University of Nebraska Medical Center
BREAKTHROUGHS FOR LIFE.

University of Nebraska Medical Center
DigitalCommons@UNMC

MD Theses

Special Collections

1967

Schizophrenia as a distortion of communication

David Michael Holloway
University of Nebraska Medical Center

This manuscript is historical in nature and may not reflect current medical research and practice. Search PubMed for current research.

Follow this and additional works at: https://digitalcommons.unmc.edu/mdtheses

Recommended Citation
Holloway, David Michael, "Schizophrenia as a distortion of communication" (1967). *MD Theses*. 2909.
https://digitalcommons.unmc.edu/mdtheses/2909

This Thesis is brought to you for free and open access by the Special Collections at DigitalCommons@UNMC. It has been accepted for inclusion in MD Theses by an authorized administrator of DigitalCommons@UNMC. For more information, please contact digitalcommons@unmc.edu.

SCHIZOPHRENIA AS A DISTORTION OF COMMUNICATION

David M. Holloway

Submitted in Partial Fulfillment for the Degree of
Doctor of Medicine

College of Medicine, University of Nebraska

February 1, 1967

Omaha, Nebraska

TABLE OF CONTENTS

I. Introduction 1

A. Inadequatzes of Historical Concepts. 1

B. Need for Investigation of Communication. 3

II. Theory of Communication. 4

A. Schizophrenic Distortion 8

B. Anthropologic-Semantic Contributions 10

III. Etiology of Schizophrenic Communication. 11

A. The Double Bind. 11

B. The Schizophrenogenic Mother 15

C. Schizophrenogenic Parents. 17

D. Selective Involvement of Siblings. 25

E. Psychotic Involvement of the Whole Family. . . . 30

IV. Observable Schizophrenic Communication 31

A. The Structure of Verbal Language 32

B. The Function of Latent Language 33

C. Posture and Gesture. 35

D. Laughter and Silence 36

V. Communication With the Patient 38

A. Model Building 38

B. Controlled Communication 42

VI. Conclusion 43

INTRODUCTION

No condition of the human mind has been feared more or understood less than schizophrenia. Throughout history men have been taken aback by their failure to converse meaningfully with a certain type of person on a common basis. Even to his family, his words were strange and he seemed to be impersonal and detached. He seemed unable to control his own thoughts, speech, and movements. Ignorance caused our predecessors to presume that unknown, even external, forces had taken over the behavior of such a person. Indeed, this individual often did deny his identity and claimed that he was another person. In fear and desperation the community might call upon the priest whose only recourse was to oust the intruding spirit by incantations and symbolic rituals. When the deviant failed to conform, either spontaneously or in response to priestly ministrations, he was judged to be irreversibly possessed and could be disposed of only in some extreme manner such as death by fire.

INADEQUACIES OF HISTORICAL CONCEPTS

As human knowledge progressed, these people came to be confined in institutions where their uncommon behavior would not be bothersome to society. In these places where there was no normal communication, these people would die a spiritual rather than a physical death. In search of a more satisfactory explanation for

this phenomenon, the nineteenth century investigators hypothesized that some unknown metabolic toxin was responsible. This perfectly logical explanation prejudiced these clinicians against using available means to treat these people successfully.

In his brilliant description of the patient with dementia praecox, Kraepelin made a special point of describing the lack of communication he experienced between himself and the patient. He called dementia praecox an irreversible mental deterioration to a final state shared by all these patients.

Freud explained the psychodynamics of the condition although he, too, believed it to be a primarily somatic disorder. He postualted that the maternal-infant relationship was prolonged in resulting in a narcissistic neurosis, refractory to the exploratory techniques of psychoanalysis.

Bleuler interpreted schizophrenia not as a discrete disease state, but as a complex of symptoms in which the distinguishing feature was the splitting of the emotional from the intellectual functions of the personality. He felt that such a condition was not irreversible in most instances, but could be successfully treated if psychological therapies were used in conjunction with somatic treatment. He admitted that manifestations of the late stage of the disease, especially rigid thought patterns, were the most unfavorable prognostic signs. His approach to psychotherapy emphasized a careful search for the remaining ties to reality in the framework of verbal support from the therapist.

Despite this enlightened approach, the patient remains somewhat of a mystery today. Intensive genetic and biochemical research is gradually unraveling the details of the probably inborn errors of psychic metabolism that have been suspected for the last century.

The future prevention of such a syndrome by genetic or pharmacologic approaches bears no hope for those presently suffering the anguish of isolation from the realities of life. The phenothiazines that have been markedly successful in giving symptomatic relief are no more a cure for schizophrenia than dilantin is for epilepsy or digitalis for heart failure. Each drug masks the symptoms but does not in itself reverse underlying processes.

Harry Stack Sullivan (70) developed an interpersonal theory based on his attempts to probe into the nature of the patient's dealings with others in the framework of his apparent emotional vacuum. Such a theory enables the therapist to accept more objectively the communication of a schizophrenic with special consideration of the affective, cognitive, and conative elements of his language. In this way, the patient can be approached not only in the context of his illness, but also in the quality of his disturbed relationships with others.

NEED FOR INVESTIGATION OF COMMUNICATION

Jurgen Ruesch (56) has recently observed that the complexity of today's world modifies the approach to mental illness as well as the approach to all social problems. Widespread communication has greatly expanded the knowledge of the natural and social

sciences since the nineteenth century. The gradually increasing extrafamilial regulation of human relationships has modified the concept of the family from the rigidly patriarchal structure of the late nineteenth century to the more flexible extrinsically oriented unit of today.

The previously abstract study of mental processes must consequently take into consideration the observation of human relationships, social interdependence, and communication. Jackson, Haley, Bateson, and Weakland (75) have revolutionized the approach to schizophrenia by their clinical research into the nature of communication within the family. This paper will incorporate a review of the literature since 1960 to evaluate the present status of the role of communication in the understanding of schizophrenia.

THEORY OF COMMUNICATION

In contrast to the previous concern that had been given to message content, Ruesch (54) pioneered a communicational approach to psychotherapy that paid particular attention to the qualitative and formal aspects of the message being transmitted. His observations might be summarized as:

> "People relate to each other through communication--a process that can be observed and experienced.... Their exploration is based on a two-person or multipersonal situation in which the person communicates his experiences or performs a task. The unit of study...comprises all the people with whom a person habitually stands in communicative exchange. The artificial divisions of individual, group, and society...need not be maintained. All messages originate in a human being, traverse through human beings, and find their destination in a human being."

Since perception, evaluation, and decisions are transmitted, language must be made up of signs that remain stable to a number of interpreters. The accumulation of such signs in an individual represents his personal fund of information. Included in these signs are specific tonal qualities, gestures, and voice patterns that serve the same rele in speaking that punctuation does in writing. The message as perceived and responded to by others provides a self-corrective feedback. The effectiveness of therapy is, therefore, determined by the nature of the feedback.

Ruesch (54) suggests further that there is a trigger stimulus to which the patient tends to react by withdrawing into an intraorganismic system that is devoid of external feedback. As an example, hallucinations can be interpreted in such a system as the result of a reduction of the external output allowing the internal output to provide an unchecked, inefficient feedback.

These ideas were exemplified in a communicational model by Colby (17) in which a computer that had been fed a neurotic programming responded in different ways to the therapeutic suggestions of the experimenter. Such a system holds promise for analyzing basic approaches to the patient. Colby (18) later programmed a computer to act as a therapist. Normal volunteers typed messages to the machine and received appropriate responses. The lack of emotional involvement became exasperating to normal subjects, simulating the despair the therapist of a schizophrenic reportedly feels.

As Orwellian as this concept of using computers in psychiatric research may seem, one must appreciate the fact that such research is, by definition, medical and consequently scientific, both in the natural and the social senses rather than being a limited and inexact psycho-social meandering. The latter approach has already been touched upon briefly in this paper and judged to be woefully inadequate. The communication model with its resulting terminology lends itself quite suitably to the use of computers.

