SYSTEMS ANALYSIS OF FAMILY INTERACTION
AND A DEMONSTRATION OF ITS APPLICATION

by

Aida Katherine Davis
B.A., California State University at Long Beach, 1970

A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF
THE REQUIREMENTS FOR THE DEGREE OF
MASTER OF ARTS (COMMUNICATION STUDIES)
in the Department
of
Communication Studies

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SIMON FRASER UNIVERSITY
June 1976

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APPROVAL

Name: Aida Katherine Davis
Degree: Master of Arts (Communication Studies)
Title of Thesis: Systems Analysis of Family Interaction and a Demonstration of its Application

Examining Committee:
Chairperson: Dallas W. Smythe

Thomas J. Mallinson
Senior Supervisor

Frederick J. Brown

Bruce K. Alexander
External Examiner
Associate Professor
Simon Fraser University

Date Approved: __________
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SYSTEMS ANALYSIS OF FAMILY INTERACTION AND A DEMONSTRATION OF ITS APPLICATION

Author:

AIDA DAVIS

June 1, 1976
ABSTRACT

The purpose of this study was, first, to trace the development of the study of family interaction from the designation of the family as an interactive unit to the conceptualization of the family as a system; and, second, to demonstrate the application of systems theory to family interaction. A conceptual framework based on the properties of general systems theory was developed and applied to two family plays which were judged suitable as fictional case study material.

The historical and theoretical context for the idea of a family as an interactive unit and for the subsequent development of the family-as-system concept was related in this work to an understanding of interactional phenomena. Within the field of family interaction research some fundamental properties of communication, which served as conceptual tools for the later analysis of the plays, were presented.

The general systems framework consisted of the following components: open system, entropy, steady state and stability, feedback, equifinality, non-linear causality and organized complexity. This framework was applied in order to assess the compatibility of family interaction and general systems theory. The dramatic portrayals selected for analysis were Eugene O'Neill's Long Day's Journey Into Night and Frank Gilroy's The Subject Was Roses. These two plays were selected on the basis of identified criteria and were chosen from a comprehensive list of family plays. The analysis consisted of a critical examination of interactional data as presented by the playwrights and an assessment of its compatibility with general systems principles.

The family-as-system model was found to be appropriate for the purposes of describing and explaining the interactional complexities of family communication. The open system concept, defined by information exchange, was observed to characterize the interaction within families. Negative feedback loops were identified as maintaining defined ranges of interaction and revealing relationship rules. Positive feedback was discussed in relation to family growth. Instances related to equifinality and non-linear causality were reviewed. Finally, specific limitations of the study were noted.
To my family
For the family is, indeed, inescapable. You may revile it, renounce it, reject it - but you cannot resign from it; you are born into it, and it lives within and through you, to the end of your days. This may be inspiring, it may also be very annoying; in either case it is humbling.

Leslie Farber
ACKNOWLEDGEMENTS

I wish to thank Dr. Mallinson for his continued support and helpful evaluation throughout my graduate work, and Dr. Lee Thayer for introducing me to systems. I also wish to thank Prof. Brown and Dr. Alexander for their assistance as committee members. A special word of gratitude is due my husband, Chris, who not only made it possible for me to pursue my interests, but also provided an invaluable source of encouragement.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>APPROVAL</td>
<td>ii</td>
</tr>
<tr>
<td>ABSTRACT</td>
<td>iii</td>
</tr>
<tr>
<td>CHAPTER I, INTRODUCTION</td>
<td>1</td>
</tr>
<tr>
<td>Purpose</td>
<td>3</td>
</tr>
<tr>
<td>Rationale</td>
<td>3</td>
</tr>
<tr>
<td>Method</td>
<td>5</td>
</tr>
<tr>
<td>CHAPTER II, DEVELOPMENT OF THE STUDY OF FAMILY INTERACTIONAL SYSTEMS</td>
<td>6</td>
</tr>
<tr>
<td>Early Concepts</td>
<td>6</td>
</tr>
<tr>
<td>Interaction Phenomena</td>
<td>12</td>
</tr>
<tr>
<td>Small Group Studies</td>
<td>13</td>
</tr>
<tr>
<td>Systems Thinking and Communication</td>
<td>20</td>
</tr>
<tr>
<td>Jackson</td>
<td>21</td>
</tr>
<tr>
<td>Bateson</td>
<td>25</td>
</tr>
<tr>
<td>Haley</td>
<td>27</td>
</tr>
<tr>
<td>Satir</td>
<td>30</td>
</tr>
<tr>
<td>Bowenian Family Theory</td>
<td>31</td>
</tr>
<tr>
<td>Summary</td>
<td>35</td>
</tr>
<tr>
<td>CHAPTER III, PRINCIPLES OF GENERAL SYSTEMS THEORY</td>
<td>37</td>
</tr>
<tr>
<td>Introduction</td>
<td>37</td>
</tr>
<tr>
<td>Systems</td>
<td>39</td>
</tr>
<tr>
<td>Entropy</td>
<td>43</td>
</tr>
<tr>
<td>Steady State and Stability</td>
<td>44</td>
</tr>
<tr>
<td>Feedback</td>
<td>46</td>
</tr>
<tr>
<td>Equifinality</td>
<td>50</td>
</tr>
<tr>
<td>Non-linear Causality</td>
<td>51</td>
</tr>
<tr>
<td>Organization</td>
<td>52</td>
</tr>
<tr>
<td>Summary</td>
<td>53</td>
</tr>
<tr>
<td>CHAPTER IV, THE APPLICATION OF SYSTEMS THEORY TO TWO FAMILY DRAMAS</td>
<td>54</td>
</tr>
<tr>
<td>Introduction</td>
<td>54</td>
</tr>
<tr>
<td>Analysis of Plays</td>
<td>55</td>
</tr>
<tr>
<td>Selection of Plays</td>
<td>57</td>
</tr>
<tr>
<td>Long Day's Journey Into Night</td>
<td>58</td>
</tr>
<tr>
<td>Organization of interaction</td>
<td>60</td>
</tr>
<tr>
<td>The rule-governed system</td>
<td>68</td>
</tr>
<tr>
<td>Feedback</td>
<td>72</td>
</tr>
<tr>
<td>Symptoms within systems</td>
<td>73</td>
</tr>
<tr>
<td>Equifinality</td>
<td>75</td>
</tr>
<tr>
<td>Summary</td>
<td>76</td>
</tr>
<tr>
<td>Chapter/Section</td>
<td>Page</td>
</tr>
<tr>
<td>---------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>The Subject Was Roses</td>
<td>76</td>
</tr>
<tr>
<td>Systems and subsystems</td>
<td>78</td>
</tr>
<tr>
<td>Steady state or stability</td>
<td>81</td>
</tr>
<tr>
<td>Feedback</td>
<td>87</td>
</tr>
<tr>
<td>Equifinality</td>
<td>88</td>
</tr>
<tr>
<td>Summary</td>
<td>89</td>
</tr>
<tr>
<td>CHAPTER V, DISCUSSION</td>
<td>90</td>
</tr>
<tr>
<td>APPENDIX</td>
<td>95</td>
</tr>
<tr>
<td>REFERENCES</td>
<td>98</td>
</tr>
</tbody>
</table>
CHAPTER I
INTRODUCTION

In the study of family process there are a variety of conceptual approaches to be considered. The family offers a plethora of behaviours of possible interest and importance and a multitude of definitions and relationships. To name a few, in conceiving of the family as a collection of individuals, the intrapsychic processes, or biological systems are the material for study. When viewing the family as an organization, or unit, its interaction among members, and the dynamics of the family group as a whole, become the focal point. The relations of the family within the larger cultural context include considerations of it as a social unit, an agent of society and a transmitter of cultural values. Thus, the problem at the outset is that there are so many ways to go about studying family process. No single study can examine more than a few of the approaches possible and wonder about their relation to the behaviours studied by others.

By broadening the scope of study in order to offer a total picture, the fine focus, or detail, of any one area gives way to the less precise blur of a landscape. This study, therefore, is an attempt to detail the intricacies of family interaction and yet not lose sight of their contextual dimensions.

A possible and currently popular approach to the study of family process is represented by the definition of the family as a system. The family is thought to behave like a system in that there is organization and balance within its boundaries. The behaviours of interest are the interchanges within and across the boundary. That is, how is the complex web of
exchanges between family members organized and maintained? How much and under what conditions is the family closed off or open to interchange with others?

The family-as-system concept is anticipated by one of the founders of family therapy, Nathan Ackerman (1958), when he writes:

The family may be likened to a semipermeable membrane, a porous covering sac, which allows a selective interchange between the enclosed members and the outside world. . . . Adverse conditions within the sac or in the surrounding environment may destroy it, in which case the enclosed members lose their protective envelope. Menacing external conditions may cause the pores of the sac to shrink, thereby contracting the sac and holding the members more tightly within it. . . . Excess tension within the sac arising from a state of imbalance among the enclosed members may warp the sac. Unless balance is restored, the accumulated internal pressure will eventually burst it. (p. 18)

Relationships form the matrix for the delicate interplay between balance and imbalance in families; throughout time varying relationships are created, preserved, or destroyed. They are constantly in the process of being defined and refined. They are the glue of the permeable membrane defined by Ackerman.

Since all interactions "say something" about family relationships, it is communication, verbal and nonverbal, that becomes the sine qua non of family operations. In that nobody, in the presence of others, fails to communicate, it can be said that anything one does or says in a family can be presumed to be communicative. All those things that are taken into account, individually or collectively, have communicative value for family members; and all communication, all behaviour, has interactional significance in the arena of family relationships. Each person adjusts behaviour in relation to the other. Each person defines a relationship by what is said and done. Each person tries to set the limits of behaviours. This process of develop-
The intertwining relationships describes the interconnectedness of family members, and sets the stage for applying an organized framework of systems theory to the interactional behaviour of families.

The degrees and variations of connectedness among family members are the weave of family relationships. Each family has its own dynamics. Each family sets its own range of behaviours. No two families are alike. Yet in studying them there may be unity manifest in diversity; there may be similarities among all the differences; there may be principles that unite.

Purpose

The twofold purpose of this work is (1) to trace the development of the study of family interaction from the designation of the family as an interactive unit to the conceptualization of the family as a system, and (2) to demonstrate the application of general systems theory to family interaction. A conceptual framework based on the properties of general systems theory is developed and this framework is applied in the analysis of two family plays which were found suitable as fictional case study material.

The problem is to assess the appropriateness of the family-as-system model in family interaction and to determine the compatibility of general systems theory principles with family interaction data as presented by the playwright.

Rationale

The reason for selecting a general systems theory framework for the analysis of family interaction is that the theory, itself, has often been loosely applied to the study of families, yet its careful application has rarely been systematically explored. The notable exception to this observation is the work of Watzlawick, Beavin and Jackson (1967) who illustrate the
theory in their analysis of a fictional marital dyad (Who's Afraid of Virginia Woolf). Their work, however, does not extend the analysis of a two-person interactional unit to the greater complexities of parental dyads and their offspring.

Having adopted the family-as-system outlook, many therapists and researchers alike, do not take adequate cognizance of the effects of their presence in the system. What is viewed as a family system is, in fact, a therapist-family system or a researcher-family system. The therapeutic or research context helps determine the process of what is said and done. There is no such thing as "objectivity" in the emotional tension that surrounds families in treatment or study. The observer inevitably begins "to participate emotionally in the family drama just as surely as he inwardly cheers the hero and hates the villain when he attends the theater" (Bowen, 1969, p. 351). However, the observer of dramatic portrayals of family life cannot alter the presented dialogue, whereas the therapist (or observer) can and does effect the existing interactive process of real families. For purposes of demonstration, therefore, dramatic portrayals provide independent data. (See Chapter IV for further discussion.)

By applying a general systems framework to family interaction a particular point of view is represented. The theory allows for a holistic view which can be contrasted to a more limited framework dealing with isolated or individual behaviours. The compatibility of systems thinking with the complexities of family interaction can be assessed by a critical review of family interaction studies coupled with an independent effort at specifically applying systems principles. The goal is to bring together the very abstract level of a system and the very concrete level of the family.
Method

First, the development of the study of family interaction is traced from Burgess' (1926) original theoretical study of the family as a unit of interacting personalities to Papajohn and Spiegel's (1975) recent application of transactional systems theory to the analysis of ethnic families. The conceptual and experimental problems related to interaction studies are presented and terminological distinctions are made.

Second, the emergence of the organismic conception in science and the unifying principles of general systems theory are presented primarily according to the works of Bertalanffy. Systems and their characteristics are introduced in the development of a general systems framework. This framework is applied as a descriptive and explanatory tool for the understanding of family dynamics.

Third, two works of drama are selected in order to provide data for the demonstration of the application of the systems framework. The interaction presented by the playwrights is analyzed in terms of general systems principles. The unit of analysis is the communicational system. Themes, patterns and rules are identified by examining the communication between and among family members.
Early Concepts

The study of the family as an interactive unit begins historically with Burgess' (1926) conceptual formulation of the family as a unit of interacting personalities. The work of Ernest Burgess has become a landmark in the study of family interaction, because it marks the shift from the inadequate cause-effect model of earlier parent-influencing-child studies to consideration of the whole family as a system of interacting members.

