of Mental Health, United States Government Printing Office, 1980.

Loeff, R. G. Differential discrimination of conflicting emotional messages by normal, delinquent, and schizophrenic adolescents. (Doctoral dissertation, Indiana University, 1966.) Dissertation Abstracts International, 1966, 26(11), 6850-6851.

Mahler, M. On human symbiosis and the vicissitudes of individuation. New York: International Universities Press, 1968.

McCraw, R. K. Epilepsy and the double bind. Journal of Child Clinical Psychology, 1980, 9(1), 74-77.

National Institute of Mental Health. Special report: Schizophrenia 1980. Washington, D.C.: United States Government Printing Office, 1980.

Olson, D. H. Empirically unbinding the double bind: A review of research and conceptual formulations. Family Process, 1972, 11, 69-74.

O'Rourke, J. F. Field and laboratory: The decision making behavior of family groups in two experimental conditions. Sociometry, 1963, 26, 422-435.

Potash, H. M. Schizophrenic interaction and the concept of the double bind. (Doctorl dissertation, Michigan State University, 1965.) Dissertation Abstracts International, 1965, 25, 6767.

Reed, J. L. Schizophrenic thought disorder: A review and hypothesis. Comprehensive Psychiatry, 1970, 11, 403-432.

Reiss, D. The family and schizophrenia. American Journal of Psychiatry, 1976, 133, 181-185.

Rinquette, E. L., & Kennedy, T. An experimental study of the double bind hypothesis. Journal of Abnormal Psychology, 1966, 71, 136-141.

Scheflen, A. E. Communicational concepts of schizophrenia. In M. M. Berger (Ed.), Beyond the double bind. New York: Brunner/ Mazel, Publishers, 1978.

Schreiber, A. W. An experimental double bind and communicativeness. (Doctoral dissertation, City University of New York, 1970.) Dissertation Abstracts International, 1970, 31(61-B), 3715.

Searles, H. Positive feelings in the relationship between the schizophrenic and his mother. International Journal of Psychoanalysis, 1958, 39, 569-586.

Shoham, S. G., Weissbrod, L., Markowsky, R., & Stein, Y. The differential pressures towards schizophrenia and delinquency. Genetic Psychology Monographs, 1977, 96, 165-210.

Singer, M. T., & Wynne, L. C. Principles for scoring communication defects and deviances in parents of schizophrenics: Rorschach and TAT scoring manuals. Psychiatry, 1966, 29, 260.

Singer, M. T., Wynne, L. C., & Toohey, M. L. Communication disorders and the families of schizophrenics. In L. C. Wynne, R. L. Cromwell, and S. Matthysse (Eds.), The nature of schizophrenia. New York: John Wiley & Sons, 1978.

Sluzki, C. E., & Vernon, E. The double bind as a universal pathogenic situation. Family Process, 1971, 10, 397-410.

Smith, E. Associative and editing processes in schizophrenic communication. Journal of Abnormal Psychology, 1970, 75, 182-186.

Smith, E. K. Effect of the double-bind communication on the anxiety level of normals. Journal of Abnormal Psychology, 1976, 85, 356-363.

Sojit, C. M. Dyadic interaction in a double bind situation. Family Process, 1969, 8, 235-259.

Sojit, C. M. The double bind hypothesis and the parents of schizophrenics. Family Process, 1971, 10, 53-74.

Sommer, R., Dewar, R., & Osmond, H. Is there a schizophrenic language? Archives of General Psychiatry, 1960, 3, 665-673.

Sternberg, S. Memory-scanning: Mental processes revealed by reaction-time experiments. American Scientist, 1969, 57, 421-457.

Sullivan, H. S. Research in schizophrenia. American Journal of Psychiatry, 1929, 9, 553-567.

Vetter, H. Language, behavior and psychopathology. Chicago: Rand McNally, 1969.

Watzlawick, P. Paradoxical predictions. Psychiatry, 1965, 28, 368-374.

Weakland, J. H. The "double bind" hypothesis of schizophrenia and three-party interaction. In C. E. Sluzki and D. C. Ransom (Eds.), Double bind. New York: Brune & Stratton, 1976.

Weakland, J. H., & Fry, W. F. Letters of mothers of schizophrenics. American Journal of Orthopsychiatry, 1962, 32, 604-623.

Weakland, J. H., & Jackson, D. D. Patient and therapist observations on the circumstances of a schizophrenic episode. Archives of Neurological Psychiatry, 1958, 79, 554-574.

White, R. W., & Watt, N. B. The abnormal personality. New York: Ronald Press, 1973.

Whitehead, A. N., & Russell, B. Principia mathematica. Cambridge: Cambridge University Press, 1910.

Winer, B. J. Statistical principles in experimental design. New York: McGraw-Hill Book Co., 1971.

Wishner, J., Stein, M. K., & Peastrel, A. L. Stages of information processing in schizophrenia: Sternberg's paradigm. In L. C. Wynne, R. L. Cromwell, and S. Matthysse (Eds.), The nature of schizophrenia. New York: John Wiley & Sons, 1978.

Wynne, L. C. On the anguish, and creative passions, of not escaping double binds: A reformulation. A paper presented at the Symposium on The Double Bind, American Psychological Association, Washington, D.C., 1969.