This approach is embryonic in psychiatry; however, it has been used with outstanding success in the equally confusing area of cardiology by the physician-bioengineer Homer Warner (72) whose research in itself does not apply directly to this paper, but whose method is worthy of mention. He states that the study of the existing body of observations and hypotheses

> "is often the weakest step in a simulation procedure because the investigator either does not make a serious attempt to acquaint himself with the already existing body of knowledge...or he uses poor judgement in deciding which facts to use as the foundation for his model. If he is uncritical at this point and overly biased toward a particular preconceived notion...his model is almost sure to lead him to false conclusions...and perhaps to designing a meaningless experiment."

No elaboration need be made regarding the pertinence of this principle in evaluating psychiatric research.

In developing a computer program, a block diagram is usually drawn to show a "functional or logical relationship between an input set of variables and an output set of variables." The frequent use of circle diagrams and reversible arrows in psychiatric

literature might be interpreted as indicating a lack of logic or an unclear understanding of functional relationships, depending on one's point of view.

The presence of an awesome number of variables in communication theory has been suggested above and will be elaborated upon further in this paper. Allowing this observation, there is reasonable concern that conventional methods for result analysis will prove to be wanting. However, the analog computer is of use in that:

> "The ability to supply the investigator with a continuous display of a solution on an oscilloscope while he adjusts the parameters by manipulating potentiometers has...the unique advantage..for simulation work for which this kind of interaction between investigator and model is of great value.... Furthermore the digital computer has the advantage of a stored program which can be called into memory from a remote station at any time."

An essential step in using computers is the checking of the model for errors, indelicately termed "debugging." Dr. Warner deems this both the most difficult and most expensive task of programming requiring "considerable cleverness", but states that "the job is greatly facilitated if communication between the investigator and the computer is made easy through the right kind of input and output devices and system programming."

This theory of communication opens up many horizons for investigation of schizophrenia, not the least of which is the intelligent use of computers. This possibility has been touched upon briefly as an example of a more rational approach. For

those who decry such "depersonalization" of the human psyche, one might ask if banishment to hell, committment to the back ward, electroshock, prefrontal lobotomy, injection of human-derived humoral toxins into goldfish or spiders to produce deviant behavior is any more dignified.

SCHIZOPHRENIC DISTORTION

To avoid activating feedback mechanism overtly expressed in the patient's defense mechanisms of displacement, projection, introjection, and condensation, Searles (61) suggests that a therapist use few words on his first encounter with a schizophrenic patient. A cautious approach is made in unveiling these regressive mechanisms because of their basis in the patient's loss of self-esteem. The incongruity of the patient's indirect or covert message to his direct or overt message reflects his resistance to communication. This results in nonverbal expression becoming contrary to the verbal message. In accordance with this explanation, Weblin (76) regards schizophrenic communication to be a "highly goal-related activity to avoid any communication at all." Arieti (3) contrasts this lack of communication with that of a sleeping person in his assumption that the patient does not recognize the dream-like quality of this state. Because of this distinction, Arieti approaches the schizophrenic from a "basic atmosphere of trust" in which both the subjective and objective realms of thought are considered to be of equivalent importance.

Spiegel (68) theorizes that the failure of feedback causes intrapersonal thoughts to be expressed as if they were interper-

sonal. "Some of these are 'thoughts-out-loud' and hallucinatory experiences which are outside the experience in the subjective state we consider normal." When the source of these thoughts is unrecognized by the patient, he comes to regard them as originating "from another authority such as the Divine Being," which results in a panic state. Although there is a longing for communication and relatedness, such inconsistent perception generates a fear of enforced communication be it in the form of words, posture, or attitude. This fear runs to the extreme in the "paradoxical polarity that paranoid schizophrenic persons themselves attempt to manipulate and control communication by nonverbal 'magical' means." Each experience in this context becomes "a percept, in the language of communication theory...bits of information entering the receiving wires, the sensory tracts connecting the 'central switchboard' to the outer or the sometimes inner world. A percept is moment to moment self-supporting." Delusional orientation results from a failure of judgment in this internally adequate but poorly related system. In the catatonic state "verbal communication is given up and the remaining communication is emphatic and in body language." The hebephrenic develops what may be considered "psychologic and verbal noises (pseudo-communication) that keeps out messages from 'normal' people." In simple schizophrenia communication is very much reduced and constricted. "It appears...as being more uniform than other classic patterns, and involves the verbal mode, gesture, and expression of feeling state."

ANTHROPOLOGIC--SEMANTIC CONTRIBUTIONS

The particular problem of nonverbal communication has been the special interest of a group of psychiatrists and social scientists over the past fifteen years. Their research has shown that there is a hierarchy of communication in which the entire context rather than an isolated word or gesture is the proper unit of study. Birdwhistell (6) regards this field of study to be the integration of all behavioral operations making up the stream of communications observed at different time levels. This permits a structural analysis of an event at any given time level that has a cross-referencing function at other levels. Therefore the isolated discrete unit of communication has multiple functions that are understandable only in a continuous process that can be analyzed over a period of time.

In linguistic jargon, the smallest unit of expression is the phone, which is the raw sound that is not understandable until expanded into phonemes or syllables that constitute morphemes or words which in turn make up the syntactic sentence. Scheflin (58) utilizes this structural example to hypothesize that there is a further expansion of the communicational hierarchy into discrete units made up of words, gestures, and posturings. These make up the "presentation" which is defined as the total expression of a person's communication. Birdwhistell (8) emphasized the importance of the nonverbal component in his determination that the number of phonemes in the English language is 45 in contrast to the number of expressions in the face alone which is 250,000.

In this form of expression there is both individual and cultural specificity. Murphy (48) cites an example in the studies of Birdwhistell which showed that residents of a rural community in Ohio share certain minor body inflections that consist of a slight inclination of the trunk and shoulders to indicate that the given individual is not feeling well at a particular time. This message was shown to be immediately sensed and accurately interpreted by his neighbors, but these motions were meaningless to residents of even the neighboring county. Murphy regards this body language to be unique in that it "never passes through the sieve of words." It is universally known as the means of communication with babies, with strangers in a foreign land, and with the seriously ill. It is the physiologic expression of the sociocultural environment that is exaggerated in schizophrenia by jerky, repetitious or stereotyped body movements, and is the physical concommitant of the aberrations in verbal language.

Birdwhistell (7) stresses the goal of his research as discovery of the key to the "conceptual premises" that shape the communication system of any society. He postulates "that any culture must provide its membership not only with mechanisms for the transmission of information, but also with a pervasive interpretative key, a device for decoding all message types so that the culture has a central theme, direction, or order.

ETIOLOGY OF SCHIZOPHRENIC COMMUNICATION -- THE DOUBLE BIND

Since the communication patterns are developed in the context of family relationships, a great deal of emphasis has been placed

on the self-defeating form of communication observed in the family of the schizophrenic. The concept of the double bind was developed by the Family Research Institute of the Palo Alto Medical Research Foundation in 1956. One member of this group, Weakland (74) cites the essence of the hypothesis to be:

> "when the individual is involved in an intense relationship, that is, a relationship in which he feels it is vitally important that he discriminates accurately what sort of message is being communicated so that he may act appropriately. And the individual is caught in a situation in which the other person in the relationship is expressing two orders of message and one of these denies the other, and the individual is unable to comment on the messages being expressed to correct his discrimination of what order of message to respond to, i.e. he cannot make a meta-communicative statement."

Weakland qualifies the concept by stating that this original approach had been misinterpreted as being a complete explanation of the pathogenesis as a one-way two-person interaction that had been regarded exclusively from the standpoint of the parent-sender rather than the child-receiver. Further studies show that an expansion into a three-party interaction promotes better understanding of the process and eliminates the above misinterpretation.

Watzlawick (73) in making a critical review of the literature from 1956 to 1961, found that the chief objection made to the theory was its failure to appreciate the patient humanistically. The dry abstractions of logic had not found a sympathetic reception in psychoanalytic circles. The reviewer defended the use of the theory of logical types both in the description of the levels of communication and as a specific approach to schizophrenia. He noted that this concept has been successfully adapted from mathematics to semantics to psychiatry.