The cause-effect model "locates independent variables exclusively in the parents and dependent variables exclusively in the child" (Handel, 1965, p. 520). Burgess' formulation, in contrast, depicts the family as a unity of interacting personalities. The family is composed of individuals with unique personalities. Each family member is regarded as a source of some relatively autonomous action, yet the several personalities cohere to an ongoing structure that is both sustained and altered through interaction.

Although Burgess' work is important for personality studies within families, more significantly here, he presents the starting point of conceptualizing the family as a unit. Coming out of that conception is the essential consideration of interrelations among family members. He continually urged that the family be studied from the viewpoint of all the social sciences. Himself, a sociologist, Burgess never identified a parti-
cicular social science as being the most useful in approaching the family. ¹

According to Handel (1965) the study of family interaction, in the broad sense of either nuclear or conjugal families, whose members share a common household or the extended family living in one or more households, gained notice in psychiatry (Group for the Advancement of Psychiatry, 1954), anthropology (Lewis, 1950, 1959, 1961), sociology (Hill, 1949; Parsons and Bales, 1955) and social work (Voiland, 1962), with scarce notice from psychology. Handel reports "psychology has been concerned with events within the family, but has made little effort to conceptualize and study the family as a unit" (p. 517).

About the time Burgess was setting the stage for the conceptualization of the family as a system, psychiatry began slowly to turn its attention to the family unit. Traditionally, analysts were viewing patients in terms of the medical model. An essential part of that model involved the idea that a person could be plucked out of his home and community setting and be treated individually in a clinic or hospital. Once the patient was "cured" he could be placed back into his environment as a healthy individual. What was important was not his family, but how he felt about his family. Analysts would refuse, and some still do, to interview members of the patient's family, on the grounds that this would interfere with the patient's analysis. As Ackerman (1958, 1966), a prominent pioneer in the field of family study and therapy, points out, the usual approach of psychoanalysts to the phenomena of family life is indirect rather than

¹According to one of his students, Burgess, at the University of Chicago, would list the various disciplines alphabetically, leaving the students to ponder the integration of such diverse approaches (Winch, 1972).
direct. Material gained, or information learned about the family was usually from the patient's point of view.

In 1936 the International Congress of Psychoanalysis focused on the topic of "Family Neurosis and the Neurotic Family" (Grotjahn, 1959). Two years later, Ackerman (1938) published the first paper on family unity. The next few years brought the first reports of analysis with both marriage partners, rather than only one member in treatment (Oberndorf, 1938; Mittelman, 1944, 1948). By the 1950's psychiatrists and others in the mental health professions were bringing whole families under direct observation in research, and the family was beginning to be seen together in therapy.

It should be noted here that the development of family study in the field of psychiatry was, and by no means is, a smooth transition from individual analysis to family analysis. As Haley (1971) emphasizes in his review of the family therapy field, it is not at all clear, why some psychiatrists in the 50's broke away from the established ideas of individual psychopathology to family orientation. Those that did were often viewed suspiciously by their colleagues, and therefore many early examples of family therapy were not reported at conventions or in the literature. Sometimes therapists brought in other family members for interviewing in order to untangle accounts given by the patient. During these sessions with other members of the family, the therapist accidentally observed or uncovered the dynamics of that particular family.

In Haley's own case, he not only gained new insight into a patient's dilemma after meeting and observing the patient's parents during an information-gathering session, he also observed that a marked change in the
behaviour of a patient would often accompany the onset of new symptomatology or breakdown in another member of the family. As individual problems began to be seen in light of family disturbances and family expressions, some therapists sought to reconceptualize therapy. "To change an individual required one way of thinking and to change the interaction among family members required quite another" (Haley, 1971, p. 3).

A theoretical framework was lacking for the new way of viewing behaviour within families, and throughout the 50's and 60's there was strong resistance to the ideas which threatened the traditional medical model as the basis for individual diagnosis. The work of innovators in the field of family study, such as Haley, Jackson, Bateson, Bowen, and others will be discussed later. However, central to their work, was the idea that any single family member had to be understood in terms of the total family process.

In the field of anthropology, the family as an interactive unit was first studied from the vantage point of the culture being reflected in the family process. Initially dramatized by Margaret Meads' (1928) study of family life in Samoa, family studies were later developed by Henry (1963, 1965a, 1965b) and Lewis (1959, 1961). Henry made detailed observations in the homes of families that had a psychotic child. He was one of the first to take the study of an emotionally disturbed child into the home rather than the institution, thereby underlining the significance of family dynamics or process. His studies presented detailed accounts of observed interactions within the family. Although Henry rejected some of the literature on the etiology of schizophrenia as an interactional phenomena, in favour of what he termed the question of fundamental causation, the
basic pathogenic role of parents, his case studies provided some of the earliest naturalistic observations of family interaction.

Another important anthropological approach to the study of whole families was the work of Oscar Lewis (1950, 1959, 1961). Lewis explored the culture of poverty in Mexico by means of family case studies. Observation of family interaction resulted in a detailed study of a whole cultural context for extended family groups. Being mainly concerned with the effects of poverty, Lewis labeled the cultural scene as the motive force behind the family, with the interaction process taking on secondary importance. Yet, he too emphasized the total family concept.

Other researchers integrated cultural factors in the study of whole families by viewing the family as mediating agent of the culture. Cleveland and Longaker (1957) defined patterns within families as an outgrowth of value conflicts within the culture and failures of adjustment to incompatible value orientations of that culture. The family unit was treated as the unit of analysis in examining the relationship between the individual and the culture. Bott (1957) applied the family unit in her investigation of cultural norms. The search for cultural themes across families was followed by the notion of a culture within a single communicational unit such as the family. Henry (1963, 1965a, 1965b) found that each of the families he studied reflected what he termed a family culture. By analyzing interaction between family members he was able to identify a particular culture for that family.

Viewing the family as a cultural interactive unit in anthropology paralleled the move in other disciplines, such as psychology and sociology, to begin building on the idea of family personalities. Starting with the
early study of Lewin, Lippit and White (1939), wherein groups were categorized simply as either democratic, authoritarian, or laissez-faire, researchers have sought for some categorizing or classifying schemata in terms of family personality. Preconceived categories, such as Lewin's, were later dropped in favour of building categories from family data. These categories were conceived as personality factors within or between family members.

Henry and Warson (1951) identified types of families such as narcissistic, but cautioned against generalizing throughout a family. Personality factors were found to be unevenly distributed, with some family members almost entirely free of a certain trait. The family characteristics clearly reflected great diversity as well as commonality. Yet Henry found enough of a family personality pattern to identify the family as a unit, as a certain personality type.

At the time that Henry's studies had been getting under way and Lewis was publishing his first major family study, Hess and Handel (1959) published their extensive work which conceptualized families as groups. Five families were chosen from the community at large rather than from a clinic population. The study was "directed to understanding psychosocial ties in ordinary families" (p. 289). The emphasis was on the relationship ties rather than the separate individuals of the family and a framework for analyzing interaction included reference to individual members, but more importantly, pointed to the character of the whole group by providing for its boundaries in terms of acceptable and desirable experience.

Several types of data were obtained from each family member: an interview, a TAT, a sentence completion, a brief essay from each child and
each parent. The idea of a *family theme*, akin to Henry's family cultures, grew out of extensive analysis of the different kinds of data obtained from the families. In studying these five unrelated, "ordinary" rather than sick, families the authors found interaction to be centered around a particular theme. They defined theme as a "pattern of feelings, motives, fantasies and conventionalized understandings grouped about some locus of concern which has a particular form in the personalities of the individual members" (p. 11). The family pattern was thought to include a very basic or fundamental view of reality as well as directions for dealing with it.¹

Similar to Henry's scatter phenomena, of finding an uneven distribution of personality traits among family members, Hess and Handel's theme conception did not find equal expression in all family members. Its usefulness as a concept was similar to Henry's culture, in that it served as an orientation point, a characterization point of a particular family group. It provided a unit of analysis for family life around which the investigator could assess the family interaction. The Hess and Handel study pointed the way to the possibility that the family, as a unit, takes on its own characteristics differing slightly from the sum total of individual member characteristics. It began to focus on patterns and connections between members. **Interaction Phenomena**

Interaction phenomena, a term arising from a variety of definitions, began to characterize the work of whole family studies in the late 50's beginning with the above mentioned qualitative studies and leading into the more recent quantitative research of family process and schizophrenia by

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¹More recently a related study (Mendell, Cleveland and Fisher, 1968) traced a five-generational family theme by means of projective test fantasies and found striking commonality throughout the extended family.
Mischler and Waxler (1968). Having perceived the family as an interacting unit rather than independent personalities, the definition of interaction for purposes of research and analyzing clinical data included a combination of content and process. Rates of participation in a discussion, patterns of communication, presentations of selves in roles and expressions of relationships were all material for study. If interaction was conceived as arising from selves, thus interpersonal relationships, the research looked different than the research which thought of interaction as a group phenomenon (Framo, 1972). Handel (1965) argues that by using the concepts of interaction and interpersonal relationships interchangeably, important problems have been obscured. It is not clear, however, what these problems are or whether the adequacy of the term simply allows for a variety of levels of analysis.

The separation of interpersonal relationships and interaction seems an arbitrary distinction which has been avoided by researchers such as Haley, Jackson, Watzlawick and others in their use of communication as a concept. Interpersonal relationships are defined in and through communication. Communication is synonymous with what is observable in the study of human interaction. "That is, communication is seen not as just the vehicle, nor as just the manifestation, but as a better conception of what is loosely gathered under the rubric 'interaction'" (Watzlawick, 1972, p. 68).

Small Group Studies

Defining the interaction concept in a rigorous and comprehensive way has not occurred in spite of extensive family and group interaction studies (Framo, 1972; Handel, 1967). The burgeoning field of small group interaction studies began with Lewin's (1939) "social climate" studies, which were followed by Deutsch (1949) on the effects of cooperation and competition,
and led to Bavelas (1950) observing interaction patterns in term
nec networks. In the 50's and 60's a small-group research boom
underway with the development of an empirical technique for observing group
interaction by Bales (1950). By developing a standard method for classifying interaction Bales paved the way for group interaction studies. Yet the
field of small group study has scarcely concerned itself with the family as
a small group.

There are a number of reasons why the laboratory small group studies do
not lend themselves appropriate for family group studies. Handel (1965)
suggests that the ahistoric framework appropriate for ad hoc laboratory
groups is not well suited for the family which is constituted by enduring
interpersonal relationships (p. 518). Thus methodologies developed to
experiment with individuals and with artificial groups do not apply to
measurement of interaction patterns of an ongoing family. In small group
studies the setting often became the variable. How did A, B and C communicate under various circumstances? Did they have more or less difficulty in
completing one task over another in one setting over another? With families,
however, the aim is one of testing or showing what the existing patterns are.
The interaction patterns in families are not meant to be induced by the
observer. In fact, families which are comfortable with one set of patterns
may choose to switch patterns when under the experimenter's eye.

Argyle (1969) identified interaction in the family as more "complex and
subtle" than most other interaction, because of the intense and complex
relationships between members, and their long history of previous interaction.

What goes on inside the family is private and not readily subject to external control. . . . The actual elements of interaction
of which family life consists differ from all other groups, in that greater intimacy, aggression, affection and emotional violence occurs. Family members see each other undressed, or naked, and there is almost no attempt at self-presentation; they know each other's weaknesses and understand each other extremely well; . . . Members of laboratory studies do not usually take their clothes off, laugh uproariously, cry, attack or kiss each other, or crawl all over each other, as members of families commonly do. (p. 243)

Although Argyle may have overlooked unwritten rules of nonintimacy in families as observed by Henry (1965b), Haley (1971) and others, his description did touch upon some underlying differences between family groups and other small groups. For example, intimate experiences nurtured in sensitivity groups (including the occasional use of nudity) never developed into the continuing or lasting experience that equaled a family relationship. In fact, most small group experiences reported, lacked the enduring qualities that have been associated with family relationships.

Parsons and Bales (1955) pointed to similarities between family groups and laboratory discussion groups. They found that all groups were subject to imposed conditions of existence, and that if one assumed the existence of a nuclear family, one needed to inquire into the conditions of its existence (p. 309). They then went on to find that certain conditions were common to all groups: namely the condition of attaining degrees of role-differentiation within a group. They argued that the family group was like an experimental group in showing the same kind of role-differentiation. Yet Argyle (1969) listed obvious, but extremely important, differences such as formal role structure being defined in part by culture within family groups and the lack of presentation of self in family roles. Again, the fact that Bales's experimental groups were short-lived compared to nuclear families marks an important restraint in the generalized application of his
interaction findings.