Wynne, R. D. Are normal word association norms suitable for schizophrenics? Psychological Reports, 1964, 14, 121-122.

Yates, A. J. Behavior therapy. New York: John Wiley & Sons, 1970.

APPENDIX A

Code Number_____

INSTRUCTIONS

PLEASE READ CAREFULLY!

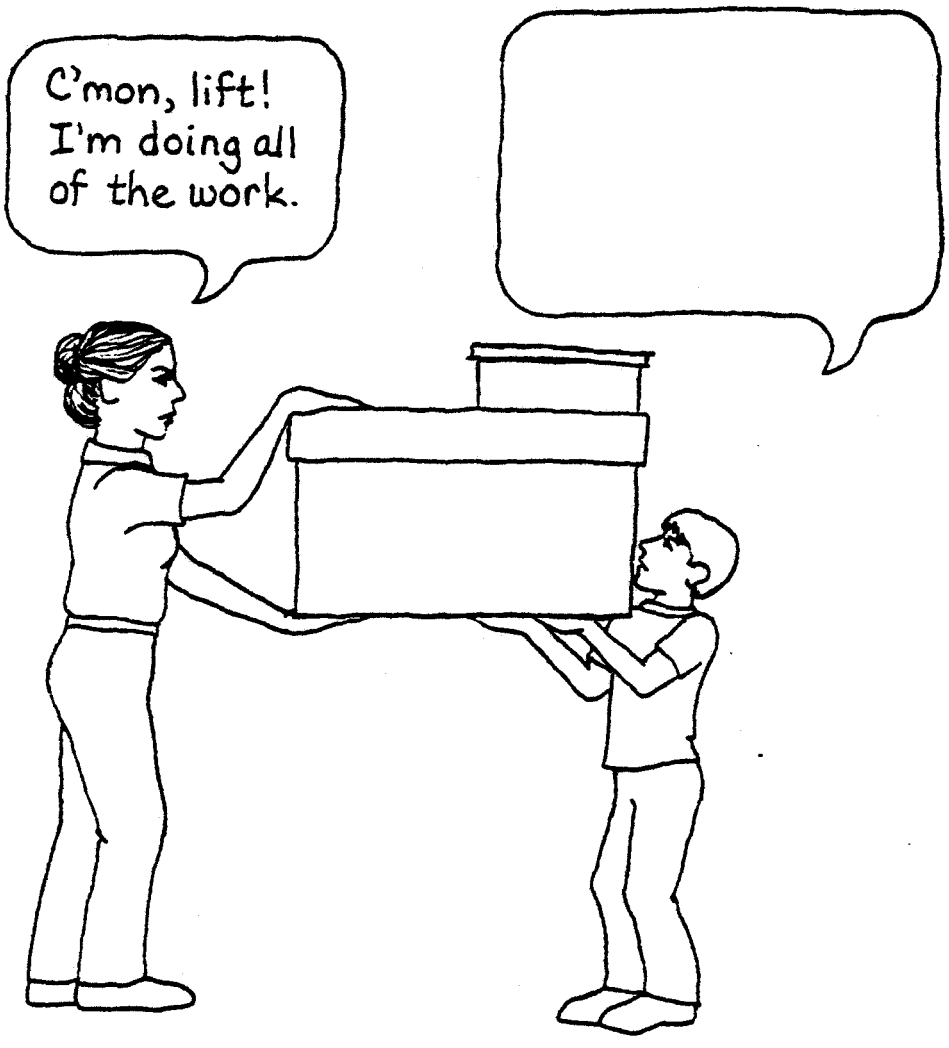
THIS BOOKLET CONTAINS A SERIES OF 9 PICTURE CARDS THAT SHOW A MOTHER TALKING WITH HER SON. YOU ARE TO LOOK AT EACH PICTURE ONE AT A TIME AND READ THE STATEMENT WHICH THE MOTHER HAS MADE. THEN YOU ARE TO REPLY TO THE MOTHER AS THOUGH YOU ARE THE SON. YOU ARE TO WRITE YOUR REPLY IN THE SQUARE LOCATED ABOVE THE SON ON EACH CARD. TRY TO WRITE DOWN WHATEVER IT IS THAT WOULD GO THROUGH YOUR MIND IF YOU WERE THE SON IN EACH SITUATION. PLEASE LOOK AT EACH CARD IN THE ORDER THAT THEY APPEAR IN THE BOOKLET. FOR EXAMPLE, DO NOT LOOK AT PAGE 3 UNTIL YOU HAVE COMPLETED PAGES 1 AND 2. WHEN YOU ARE FINISHED WITH THE CARDS, PLEASE WAIT FOR FURTHER INSTRUCTIONS.