Watzlawick analyzes the attempts that were made to use this theory in rat experiments in which failure in discrimination rather than conflicting messages seemed to produce an experimental "psychosis." In such an experiment, rats are fed when presented with a circle, but not when presented with an elipse. A breakdown in the learning reaction occurs because of failure in discrimination as the elipse is made more circular and the circle more eliptical. Watzlawick notes, however, that laboratory animals do adapt to such a contingency when all events occur at random, even though discrimination is impossible. This essential difference was that the context was contrary for discrimination in the first experiment.

Even if one accepts the above logic and experimental interpretation, there is reasonable doubt that this pattern could be pathogenic to the degree postulated. The specificity of the double bind in producing schizophrenia must be explored in relation to other factors since it could transcend all types of mental illness. Sanua (57) states flatly that there is no sequential pattern and multiple sociocultural factors play a more important role. Foudraine (22) answered these objections in stating that the double bind must be regarded as a progressive process in which a constant exposure to this type of communication leads to an isolation of the thought process.

The most recent review was by Mishler and Waxler (45) who were concerned with the difficulty that "bind" is more a "vague

referrent" rather than a precise definition. Consequently they state that "there is a lack of precision and clarity in their writings that presents serious difficulties for an accurate understanding of the types of interaction sequences that do and do not fall within the definition of the double bind." These reviewers feel that the theory of the double bind ignores the possibility of the substantive nature of the conflict that individualizes the area of need for confirmation. Bateson (45) answered that the double bind had been an attempt to develop a "new language" for the understanding of the disease process. His approach was abstraction of observable behavior which he hoped to develop into a pattern "as pervasive as the second law of thermodynamics."

Haley (28) suggests a maturational defect in the family as the etiology of pathological communication. The parents do not allow the child to learn symmetrical relationships since they are inconsistent in the messages that they exchange. Consequently, if the child should behave in a complementary fashion toward his parents, the response would be that he should be less demanding. When he complies to this wish, they insist that he become more attentive. Thus, the child becomes entangled in a set of "paradoxical relationships" in which he is always wrong.

At the termination of the original research project in 1962, the group opinion (4) was expressed as:

> "The double bind is a class of sequences which appear when phenomena are examined with a concept of the levels of communication. In schizophrenia the double bind is a necessary

but insufficient condition in expressing etiology and conversely is an evitably byproduct of schizophrenic communication. Empirical study and theoretical description of families should for this type of communication emphasize observable communication, behavior, and relationship contexts rather than focusing upon perception or affective states of individuals. The most useful way to phrase double bind description is...in terms of an ongoing system which produces conflicting definitions of the relationship and consequent subjective distress."

Meissner (44) finds that even this expanded theory is lacking as a sufficient explanation for the problems of the differences in psychotic and prepsychotic communication, of the psychotic break, and of selective involvement within a family. The merit of the "double bind" lies in explaining the phenomenon of diminishing the possibility of a clearly positive response from another person tp avoid the rise of a negative response by the use of incongruent communication. Meaningful communication is thus averted in the family that is eroded by the "double bind" by the resultant lack of positive responses.

THE SCHIZOPHRENOGENIC MOTHER

The traditional casting of the mother as a perverse influence in personality conflicts, reflected by Jocastra of classical mythology, and the mother-child symbiosis of more contemporary mythology has singled her out as the dominant figure in the "double bind"axis. Bowen (11) theorizes that the double bind originates in the early stages of infancy in which the mother "projects" her own denied feelings of helplessness to the child who "introjects" these inadequacies and inevitably becomes torn between the divergent drives to remain "mother's baby" on the one hand, or to

attain adult maturity on the other. The Palo Alto Family Research Institute workers have justified their hypothesis of the double bind by postulating that marriage itself is a voluntary process that seeks homeostasis, the efficiency of which is reflected by communication in the form of words, nonverbal accomplishments, posture, facial expression, and even silence.

McGhie (43) has found that the mother in the schizophrenic family tends to be a poor socializer who denies the illness of the child and typically implicates her husband because of real or imagined weakness. Weakland and Fry (75) have analyzed this type of milieu in letters which were sent to hospitalized schizophrenics by their mothers. The authors felt that they could detect concealment of contradictory messages that reflected the yet ongoing destructive thought patterns intrinsic to family communication which the patient could not escape because the interpersonal feedback circuit had long since been started. The writers qualified this approach by warning of the danger of overemphasizing the role of the mother. They also felt that there was bias not only in the choice of letters, but also in the interpretation of the context of these letters. Schlamp (60) criticized the hypotheses of this and other studies of family communication by suggesting that they were untenable and offered alternative hypotheses to study the mother-child interaction of both schizophrenic and nonschizophrenic patients.

The analysis of maternal communication was carried out by Blomberg's (9) group who conducted open-ended semistructured interviews with mothers of schizophrenic patients and with an equal number of controls. The inability to interpret messages from outside the family is the result of constant exposure to meaningless communication was the hypothesis tested. The results showed that replies regarded as definite were more frequent in the control group and that shifts and evasions were significantly more frequent in the schizophrenic group. Cheek (15) devised a questionaire sent to mothers of schizophrenic patients and compared the answers with the responses of tape-recorded interviews. The self estimate of the questionaire responses reflected supportive and permissive attitudes that were in contrast to the nonpermissive verbal content of the recorded interviews. This comparison suggested that the verbal support of such mothers fails to be actually communicated. Rioch (52) suggests that these studies must be interpreted with the knowledge that a person talking to another in a dialogue communicates differently from a person describing a mechanism. The contradictory quality of the mother's message to the psychiatrist serves as an indicator of the family interaction patterns.

SCHIZOPHRENOGENIC PARENTS

Caputo (14) criticizes the studies based on the hypothesis of the schizophrenogenic mother in that they are too limited in

their approach because they ignore more significant features of the family interaction. His studies showed that bilateral parental antagonism is the rule and that the theoretically passive father is nonexistent. He did note that the mother tends to regard the child as being more like herself whereas the father denies any similarity of the child to him. Even this overt hostility did not prevent the parents from reaching decisions by discussion.

Lu (38) found that the parents mask anxiety in relevant communications as if it were nonexistent. This concealment and denial results in an emotional demand to the child rendering him helpless. Bowen's research group (11) found that in each family the mother was overadequate, the father was unconcerned, and the patient felt helpless. The patient can escape from such situations only by harassing the mother to the point where she leaves him alone. As a result, the father is forced into taking the role of a substitute mother.

Lucas (40) feels that the pathological triad of overprotectiveness, coldness and failure to elicit growth-inducing processes are produced by the dearth of attitudes of cohesiveness, warmth, and mobility generated within the family. The socio-economic factors that intensify the emotional isolation include the physical absence of the father during a child's first six years and the kinship of those rearing the child in his first twenty years. Isolation is explained as the chief factor in forming the poor communication patterns because of the resulting failure of correc-

tive feedback. Haley (29) explains that this represents the failure of the family to provide effective feedback.

This isolation can be expressed as a function of the social isolation of the family. Boszomenyi-Nagy (10) notes that identity defects in the personalities of all the family members contribute to the disturbed relationships that result in a "need-complementary" epiphenomenon. This is an extension of Wynne's principle of pseudomutuality that regards the schizophrenic family as operating under the illusion that family members are protected from recognizing divergent aspirations by the rigid ties of their relationship. This attitude is supposed to lead to meaningless experiences. Boszormenyi-Nagy feels that although the relationship is regressive, it is meaningful. The complementary "deep needs" are expressed in specific communication patterns that internalize the rigid role structure within a family. The resulting possessive feedback hinders independent growth. This pattern is consistent with the behavior of families studied on hospital wards by Bowen (12) to evaluate the interaction with their schizophrenic children. Fleck (21) analyzed the sixteen families of the Lidz project and showed that there was a failure to form nuclear structures.