Haley (1962a) in describing the small group experiment revealed additional marked differences between the two kinds of groups:

In the usual small group experiment a situation is arranged and several unrelated people are placed within it. Measurement is then taken of the effect of that context on their behavior. The people are carefully chosen so they are not acquainted, far less related; to eliminate any variable other than the effect of that particular setting on their performance. In the family experiment precisely the opposite is the goal: the problem is to measure how members of a "group with a history" typically respond to each other, while attempting to eliminate as much as possible the effect of that particular setting on their performance. (p. 269)

In experiments such as those devised by Bavelas (1950) in which three people, A and B and C, were placed within a communicational network where A could communicate with B, and B with C, but A and C could not communicate with each other, and were then compared to a network where all three could communicate freely, measurements were made to reveal the degree of difficulty these two groups encountered in completing an assigned task. Yet in a given family the communication pattern is already set, in contrast to the artificial imposition of a pattern as above. The question for the family experimenter is how to reveal the existing pattern, how to show what the particular network is.

One of the few small group studies using families as subjects was Strodtbeck's (1954) "The Family as a Three-Person Group". Strodtbeck tried to uncover to what extent certain propositions applying to ad hoc, three person groups could be generalized to family groups. He arranged for a sample discussion between father, mother and adolescent son in the homes of 48 families. Items for discussion were selected on the basis of revealing potential differences of opinion within the group, so that a potential coali-
tion between any two members was apparent. Each family was presented with nine questions for discussion, which were carefully selected by means of a previous questionnaire in order to insure three variations in the isolate role. Thus, in three instances the mother-son paired against the father, in another three it was father-son paired against the mother and three more wherein the father and mother agreed, which left the isolate role to the son.

Strodtbeck's main interest was to compare his study with the results of Mills's (1953) "Power Relations in Three-Person Groups". Mills had analyzed interaction in order to identify coalitions and had reported a tendency for a three-person group to break into a pair and an isolate. Mills identified patterns by measuring supportive and non-supportive participation and found three types: one pattern where the three positions are stable, one where all the positions are unstable and other patterns where one position is strong and the other two fluctuate.

Strodtbeck found important differences from Mills's results and attributed them to dissimilarities between families and ad hoc groups. Mainly the tendency for a three person group to break into a pair and another party did not occur nearly as frequently among families as among groups.

Strodtbeck observed that it is not as easy for a family member to withdraw from a family group as it might be among unrelated, unacquainted group members. Family members were seen to reward each other and accept responsibility for each other. Thus the action of one family member has potentially greater implications for the family group.

Many attempts to identify interaction patterns in small groups and families have made use of Bales's (1950) Interaction Process Analysis
Category System. In spite of the acknowledged differences between families and groups, and in spite of the development of the IPA out of small task group studies, Mischler and Waxler (1968), a leading research team at Harvard, in an attempt to apply more systematic methods of research, nonetheless relied upon the Bales's IPA code. A central aim of their five year research project was to determine distinctive interaction patterns in families of schizophrenic patients. The primary question was whether there were in fact distinctive patterns among that specialized group. More importantly though, for this discussion, concepts and methods derived from experimental study of small groups were freely applied to observation, measurement and analysis of family interaction, without the question of their generalizability having been resolved.

This interaction study was unique among experimental studies of groups in its attempt at simultaneously controlling a number of variables. The authors used the Strodbeck Revealed Differences technique in order to generate discussion. "Interaction indices were grouped into five domains or variable clusters, each representing an aspect of group functioning . . . : expressiveness, strategies of attention control and person control, disruptions in communication style, and responsiveness (p. 5)". The complex findings were derived from a very particular situation in the laboratory with a

1There are many problems involved in coding observed interaction as in the Bales's scheme. The observer inference concerning behaviour being coded is a primary issue when the judgements of mainly verbal interaction are crucial (Rabkin, 1965). Inter-observer reliability tests are:

... thought to be more scientific, and yet even if several raters agree, which is unusual unless they have been trained to look at the data the same way, there is still doubt whether the family is actually doing that something or whether raters are merely making the same inference because they have a common point of view. ((Haley, 1964, p. 44)
variety of recording devices and a one way screen. The family members knew
that they were being studied, and the problems of relating their behaviour
to a more common at-home situation were not adequately dealt with by the
authors.

Generally, the problem with interaction studies has been the relationship
between conceptual and operational definitions of the dimensions of
interaction. The experimentalists such as Mishler and Waxler, as well as
others (Ferreira and Winter, 1968), have sought to clarify a concept derived
from clinical observations into a researchable question. Inevitably the
process of operationalizing phenomena has led to serious distortion.
Changes in meaning have occurred as original concepts are arranged for
measurement in studies. By focusing only on those variables that can be
measured researchers may very well define the really important phenomena of
a given family out of existence. By emphasizing precision, reliability,
objectivity and quantification their findings are often not consistent with
clinical observations (Haley, 1964; Mishler and Waxler, 1968; Rabkin, 1965).

Although Mishler and Waxler (1968) asserted that "there are no longer
any grounds for seriously doubting that experimental methods can be applied
to the study of significant aspects of family functioning", (p. 177) their
findings leave many unanswered questions about everyday family interaction.
Interestingly, the original hypotheses, the intuitive grasp, or the creative
phenomenological approach to family functioning has come from observing
families outside the laboratory. Important and revolutionary ideas and
theories about the family were inevitably conceived in interaction with
families whether in clinical, hospital or other therapeutic settings. The intuitively grasped sense of phenomena led to important theories about family systems; yet the complexity of these phenomena have remained a major obstacle for the therapist-turned-researcher.

Systems Thinking and Communication

The complexities within families began to take shape for the therapist at a time when the cause-effect model was being discarded and systems thinking was gaining prominence among social scientists. The development of systems theory gave birth to a model which dealt with interacting elements responding to each other in, at times, a self-corrective way, which is the way family members seemed to behave (Haley, 1971). It was in the early 50's that a number of psychotherapists made the independent observation that the improved functioning in one member, often led to malfunctioning in another member of the family (Bateson, 1975; Guerin, 1975; Haley, 1959; Jackson, 1959; Jackson and Weakland, 1961; Weakland and Jackson, 1958). A change in the identified patient led to a phone call to the therapist or other more dramatic behaviours by those at home, such as suicide attempts, divorce or symptomatology in a previously functioning family member. It became increasingly clear that individuals were part of a complicated process within their families.

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1. Case studies have provided by far the richest available data about family interaction. Beginning with the studies of Henry (1963, 1965b) and Lewis (1959, 1961) family therapists and scholars have recorded an abundant supply of family communication data.

2. The incredibly intricate and entangled picture presented by these data is compared by Jackson (1957) "to the mathematics of the motion of bodies in relation to one another--the simultaneous consideration of more than three such instances is, at present, an insuperable task for the mind of man" (p. 4).
One of the earliest researchers to observe the system-like properties of families was Don Jackson. He recognized that severe disorders on the part of an individual, could be adaptive disorders which were linked to family pathology (1957). He reported a number of cases where a change in the identified patient's behaviour produced changes in the family dynamics:

A young woman undergoing psychotherapy for recurrent depressions began to manifest increased self-assurance. Her husband, who initially was eager that she become less of a burden to him, called the psychiatrist rather frequently and generally alluded to her "worsening" condition. The therapist had not made an appraisal of the husband; and when the extent of the husband's alarm became clear, he had become too antagonistic to enter therapy. He became more and more uneasy, finally calling the therapist one evening, fearful that his wife would commit suicide. The next morning he shot himself to death. (p. 89)

Jackson depicted numerous situations which revealed certain homeostatic mechanisms at work. He borrowed the term family homeostasis from the concept introduced by Claude Bernard, a physiologist, in the previous century. The original concept dealt with a certain constancy maintained in body chemistry and body physiology and was further cultivated by Cannon (1939) for biological systems. He found that "there are some specific mechanisms, now called negative feedbacks, which act when a change occurs, in such a manner as to minimize change" (Davis, 1958, p. 8). Homeostasis implied a condition which could vary, but which was relatively constant. Jackson saw this relative constancy of a family's internal environment as an important force in relation to family dynamics. The family was very much like one of those physical structures called "systems". It behaved so as to achieve a balance in relationships, and members helped to maintain the balance overtly and covertly.
Jackson postulated that behaviours of family members, often labeled pathogenic behaviours, were operating in order to bring the family into its balance. Thus the "cure" of one symptom in a family member, could be described as the impetus for the development of another symptom in a different family member. A "continuous interplay of dynamic forces" (1957, p. 80) maintained the delicate balance of relationships.

Jackson developed the idea of family homeostasis in terms of a cybernetic model. Viewing the family as a closed information system in which variations of behaviour (or output) are fed back into the system for self-correction, the inputs are acted upon and modified by the system. An example given was the boy who won a popularity contest at school. Reporting this quasi-achievement to his mother, the boy noticed that she was not entirely pleased about it. Her covert disapproval led to a series of adaptive responses which included his not remaining popular at school. A balance, which required that the son meet the mother's needs, was thereby restored.

Later, refining his observations of homeostatic mechanisms, due to the ambiguity which arose from the term homeostasis, Jackson preferred to identify the constancy within families as the steady state or stability of the system, maintained by negative feedback. Historically, homeostasis meant either the existence of a certain constancy in the face of change or the presence of a particular kind of feedback mechanism, thus both an end and a means (Watzlawick et al., 1967). Yet the stability of a system was not much of an argument for the existence of a feedback mechanism (Davis, 1958), so Jackson dropped the term homeostasis and described families as maintaining stability by means of homeostatic-like mechanisms, or negative
feedback. As in the example above, the mother's disapproval served as a corrective device to restore the family to its former closed status. Her son's popularity was a threat to the ongoing, albeit constrained, interaction pattern of the family.

These mechanisms, or negative feedback loops, exist to some degree in all families but are more readily identifiable in a very closed family system, where abrogations of expected responses are more apparent. The son, in this example, had probably broken an implicit rule in his family having to do with recognition and affection not being accrued from outside the family.

Along with the introduction of the term family homeostasis, Jackson made a major assertion of the family as a rule-governed system. The characteristic of a system is that it appears to have an order of its essential parts, it has a beginning which often becomes repetitive and predictable. The working hypothesis for the family as a rule-governed system is that all families operate as systems; it is the order and sequence in family interaction that Jackson referred to as "family rules". These rules evolve with the system and in time become the essential basis for its operation and perpetuation (Jackson, 1965a, b).

Relationships over time follow rules that are not overtly evident and which can only be inferred after careful observation of redundancies. The redundancy principle in the family is that families will interact in repetitive sequences. From these sequences clues are gained as to the operating rules:

Although the family-as-a-unit indulges in uncountable numbers of different specific behaviors, the whole system can run by a relatively small set of rules governing relationships. If one can reliably infer the general rules from which a family operates,
then all its complex behavior may turn out to be not only patterned but also understandable. (Jackson, 1965b, p. 11)

Jackson emphasized the rule as being "an inference, an abstraction - more precisely, a metaphor coined by the observer to cover the redundancy he observes", and defined the rule as a "format of regularity imposed upon a complicated process by the investigator" (p. 11); thus, he developed a language which aids observation of truly interactional phenomena.

One of the rules which defined the relationship of parents of white, middle-class families seen by Jackson (1965a) was labeled the marital quid pro quo. Literally, "something for something" expressed the nature of interaction among these couples. Metaphorically, the interactions were defined in terms of almost legal concepts whereby one member was allowed to do this if the other did that. The rule had a collaborative function in the accomplishment of a wide variety of tasks over long periods of time. It was a common and culturally convenient arrangement on one level, and on another level it comprised the metaphorical "bargain" on which the marital relationship was based.

Later researchers such as Ford (1972) identified family rules that were of such magnitude they were designated as "family life styles". These were very general rules under which smaller ones were organized. "Children come first", "every man for himself" or "two against the world" described patterns of families seen in therapy. Jackson, and later Ford, found the identification of family rules to be the most important interactional tool for understanding and predicting the family system.

At the time Jackson was developing his ideas about the family as a rule-governed system he came in contact with Gregory Bateson, who was conducting a research project on the nature of communication in families. Jackson's
ideas about family interaction were closely related to research interests shared by Bateson along with Jay Haley and John Weakland. Jackson, a psychiatrist reports on the first meeting with Bateson: "From that moment on, I became more closely related to the social sciences than to medical psychiatry, I have never regretted this decision" (1968, p.v.). Thus the group was formed which eventually developed an interactional theory about disturbed communication in families.

Bateson

While the symptom-bearer within a family was being recognized by therapists as part of a larger system, the Bateson research group began directly observing families with so-called schizophrenic members. Initially they were interested in whether the schizophrenic members learned how to communicate in a bizarre fashion by growing up in a bizarre home. Not only did the group find evidence for this assumption, but it was impressed by the extent to which the family encouraged, even demanded the patient's bizarre behaviour. Efforts of a therapist to help the identified patient were often frustrated by the family itself (Bateson, Jackson, Haley and Weakland, 1956; Haley, 1971).