CARD 1

NON-CONTRADICTORY

CARD 2

CONTRADICTORY

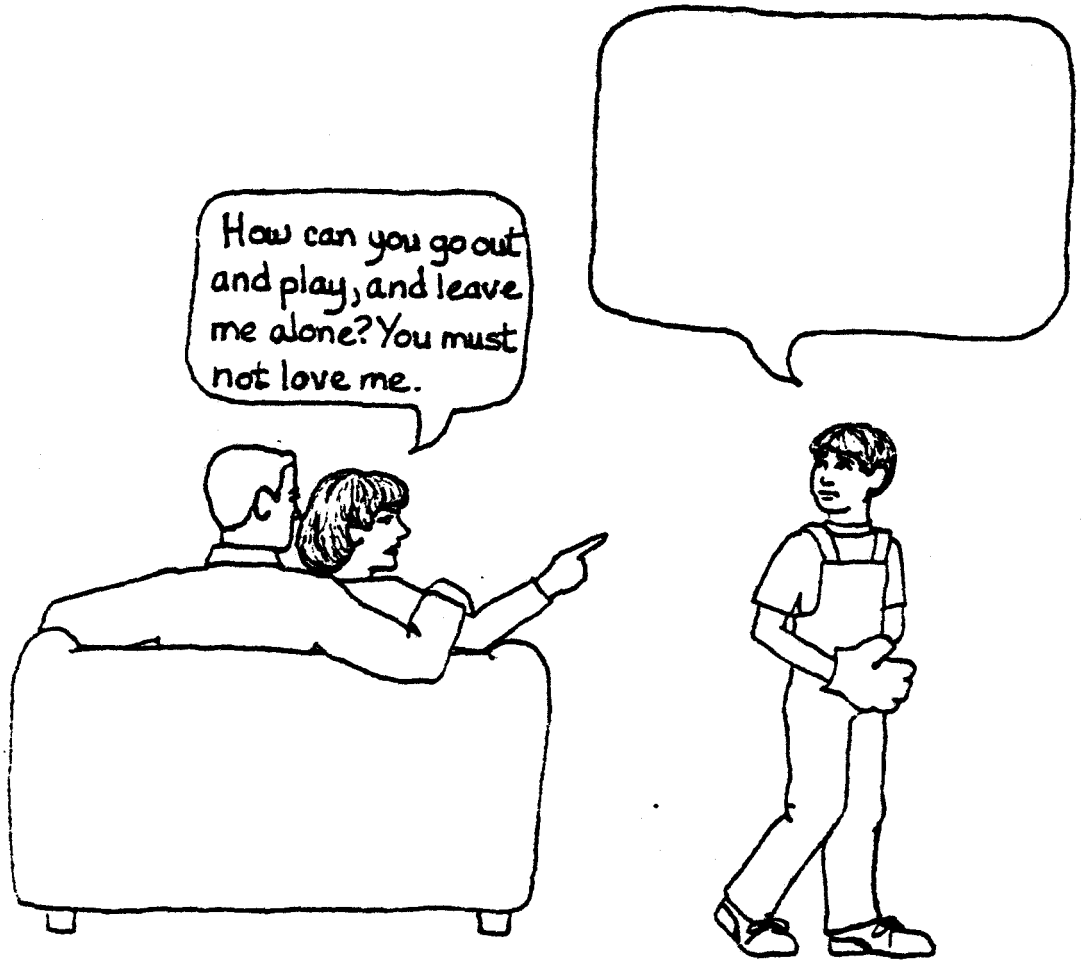


CARD 3

NON-CONTRADICTORY

CARD 4

DOUBLE BIND



CARD 5

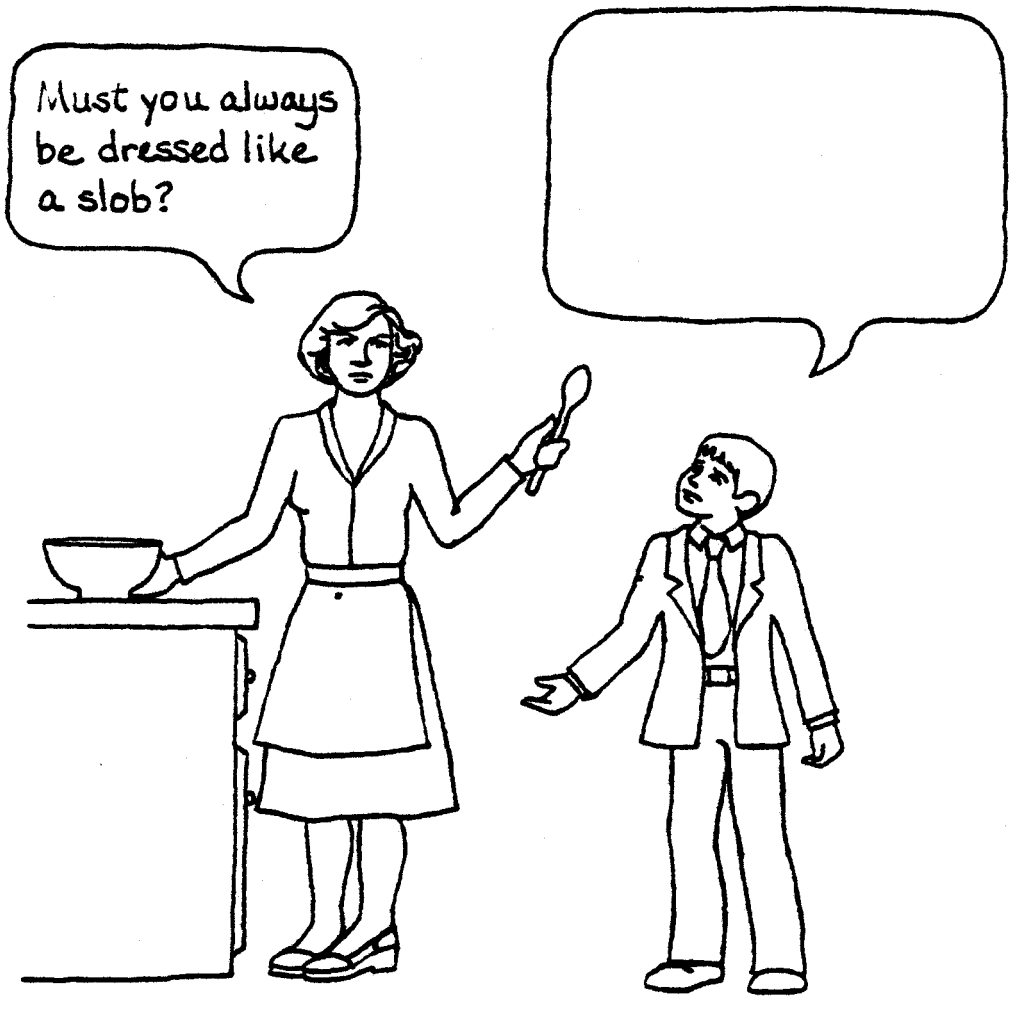
NON-CONTRADICTORY

CARD 6

CONTRADICTORY

CARD 7

CONTRADICTORY



CARD 8

DOUBLE BIND

CARD 9

DOUBLE BIND

APPENDIX B

SCORING MANUAL

The responses to most of the cards were scored along three different dimensions: Positive-Negative Affect, Metacommunication-Denial of Conflict, and Bizarreness-Appropriateness of Content. Specific scoring rules and examples to assist in the scoring of the responses on each of these dimensions are included in this manual.

The subjects made two basic responses to each of the stimulus cards: a Free Association response, and a Composite-Inquiry response. The Free Association response is what the subject wrote down directly on the stimulus card. This response is to be scored first. Right after a Free Association response for a particular subject has been scored, his Composite response for that same card is then scored. The Composite response is composed of two parts: the Free Association response just mentioned, and the Inquiry response. The Inquiry response contains the thoughts and feelings about a "mother" on a particular card which the subject reported during the Inquiry Phase, but which were not mentioned during the Free Association Period. The Inquiry responses for each subject were recorded verbatim by the examiner on the subjects' Inquiry sheets. The Composite response is obtained by combining what the subject has said during both the Free Association and the Inquiry Periods, and is then scored as one large response.

Score all of the stimulus cards on the basis of one dimension at a time. That is, score all of the cards for Affect before scoring on the other two dimensions. Furthermore, when scoring on a particular

dimension, score all of the Card 1's before scoring Cards, 2, 3, etc.

Scoring on the Affect Dimension

All 9 cards are scored for Affect. The scores on the Affect dimension are scored on the following 5 point rating scale:

Extreme Anger/ Depression	Frustration/ Sadness	Neutral	Happiness/ Cooperation	Extreme Happiness/ Contentment
1	2	3	4	5

What the scores mean:

Score 5--Shows some explicit form of happiness and contentment, usually manifested by such statements as "I love you" or "You're very kind to me."

Score 4--Very similar to scoring category 5. A score of 4 is awarded when the response shows happiness, but to a lesser extent. Such a score may also be obtained when the subject reveals a cooperative attitude towards the mother. Examples of this are "Thank you," or "I am willing to help you."