The nature of this malfunction of family communication has been studied in detail utilizing both projective testing and structured interviews. Singer and Wynne(63) have successfully used Rorschach techniques in matching patients with their families from a sample of schizophrenic, borderline, and neurotic patients in an

effort to predict the patient's thought pattern from the tests of family members. The criteria used were "the styles of communication, especially patterns of handling meaning...styles of relating, especially erratic and inappropriate kinds of distance and closeness in intrafamily transactions, affective disorder, especially unacknowledged underlying feelings of pervasive meaninglessness, pointlessness and emptiness."

"The form of the overall structure of the family is organized to cope with the threat of certain major kinds of anxiety-provoking feelings and events.... Two patterns which these maneuvers may take have been described under the headings of pseudomutuality and pseudohostility." The styles of communicating were regarded as "the manner or style in which the family members conveyed that they were focusing on both the testing task and the tester. Communication can be conceived as beginning with the efforts of two or more persons to focus their attention selectively on shared percepts, ideas, or feelings." The decrease in attentiveness shown by schizophrenics and their families was the chief differentiating feature from the borderline and neurotic groups.

The types of schizophrenic patterns that emerged from these studies were based on amorphous and fragmented thought patterns. Amorphous schizophrenics were those "whose percepts and attention were blurry, undirected, and poorly cathected. Their thinking and communication tend to be underproductive, vague, and drifting." These qualities seemed to lead to "group pessimism within the family

that any sense of meaningfulness can be achieved." The parents of a subgroup of amorphous schizophrenics were "ideationally overproductive but exude a continuous series of indications that their efforts are futile, worthy of neither attention nor imitation. In these cases the offspring's clinical and test behavior is not similar to the overt behavior of the parents' but is complementary to it." Due to this constant incongruous input, the resulting communication patterns do not allow appreciation of meaning.

In the other group of schizophrenic families, adequate labeling of basic events and perception is permitted but meaningfulness is impaired at the level of experience. "Such families tend to have schizophrenic offspring who are concerned over feelings of meaninglessness but are not totally foggy in their language and perceptions; rather they feel a lack of intrapersonal contact with their own perceptions and ideas as well as with others in interpersonal relationships."

Ofthe other two groups studied, the borderline patients had no impairment of meaningfulness "at the basic pickup attentional level," but were forced to construct "more complex and accurate kinds of meaning" as a result of the bizarre thinking of one parent that was not offset by the other. And the neurotics experienced "relatively explicit and clearly spelled out" conflict that they could interpret properly.

The criteria used in judging the families of the amorphous group were:

"1. Incipient undirected attention
2. Attention vaguely directional but with uncertain referments.
3. Circumstantial details without final meaning.
4. Amorphous, implicit shifts of information.
5. Fragmenting primary process intrusion.
6. Odd vantage points for communication.
7. Original offbeat responses which are conveyed in an arbitrary, unexplained fashion.
8. Externalized sources of attention and meaning.
9. Meaning manipulation and distortion without gross attention defects."

The amorphous group was found to demonstrate a close set to events and objects, yet tended to shift from literal to general expression while mixing obtuse, overly abstract terms as a distancing device. The amorphous disorders of affect tend to be at a low energy level reflecting a disbelief of the ability to achieve meaningful, satisfying experiences. Resulting from this is a psychologically encompassing family structure built around denial or reinterpretation of reality to shut out anxiety provoking events and feelings.

In evaluating the results of this approach, Singer & Wynne (60) concluded that the parents of schizophrenics have an "aggravating influence" on the communication of one another as opposed to the "counteracting dimension" of the parents of neurotics. As an example, if the mothers emanate nebulous meanings, anxiety, and drifting thought that the father aggravates by his paranoid ideation, amorphous patterns develop. On the other hand, if the mother scatters her attention with a peculiar interpretation of percepts that the father misperceives and aggravates by a moody dependent attitude, the fragmented pattern develops.

Singer and Wynne (65) have developed a Rorschach scoring manual to determine communication defects in the parents of schizophrenic patients. There is an accompanying T.A.T. manual that seems much less objective in its analysis. They feel that theory is based on a "comprehensive theory of normal ego development" and that it has "worked empirically in our studies linking varieties of behavior of parents and index offspring."

They approach the individual with emphasis on "ego structure , characterological features, personality vulnerability or prides position, and stylistic or formal behavior patterns." The chief concern is with "enduring conditions and patterns" rather than with "immediate precipitating factors." The approach is qualified in that although somatic factors could be pre-eminent, parental communication defects are significantly identifiable. For normal development the authors devise an interactional obstacle course in which a "set" must be developed for "learning to cope flexibly with the diverse necessities of later life."

The techniques of scoring have been suggested above and in themselves are not relevant to this paper. The significant limitation recognized by these astute scientists has been their human inability to analyze the data from their particular approach consistent with earlier observations in this paper. "Further computerized analysis of scores from large samples of subjects will facilitate identification of those items in the Manuals which can and cannot be scored reliably and of those items which are especially successful in differentiating parents of various groups."

Morris and Wynne (47) carried out a further study in which communication is judged in taped interviews in order to predict psychotic behavior. The child is shown to be immersed in the intrafamilial conflict expressed in uncomplementary family communication patterns. As a result of this, the family maintains a pattern of avoiding complete transactions. This continues the facade of relatedness that avoids "the horror of utter unrelatedness," as suggested by Rosenbaum. (53)

In contrast to these more or less lucid studies, Mishler and Waxler (46) have developed a "multilevel structural analysis" from taped interviews with subjects chosen from the families of newly admitted schizophrenics. The control group was admittedly biased in that it was chosen from college and church membership lists yielding an expectedly disproportionate sample of Catholic and middle class subjects in comparison with the patient group.

To further qualify this skewed sample, a questionaire composed of thirty-eight patently obvious situational analysis questions was presented to the subjects to determine areas of disagreement. The test situations were then discussed in the family dyads or triads as the circumstances warranted. An elaborate four-track recording system was used with employment of the following complex procedure:

> An average of 18 hours is required for transcribing a one-hour taped discussion; in length, typescripts range between 30 and 100 pages. Each typescript is "checked"

against the tape which takes another additional 15 hours, corrections are made, omissions inserted, who-speaks-to-whom information included, and notation made of interruptions and simultaneous statements.

From this quagmire, seven "affect code categories" involving both positive and negative affect, regarding relationships, states, events and situations are evolved and codified by number. By compiling the frequency of expression of these categories, seven indices are derived, an example of which is:

$$\frac{\%\text{ positive acts of}}{\text{all affective acts}} = \frac{1+2+3}{1+2+3+4+5+6+7}$$

Such data are verified by the Kruskal-Wallis "H" test and Mann-Whitney test.

The authors feel this study is "a particularly comprehensive and systematic example of this statistic analysis of experimental data approach." They imply that they have reviewed the literature on this method; however, they made no mention of the above work of Singer, Wynne, and Morris that seems to be making great strides forward in this particular approach while their own is bogged down in a methodology employing circular reasoning. Their fond hope "to use our data to formulate and to test mathematical models of group interaction" seems to be foredoomed in consideration of the criteria of Warner (72)

SELECTIVE INVOLVEMENT OF SIBLINGS

Perhaps the most glaring hiatus in the theory not only of the double bind, but also of the schizophrenogenic mother or family

is a satisfactory explanation of the selective involvement of a single sibling. Socio-cultural studies have yielded a multitude of factors that intermesh with genetic factors.

The Lidz group (36) in reviewing the literature of twin studies, commented that neither recessive nor dominant genetic traits had been conclusively shown in the exhaustive twin studies to that date. They felt rather that two family types were implicated: the skewed family that had but one parent with faulty traits and the schismatic counterpart composed of two antagonistic parents that resulted in faulty reality testing of the offspring. The predominance of a single factor such as the mother-child relationship could not be demonstrated, but rather family structure and interaction was proposed to explain faulty ego development. The crucial defect is the failure of the parental generation to form a satisfactory coalition that could transmit an instrumentally valid means of communication.