A particular pattern of communication was postulated to occur within families where one member satisfied the diagnostic criteria of schizophrenia. By means of an analysis based specifically on the theory of Logical Types¹, a description of and the necessary conditions for an observed pattern, the "double bind", were derived and identified. The "double bind" situation

¹The central thesis of Bertrand Russell's Theory of Logical Types is that there is a discontinuity between a class and its member. The class cannot be a member of itself, nor can one of the members be the class, since the term used for the class is of a different level of abstraction.
means that no matter what a person does or says, he or she cannot win. Having observed this particular pattern it was hypothesized that this mode of communicating could lead to schizophrenic symptoms.¹

Specifically, Bateson had shown that verbal communication operates on many contrasting levels of abstraction. Starting with the simple denotative level, communication can range from a level of abstraction wherein the subject of discourse is the language (metalinguistic) to a level where the relationship between the speakers is defined (metacommunicative). Most of the metalevels of communication remain implicit and all communication occurs at a multiplicity of levels of abstraction. The confusion of levels leads to a double bind phenomena, which is, in fact, a paradoxical injunction.

For double-binding to take place there are several conditions present over time: first, there are two or more persons involved in an important relationship; second, the experience is reinforced by repetition; third, a paradoxical injunction is present (a primary negative injunction and a secondary conflicting injunction at a more abstract level); and finally, the recipient of the message cannot escape the field, that is, metacommunicate about the event (Watzlawick et al., 1967; Weakland, 1974).²

The pattern of communication in the family of the schizophrenic was

¹The authors published their findings in an article entitled "Toward A Theory of Schizophrenia" (Bateson et al., 1956), which was basically about something called a double-bind, schizophrenia and a theory relating the two. Subsequent discussion of the article has involved much misunderstanding about interaction and the double-bind, which Bateson (1966) and Weakland (1974) have attempted to clarify.

²Bateson et al., illustrated their theory by means of basic psychiatric data and have extended their findings and the understanding of theoretical concepts in a number of publications (Bateson, Jackson, Haley and Weakland, 1962; Bateson, 1966; Haley, 1959a; Watzlawick, 1963; Watzlawick et al., 1967; Weakland, 1974; Weakland and Fry, 1962; Weakland and Jackson, 1958).
observed to contain the metaphoric rule: say what you mean and deny it in the same context. (Thus, Jackson's ideas of the family as a rule-governed system fit closely with the observed repetitions of paradoxical communication.) Although observed paradoxical communication was not confined to schizophrenic families, it seemed to be more frequently observed among them and seemed to account for the unusual behaviour of individuals who had spent a good part of their lives in a kind of undefined, paradoxical relationship.

More importantly, the significance of the double-bind theory was its general communicational approach to the study of human behaviour whereby schizophrenia was but a special case. It marked the beginning of "a close identification of communication and behavior as two sides of one coin, so to speak" (Weakland, 1974, p. 274). The model is one of activity wherein the behaviour of people is considered in response to observable communications from others. These behaviours are seen in turn as also being communicative themselves. Thus the model contains a circularity which includes multi-levels of two or more related messages. Since activities in families seldom occur in isolation or only once, but continue in multiple complexities over time, the circular model is more appropriate. Likewise, the double-bind is an important model for dealing adequately with the complexity of messages in terms of framing, qualification, disqualification and levels of abstraction.

Jay Haley

The work of Haley in the area of family systems thinking closely complements Jackson's early theoretical postulations. Haley worked on building a theoretical framework for describing all interpersonal relationships. The relationship approach to interaction patterns within families emphasized observable data, the transactions which take place between family members,
rather than conjecture about thought process, or characterization of individual members. Haley felt that a descriptive system for differentiating interaction patterns was missing, yet to make an actual classification system would require mammoth case studies of all kinds of people. The study of differences between transactions was thought to yield a classification of communication patterns (Haley, 1959a, b; 1962a, b).

In offering a model for differentiating types of families according to their interactions, Haley set forth two essential principles of human interaction. First, the basic rule that communication has a multilevel report and command aspect as noted by Bateson (Ruesch and Bateson, 1951) meant that a classification system would require at least two levels of analysis, the content level and the defining level. Since "human beings not only communicate, but they also communicate about that communication" (1959b, p. 152), the definition aspect, or qualification of a message, is a necessary part of human interaction. Second, Haley maintained that there exist within the family some sort of governing processes which confine family interaction within a certain range.

He divided the formal characteristics of any message into four basic elements:

1. I
2. am saying something
3. to you
4. in this situation

and showed that there exist ways of avoiding a definition of one's relationship. By observing numerous families and hospitalized patients, Haley was able to discover that a person intent on not defining a relationship could
do so by negating any one of the above characteristics. That is, (1) one could deny that he or she is speaking; (2) deny having said anything by not remembering or by insisting on a misunderstanding or by qualifying a statement by a contradictory one; (3) deny having addressed the other person; or (4) deny the time or place in which the interchange occurs (1959b, pp. 158-160). By applying this framework Haley analyzed conversations and found that schizophrenic families displayed a repetitive avoidance of defining their relationships. Their pattern was confined to a range of non-affirmation and non-definition. The governing process of this rule for the interactional system existed within the family. The members had established the rules for each other.

To describe families, the most appropriate analogy would seem to be the self-corrective system governed by family members influencing each other's behavior and thereby establishing rules and prohibitions for that particular family system. Such a system tends to be error-activated. Should one member break a family rule, the others become activated until he either conforms to the rule again or successfully establishes a new one. (1959a, p. 196)

Haley developed his interactional classification study by stressing the need to observe family members interacting with each other rather than following the clinical procedure of that time, which was to analyze family members' interaction with a therapist or tester. Although he realized the possible effects of an observer present in family interaction situations, he did not really eliminate the problem, but sought to justify the therapist-as-observer in long term observations. Later Haley (1962) developed experimental designs to facilitate measurement, yet the laboratory situations did not really eliminate observer effects and additional problems ensued (Haley, 1972).

Haley's work focused on the interaction process of families, yet he
noted that conceptual categories which would reveal the appropriate terms to describe family interaction do not yet exist. The interlocking nature of relationships, he agreed with Jackson, take place in and through communication and occur at different levels of meaning, but have not yet been adequately described. "The ultimate description of relationships will be in terms of patterns of communication in a theory of circular systems" (Haley, 1963, p. 4).

The struggle for control of the system is seen as the central issue in family interaction by Haley. At the metalevel of communication, the defining level, family members seek control or power through definition of the relationship. Their messages serve not only a report but also a command function, and it is by examination of the command level that the struggles which go on in families are found. The family system is thus one which involves power relations. Haley, as therapist, concentrates on the metacommunicative aspects of family relationships in order to change the system.

**Virginia Satir**

The underlying communication concepts of Bateson, Jackson and Haley are evident in direct applications made by Virginia Satir, a leading family therapist. Sharing the same theoretical base of communication theorists, that pathology is caused by faulty communication, Satir (1964) has added to the field of family systems studies by making use of elaborative case studies in order to develop her ideas of communication being based on feelings. However, rather than emphasizing control, as did Haley, she found feeling, such as family pain, to be central to a communicational approach to family systems, whereby every piece of behaviour in a family is logical to that system.
Bowenian Family Theory

Murray Bowen is a noted member of family systems thinking, yet also an exception to the communication theorists' view of communication implying all behaviour. He views communication as part of a wider emotional and relationship system which includes a variety of relationship modalities such as interaction or communication. Bowen is included in this review because of his significant contribution to an analysis of family interaction within a systems framework:

The family is a system in that a change in one part of the system is followed by compensatory changes in other parts of the system. I prefer to think of the family as a variety of systems and subsystems. Systems function at all levels of efficiency from optimum functioning to total dysfunction and failure. . . . The functioning of any system is dependent on the functioning of the larger systems of which it is a part, and also on its subsystems. (1966, p. 166)

The central concept in Bowen's theory is the undifferentiated family ego mass which he called "a conglomerate emotional oneness that exists in all levels of intensity" (p. 171). An example of emotional oneness is the symbiotic relationship between mother and child. The phenomenon of emotional closeness emerges, likewise, between and among all family members from phases of calmer comfortable closeness to anxious uncomfortable closeness wherein boundaries between selves become blurred and undifferentiated. Family members become so intensely meshed that one figuratively breathes for the other. One knows the thoughts, fantasies and dreams of the other. Yet, another phase of the family ego mass may be one of rejection and hostility.

1The lack of differentiation between individual family members is a phenomenon which can be described as enmeshment (Minuchin et al., 1967). Systems theorists prefer the term "enmeshment" in that it has the "metaphoric advantage of suggesting a too-tight connection between parts, rather than the image of a gluey blob" (Hoffman, 1975, p. 459).
The cyclical phases vary in degree and duration within all families.

Within Bowen's theory the differentiation of self from the family ego mass is the goal of therapeutic intervention in the family system. The emotional, relational system of the family is both needed and feared. "It is needed for growth and survival, but at the same time it is feared because it tends to envelope and swallow up the person. A person must therefore learn to use it but not be overwhelmed by it" (Foley, 1971, p. 136).

Bowen defined the basic structural building blocks of the family emotional and relationship system as the triangle. Conceptually, the family system is made up of a series of interlocking triangles. A triangle is a three-person system which can be said to be the molecule of any emotional system including the family and social systems. It is the smallest stable relationship system, in that when the relationship between two people gets uncomfortable enough, one of them will triangle in a third party, thus relieving tension between the two. Examples from literature are Laura in The Glass Menagerie, triangled in between her mother and brother, also George and Martha's fantasied son, triangled in to reduce pressure and restore balance in Who's Afraid of Virginia Woolf (Foley, 1971).

Bowen found that during periods of calm in any part of the family emotional system there is a comfortable close twosome and a less comfortable outsider. The twosome works to maintain the togetherness. In moderate tension states anxiety is felt by one of the two and this one will initiate a move to form a more comfortable twosome elsewhere. In stress, however, the outsider position is the preferred one. Each person wants to get into that

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1The problems and dangers of being overwhelmed and trapped by family expressions of feeling or family emotionality have been described by a number of authors, most notably Cooper (1970).
position to avoid tension in the twosome. If it is impossible to shift forces in the triangle, one person in the twosome will triangle in a fourth, leaving the outsider for involvement later. Now the forces repeat themselves in the new triangle. With time the forces move from one active triangle to another, finally resting in one chronic triangle while the others are relatively calm. Multiple triangles may be formed so that tension developing in one part of the system may be "acted out" in another part of the system. When there is high tension in families, available triangles will become exhausted and the family will triangle in an outsider (Bowen, 1960, 1966; Andres, 1974).

Bowen, like Bateson, Jackson and Haley, had observed the compensatory-like symptoms of schizophrenics reappearing in their families, thereby revealing counterbalancing effects of the system. He was one of the first family researchers to work with the families of hospitalized patients and thereby observed what he termed the "pre-existing emotional stuck-togetherness" of these families (1965). Bowen spent years developing family concepts and a family orientation to replace the then existing individual orientation. It was a matter of not being able to focus on the individual without seeing his "total family sitting like phantoms alongside him" (1966, p. 164). The individual was only a part of his family system and it made little sense to help fit him back into an existing system without knowing more about it.

Early work included a hypothesis which relegated principle influence on the patient to the mother, later the role of the father was incorporated (1959). The role of siblings as subsystems operating within the system and the idea of birth position (sibling position) affecting relationships were
later included in the understanding of family relationship triangles (1966).  

In the same way that Bowen could not understand or therapeutically assist the individual outside of the family context, he found that he could not understand a given nuclear family without looking at the families of origin. The overall patterns of functioning were examined over two generations. Patterns involving over or under functioning within each family were observed to continue into extended families. This work led to Bowen's hypothesis that it would take three generations to produce a schizophrenic family member. Thus schizophrenia was not seen as an isolated phenomenon, but rather part of an ongoing process. Bowen (1960) had moved from the patient (individual), to the mother, to the father, to the whole family and then included the grandparents.

As mentioned earlier, Bowen is classified as a systems family researcher, yet he disagrees with the communication theorists about the nature of communication. Communication, for Bowen, is part of a wider system of relationships and emotional functioning. It seems that the problem of terminology is one which has pursued family systems thinking from the beginning. Yet, as Bowen (1966) reveals, the original phenomena observed by Bateson, Haley, Jackson and Bowen, himself, have over time proven to be quite similar, despite terminological differences. For example, Haley may analyze patterns in a particular family in terms of gaining control at the definitional level of communication, whereas Bowen may see the same patterns in terms of over or under functioning. Common to both views is the general systems model which provided the base for all of their thinking.

Bowen's concept of the influence of sibling position was encouraged to a large extent by the work of Toman (1969) on the complementarity and conflict of sibling positions of marriage partners.
The large number of studies which are based upon or add to the concepts presented above are too numerous to list here. However one of the most recent works in family systems theory (Papajohn and Spiegel, 1975) deserves mention, because it extends systems thinking in families to the suprasystem of society. Using detailed case histories the authors applied transactional systems theory in an analysis of ethnic families in order to illustrate the complex interrelations between the individual, the family and its culture. The theory "is based on the assumption that cultural, social, psychological, and biological events constitute a field of transacting processes in which change in one part is related to change in the others" (p. ix). Various systems levels become the foci of organization in one integrated system or field of transaction. It is a representative work of the far-reaching relevance of general systems theory.