Score 3--This is a neutral position where the response shows neither positive nor negative forms of affect. Some examples of responses which would receive this score are "Oh." "Yes." "OK."

Score 2--This response shows signs of either frustration or sadness. This response may contain certain accusations, sarcastic remarks, and an attitude of refusing to comply.

Score 1--This score is reserved for more extreme forms of anger or depression. Such a response might contain obscenities, more exaggerated forms of "put-downs," or more extreme kinds of depressing statements than might ordinarily be given a score of 2.

Affect scoring rule:

When a response contains parts which fall into more than one scoring category, assign the lower (lowest) score.

Free Association Response Scoring--Affect

Begin with all of the Card 1's from the whole group of subjects. Starting with the first Card 1, look at the picture, the statement which the mother has made, and the subject's response which is written down on the stimulus card. Compare this response with the examples found on the Affect scoring key for Card 1 which is located in the back of this manual. Pick the scoring category which contains the examples which most closely resemble the subject's response. Keep in the mind the scoring rule that when a response falls into more than one scoring category, assign the lower (lowest) score.

Scoring the Inquiry: The Composite Response--Affect

Staying with the first Card 1 which has just been given a Free Association score for Affect, find the Inquiry sheet for that subject and read what has been written down for Card 1. Take what was written in the Inquiry for this card and combine it with what was written down by the subject during the Free Association Period. This larger, combined response is now the Composite response and will once again be scored for Affect. If the Composite response does not alter the score which was obtained for the Free Association response alone, then the same score which was assigned for the Free Association response is also given for the Composite response. However, if the Inquiry reveals more negative affect (i.e., a lower score) than was obtained for the Free Association response alone, give the lower of the two scores for the Composite score. Once the Inquiry and Free

Association responses are combined into the Composite response, it should be apparent that the Composite score cannot be higher than the score on the Free Association response alone. This is because when a response, in this case the Composite response, contains parts which fall into more than one scoring category, the lower score is assigned.