Inadequate but nonschizophrenic adjustments were found in the majority of the siblings who employed the mechanism of either constriction or flight to avoid involvement in this pattern of parental crossfire. Constriction was demonstrated in the form of isolation and denial of pertinent information. Flight, on the other hand, was an effort to avoid contact and to lead a consciously different type of life. Lidz (36) further holds that:

> the child who becomes schizophrenic may become a pawn or scapegoat in the parental conflict; he may be caught in a bind between the conflicting needs and wishes of

the parents, who become irreconcileable interjects; he may invest his energies in seeking to salvage the parents' marriage and to satisfy the needs of both; he may insert himself into the split between parents, and become a needed complement to one parent. The patient's energies during the developmental years were deflected from developing an integrated, independent ego.... The influence of the siblings on one another may create more or less precarious circumstances and greater or lesser vulnerability.

Kempler's group (33) interviewed sixteen schizophrenics and their siblings in an effort to evaluate from different standpoints the availability of parent figures, the described parental personality characteristics, and the described differences in the individual child-parent relationships. In respect to availability, the parents were significantly isolated from the schizophrenic by divorce, military activity, employment, or death during early childhood, at which time development of the siblings was not so directly involved. The patient was never the "favorite child" as unanimosly recalled by each sibling group. There was a consistency in description of parental personality indicating similarity in the communication among siblings. The patient was shown to be the most lacking in positive relationships to the parents whereas his siblings formed at least one positive relationship.

On the other hand, Lu (37) found that the mother regulated the preschizophrenic's behavior more than the sibling's, expected higher achievements and demanded more dependency possibly because of the patient's sickly infancy and because of the mother's personal problems during the child's birth and infancy.

There is some question of the effect of the schizophrenic break on stable siblings. Newman (49) found that younger brothers exhibited objective insight that they paid for in guilt from three sources:

> First, there was guilt in "letting" the older brother bear the brunt of the parent' demands...
>
> Second, each manifested a fear of mental illness and veiled it as a retribution for his failure to stem the progression of illness in his brother...
>
> Third, each younger brother felt intense guilt in exercising his own perception judgment, and initiative.
>
> Newman sums up the feelings of the younger brother as:
>
> Since I benefit by my brother's illness, I am responsible and guilty: since I see his illness and need for help, I am guilty within myself if I remain passive; and if I take action, I violate the family rules and am guilty.

Kringlen (32) commented that the twin studies that antedated his own suffered from attempting to determine how inheritance was transmitted. The elegance of his method is reflected in his determination of zygosity:

> The following blood and serum systems were used: ABO, MNS, P, Rh, Le, Fy, Kell, Gm, Hp, and Gc. Juel-Nielsen and his coworkers have shown that 98 per cent of all dizygotic twins can be classified by means of the ten most common serologic systems.

His determination of monozygosity by this method was 28-38% consistent with 28% predicted by Weinberg's method. Concordance for schizophrenia was found in 28% of the monozygotes in sharp contract to the 67% to 86% found in previous studies. The two most significant errors cited were in sampling techniques and in

overemphasizing the organic etiology of schizophrenia. He concludes that:

> The more accurate and careful the samplings, the lower the concordance figures.... These concordance rates support a genetic factor in the etiology of schizophrenia; however, the genetic factor does not play as great a role as has been assumed.

Although admitting that twin studies are inherently subject to errors in interpretation, Pollen (51) reviewed the literature and investigated a series of twins discordant for schizophrenia. In his analysis, he noted that the schizophrenic child was smaller at birth, developed more slowly, did less well in school, was more passive and dependent, and enjoyed less success and confidence than his counterpart. On this basis, the mother was implicated again as the more responsible parent who formed pathological communication patterns with the child who was less well adjusted.

In presenting a case of triplets of whom two monozygotic girls developed different forms of schizophrenic patterns of reaction, and their brother remained normal, Langsley (35) commented on the nature of the pathologic communication. The boy was highly prized by both parents and apparently had a healthy development. The mother had considerable emotional problems which did not affect her relationship to the boy who was treated as an individual. She tended to regard the girls as a unit, although they were separated in schooling. Such a contradictory approach tended to confuse their identity and to promote social isolation. The smaller girl identified with the mother by becoming passive and eventually mute and posturing at the time of her psychotic break. The other

identified with the father, becoming aggressive at the time of her break. The author conceives that these girls were caught in a double bind in which the primary defect was the confusion of identity that was fashioned by the mother whereas their brother was spared by virtue of his privileged role. The valhe of this study is that it confirms the observations made previously on family interaction.

PSYCHOTIC INVOLVEMENT OF THE WHOLE FAMILY

The problem of communication in schizophrenia includes the influence that the patient has on others. Sobel (66) studied two groups of children whose mothers were schizophrenic. Those children in a group that was cared for in foster homes showed no abnormal tendencies whereas those under the care of schizophrenic mothers suffered from constant and sever depression resulting from the lack of pleasureable interaction. Thus, the early communication patterns were not properly formed since the effect of little play was a depressive affective discharge.

The communication of psychosis is defined as _folie a deux_, but this is a disputed mechanism in the generation of schizophrenia. A case was reported by Goduco-Agula (27) in the Philippines in which a girl, diagnosed as a catatonic schizophrenic, involved her entire family in a psychotic episode after she murdered an aunt. She had beenreared in an atmosphere of confused intrafamilial communications which were heavily influenced both by

primitive folk lore and by confused notions of Christianity. When her family was studied, it was found that the members had been temporarily drawn into her confused world. On exposure to extra-familial communication, the other family members recovered.

Although the phenomenon of temporary psychosis is widespread among primitive cultures, the higher socioeconomic class of the family, the advanced education of several family members, and the postepisodic return to normality suggest that the mechanism of such a reaction involves the family communication pattern in such a manner that can be explained in terms of an uncertain mechanism called folie a famille. The distortion in this particular instance is thought to result from a failure to integrate family communication completely into the objective interpretations of the modern world so that the spurious feedback of the superstitious primitive surroundings intruded.

It is interesting to note that Kunasaka (33) found that such a temporary psychosis that is common among primitive societies and is known as "imu" amoung the Japanese Ainu has diminished in incidence over the past thirty years, presumably due to the introduction of heterogenous ideas into the culture. Thus communication of psychotic states is dependent upon isolation, whether it be at the individual, familial, or cultural level.

OBSERVABLE SCHIZOPHRENIC COMMUNICATION

The patient, as observed by others, communicates the effects of his isolation by his use both of words and of the nonverbal

vehicles of posture, gesture, laughter, and silence. Kahn (36) states that in these experiences that seem outwardly unbearable the patient expresses delusions and hallucinations that are misinterpreted as suffering but actually reflect enjoyment of his own ideas.

There seems to be no description of these experiences that is both satisfactory to the patient and enlightening to the observer so that "ordinary language is not commensurate to the extent of the psychotic experience." This involves a deepening gap between the normal space and the hallucinatory space in which a reunion becomes more difficult, progressing to the point of complete loss of contact. The lack of communication is stated to be the chief factor in establishing this mode of expression.

THE STRUCTURE OF VERBAL LANGUAGE

Stuerman (69) constructed a semantic framework by which this hiatus can be rationalized. Premises are set up from which universal deductions are made. In the set, $[p_1, p_2 \ldots p_n, {}^{N}p_1]$, p_1 and ${}^{N}p_1$ are contradictory, resulting in decomposition to two sets. The construction leads inevitably to the conclusion that this logical model is an inconsistent system with each premise filling its own level of demand to avoid conflicting behavior that results in two different illusory worlds as in the case of schizophrenia.

The logical frame work of the loose associations in schizophrenic speech is based on the von Domarus principle (12) which

states that whereas the normal person accepts identity on the basis of identical subjects, the schizophrenic accepts identity on identical predicates. Thus in schizophrenic thought, the syllogistic logic of A = B, B = C, therefore A = C, does not hold, but rather A = B, C = D, therefore B = D symbolize the basis of reasoning. Hence all dogs might be called "Fido" because the first dog noted was called "Fido." On this basis concretism results from general terms being applied to single objects and metonymic distortion from approximate related terms being used for more precise ones.