Summary

The development of the study of the whole family has been briefly traced from the early conceptualization of the family as a unit to the more recent concepts of the leading family-as-system thinkers. The systems thinkers have in common their rejection of the Freudian mechanistic viewpoint, and their change of focus from the individual to the communication and relationship process. The actions of family members are seen as being shaped by, and in turn shaping the family:

What characterizes the interactionist approach is the contention that human nature and social order are products of communication . . . The direction taken by a person's conduct is seen as something that is constructed in the reciprocal give and take of independent men who are adjusting to one another. Furthermore, a man's personality - those distinctive behavior patterns that characterize a given individual - is regarded as developing and being affirmed from day to day in his interaction with his associates. (Shibutani, 1961, p. 10)
Systems thinkers divorce themselves from the intrapsychic model by changing the vantage point of the data collector. The unit of study in the interactionist approach is the system of organized complexity. The emphasis is on pattern and organization which provides a new way of thinking. This perspective encompasses the dynamic interaction of variables and requires attending to present observable process rather than genesis (Jackson, 1967; Levenson, 1972).

The model of dynamic and adaptive systems in the study of family interaction developed at a time when general systems theory was emerging as a new perspective in science. In order to assess the systems approach to family process the original development of the theory will be discussed in relation to its application to families.
CHAPTER III

PRINCIPLES OF GENERAL SYSTEM THEORY

Introduction

The general theory of systems had as its prime mover Ludwig von Bertalanffy who began his life as a scientist at a time when biology was involved in the mechanism-vitalism controversy.

The mechanistic procedure essentially was to resolve the living organism into parts and partial processes: the organism was an aggregate of cells, the cell one of colloids and organic molecules, behavior a sum of unconditional and conditioned reflexes, and so forth. The problems of organization of these parts in the service of maintenance of the organism, of regulation after disturbances and the like were either by-passed or, according to the theory known as vitalism, explainable only by the action of soul-like factors - little hobgoblins as it were - hovering in the cell or the organism - which obviously was nothing less than a declaration of the bankruptcy of science. In this situation, I and others were led to the so-called organismic viewpoint. In one brief sentence, it means that organisms are organized things and, as biologists, we have to find out about it. (Bertalanffy, 1968, p. 89)

Bertalanffy originally presented the conception of general systems theory in 1937 in Charles Morris' philosophy seminar at the University of Chicago. Yet, he refrained from publishing his ideas until after the war when the intellectual climate seemed more receptive to concepts like organization, directiveness and teleology, and new conceptual tools were in demand.

From the time of Descartes and, later, Newton the prevalent view in science of man and the world was that of a machine:

The beginning of the modern era in scientific biology is commonly traced to Renee Descartes. . . . Descartes opened a new era in medical science simply by asserting with logical force and literary skill that all the structures and operations of the human body are reducible to mechanical models. . . . These assertions encouraged scientists to focus their efforts on the body machine and to study it by the methods used for studying the inanimate world.
One of the essential principles of Descartes' famous method was to divide each of the difficulties presented by the system under consideration into as many parts as possible, and then analyze these parts separately, in the faith that knowledge of the more complex aspects would eventually emerge from the reductionist analysis. (Dubos, 1965, p. 331)

Later Newtonian physics in the mechanical paradigm became the model of exact science. "Processes were mechanical, precise, measurable clockwork" (Levenson, 1972, p. 59). This analytic and deterministic approach led to reductionism, a paradigm which, in general, has in it the belief that one should explain any complex activity as simply as possible. "Thus simple laws should in turn be explained by simpler ones" (McCain and Segal, 1973, p. 104), and "vital processes can be reduced to the physiochemical categories of the inorganic realm" (Herrick, 1956, p. 48).

Bertalanffy, himself, defined reductionism as "the principle that biology, behavior and the social sciences are to be handled according to the paragon of physics, and eventually should be reduced to concepts and entities of the physical level" (Bertalanffy, 1968, p. 92).

The limitations of the reductionist paradigm did not come fully into awareness until the twentieth century. Polanyi (1958), among others, has highlighted the inadequacy of the reductionist view:

Physical and chemical knowledge can form part of biology only in its bearing on previously established biological shapes and functions: a complete physical and chemical topography of a frog would tell us nothing about it as a frog, unless we knew it previously as a frog. (p. 342)

The stage was set for the introduction of goal directed behaviour and purposiveness instead of a strictly deterministic framework. The motives which led to the postulation of an organismic conception and the postulation of a general theory of systems are summarized by Bertalanffy (1968, pp. 92-
94) as (1) developments in physics necessitated a much more complex understanding of entities such as the atom and elementary particles; (2) emerging concepts like organization, directiveness and self-maintenance introduced new categories in biology and the social sciences; (3) the cause-effect model had proven itself inadequate for the three-body problems of mechanics or the many-body problem in atomic physics; (4) lack of tools for prediction and explanation in biology and social and behavioural sciences, as opposed to physics; and (5) the need for new conceptual models.

The organismic conception was therefore the culmination of a search which evolved out of a constant dialectic between physical and biological science. This search for a new scientific perspective resulted in a holistic perspective emphasizing the living system as an active one.

We can therefore summarize the leading principles of an organismic conception in the following way: the conception of the system as a whole as opposed to the analytical and summative points of view; the dynamic conception as opposed to the static and machine-theoretical conceptions, the consideration of the organism as a primary activity as opposed to the conception of its primary reactivity. (Bertalanffy, 1952, pp. 18-19)

Bertalanffy further postulated a theory of interdisciplinary scope in formulating and deriving those principles which were valid for "systems" in general. He sought those principles which would characterize all types of systems. These organizing characteristics were to be a unifying principle, thus placing organization rather than reduction at the core of his theory. Systems

The concept of systems has been typically understood as a whole made up of interdependent and interacting parts or a complex of interacting
To avoid the confusion of the many colloquial meanings of the word system, Hall and Fagen (1956) define physical and abstract systems as:

... a set of objects together with relationships between the objects and between their attributes. (p. 18)

The authors specify that objects are simply the parts or components of the system. The attributes are the properties of the objects as, for example, the stars, as objects, have temperature, distance from other stars and relative velocity as attributes. The relationships are "those that tie the system together". Thus for any given set of objects it would be impossible to speak of non inter-relationships. The distance between pairs of objects could be considered as a relationship. Thus given a set of objects, which are not isolatable or extractable for study, one necessarily studies the complex network of relationships that links and unites them. The choice of focus on types of relationships, or the separation of those seen as trivial and those as significant relationships, is left to the observer.

Most organic systems are open in that they "exchange materials, energies or information with their environments. A system is closed if there is no import or export of energies in any of its forms such as information, heat, physical material, etc." (p.20). Whether a given physical or conceptual system is open or closed depends on what is included in the system and what is environment. Environment for a given system is defined

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1 I have quoted definitions, wherever possible, from the original works of Bertalanffy and from the Yearbook of the Society for the Advancement of General Systems Theory (Bertalanffy, 1966), which includes the works of Hall and Fagen, Boulding and Rapoport, among others.

2 Buckley (1967) elaborates on the concept of open systems in the social sciences: "That a system is open means, not simply that it engages in interchanges with the environment, but that this interchange is an essential factor underlying the system's viability, its reproductive ability or continuity, and its ability to change" (p. 50).
as:

... the set of all objects a change in whose attributes affect the system and also those objects whose attributes are changed by the behavior of the system. (p. 20)

A line drawn between those objects or items treated as components and those regarded as environment is the systems boundary. The drawing of boundaries between system and environment is an arbitrary one, but nevertheless far from trivial.

To specify completely an environment one needs to know all the factors that affect or are affected by a system; this problem is in general as difficult as the complete specification of the system itself. As in any scientific activity one includes in the universe of system and environment all those objects which he feels are most important, describes the inter-relationships as thoroughly as possible and pays closest attention to those attributes of most interest, neglecting those attributes which do not play essential roles. (p. 20)

In biology and the social sciences, in contrast to physics and chemistry, and specifically here in the realm of family transactions

... it is no mean task to pick out the essential variables from the nonessential; that is, specification of the universe and subsequent dichotomization into system and environment is in itself, apart from analysis of the inter-relationships, a problem of fundamental complexity. (p. 20)

In attempting to define the boundary between the family and its environment one must determine the degree of interdependence between objects, elements or significant others. Thus a family boundary includes those people who have a greater degree of interdependence and interaction with each other than they do with other persons in the environment. The question of who is involved can reveal a powerful influence of a family member who is geographically very distant from the family. Additionally, the boundaries are derived, from the rules which govern behaviour, from the roles performed within subsystems, and from the processing of energy or information from the
environment. The boundary, as a structural frame, reveals the family unit as an organized entity. It is a flexible, imaginary line which shifts for the maintenance of a variety of tasks, yet marks a definite bounded region which is separate from other elements in the environment.

The exchange across boundaries between a system and its environment is a two-way process. Rubin (1972) in his introduction to general systems theory as an approach to human communication explains: "Systems are embedded within physical, spatial, temporal and sometimes symbolic sets of conditions called environments. Environments characteristically affect true systems which interact with them and are, in turn, affected by those systems" (Budd and Ruben, p. 126).

Systems, in general, can be divided conceptually into subsystems and environment according to the various activities that are performed. As Miller (1965) writes, "the totality of all the structures in a system which carry out a particular process is a subsystem" (p. 73). Hall and Fagen point out that any system can be further divided into subsystems according to the partition of system and environment. Thus elements of a system may themselves constitute a lower order system resulting in a hierarchical order. The supra system would constitute the next higher order wherein a system itself constitutes a subsystem.

The "system-subsystem concept in no small way accounts for the power of systems theory" (Watzlawick et al, p. 122) in the study of family interaction. It provides a conceptual tool for allowing the observer to analyze one particular system at a time without becoming immobilized by the enormous complexity involved in viewing the whole family system. A family is structured by multiple subsystems, depending on the number of members and the
complexity of organization. Subsystems, such as the parental dyad or the sybling subsystem are nested in hierarchical fashion.

Entropy

In both open and closed systems entropic processes occur. These processes are essentially different depending on whether they are positive entropy or negative entropy (negentropy). Miller (1965) defines positive entropy as "the disorder, disorganization, lack of patterning, or randomness of organization of a system" (p. 60). In a closed system, one that does not exchange energy, matter and information with the environment, entropy increases to its maximum point, thus approaching a state of thermodynamic equilibrium.

The governing principle here is a universal law of nature, the Second Law of Thermodynamics. Bertalanffy (1968) reports that this law can be formulated as entropy being a measure of probability, and the tendency is to a state of most probable distribution. He uses the example of a mixture of red and blue glass beads which in its most probable distribution would be in a state of complete disorder. If one separates all red beads on one hand, and all blue ones on the other, an improbable distribution or state has been created. The "tendency towards maximum entropy or the most probable distribution is the tendency to maximum disorder" (p. 39).

In an open system, the interchange with the environment produces negative entropy to counteract and offset the inevitable production of positive entropy. This positive entropy "may increase, remain in a steady state, or decrease" (Miller, p. 72).

The difficulty in applying the entropy construct to family interactional systems is our dearth of knowledge about how to measure information in
relation to action. It is not yet known how much or what information a person requires in order to act. Negentropic forces within the system cannot be precisely defined. In part the difficulty lies in the conceptual confusion described by Thayer (1972) between "information" from electronic theory and "information" in human communication.

The absence of input to a receiver in a signaling or control system is just that, silence from the other end of a telephone conversation between two humans could be the most profound message of all. When a human says, "I'm not talking to you", that may be precisely what he is doing; a computer address, to the contrary, either works or it doesn't. A radio receiver has to accommodate the incoming "information" for which it is designed, like it or not; humans can "tune out" or even "turn off". (p. 101)

For some people a word is sufficient to bring about a certain response, for others no amount of talking will result in a specific result. Consequently it is impossible to adequately define those processes within families which counteract the tendency of maximum disorder within the interactional system.

Steady state and stability

The manner of functioning of the open system is defined by steady state -- a constancy that never achieves complete rest (equilibrium) or complete balance (homeostasis). In contrast to a static, uniform, motionless condition, the steady state of the open (living) system is characterized by ceaseless activity and change.

In the constant exchange of information and energy with its environment the family acts as an open system. It does not exclusively strive for uniformity, stability or tension reduction. At the same time, there is a tendency toward "constancy within a defined range" (Watzlawick et al., 1967, p. 147). Thus a change in external conditions of an active open system
"does not cause a process in an otherwise inert system; it only modifies processes in an autonomously active system" (Bertalanffy, 1966, p. 710).

Modifications, change and variation imply some fundamental stability within the autonomous active family system.

Steady state (or stability) is a property of systems related to adaptation. An adaptive system maintains stability for all those variables which must remain within limits. Similarly, Jackson's (1965a) metaphoric family rules insure stability within the interactional variables of a family. Adaptive shifts in family pattern are determined by its internal organization and its external position in the community-at-large. When conditions within the system or external conditions require a change, rules may shift in order to adapt to changing parameters. This shift can be termed the recalibration\(^1\) of the system:

Having passed a critical state the system starts off in a new way of behavior. Thus, by means of step functions, the system shows adaptive behavior by what the biologist would call trial and error: it tries different ways and means, and eventually settles down in a field where it no longer comes into conflict with critical values of the environment. (Bertalanffy, 1968, p. 46)

From a systems perspective dysfunction or "symptomatology" in families has been observed to have adaptive qualities (Laing, 1965). When viewing living systems, dysfunction is a consequence of a disturbance in the steady state. Thus, in families a new way of behaving may be an adaptation to disturbances. As opposed to the disease entity explanation of malfunction or dysfunction in the family, symptoms are signs of dysfunction in the system state rather than isolated phenomena.