Once both the Free Association and the Composite scores on Card 1 for the first subject have been assigned, repeat the same procedure for the other Card 1's for the rest of the subjects. When all of the Card 1's have been scored, score all of the Card 2's using the same procedure. Always remember to assign a Composite score immediately after the Free Association response has been scored for each subject. Continue with Cards 3 through 9 in the same manner using the scoring keys located in the back of the manual for the specific scoring examples on the Affect dimension for each of the 9 cards.

Scoring on the Metacommunication Dimension

The Metacommunication-Denial of Conflict dimension is the next dimension to be scored. It is important to note that Card 1, 3, and 5 are not scored on this dimension since they contain no contradictions. The scores on the Metacommunication dimension are scored on the following 4 point rating scale:

Active Denial of Conflict	Passive Denial of Conflict	Awareness of Conflict	Metacommunication
1	2	3	4

What the scores mean:

Score 4--Assigned whenever a response indicates some form of metacommunication. It presumes that the subject has not only noticed the presence of the contradiction, but also has noticed that it is entrapping, punitive, and confusing to the boy.

Score 3--This score is assigned whenever the subject notices the contradiction but does not comment on the detrimental effects of the contradiction.

Score 2--A score of 2 is usually awarded in either of two situations. In the first situation the subject has not commented on the main or obvious contradiction, but rather, chooses a more trivial, innocuous aspect of the mother's communication to focus on. Thus, the subject neither attempts to agree or disagree with the mother. In the second situation, the subject attempt to ignore the mother altogether. He might offer a response such as "Leave me alone." Both of these situations represent "passive denial."

Score 1--A score of 1 indicates not only a complete disregard for the contradiction in the mother's communication, but in addition, the subject assumes the blame and responsibility for the conflict. The subject agrees with the mother even though he must deny his own perceptions to do so. This type of response is an "active denial" of the conflict. A score of 1 may also be given if the contradiction has so disturbed the subject that his response is unintelligible.

To aid in clarifying the differences among these scoring categories, refer to the Metacommunication scoring decision tree in Figure 1 which is located on p. 51. Metacommunication scoring examples for the six cards scored on this dimension are provided in the Metacommunication scoring keys which are located in the back of the manual.

Metacommunication Scoring Rules:

1. When a response contains parts which fall into more than one scoring category, assign the higher score.

2. Subtract one point for any Free Association response which is written in the third person. The exception to this rule is

that if a response is already assigned a score of 1 and is also written in the third person, do not give a score of 0; the score would remain a 1. This rule is the Third Person Scoring Rule.

3. Any bizarre or unintelligible response is awarded a score of 1 unless parts of the response can be given a higher score.

Begin with all of the Card 2's. Score the first Card 2 for the Free Association response and then for the Composite response. This procedure is identical to the scoring procedure for the Affect dimension. Because of the different scoring rules, however, it should be pointed out that the Composite score for Metacommunication cannot be lower than the Free Association response alone. In addition, the Third Person Scoring Rule does not apply to the portion of the Composite score which was taken from the Inquiry. What this means is that if a Free Association response is written in the third person, one point gets subtracted from the Free Association score for that response. If the Inquiry however, is the only part of the Composite response which is written in the third person, then one point is not subtracted from the Composite score, the rationale being that the instructions to the subjects for the Inquiry Phase of the testing encourages the subjects to give a response in the third person.

Continue with all of the Card 2's assigning a Free Association response followed by a Composite response for each subject. After the Card 2's have been scored, proceed with Cards 4, 6, 7, 8, and 9 always remembering to follow the Metacommunication scoring keys for each of these cards.

Scoring on the Bizarreness Dimension

The Bizarreness-Appropriateness of Content dimension is the last one to be scored. All nine cards are scored on this dimension. Scores on the Bizarreness dimension are scored on the following 5 point rating scale:

Bizarre	Very Peculiar	Odd	Almost Appropriate	Appropriate
1	2	3	4	5

What the scores mean:

Score 5--A score of 5 is given when it appears as though the response is an appropriate one. This should be scored independently of the politeness or affective tone of the response.

Score 4--The response is generally appropriate, but there is something about it which is not quite right.

Score 3--Responses are a bit peculiar or odd, and less appropriate than a response with a score of 4.

Score 2--The subject's response is taking on a stranger quality. Often delusional ideas are now entering the picture. The response may also indicate that the subject has paid little attention to the statement which the mother has made.

Score 1--A score of 1 indicates a more firm paranoid belief such as a denial that is is the boy's mother. A score of 1 is also reserved for any response which is obviously unrelated to the context of the stimulus card, including those responses which are unintelligible or bizarre.

Bizarreness scoring rules:

1. When a response contains parts which fall into more than one scoring category, assign the lower (lowest) score.

2. Subtract one point for any Free Association response which is written in the third person. The exception to this rule is that if a response is already assigned a score of 1 and is

also written in the third person, do not give a score of 0; the score would remain a 1.