The distortion in feedback is thus understandable in semantic terms. However, Haley (28) feels that observing the verbal conversation in itself is an incomplete approach in view of the multiple levels such as described above by Stuermann (64). This inconsistency was pointed out earlier in this paper in the criticism of the work of Mishler and Waxler (45).

THE FUNCTION OF LATENT LANGUAGE

Mazzanti and Bessell (42) defined latent language as a universal and usually unconscious communication arising from a need to utilize the present to resolve conflicts of the past, in consideration of the von Domarus principle mentioned above. By conveying feelings in a disguised form, the patient forms a testing mechanism to safeguard against rejection. This is recognized at a conscious level as subtlety or tact, but the degree of veiled

meaning is proportional to the fear of rejection. This approach deals with the use of language to reflect feelings that can be expressed only in words that act as a magic means of gaining a "quasi-closeness" while retaining the false security of distance.

Aleksandrowicz (1) defined the metaphor as an archaic figure of speech for the schizophrenic that implies difficulty in expression that creates distance not only from others but from intra-psychic conflicts as well. The degree of veiling and amount of shifting indicates the proportionate need for distance. Aleksandrowicz further holds that meaning is found only in the continuity of a statement which is not emphasized in key words since analogy carries its meaning by a correspondence more subtle than symbolization.

Lorenz (37) implies that schizophrenic language has a function of expression that is based not in the lack of logic within a family but rather a different emphasis on perception. This results in a language that is not communicative but is unique in its obscure but personalized way of expression. Shave (62) summarizes the motivation behind latent language as a "fear of potential rejection and concurrent need for distance, expression of anxiety-provoking feelings, discharging of affect, testing the strengths of interpersonal relationships, and the resolution of unconscious conflicts."

It is clear that even a detailed study of verbal language of the schizophrenic indicates that words are inadequate for communi-

cation of his symptoms. The concept of metacommunication embodies a sociocultural approach to understanding. Spiegel (68) points out that body language functions in three dimensions: "the signs by which we read the schizophrenic person and are not necessarily linked with his communicative intent; the use of nonverbal body-language as his means of purposive communication; the experience of body percepts."

This includes "posture stance, movement, muscle tension, and facial expression" that:

> gives a wide range of information of the patient's inner state of emotion and of communication, including the following: his emotional attitudes such as rage, anxiety, beatitude; the age at which he is fantasizing himself; often the thought content he is symbolizing; the degree of withdrawness from the environment in autism or catatonic stupor; his inner communication with hallucinated figures; and the change-over to stereotyping of gestures from spontaneous expressive movements.

When body language becomes threatening other objects are also used for communication. Because of these factors, the patient is felt to have an increased sensitivity to the affect, emotion, and sensitivity expressed in others.

POSTURE AND GESTURE

Posture has been shown to be a significant feature of this presentation. Scheflin (58) has noted the subtleties of position with respect to symmetrical or complementary posture as a means of showing agreement, disagreement, or desire to end an interview. Consistent with the findings of Birdwhistell, he finds the totality

of position changes makes up the presentation of a person. The psychotic person performs such changes either slowly or in an exaggerated manner, indicating totality not of the normal person, but nevertheless serving the unique function of punctuating the beginning and end of attentiveness by significant postural changes.

In another instance, Scheflin (58) notes that all kinesic-linguistic patterns share the repetitive characteristic that is mechanically similar in each instance but when examined in context serves a regulative function that transmits new information and reduces ambiguity. Hand sweeps and head nods are frequently used to clarify references. In a given period of observation such a gesture has been noted to occur up to thirty times and to fall into one of the few basic patterns. When a change in the communication pattern becomes evident, a group of kinesic activities will dominate the interaction until the new pattern is established. This kinesic activity was shown to have not an action-reaction sequence, but rather was made up of mutual and usually simultaneous complementary actions. Scheflin demonstrated this function in interviews with schizophrenics in his use of physical closeness, gaze holding, rocking, and leg crossing.

LAUGHTER AND SILENCE

One of the more disconcerting of distancing devices in schizophrenics is bizarre laughter. Zuk (79) and his coworkers analyzed the family of a schizophrenic girl finding that the socially

acceptable "embarrassed" laughter is used as a complementary regulatory device that monitors the information being discussed in a group situation. In particular, the first fifteen minutes were marked by predominantly parental laughter patterns. The patient was found to have a low frequency of laughter during this period; however, the laughter of the patient increased during the latter half of the interview while parental laughter decreased. During the respective time periods, the person being confronted most directly proved to be the most anxious and hence the most subject to laughter, although he received complementary feedback laughter from the others. More specifically, Zuk (79) found in a later study that laughter conveys a particular message to a single listener even in the context of many listeners. He hypothesizes that this is an unconscious disguise in maintaining the double bind to project either dissociation from or magnification of the pathology in family communication.

The mutism in catatonic states of schizophrenia suggests that silence is a symptom of disturbed communication. The dynamics were explained by Zuk (80) as the utilization of either verbal or non-verbal communication by one or a number of persons to promote either public compliance or to provide a private object of bad feelings. Silencers use silence as a device to express deeper needs to see defiance everywhere. Hence, the chronic victim of silencing would eventually resort to silence itself as a repeated means of defense from external intrusion.

COMMUNICATION WITH THE PATIENT

Ruesch (55) suggests that the basis of all therapy is to improve the communicative behavior of the schizophrenic patient. He maintains that the functions of communication must be intact, and subject to the proper operations of both external and internal correction mechanisms. Arieti (3) feels that the dichotomy that exists between the intrapsychic and interpersonal psychoanalytic schools is unfortunate and that actually both viewpoints are of equal importance. He suggests that the therapist must intervene actively and aggressively to make attempts to remove the fear inherent in a therapeutic situation by creating an atmosphere of trust. He gives general reassurance and offers only short interpretations as "passing remarks" to convey a feeling of understanding. The use of nonverbal meaningful acts is done only very cautiously because of the damage of misinterpretation.

MODEL BUILDING

Model building is the communication theory of critical importance to therapy because the inefficiency of most forms of therapy is intrinsic due to lack of a common basis for communication. Laing (34) objects to the contention that there can be no true therapeutic relationship advanced with the assumption that the patient has no basis for comparison to share the psychiatrist's understanding of the surroundings. He shares Sullivan's convictions both that the patient should be assumed

to be right and that other patients and ancillary personnel could be used more effectively to stimulate communication.

Kahn (30) feels that the prevalent forms of therapy fail to integrate the trends of sociocultural viewpoints into a concrete understanding of the widely varying manifestations of a nonspecific syndrome. This insight could be most efficiently provided by maintaining the therapist's feelings of worthwhileness during the treatment of schizophrenics in a theoretical fit advanced by Mandell (41). He suggests that congruence must be maintained between things as seen and as they actually are. This is based on the common assumption that there is a predictable series that will happen again in the future. This is done by arranging objects to remain the same in a shifting background. The schizophrenic patient deprives a therapist of being "locked into character." Hence, the patient should be approached expectantly and with a creative urge rather than with the twofold goal to form relationships and to translate material to what is assumed to be true. It is thought that such theory building allays the hopeless feeling given to the therapist by the failure of the patient to classify stimuli by putting them into the context conforming to that of the therapist.

Bruch (13) states that discriminating alertness is required to perceive the "schizophrenic core" through the haze of counterfeit communications. In forming such a theory, Gaardner (25)

uses a model of schizophrenia that assesses the nature of the input of information leading to thinking and perceptual disorders. Vaisberg (71) suggests a model in which the defect in the schizophrenic is a vacuum caused by his avoidance of pleasurable words. The resulting emptiness called anhedonia produces a paucity of the social input that is required in normal personality maturation. The emergency emotions of fear, anger, and guilt remain predominant because of the failure of positive input. The crucial point about these models is that they shun the ancient euclidian and renaissance Newtonian structure and conform more strictly to modern scientific thinking as suggested by Finch (20).