\(^1\) Bateson (1961) first used the term calibration when discussing the interactional parameters of schizophrenic families. Watzlawick et al., (1967) expanded on the term in their study of the family as a system.
Steady state of an open system is maintained by the dynamic interaction between many variables and by means of feedback. Bertalanffy has relegated the role of feedback to a secondary position in steady state maintenance (Bertalanffy, 1967, pp. 65-69). Yet other systems thinkers such as Wiener and Buckley view feedback as directing the behaviour of the system in goal-directed, not merely goal oriented ways (Stein, 1974).

Feedback

The steady state of a system is maintained, in part, by means of negative feedback, i.e., error-activated feedback. The negative feedback process, or morphostatic function of a system, indicates a discrepancy, incongruence, or divergence between the system's behaviour and desired goal state. This information or error data acts as input data and is used by the system for reducing divergence. Thus systems with feedback have the property of their outputs or behaviour feedback to the input to affect succeeding outputs. Several writers (Buckley, 1967; Budd and Ruben, 1972; Haley, 1962b; Tustin, 1952; Watzlawick, 1967) in the field of physical and living systems such as the family have compared the model of negative feedback to the man-made thermostat, whereby a heating system responds to variations of the air temperature and reduces deviation by turning the furnace on or off depending on the thermostat setting.

Additionally, the phenomenon of homeostasis (discussed in Chapter II)

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1Watzlawick et al. (1967) refer to steady states of a system being generally maintained by negative feedback, yet do not specify that feedback systems are "but a special class of self-regulating systems". (Bertalanffy, 1968, p. 161)

2Morphostasis implies that the system must maintain constancy in the face of environmental changes, that is, preserve its given organization or state.
is based on maintaining balance by means of negative feedback. Bertalanffy (1968) has illustrated a number of biological phenomena which correspond to the homeostatic feedback model such as thermoregulation in warm-blooded animals. Cooling of the blood indirectly stimulates certain heat-producing mechanisms which keep body temperature at a constant level. Thus negative feedback as a method for the correction of error is a necessary property of systems maintaining a steady state.

A family behaves as a negative feedback system in that it tends to preserve its established patterns of interaction. When irregularities occur, as when rules are disrupted, metarules, or habitual modes of restoring conditions in keeping with the rules, are applied (Sorrels and Ford, 1969). The family can be viewed as a homeostatic, error-activated, negative feedback governed system characterized by constant action and counteracting reaction oriented to regaining balance. Like the heating system of a house, which is connected with a thermostat, the family as a homeostatic system is self-governing. In the family system the setting of the thermostat, or the range of acceptable behaviour of family members, is set to a large extent by the family members. The governing processes of the family are such that "the family members behave in an error-activated way if one member exceeds a certain established limit" and "individual family members also attempt to be the one who sets or establishes limits" (Haley, 1962b, p. 91).

If, as has been stated, families behave in error-activated ways, characterized by negative feedback, what about the case of positive feedback in families? Watzlawick et al. (1967) describe the difference between positive and negative feedback by specifying:
In the case of negative feedback . . . information is used to decrease the output deviation from a set norm or bias - hence the adjective "negative" - while in the case of positive feedback the same information acts as a measure for amplification of the output deviation, and is thus positive in relation to the already existing trend toward a standstill or disruption. (p. 31)

Families characterized by growth and change, as well as stability, maintain some positive feedback properties. Within such families divergent behaviour, that which is mismatched with internal standards and criteria, leads to action which increases the divergence. An example of positive feedback processes in a changing or growing family is given by Speer (1970). He cites the reaction of parents with strong negative feelings about association with minority group members to their daughter's friendship with a minority child: "We cannot feel comfortable with your friend, but we are very pleased that you are and hope that you do not develop the hang-up we have about minority people" (p. 267). Basically, here the nonhomeostatic process principles are emphasized.

Until recently family systems thinkers have concentrated almost entirely on the governing process of the homeostatic model. Maruyama (1968) suggests that more attention be given to what he calls deviation amplifying, mutual causal processes or the process of morphogenesis. Although the phenomena of positive feedback has been seen in terms of its destructive elements on the system:

... both Buckley and Maruyama, among others, view positive feedback process as being constructive, as system enhancing, and as centrally contributing to the maintenance of system viability, as well as having potentially destructive outcomes. Buckley believes that the positive feedback processes are the vehicles by which

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1Morphogenesis means that the system can and must at times change its form, structure or state.
social systems "grow", create, and innovate, and consequently views them as morphogenetic processes . . . (Speer, p. 267).

The deviation amplifying and counteracting principles of the cybernetic framework become extremely complex in the family system. The same process which amplifies the deviant behaviour of one family member may serve a deviation counteracting function in the dyadic relationship of, for example, the parents. Hoffman (1967) extends this analysis to another level to point out that the consequence of deviation amplifying behaviour in the nuclear family may have a homeostatic function in the larger extended family group.

Jackson, as well as other therapists, has strategically encouraged rapidly escalating positive feedback processes (runaways) in families by prescribing the presenting symptom as a therapeutic gambit (Haley and Hoffman, 1967). The homeostatic regulators are thereby threatened and therapeutic changes can be introduced.

It would appear that there are many positive and negative feedback chains operating within the dynamics of family systems. Results are based, in part, on the homeostatic plateau of the system and on the positive feedback loops which could bring about recalibration, or a new setting on the family "thermostat".

There is a need for families to be constructively responsive to change, able to change with change and capable of learning to learn. Viewing the family only as a self-regulating, homeostasis-maintaining system does not include the possibilities for growth and restructuring required by the larger sociocultural systems framework. A concept for family growth needs to include positive feedback in order to maintain family stability within the suprasystem of society. Families which are unresponsive to change are
closed, maximally constrained systems with limited evolutionary power (Brodey, 1969; Speer, 1970; Haley and Hoffman, 1967).

The delicate balance of the organization of a system in terms of its open and closed properties is aptly described by Thayer (1972): "Too much order, too much fixity, too much expectedness, leads to human devitalization. Too little order, too much fluidity, too little reliability has, eventually, the same consequence for humans" (p. 117).

Equifinality

While in most physical systems the final state is determined by the initial conditions, the principle property of open systems, equifinality, means that "the same final state may be reached from different initial conditions and in different ways" (Bertalanffy, 1968, p. 40). In other words, no matter where one begins, the conclusion can be the same, or, the state of any living system is not fixed by initial conditions. If a system is open:

... the final state will not depend on the initial concentrations but will be determined entirely by the proper ties of the system itself, that is, the constants of proportionality which are independent of the conditions imposed on the system. Such a system will appear to exhibit "equifinality" or metaphorically speaking, to have a "goal of its own" (Rapoport, 1968, p. xvii).

According to the principle of equifinality "the system is then its own best explanation" (Watzlawick et al., p. 129). Behaviour is thus to a considerable extent a product of present processes in the family system. The outcome of a family system would be neither regulated nor controlled by the initial conditions of that system.

Jackson (Watzlawick et al., 1968) in applying the property of equifinality to an analysis of an interactional system, observes that:

... if the equifinal behavior of open systems is based on their independence of initial conditions, then not only may different
initial conditions yield the same final result, but different results may be produced by the same "causes". Again this corollary rests on the premise that system parameters will predominate over initial conditions. So in the analysis of how people affect each other in their interaction, we will not consider the specifics of genesis or product to be nearly so important as the ongoing organization of interaction (pp. 127-128).

Jackson illustrates how the equifinal process directs thinking to the present parameters of an interactional system in his analysis of Edward Albee's play, *Who's Afraid of Virginia Woolf*. By tracing how the main characters, George and Martha, relate, he makes statements about the interaction and avoids the use of clinical labels. He does not label isolated pathologies, such as Martha as a sadist or George, a masochist, or vice versa, whereby the interaction would be seen as predetermined by some initial conditions. Keeping to the principle of equifinality, the initial conditions, the history in this case, is not examined for purposes of determining the present ongoing structure or organization of the family.

In a systems analysis the equifinal state is stressed above and beyond the intrapsychic one of the cause-effect model. To concentrate on the why is often to miss the way in which family members relate.

**Non-linear causality**

In general systems theory linear causality is replaced by the dynamic interaction of many variables. In a family this means the circularity of interaction among each of the members does not allow for a cause, nor effect, label among the participants. Each communication can be a cause and effect by itself and thereby renders the terms non-applicable.

Early applications of linear causality in family study meant finding causes for given observed effects, as though "cause" and "effect" occurred linearly and in appropriate order. The limitation of the cause and effect
model was apparent in the explanations of psychotic breakdowns or chronic schizophrenia being caused by the "schizophrenogenic mother". As discussed previously (Chapter II) this designation was found to be useless and meaningless (Jackson, 1957).

Faced with the undeniable fact that family members act constantly on each other, modifying each other's behavior in the most complex ways, a conceptual model which would have us delineate event A from event B, much less put them in causal order is of little help. (Jackson, 1965b, p. 5)

The linear, cause-and-effect train goes by only once and, after the fact, cannot be retrieved (Jackson, 1967, p. 143). Therefore a rendering of history, sifted through memory, in a variety of therapeutic or research contexts leads to an unending debate about causality. The dynamic interaction of forces in the living system is a more appropriate principle for the ongoing circular interaction of families.

Organization

The organization of the family as a system is at the base of non-linear causality. The system, as noted previously, is not made up of independent parts, but characterized by wholeness or unity. Its elements are in interaction. Its variables are dependent. Each individual part of the system depends on the conditions within the whole system as well as on its internal conditions. (Bertalanffy [1952] gives an example of the difference of the behaviour of an isolated organism as opposed to its behaviour in a larger context: cells, when isolated from the organism and allowed to grow as a culture in a nutrient, will behave differently than within the organism.)

Thus to study the system, it may be broken down into parts for purposes of investigation, but eventually it must be put back together, synthesized, in order to understand its life as an organized whole. No part of the
system can be understood outside of its context or outside of its relationship to other parts of the system. As Bertalanffy writes: "The problem of life is that of organization" (p. 12).

Organization in complex systems is marked by ongoing progressive differentiation. This results, in part, from the system's openness and continual exchange of matter-energy with its environment and, partly, from its own dynamic interaction processes. The increased complexity of a system emerges from the expansion of structural and functional relationships, both internally and externally. The system evolves from a primitive semi-organized state to progressive differentiation and hierarchical order of its parts. This increased differentiation characteristic can be applied to the growth of a family and its interactional organization. All levels of family functioning are involved, from the individual organism to the systems in which the individual is embodied, and to the supra systems of community and society.

Summary

The historical development and the emergence of general systems theory have been reviewed in this chapter. The selected unifying principles for a general theory of systems are open systems, steady state, equifinality and organization. Feedback is viewed as an important regulatory property of systems, yet the organismic concept presents dynamic regulation in such forms as steady states and equifinality as the primary regulatory principle. The limits of linear causality are introduced and a non-linear, interactional paradigm is suggested.
CHAPTER IV
THE APPLICATION OF SYSTEMS THEORY TO TWO FAMILY DRAMAS

Introduction

Having reviewed the general principles of systems and having discussed how these principles relate to family functioning, the objective now is to demonstrate the application of general systems theory to family interaction data. If the unifying principles of systems, in general, can be applied to family dynamics then a case can be made for the family-as-system model.

A family is an interactive system if it functions as a whole by virtue of its interdependence of parts. A change in one part of the system would induce changes in other parts of the system. The relationships among family members would be expected to define the nature of the family, rather than defining independent individuals.

A family is a system if there is order of its essential parts. The search for systematic operations involves questions about repeated patterns of communication: What are the sequences of events; are they repeatable, predictable patterns and how do these patterns operate at various levels of complexity? If the family is a system, then behaviour can be defined in terms of patterns and as a function of the system and its organization.

Finally, as a dynamic, rather than static, ongoing system, there would be a continuous process of information exchange within and across boundaries. Constancy within a defined range or within pre-established limits would evolve as elements interact with each other, at times exhibiting self-corrective, or self-directive properties.

If the family behaves systemically, then general systems theory would provide a useful tool for identifying structural similarities or isomor-
phisms. Principles of family systems could be derived by deduction from the fundamental principles of general systems. These ideas which have been explored by a variety of family systems thinkers, will be demonstrated here in the application of the theory to two dramatic portrayals of family interaction.