As with the scoring for Affect, begin with all of the Card 1's from the whole group of subjects. Again, score the first Card 1 for the Free Association response, then for the Composite response. The procedure continues in the identical fashion of the other two dimensions. Refer to the Bizarreness scoring keys for each of the nine stimulus cards to assist in assigning the scores. It should be remembered that, like the Affect dimension, the Composite score for Bizarreness cannot be higher than the Free Association response score alone. Again, the third person scoring rule does not apply to Inquiry responses which have been written in the third person.

CARD 1--AFFECT

1	2	3	4	5
ANGER/DEPRESSION		NEUTRAL		HAPPINESS
Forget it: I'll go by myself.	I am mad because you give me no choice	Okay.	Thank you.	Gosh thanks' I'll be happy to help you put away the groceries!
Something is wrong with your mind.	You're treating me like a baby.	All right		Thank you, I love you.
(any obscenity)	That's a mother's job, not mine.	I'll help you if you'help me		
		I don't mind helping out.		
		Can't we do that later after the game?		
		Can I go to the ball game?		
		Do I have to?		

CARD 2--AFFECT

1	2	3	4	5
ANGER/DEPRESSION		NEUTRAL		HAPPINESS
(Any obscenity)	Forget it.	I'll try harder to lift; I'm doing the best I can.	I'm willing to help you.	OK, I'll be happy to.
	I don't want to do it.		I will do it all. You should not have to do this.	
	You're right. (sarcastic)	I'm trying as hard as I can.		
	Why don't you carry the heavier end then?	I have the heavier part.		
	You're not holding it right.	I don't think so.		
	Then do it all by yourself.			
	You're bigger than I am.			

CARD 3--AFFECT

1	2	3	4	5
ANGER/DEPRESSION		NEUTRAL		HAPPINESS
(Any obscenity) Something is wrong with your mind.	You're manipulating me. Stop trying to make me do your job. Forget it. I didn't want to go out anyway. It's clean enough. You're always trying to keep me in the house.	Can't I do it later Mom? Okay Yes, mother.	I would be happy to.	I'll clean it up all up for you. You've been very kind to me. OK, I love you.

CARD 4--AFFECT

1	2	3	4	5
ANGER/DEPRESSION		NEUTRAL		HAPPINESS
(Any obscenity)	Your'right	But dad is here.	I want to please you mother	I love you very much; I was just going to play baseball.
Quit playing with my mind	You don't care about me.	You are not alone.		
	Why are you treating me like a baby? You hate me because you won't let me go outside.	That's not true.	That's okay. I know you mean well.	
		I'm sorry.		
		You really want me to leave so that you and dad can smooch.		
		I did'nt want to go outside anyway.		
		OK		
		OH		
		I will go back to my room.		

CARD 5--AFFECT

1	2	3	4	5
ANGER/DEPRESSION		NEUTRAL		HAPPINESS
You don't care about anyone but yourself. (Any obscenity)	I feel hurt. A mother should may more attention to her son's grades. Okay then, I won't care about my grades either.	But I have all A's. But I have good grades. OK mother. Yes mother. But, you have to sign it. I was hoping I could please you. I'm suprised you don't care about my grades.	That's Okay. I'll come back later. I know you're busy now, and that you really do care about my grades. You're just trying to teach me a lesson. I know you care about me.	That's okay mother, I love you.

CARD 6--AFFECT

1	2	3	4	5
ANGER/DEPRESSION		NEUTRAL		HAPPINESS
Something is wrong with your mind.	Stop treating me like a baby.	That's my boot, not my hat.	I'll sit still Mom; however, that's my boot not my hat. Thanks so much for your help.	I love you.
(Any obscenity)	I can do it myself.	Okay.		You are a beautiful mother for helping me
	You are confused.	I have got it on already.		
	You don't know what you're talking about.	You are not my mother.	Thank you.	
	I have my hat on; you're not observant enough.	You must have something else on your mind.		
	Why don't you pay attention?			
	You are blackmailing me.			

CARD 7--AFFECT

1	2	3	4	5
ANGER/DEPRESSION		NEUTRAL		HAPPINESS
Something is wrong with your mind. (Any obscenity)	I don't care Why don't you pay attention? I'm wearing a suit. If you would take the time to look, I'm wearing a suit. You don't care one way or the other. (Any sarcastic remark)	But mom, I'm not dressed like a slob. No. This is what everybody's wearing now. But this is the best I've got. I'm sorry. You are not my mother. No, not always. What can I say?	What's the matter mother? I only thought to please you. I'll change if you think it's necessary. I'll put something else on if you think this doesn't look that good.	I love you mother. Thank you! I didn't want to wear this anyway!

CARD 8--AFFECT

1	2	3	4	5
ANGER/DEPRESSION		NEUTRAL		HAPPINESS
Something is wrong with your mind (Any obscenity)	Just leave me alone. Yea, sure (sarcasm)	Then why are you hitting me? What have I done? Okay. Yes mother. I'm sorry. Stop! You're hurting me. You are not my mother.	Thank you. You're right. You are not angry with me.	Well, maybe you're right. After all, I do realize you love me and only with the best for me.