Haley (28) points out that the therapeutic relationship is an artificial one in respect to the familial communication patterns. The paradoxical character of this relationship becomes a gamelike situation which contracts markedly with the rigid family patterns to which the patient must re-adapt following therapy. Hence, Haley's (29) model of the family of the schizophrenic includes an appreciation of the approach to levels of a message. The cybernetic idea of a self-corrective system includes the formation of a new system should the original one be disrupted by a schizophrenic offspring.

In dealing with a whole family during treatment, Framo (23) finds that the problem is compounded due to this fluidity of ego boundaries. The source of needs and wishes is then confused despite the fact that roles are rigid. In building a model of such a family, apparent communications may not be regarded as being truly communicative since motives are disguised by the various

family members from each other, although they can apparently sense what is happening. The multiple levels of interaction specific to each family are so intricate that care must be taken in an approach to the problem.

Frisch (24) finds that on initial contact a home visit by the therapist at a time when all family members are present is an effective device in determining the factors of disturbed communication patterns that are frequently reversed in the therapeutic situation. If this phenomenon is overlooked, Paul and Grosser (50) find that the family will continue to deny the existence of an emotional disorder that promotes regressive behavior by a failure to provide feedback to clarify reality. This effort to prevent the breakdown of interactional homeostasis has been shown to occur in family therapy in the form of the absent-member maneuver, in which a significant family member will absent himself by implicit mutual consent of the family members in order to maintain "psychopathologic dyads."

Cheek (15) found that the parents of a schizophrenic were usually permissive and non-role forming. She concluded that the more normal the family appeared, the more difficult would be the adjustment of the schizophrenic. Early recovery was more likely if the parents were more cooperative at the onset of treatment, but this was short-lived because of the therapeutic distortion of family environment. Schizophrenics apparently need more conditioning in therapy to form acceptable behavior patterns.

CONTROLLED COMMUNICATION

Appleby (2) has found that more socioculturally oriented therapy has resulted in more success with "total push" therapy in which communication of chronic schizophrenics is enhanced. Betz(5) has found that the vocational interests of the therapist makes a crucial difference in successful treatment of schizophrenic patients. She used the Stone vocational interest scales to show that those oriented to the interests of a lawyer rather than to those of a mathematics-science teacher had more success because of their analytic approach to social problems. The major distinction is that the therapist has a problem-solving rather than a regulative approach.

Gardiner (26) uses the confrontation technique to bring the area of conflict to light by establishing a mutually satisfying relationship. Defenses are unmasked by brief interpretations to ask such pointed questions as "what do you think of what I told you?" Wong (77) found that the use of progressive confrontation rather than exploration in outpatient group therapy resulted in a constructive questioning attitude, a family feeling within a given group, and improvement within twelve to twenty-two months.

Haley (28) suggests that the major problem in gaining control of the relationship is the negative attitude shown by the patient. He indicates that control can be gained either by physically forcing that patient to accept a complementary role or by the technique of mothering in which the patient is gently prodded to take up a subservient role.

Since these techniques have been used with varying success, the new role of more subtle communicative regulation is suggested by Scheflin (59); in the family group, gestures or expressions quickly replace lexical regulations in a codified system of kinesic signals. He suggests that further context analysis will show that psychotherapy as an institution has specific signals that will facilitate control of the relationship. This will be better used in the context of a family group in which the linguistic-kinesic patterns can be used to facilitate the understanding of the patient's communications.

CONCLUSIONS

One of the most promising trends in exploring the etiology and treatment of schizophrenia has been the communication approach. This paper concludes that:

1. The major failure of historical approaches in treating schizophrenia has been the lack of a common basis for communication.

2. The advances made by Harry Stack Sullivan indicated that the nature of communication bears close study and exhaustive analysis.

3. Human communication is regarded as an input-output system with adequate feedback being the crucial feature.

4. Schizophrenia is regarded as a reverberation in the circuit whereby intrapersonal thoughts are regarded as being interpersonal.

5. Linguistic-kinesic studies have shown that words are but a small part of this communication and that metacommunication is most significant.

6. The double bind hypothesis is concluded to be a useful tool in explaining the etiology of schizophrenia but is inadequate in describing the changes within the whole family structure.

7. Several forms of family patterns have been singled out, the most notable being the amorphous-fragmented spectrum of Singer and Wynne.

8. Selective involvement of siblings was shown to be due to the family structures such as the skewed and autagonistic groups of Lidz.

9. The psychotic involvement of a whole family was shown to be regulated by the degree of sociocultural isolation it was subject to!

10. Schizophrenic verbal language is explained by the vonDomarus principle and must be approached with caution by the therapist.

11. Latent language, which is regarded as subtleness or tact in everyday conversation, offers a fertile field for metaphorical analysis.

12. Posture and gesture have been shown to fall into institution-like patterns that can be used as regulatory devides in psychotherapy.

13. Laughter and silence have been noted to be key factors in the linguistic-kinesic regulation of psychotherapy.

14. The relationship must be modeled both to utilize the above regulatory devices and to afford a better understanding of the patient.

BIBLIOGRAPHY

1. Aleksandrowicz, Dov R., The Meaning of the Metaphor, Bull. Menninger Clin. 26:92, 1962.

2. Appleby, Lawrence, Evaluation of the Treatment Methods for Chronic Schizophrenics, Arch. Gen. Psychiat. 8:8, 1962.

3. Arieti, Silvano, Psychotherapy of the Schizophrenic Patient, Psych. Res. Rep. Am. Psychiat. Assn. 17:33, 1963.

4. Bateson, G. T., and others, A note on the Double bind--1962, Fam. Proc. 2:194, 1962.

5. Betz, Barbara, The Basis of Psychotherapeutic Leadership with the Schizophrenic Patient, Am. J. Psychother. 17:196, 1963.

6. Birdwhistell, R. L., An Approach to Communication, Fam. Proc. 1:194, 1962.

7. ______, American Family: Some Perspectives, Psychiatry, 29:203, 1966.

8. ______, Contributions of the Linguistic-Kinesic Studies to the Understanding of Schizophrenia. (In: Auerbach, Alfred, ed., Schizophrenia, an Integrated Approach, New York, Ronald Press Co., 1959, p. 99-124.)

9. Blomberg, Stanley, Timkin, K. R., and Wiener, M. F., Communication Patterns of the Mothers of Schizophrenics, Fam. Proc. 3:95, 1964.

11. Bowen, Murray, A Family Concept of Schizophrenia. (In: Jackson, D. D., Ed., The Etiology of Schizophrenia, New York, Basic Books, 1960, p. 346-388.)

10. Boszormenyi-Nagy, Ivan, The concept of Schizophrenia From the Standpoint of the Family, Fam. Proc. 1:103, 1962.

12. Bowen, Murray, Family Psychotherapy, Am. J. Orthopsychiat, 31:40, 1961.

13. Bruch, Hilde, Psychotherapy with Schizophrenics, Arch. Gen. Psychiat. 14:346, 1960.

14. Caputo, D. V., The Parents of the Schizophrenic, Arch. Gen. Psychiat. 6:219, 1962.

15. Cheek, Frances, The Schizophrenic Mother in Word and Deed, Fam. Proc. 2:155, 1963.

16. ______, Family Interaction and the Convalescent Adjustment of the Schizophrenic, Arch. Gen. Psychiat. 13:138, 1965.

17. Colby, K. M., Experimental Treatment of Neurotic Computer Programs, Arch. Gen. Psychiat. 10:220, 1964.

18. ______, A Computer Method of Psychotherapy: Preliminary Communication, J. Nerv. Men . Dis. 142:148-152, 1966.

19. Eisenson, John, Auer, J. J. and Irwin, J. V., The Psychology of Communication, New York, Appleton-Century Crofts, 1963, p. 366-374.