Analysis of Plays

The analysis of dramatic portrayals for purposes of critiquing, supporting, refuting or augmenting existing theories is not new in the field of family studies. Jackson's (Watzlawick et al., 1967) extensive analysis of Edward Albee's *Who's Afraid of Virginia Woolf* illustrates the theory of ongoing interactional systems, specifically in the marital context. Foley (1974) in his text on family therapy, frequently refers to *The Glass Menagerie* by Tennessee Williams in order to illustrate varying approaches to family theorizing. Sander (1968) develops theoretical and technical issues relating to family therapy as opposed to individual therapy by analyzing T. S. Eliot's *The Cocktail Party*. Written in 1949, this drama anticipates the advent of family systems theory in the following remark by Dr. Reilly, the psychiatrist in the play:

... before I treat a patient like yourself I need to know a great deal more about him than the patient himself can always tell me. Indeed, it is often the case that my patients are only pieces of a total situation which I have to explore. The single patient who is ill by himself, is rather the exception. (p. 350)

Furthermore, the problems of separation and differentiation from the nuclear family are diagrammed by Sander (1971) in the case material of Eliot's *The Family Reunion*. Ibsen's *Ghosts* serves as a case study for the representation of the original family triangle - father, mother and son. The relationship triangle as the building block of family systems is
reviewed in reference to the conflicts between members of the Oswald family (Davis, 1962). A final example of dramas in family study is Brechtian theater as a model for conjoint family therapy as opposed to the usual models of individual psychotherapy (Kantor and Hoffman, 1966). In this study the parallels between Brechtian theater and family therapy are explored, and techniques of distancing in order to bring about change are demonstrated.

In each of these studies the family scholar is able to investigate and theorize about a particular area of family interaction with the aid of the playwright's creation. Although the data are "artificial" in one sense of the word, the appropriateness of dramatic form for illustrating family interaction and family relationships is eloquently revealed by the American playwright, Arthur Miller (1956):

Man has created so many specialized means of unveiling the truth of the world around him and the world within him - the physical sciences, the psychological sciences, the disciplines of economic and historical research and theory. In effect, each of these attacks on the truth is partial. It is within the rightful sphere of the drama - it is, so to speak, its truly just employment and its ultimate design - to embrace the many-sidedness of man. . . . It can depict, like painting, in designs and portraits, in the colors of the day or night; like the novel it can spread out its arms and tell the story of a life, or a city, in a few hours - but more, it is dynamic, it is always on the move as life is, and it is perceived like life through the motions, the gestures, the tones of voice, and the gait and nuance of living people. It is the signer's art and the painter's art and the dancer's art, yet it may hew to fact no less tenaciously than does the economist or the physician. (p. 41)

Others in reviewing the relationship between stage and life hold that real life yields situations and problems which are presented on stage; and, additionally, on stage one can learn in a general sense what happens in real life. "That is, it is not only that the stage gets something from real
life - we understand better what life is by getting something from the stage" (Ramsoy, 1963, p. 51).

**Selection of plays**

The procedure for selection of dramatic portrayals of family interaction for analysis was established by determining several criteria: time and setting of the dramatic action, length of the play, list of characters, and recognition of the playwright. It was deemed significant that the dramatic action take place during fairly contemporary times so that additional obstacles to a complex communication analysis would not ensue. For the same reason plays reviewed were restricted to English language originals. The length of the play was only important in that a one-act play was thought to provide only a quick glimpse of a family, whereas a longer play would allow for developing the complexities of any one family.

The focus of study being family interaction, plays were selected on the basis of dialogue between family members, in contrast to allowing for major roles outside the family system. Minor roles, such as the servant girl in *Long Day's Journey Into Night* were permissible. In keeping with the somewhat arbitrary definition of the family as a marital pair and at least one offspring, plays were screened accordingly. A further selection criterion was that at least one offspring be of adolescent age or older. This eliminated incipient families in early stages of organization.

Finally, recognition of the creative abilities of the playwright was considered an important criterion for the skill with which family interaction would be presented. To assist with the selection according to the above criteria two sources were used (see Appendix). The two plays chosen were judged to offer suitable case study material for purposes of analysis.
and comparison.

**Long Day's Journey Into Night**

Whatever else it is, Eugene O'Neill's powerful drama *Long Day's Journey Into Night* is a family drama. It is a day and night in the life of one family, the Tyrone family. There are four acts which all take place in the Tyrone home beginning early in the morning of a day in August and ending on the same day around midnight. The patterns, structure and form of this family system come to light in that time. In order to follow the content of the dialogue, a brief description of characters is necessary.

James Tyrone, the father, is sixty-five and described as handsome and appearing younger than his age. An actor by profession, he has spent most of his working years playing the same role in a particular play. Although he had shown great promise as a self-trained actor, he took a secure job by playing the romantic lead in a box-office success which left him financially secure, but unable to move around in the world of theater. His extreme concern about having enough money, in spite of financial security based in part on property he purchased over the years, has earned him the label of miser in his family. In defense, he refers to the early age of ten when his own father deserted his mother and James was left to support the family of four children by working in a machine shop twelve hours a day. James has a weakness for alcohol which is a recurring source of remonstration from his wife.

Mary, his wife, is fifty-four, once a striking looking woman, she is now frail, extremely nervous and ailing from rheumatism in her hands. She is a long-suffering woman, intermittently addicted to drugs, she now blames her addiction on having been treated with morphine for pain during complica-
tions after the birth of one of her sons. Another son died in infancy and her own father died of a combination of alcohol and consumption. She has recently been at a sanitarium and is now home again with her husband and sons. Before marrying James she had attended a convent school and claims now to have considered becoming a nun at that time. Her shy, convent-girl youthfulness is a quality that comes and goes as the drama unfolds.

The oldest son, Jamie, is named after his father. He is thirty-three and resembles his father in looks but not bearing. He lacks his father's carriage and vitality. He shows signs of "premature disintegration" and his expression is marked by cynicism. He lives at home, without a proper job and depends on his father for support. He had been dismissed from the university and has had a collection of odd jobs while travelling, apparently aimlessly, for years. He, like his father, is a drinker, sneaking alcohol from his father's supply and covering up the theft by adding water to the bottle. His relationships are all short-term and characterized as being with "loose women".

Edmund is ten years younger than his brother. He resembles both parents in appearance, but is more like his mother. He exhibits her same nervousness and frailty, but to a much lesser degree. Much thinner than he should be and in bad health, he also lives at home having left college and having spent a few years travelling around as a seaman. He has just recently been to see the family doctor for a series of tests in order to diagnose his chronic fever and coughing.

The four family members interact during that day and night principally about Edmund's illness and its affect on his mother, about Mary's losing battle with drugs, about Jamie's profligacy and about the faults of James.
The interactions are woven in a seamless pattern which characterizes and reveals the relationships within the family. Typical ways of handling stress unfold in the repetitive interactions.

**Organization of Interaction**

Recalling Bertalanffy's definition of a system, "complexes of elements in interaction", the Tyrone family is not a sum of individual personalities, but rather a complex organization. The structure of the organization is studied by observing the connections between elements, observing communication. The process of continual exchange between members reveals the interlocking patterns of interaction.

Subsystems within the system are recognized early in the day of the Tyrone family. James and Mary enter the living room of their home discussing mainly Mary's health and James' appetite:

**Tyrone**: You're a fine armful now, Mary with those twenty pounds you've gained.

**Mary**: I've gotten too fat, you mean, dear. I really ought to reduce.

**Tyrone**: None of that, my lady! You're just right. We'll have no talk of reducing. Is that why you ate so little breakfast?

**Mary**: So little? I thought I ate a lot.

**Tyrone**: You didn't. Not as much as I'd like to see, anyway. (p. 14)

Tyrone and Mary engage in subtle definition of their relationship. The complementary aspect of their relationship is one in which differences are
maximized. Tyrone is in charge, he can comment on what and how much was eaten. He is the protectorate judge. Mary denies the accusation of having eaten too little, but in a questioning less sure way. She defends her behaviour. The dissimilar behaviours of these two people seem to evoke each other. They belong together.

The transaction is a minor one at this point, but frequent documentation leads to a clear diagram of the structure of this subsystem. Mary is the submissive weaker one, while Tyrone takes charge. He comments on situations, interprets them and Mary takes the role of denial and justification. She allows the victimization of herself. When worried about her son's health she is told:

Tyrone: But you mustn't let it upset you, Mary. Remember, you've got to take care of yourself, too.

Mary: I'm not upset. There's nothing to be upset about. What makes you think I'm upset?

Tyrone: Why, nothing, except you've seemed a bit high-strung the past few days.

Mary: (forcing a smile) I have? Nonsense dear. It's your imagination. (p. 16)

She thus exhibits compatible and differentiated behaviour. Her position is, of course, different than Tyrone's yet the two behaviours fit together; she justifies while he interprets.

1 Depending on whether two individuals compete for control of the relationship or whether one seeks control and the other yields it has been termed symmetrical or complementary interaction. Bateson (1958) first developed these terms while trying to discover the meaning of an obscure ceremony called naven in a New Guinea tribe. The process of differentiation (schismogenesis) which he observed was later applied to interpersonal relationships. Symmetrical meant competitive rivalry and complementary meant two unequal positions with one being dependent on the other (see Watzlawick et al., 1967, pp. 67-69).
It's only after Mary resorts to drugs that her relationship with Tyrone changes and begins to show a symmetrical quality. Mutual blaming takes place, each one blaming the other for personal failings. When Mary accuses Tyrone of getting drunk, he blames her by referring to her addiction: "If I did get drunk it is not you who should blame me. No man has ever had a better reason" (p. 83). Likewise, when she complaints that she has no friends, he replies, "It's your own fault ---" (p. 84).

Mary, in turn, blames Tyrone for their lack of a proper home and ends on an accusatory note that holds him responsible for every one of their misfortunes:

Mary: ... Oh, I'm so sick and tired of pretending this is a home! You won't help me! You won't put yourself out the least bit! You don't know how to act in a home! You don't really want one! You never wanted one -- never since the day we were married! You should have remained a bachelor and lived in second-rate hotels and entertained your friends in barrooms! ... Then nothing would ever have happened. (p. 67)

Later, puzzled after Jamie seems to ignore a question, she turns on Tyrone and escalates her accusations:

Mary: He's not to blame. If he'd been brought up in a real home, I'm sure he would have been different. (p. 81)

Once again she accuses Tyrone of having brought up their son to be an alcoholic:

Mary: You brought him up to be a boozers. Since he first opened his eyes, he's seen you drinking. Always a bottle on the bureau in the cheap hotel rooms! And if he had a nightmare when he was little, or a stomach-ache, your remedy was to give him a teaspoonful of whiskey to quiet him down. (p. 110)

For his part, Tyrone escalates by blaming her addiction, "... When you have the poison in you, you want to blame everyone but yourself!" (p. 111).
Tyrone and Mary rival each other in the spiral of rebuke and responsibility. The history of the family affords a whole host of accusations and allows for the mutually accusatory cycle of interaction. The starting point of this cycle is simply a case of arbitrary punctuation, and the contest is how to render the other most blameworthy. Each saddles the other with guilt, the more the better. The complementary aspects of the relationship early in the day, wherein dissimilarities are apparent in the roles of Mary and Tyrone, now change progressively and it becomes difficult to see differences between the two symmetrical roles. Interaction is now based on equalizing guilt in the parental subsystem.

Jamie and Edmund form the sibling subsystem. The boundaries of that subsystem are noted by Tyrone early in the day as he labels their behaviour an alliance formed against him. When Mary wonders why the sons have remained in the dining room after breakfast, he remarks (jokingly but with an undercurrent of resentment), "It's a secret confab they don't want me to hear, I suppose. I'll bet they're cooking up some new scheme to touch the Old Man" (p. 15). In fact, the sibling subsystem provides balance next to the powerful parenting system.¹

Edmund and Jamie seek to maintain equal positions within the family system by reaffirmation and support of each other whenever the balance seems threatened. For example, Edmund encourages Jamie to sneak a drink with him while the parents are out of the room. Or, when both sons are without funds and the father gives only one of them, Edmund, a ten dollar bill they share it. In attempting to weaken the bond between brothers the parents seem to

¹Sibling systems are an often overlooked aspect of family systems. Some family behaviour patterns have recently been attributed to activities and variations within the sibling subsystem (Bank and Kahn, 1975).
reaffirm it. When Tyrone suspects that Edmund has split the money with Jamie he calls Edmund a fool. Yet Edmund lets his father know that the mutual support system is not new, "He's always staked me when he had anything" (p. 129). Mary, too, recognizes the alliance between brothers, "I suppose you'll divide that ten dollars your father gave you with Jamie. You always divide with each other, don't you?" (p. 95). She and Tyrone repeatedly try to drive a wedge between the two brothers by verbally assaulting one of them, usually Jamie. Upon learning that the money was shared she says "Well, I know what he'll do with his share. Get drunk some place where he can be with the only kind of woman he understands or likes" (p. 94).

The verbal assaults on Jamie at times escalate to the point that Edmund threatens to leave, thereby exerting control and restoring balance:

Tyrone: It doesn't take a soothsayer to tell he's probably in the whorehouse.

Edmund: What if he is? Why not?

Tyrone: (contemptuously) Why not, indeed. It's the fit place for him. If he's ever had a loftier dream than whores and whiskey, he's never shown it.

Edmund: Oh, for Pete's sake, Papa! If you're going to start that stuff, I'll beat it. (He starts to get up.)