CARD 9--AFFECT

1	2	3	4	5
ANGER/DEPRESSION		NEUTRAL		HAPPINESS
Drop dead!	You hate me	No.	Please believe me, mom, I really do love you.	Okay, But I do love you. I know that you are just trying to teach me discipline and patience
Something is wrong with your mind.	Forget it!	You're wrong.		
(Any obscenity)		That's not true.	I don't hate you; I love you. If there's anything I've done to make you think that way, I'm sorry.	
	You're confused	Something must be bothering you.		

CARD 2--METACOMMUNICATION

1	2	3	4
DENIAL OF CONTRADICTION			METACOMMUNICATION
It's all my fault; I'll try harder; I'm doing the best I can.	I'm smaller than you are.	I have the heavier end.	Why are you doing this to me?
Mothers should not have to do this.	You're bigger than me.	You're right! (sarcasm)	(recognition of not only the contradiction, but that it is punitive and that the mother knows this and is "doing-a-number" on her son.
I'll have to try harder.	I don't think so.	You're not holding it right.	
You are not my mother.	I'm helping too.	There's more weight on my end.	
	This is pretty light work.	(Any obscenity)	

CARD 4--METACOMMUNICATION

1	2	3	4
DENIAL OF CONTRADICTION			METACOMMUNICATION
It is all my fault.	No. Okay.	But Dad is here. (sees the obvious contradiction)	Quit playing with my mind.
You are not my mother.	Oh.	You are not alone.	You are not alone. Why do you want to confuse me? I do love you.
	You are right; I don't love you.	You want me to leave so that you and ___ (Dad or boy-friend) can smooch.	You are afraid that if I leave, you will be left alone with this man.
	I love you very much; I was just going to play ball.	(Any obscenity)	
	I just want to go out and play. Is that asking too much? Of course I still love you.	You hate me because you won't let me go outside. (recognizes what the mother is doing as punitive, but has not mentioned the obvious contradiction that she is not alone).	
	I want to please you.		
	I know you mean well.		

CARD 6--METACOMMUNICATION

1	2	3	4
DENIAL OF CONTRADICTION			METACOMMUNICATION
I will sit still while you help me put my hat on. You are not my mother.	I will sit still. Thank you for your help. Leave me alone. Stop trying to baby me. You're pacifying me. I can do it myself. (Any obscenity)	That's my boot mom, not my hat. You mean my boot. I have my hat on already. Something is wrong with your mind.	You must be confused or distracted by something.

CARD 7--METACOMMUNICATION

1	2	3	4
DENIAL OF CONTRADICTION			METACOMMUNICATION
What's the matter Mom? I only thought to please you. I'll change if you think it's necessary.	You don't care one way or the other.	But mom, I'm no slob; I'm dressed in a suit.	You must be distracted by something, because you're not even looking at me; I'm dressed in a suit.
Maybe my clothes are dirty.	Don't hit me with the spoon.	These are my Sunday best.	No matter what I do, you would not be satisfied.
I'll put something else on if it does not look good.	No, not always.	These are the best clothes I've got.	
	I don't care.	(Any obscenity)	
	This is what everyone is wearing.		

CARD 8--METACOMMUNICATION

1	2	3	4
DENIAL OF CONTRADICTION			METACOMMUNICATION
Well, maybe you're right. I do realize you love me and only want the best for me.	Just leave me alone.	Stop! You're hurting my ear.	What's wrong?
If there's anything I've done to make you feel that way then I'm sorry.	I love you.	Yea, sure!	What are you trying to confuse me?
You are right. You are not angry with me.	Oh.	Why are you hitting me? What have I done?	
I guess I am just confused; I'm sorry.		Of course you're angry.	
		(Any obscenity)	
		I don't think so.	
		You are angry with me.	
		You are crazy.	
		Something is wrong with your mind.	

CARD 9--METACOMMUNICATION

1	2	3	4
DENIAL OF CONTRADICTION			METACOMMUNICATION
I guess I don't love you.	I don't hate you; I love you. If there's anything that I've done to make you feel that way then I'm sorry.	Please believe me Mom; I really do love you.	You are trying to confuse me.
Maybe I am pretending.		That's not true; I really do love you.	Why do you keep on telling me how I feel?
I am bad.	No, mother.	(Any obscenity)	Why do you want to punish me?
I'm sorry.	Oh.	You're crazy.	
	I want to hug you.	Something is wrong with your mind.	
	I'm feeling confused.		

CARD 1--BIZARRENESS

1	2	3	4	5
BIZARRE		ODD		APPROPRIATE
Something is wrong with your mind You're not my mother. You are confused.	Can I go to the ball game? You're bribing me. (Any obscenity) I am mad because you give me no choice.	I love you. OK mom, I can walk to my baseball game; it's right around the corner. You just want to keep me like a baby. Forget it; I'll go by myself.	How about if I play baseball first, then I help you with the groceries? That's not my job. I'll help you if you'll help me.	Thank you. OK I'll be glad to. Do I have to?

CARD 2--BIZARRENESS

1	2	3	4	5
BIZARRE		ODD		APPROPRIATE
You are not my mother. This is pretty light.	I will do it all. A mother should not have to lift heavy things It's all my fault. I'll try harder.	I am willing to help you. No. (Any obscenity)	I'll try harder; I'm doing the best I can. OK I'm too small. You are being unfair. I don't think so. You're right. (sarcasm) OK, let's switch ends.	I have the heavier end. You are not holding it right.