20. Finch, J. R., Scientific Models and Their Application in Psychiatric Models, Arch. Gen. Psychiat. 15:1, 1966.

21. Fleck, Stephan, Family Dynamics and the Origin of Schizophrenia, Psychosom. Med. 22: 333, 1960.

22. Foudraine, J., Schizophrenia and the Family, a Survey of the Literature 1956 - 1960 on the Etiology of Schizophrenia, Acts. Psychother. 9:82, 1961.

23. Framo, J. L., The Techniques of a Family Therapy of Schizophrenia, Fam. Proc. 1:119, 1962.

24. Frisch, Richard, Home Visits in a Private Psychiatric Practice, Fam. Proc. 1:14, 1962.

25. Gaardner, Kenneth, A conceptual Model of Schizophrenia, Arch. Gen. Psychiat. 8:590, 1963.

26. Gardiner, H. H., And Waldron, I., The Confrontation Technique Used in the Treatment of Adolescent Schizophrenia, Am. J. Psychother. 17:240, 1963.

27. Goduco-Agula, G. and Wintrobe R., Folie a Famille in the Phillippines, Psychiat. Quart. 38:733, 1964.

28. Haley, Jay, Strategies of Psychotherapy, New York, Grune and Straton, 1963, p. 86-116.

29. ______, The Family of a Schizophrenic, a Model System, J. Nerv. Ment. Dis. 129:351, 1959.

30. Kahn, Eugene, Concerning the Concept of Schizophrenia, Am. J. Psychiat. 120:856, 1964.

31. Kempler, Walter, Iverson, Robert and Besser, Arnold, The Adult Schizophrenic and his Siblings, Fam. Proc. 1:224, 1962.

32. Kringler, Einar, Schizophrenia in Twins, Psych. 29:146, 1966.

33. Kunasaka, Y., Culturally Determined Mental Reaction Among the Ainu, Psychiat. Quart. 38:733, 1964.

34. Laing, R. D., Is Schizophrenia a Disease? Int. J. Soc. Psych. 10:184, 1964.

35. Langsley, D. G., Schizophrenia in Triplets, a Family Study, Am. J. Psychiat. 120:528, 1963.

36. Lidz, Theodore, and others, Schizophrenia Patients and Their Siblings, Psychiatry 26:1, 1963.

37. Lorenz, Maria, Criticism as an Approach to Schizophrenic Language, Arch. Gen. Psychiat. 9:235, 1963.

38. Lu, Y. C., Contrary Parental Expectations in Schizophrenia, Arch. Gen. Psychiat. 6:219, 1962.

39. _______, Mother-Child Relations in Schizophrenia. A comparison of Schizophrenic Patients with Nonschizophrenic Siblings, Psychiatry 24:133, 1961.

40. Lucas, Leon, Family Influences and the Schizophrenic Reaction, Am. J. Orthopsychiat. 34:527, 1964.

41. Mandall, A. J., Theory Building, A Treatment for the Therapists of Schizophrenics, Dis. Nerv. Syst. 25:733, 1964.

42. Mazzanti, V. E., Bessell, Harold, Communication Through Latent Language, Am. J. Psychother. 10:250, 1956.

43. McGhie, Andrew, A Comparative Study of the Mother-Child Relationship in Schizophrenia, Br. J. Med. Psy. 34:195, 1961.

44. Meissner, W. W., Thinking About the Family -- Psychiatric Aspects, Fam. Proc. 3:1, 1964.

45. Mishler, E. G., and Waxler, N. G., Family Interaction Processes and Schizophrenia: A Review of Current Theories, Int. J. Psych. 2:375, 1966.

46. _______, Family Interaction and Schizophrenia, Arch. Gen. Psychiat. 15:64, 1966.

47. Morris, G. O. and Wynne, L. C., Offspring and the Parental Style of Communication, Psychiatry 28:19, 1965.

48. Murphy, Gardiner, Communication and Mental Health, Psychiatry 27:100, 1964.

49. Newman, Gustave, Younger Brothers of Schizophrenics, Psychiatry 29:172, 1966.

50. Paul, N. L. and Grosser, N. G., Family Resistance to Change in Schizophrenic Patients, Fam. Proc. 3:377, 1964.

51. Pollen, William, Stabenaur, James, and Turpin, Joe, Family Studies with Twins Discordant for Schizophrenia, Psychiat. 28:60, 1965.

52. Rioch, D. M., Communication in the Laboratory and Communication in the Clinic, Psychiatry 26:209, 1963.

53. Rosenbaum, C. P., Patient-Family Similarities in Schizophrenia, Psychiatry 24:133, 1961.

54. Ruesch, Jurgen, General Theory of Communication in Psychiatry. (In: Arieti, Silvano, ed., American Handbook of Psychiatry, New York, Basic Books, 1959, vol. II, p. 895-908.)

55. ______, The Role of Communications in Therapeutic Transactions, J. Communication 13:132, 1963.

56. ______, Social Psychiatry, an Overview. Arch. Gen. Psychiat. 12:501, 1965.

57. Sanua, V. D., Sociocultural Factors in Schizophrenia, Psychiat. 24:246, 1961.

58. Scheflin, A. E., The Significance of Posture in Psychotherapy, Psychiatry 27:316, 1964.

59. ______, Communication and Regulation in Psychotherapy, Psychiatry 26:126, 1963.

60. Schlamp, F. T., Family Experiments - Alternative Hypotheses, Fam. Proc. 3:227, 1964.

61. Searles, H. F., Schizophrenic Communication, Psychoanalyses 48:3, 1963.

62. Shave, David, Latent Language and Schizophrenia, Am. J. Psychother. 19:29, 1965.

63. Singer, M. T., and Wynne, L. C., Thought Disorders of Schizophrenics, III Methodology, Arch. Gen. Psychiat. 12:187, 1965.

64. ______, Thought Disorders of Schizophrenics, IV Results and Implications, Arch. Gen. Psychiat. 12:201, 1965.

65. ______, Principles for Scoring Communication Devects and Deviance in Parents of Schizophrenics: Rorschach and T.A.T. Scoring Manuals, Psychiat. 29:260, 1966.

66. Sobel, D. E., Children of Schizophrenic Parents, Am. J. Psychiat. 118:512, 1961.

67. Sonne, J. C., Spech, R. V. and Jurgreis, J. T., The Absent Family Maneuver as a Resistance in the Family Therapy of Schizophrenia. Fam. Proc. 1:14, 1962.

68. Spiegel, Rose, Specific Problems of Communication. (In: Arieti, Silvano, ed., American Handbook of Psychiatry, New York, Basic Books, 1959, vol. II, p. 895-908.)

69. Stuerman, Walter, Science, Logic, and Schizophrenia, Etc., the Review of General Semantics 19:299, 1962.

70. Sullivan, H. S., Schizophrenia as a Human Process, New York, W. W. Norton and Co., 1962, p. 26-99.

71. Vaisberg, Maurice, The Vacuum that is Schizophrenia, and Integrated Working Model, Dis. Nerv. Syst. 25:655, 1964.

72. Warner, H. R. The Role of Computers in Medical Research, J.A.M.A. 196:944, 1966.

73. Watzlawick, Paul, A Review of the Double Bine Theory, Fam. Proc. 2:655, 1964.

74. Weakland, J. H., The Double Bind Hypothesis of Schizophrenia and Three Party Interaction. (In: Jackson, D. D., ed., The Etiology of Schizophrenia, New York, Basic Books, 1960, p. 346-388).

75. Weakland, J. H., and Fry, W. F., The Letters of Mothers of Schizophrenics, Am. J. Orthopsych. 32:604, 1962.

76. Weblin, John, Communication and Schizophrenic Behavior, Fam. Proc. 1:5, 1962.

77. Wong, Normund, Outpatient Group Psychotherapy in Paranoid Schizophrenic Patients, Psych. Quart. 38: 655, 1964.

78. Zuk, G. H., A Further Study of Laughter in Family Therapy, Fam. Proc. 3:77, 1963.

79. ______, On the Pathology of Silencing Strategies, Fam. Proc. 4:32, 1964.