CARD 3--BIZARRENESS

1	2	3	4	5
BIZARRE		ODD		APPROPRIATE
You are confused.	You are bribing me.	You're very kind to me.	But that's a mother's job.	Can I do it later mom? All of the other guys are waiting for me.
You are not my mother.	I don't have to listen to you.	You're trying to pacify me.		I'll clean it spotless for you.
Something is wrong with your mind	Stop trying to make me do your job.	It is already clean.		OK.
	(Any obscenity)	Forget it. I didn't want to go out anyway.		Yes, mother.
		I love you.		

CARD 4--BIZARRENESS

1	2	3	4	5
BIZARRE		ODD		APPROPRIATE
Yes, I will help my mother.	I know you love me.	Thank you.	No. You hate me because you won't let me go outside.	But dad is here.
You are not my mother.		You're right.	I'm sorry.	You are not alone.
		I didn't want to go outside anyway.	You really want me to leave so that you and ___ can smooch.	I just want to go out and play. Is that asking too much?
		You really want me here to ease the tensions.	Quit playing with my mind.	Of course I love you, but I want to go out and play.
		OK	I will go back to my room.	
		OH		
		It is all my fault.		
		(Any obscenity)		

CARD 5--BIZARRENESS

1	2	3	4	5
BIZARRE		ODD		APPROPRIATE
I like your clothes. You are not my mother.	Do you have time? Thank you. You're trying to teach me a lesson; I know you care about me.	But I love you mother. (Any obscenity)	I feel hurt and rejected. You don't care about my grades. You are in your own world. You don't care about anyone but yourself. OK OH.	But I have all A's. But I was hoping I could please you by doing well. But you have to sign it. Then why should I care?

CARD 6--BIZARRENESS

1	2	3	4	5
BIZARRE		ODD		APPROPRIATE
You are not my mother.	Thank you for helping me (not recognizing it's the boot not the hat). You are black-mailing me. Something is wrong with your mind. (Any obscenity)	You want me to stay like a baby. You aren't observant enough. I love you.	You must have something else on your mind. I can do it myself. You are confused. I don't know what you're talking about. Thank you.	I have my hat on already. You mean my boot.

CARD 7--BIZARRENESS

1	2	3	4	5
BIZARRE		ODD		APPROPRIATE
You are not my mother.	I'm dressed to kill. Thank you. Something is wrong with your mind. Don't hit me with that spoon.	This is what everyone is wearing now No. not always. I don't care. I look better than you. I love you mother. (Any obscenity)	I only want to please you. I'll change if you think it's necessary. What can I say?	But mom, I'm wearing a suit! These are the best clothes I have. You aren't even looking at me; I'm wearing a suit.

CARD 8--BIZARRENESS

1	2	3	4	5
BIZARRE		ODD		APPROPRIATE
You are not my mother.	Thank you. You are right. You aren't angry with me (not sarcastic) Are you angry with me?	Well, maybe you're right. After all, I realize you love me and only wish the best for me. Okay. If there's anything I've done to make you feel that way, I'm sorry. OH.	Leave me alone. Fuck you. Something is wrong with your mind	Stop! You're hurting me! Then why are you hurting me? Yea, sure (sarcasm) Why are you hitting me? What have I done? But I really do love you. Of course you're angry.

CARD 9--BIZARRENESS

1	2	3	4	5
BIZARRE		ODD		APPROPRIATE
You are not my mother.	Something is wrong with <u>my</u> mind. I am bad.	But I need companionship You are right. You hate me. (Any obscenity)	No, mother. Leave me alone. Something is wrong with your mind.	I don't hate you, I love you. If there's anything that I've done to make you think that way, then I am sorry. That's not true. Please believe me, I really do love you. Why are you doing this to me?

APPENDIX C

(STRUCTURED PHASE)

Subject #_____

Card ___ (to be repeated for all 9 cards)

I. Please describe the mother in Card ___ by placing an "X" on one of the spaces between each of the six pairs of words.

Unfair __ __ __ __ __ Fair

Good __ __ __ __ __ Bad

Cruel __ __ __ __ __ Kind

Strong __ __ __ __ __ Weak

Angry __ __ __ __ __ Happy

II. Please place an "X" in the box next to the statement which best describes what you think of the conversation between the mother and her son on Card ___. Please be sure to read all of the statements before you pick the one which best describes Card 1.

☐ The Mother has said something which has emotionally "trapped" her son. No matter what he says, his response will be wrong.

☐ The mother has said something which merely contradicts the picture; the son is <u>not</u> emotionally trapped.

☐ The mother has said nothing which contradicts the picture.

APPROVAL SHEET

The thesis submitted by Keith A. Baird has been read and approved by the following committee:

Dr. Alan S. DeWolfe, Director
Professor, Psychology, Loyola

Dr. Daniel P. McAdams
Assistant Professor, Psychology, Loyola

The final copies have been examined by the director of the thesis and the signature which appears below verifies the fact that any necessary changes have been incorporated and that the thesis is now given final approval by the Committee with reference to content and form.

The thesis is therefore accepted in partial fulfillment of the requirements for the degree of Master of Arts.

4/30/82
Date

Alan S. DeWolfe
Director's Signature