Tyrone: (placatingly) All right, all right, I'll stop. (p. 129)

The remarkably consistent manner with which Tyrone and Mary attempt to break up the perceived as threatening alliance between brothers reveals an additional phenomenon of scapegoating in this family.¹ The conflicts

¹The process of scapegoating as applied to family interaction was first described by Vogel and Bell (1960). Historically (Frazer, 1927) the scapegoat's function was "simply to effect a total clearance of all the ills that have been infesting a people" (p. 562). "Evil influences are embodied in a visible form or are at least supposed to be loaded upon a material medium, which acts as a vehicle to draw them off from the people, village or town" (p. 575).
between Tyrone and Mary are so severe that it is not surprising that some appropriate pattern of discharge develops in order to draw off the tension. What this means is that some unity at the parental level is maintained at the expense of a particular family member, in this case, Jamie. It is important to note that this is an interactional process and Jamie is not the innocent victim, rather an active participant.

Jamie has been labelled a failure by both his mother and father. Although Tyrone communicates his judgements and criticisms more openly than Mary, her support of them can not be overlooked. When discussing Jamie's whereabouts she echoes Tyrone's judgements, but additionally, the dual aspect of her resentment comes to light:

Mary: . . . I'm glad Jamie is going uptown. You didn't give him any money, I hope.

Tyrone: I did not.

Mary: He'd only spend it on drink and you know what a vile, poisonous tongue he has when he's drunk. Not that I would mind anything he said to-night, but he always manages to drive you into a rage, especially if you're drunk, too, as you will be. (pp. 82-83)

Her attacks on Jamie come out strongly later in the day when she admonishes him for his sarcasm. The following excerpt is not only a single unit in the scapegoating process, but reveals simultaneously the family rule, to be discussed later, the double bind aspect of a communication, and the role of Edmund as family regulator. The numerous aspects of one interaction are exemplified here and portray the arbitrariness of punctuation, or of separating a unit for study:

Mary: (Sharply - letting her resentment toward him come out.) It's you who should have more respect! Stop sneering at your father! I won't have it! You ought to be proud you're his son! He may have his faults. Who hasn't?
But he's worked hard all his life. He made his way up from ignorance and poverty to the top of his profession! Everyone else admires him and you should be the last one to sneer -- you, who, thanks to him, have never had to work hard in your life! (Stung, Jamie has turned to stare at her with accusing antagonism. Her eyes waver guiltily and she adds in a tone which begins to placate.) Remember your father is getting old, Jamie. You really should show more consideration.

Jamie: I ought to?

Edmund (uneasily) Oh, dry up, Jamie! (Jamie looks out the window again.) And, for Pete's sake, Mama, why jump on Jamie all of a sudden? (pp. 60-61)

The paradox in Mary's outburst is that she constantly finds fault with Tyrone, yet when Jamie joins in the game, she assails him and presents a different picture of her husband. Jamie can do no right as far as either of his parents are concerned. The day's journey presents a multitude of examples. To list but a few, when Jamie finishes working on the hedge for his father, he reports knowingly:

Jamie: What do you want me to do this afternoon, now you're going uptown? I've done all I can do on the hedge until you cut more of it. You don't want me to go ahead with your clipping, I know that.

Tyrone: No. You'd get it crooked, as you get everything else. (pp. 80-81)

Or when Mary asks where Jamie is, after he's left for the afternoon: "But, of course, he'll never come home so long as he has the price of a drink left". Her face hardens as she adds:

Mary: But we mustn't allow him to drag Edmund down with him, as he's like to do. He's jealous because Edmund has always been the baby - just as he used to be of Eugene*. He'll never be content until he makes Edmund as hopeless a failure as he is. (p. 109)

Tyrone predictably joins in:

*Eugene is the brother who died in early infancy.
Tyrone: . . . There's truth in your mother's warning. Beware of that brother of yours, or he'll poison life for you with his damned sneering serpent's tongue! (p. 109)

Mary continues the assault: "It's hard to believe, seeing Jamie as he is now, . . ." (p. 109), and a few minutes later adds: "Who would have thought Jamie would grow up to disgrace us" (p. 110).

Repeatedly the parent's disappointments, not only with each other, but with themselves, are heaped upon Jamie. The stability of Mary and Tyrone's relationship can be described in terms of the relationship rules. By observing who says what to whom and in what context, a pattern emerges which reflects the following: it is permissable to project failures onto Jamie. So when Mary says "it's hard to believe . . ." or "who would have thought . . ." an image of her own life emerges. Who would have thought or believed that she, an innocent convent girl, is now addicted to drugs. Likewise, for example, when Tyrone talks about that "vile tongue" and "a drunken hulk" in reference to Jamie, he reflects his own deficiencies.

Although the whole family is governed by rules of mutual blame and admonishment (as to be described later), Jamie's part is characterized by more blame and less affection than afforded the others. At only one point in the day does he exchange sympathetic words with his father and mother, yet reciprocal signs of affect and understanding are evident elsewhere in the family. Jamie had somehow become involved in the tensions existing between the parents, and now, in a time of stress, he becomes the focus of group tension. He accepts the role of scapegoat, "All right, Papa. I'm a bum" (p. 33), and plays out the part ascribed to him. Described as foul-mouthed, lazy, a good-for-nothing, a drunkard he wastes little time in displaying such behaviour. By the end of the day he fully embraces his
role of scapegoat and accepts the definition of him as a jealous, destructive force in his brother's life. Edmund is unable to stop him as he drunkenly blurts out:

Jamie: Not drunken bull, but "in vino veritas" stuff. You better take it seriously. Want to warn you -- against me. Mama and Papa are right. I've been a rotten influence. And worst of it is, I did it on purpose.

Edmund: (uneasily) Shut up! I don't want to hear --

Jamie: Nix kid! You listen! Did it on purpose to make a bum of you... (p. 165)

In the end, not only does he embrace the personification of the destructive force in the family, but he accepts the ultimate implication of that image as he says, "... think of me as dead -- tell people, 'I had a brother, but he's dead'" (p. 166). As Jamie retreats into the oblivion of drink after this final move, no longer defending himself, his father finishes the job, "A waste! A wreck, a drunken hulk, done with and finished" (p. 168).

The Rule-Governed System

The Tyrone family exhibits organized, repetitive styles of interaction. The governing principle, or rule, is inferred from the behaviours observed. As themes of rebuke and blame emerge in this family, a metaphor coined by observer, describes the patterns. "It's all your fault" is the implicit rule describing and prescribing the verbal assaults hurled back and forth throughout the day.

The complex lines of "who blames whom for what" in the Tyrone family are inextricably woven together. The path of blame and remonstration is as circular as is the interaction system itself. Simplification is necessary for purposes of illustration. Mary blames her husband and her children for
her addiction problem. Tyrone is responsible for not providing a proper home; his miserliness is the cause of her "sickness", because he would not spend money on a "good" doctor. He left her alone night after night while he drank at hotel bars. He took her away from what she remembers as a stable home life. He is responsible for the boys' drinking. She accuses him of wanting to send Edmund to a sanatorium because he's jealous of their son. Finally, it is Tyrone who set her up for a life of loneliness and forced her to neglect her music:

Mary: For a time after my marriage I tried to keep up my music. But it was hopeless. One night stands, cheap hotels, dirty trains, leaving children, never having a home -- . (p. 104)

Jamie, as well as Tyrone, is responsible for the death of her second child, she claims. She had left the baby with her mother to join her husband on the road, because he had written about how lonely he was and how he missed her. Jamie, afflicted with measles, had gone into the baby's room and the infant later died from the disease. Mary blames Jamie for acting purposively, out of jealousy, at the age of seven. She admonishes Edmund for being ill and thereby causing her to worry and turn to drugs. Finally, Edmund's birth is the reason for her white hair, her rheumatism and her addiction. Accusingly she turns on Edmund at one point, invoking his father on her side; "I never knew what rheumatism was before you were born! Ask your father!" (p. 116).

Jamie and Edmund both hold their father responsible for Mary's drug addiction. Citing his miserliness and drinking they accept Mary's explanation. "No wonder -- !" blurts out Edmund about his mother's predicament after hearing her description of the hardships she has endured. He looks
accusingly at his father. Jamie also blames his father for not preventing Edmund's illness; "It might never have happened if you'd sent him to a real doctor when he first got sick" (p. 30). Later he accuses his father of forcing him (Jamie) onto the stage rather than letting him find his own career, thereby causing him to fail.

Tyrone's recriminations against Mary have been reviewed in the discussion of the symmetrical aspects of their relationships. Additionally, it is clear that he finds continual fault with Jamie. Accusingly he tells Jamie:

Tyrone: The less you say about Edmund's sickness, the better for your conscience! You're more responsible than anyone.

Jamie: (Stung) That's a lie! I won't stand for that, Papa!

Tyrone: It's the truth! You've been the worst influence for him. . . . (p. 34)

In moments of anger, even Edmund doesn't escape his blame. Goaded by Edmund's criticism of him, Tyrone picks up Mary's theme and says to his son, "... if you hadn't been born she'd never --" (p. 142), implying Edmund was at fault for his mother's addiction.

Edmund, himself, has a more peripheral place in the spiral of blame and attack, yet the family rule applies to his interactions, as well. For example, he accuses his father of having started him and his brother on alcohol at an early age; "I can remember that teaspoonful of booze everytime I woke up with a nightmare" (p. 111). Thus, what could have been a concerned gesture on the part of Tyrone is reframed as an accusation. Likewise Edmund accuses his mother of not really caring about him inspite of her obvious affection: "All this talk about loving me -- and you won't even listen when I try to tell you how sick --" (p. 120). Mary interrupts and won't listen to what Edmund wants to tell her about the diagnosis of his consumption.
It is important to note that the rule, "it's your fault" is an interactional one. It is always accompanied by denial and counteraccusation. It is a two-way street. The cause and effect model does not explain the process. As the interaction parameters begin to change for the Tyrones at the end of the day, the family rule alters slightly to include self-accusation. The beginnings of self-blame emerge and by midnight each member appears desperate and alone. The system has ground to a halt and the observer is left guessing as to the pattern for the future.

Looking back, the family interaction parameters of blame and accusation can be described as a mechanism for handling the family sense of failure. It is one way in which this family copes with stress, tension and more seriously, disease and addiction. Thus when a system is marked by hostility and accusation, it may be a mechanism which keeps the family intact. Mutual blame may render the system workable, but at a high price. When alcohol and drugs blur the pain, the rule changes to include self-blame. Yet even then, the self-accusations include explanations in terms of others.1

The deliberately simplified representations of the interactional patterns in the Tyrone family serve to demonstrate the application of a systems model. Each communicational act is complexly woven within and throughout each other communicational act; the mutual accusatory messages are fixed in time to reveal a structure. Examined over time, the patterns reveal how the system works.

1For example, when Mary calls her role as mother into question, her defense includes the lack of support from her extended family. Tyrone, at another point, qualifies his admission of miserliness in terms of his own family.
Feedback

A system characterized by a rule of mutually increasing blame would, it seems, inevitably explode as the stress level accelerates. What keeps the interaction within a given range? The repeated styles of apology and contribution in the family can be viewed as error-activated feedback, or control mechanisms. On the subsystem level, Mary and Tyrone control expressions of resentment and blame by punctuating their interactions with apologies and expressions of affection. Likewise, Edmund and his father present accusations within a framework of mutual concern. On occasion Tyrone even controls his anger at Jamie:

Jamie: Don't start jumping down my throat! God, Papa, this ought to be one thing we can talk over frankly without a battle.

Tyrone: I'm sorry, Jamie. (p. 37)

On the level of the whole family system one member after another steps in to keep the interaction within tolerable limits, thereby avoiding a point of no return. Mary, after a bitter attack on the family doctor, is cautioned by Tyrone and Edmund to get under control. "Forgive me, dear. You're right" (p. 75), she responds. When Tyrone humiliates Mary about past behaviour she begs him to stop. "I'm sorry. Forgive me, Mary!" (p. 86), he replies. Similarly Edmund apologizes for a bitter attack: "I'm sorry, Mama" (p. 119).

Keeping members of the family on a tolerable, functional track is most often Edmund's role. As Mary and Jamie start to verbally assault each other, Edmund tells his brother, "Oh, dry up, Jamie!" (p. 61), and follows that exclamation with a cautionary note to his mother, thereby balancing his intervention. Interestingly, when Edmund does once turn threateningly to
Jamie, his mother responds: "It's wrong to blame your brother" (p. 64), even though she has initiated the attack. There is a two-fold error-activated function in her remark, first, Edmund is being told that he has strayed off course as family peacemaker; second, having indulged in the family accusation game, she provides a check on its escalation. Repeatedly, it is Edmund who tries to maintain balance: "Mama! Stop talking. Why don't we go to lunch" (p. 67).

Yet when Edmund, himself, gets caught up in the cycle his father rescues him only to be drawn in later, as well. The complex pattern of controls and accusations are evident in this exchange after Mary reminisces about the past blaming herself and others:

**Tyrone:** Oh, for the love of God! I'm a fool for coming home!

**Edmund:** Papa! Shut up!

**Mary:** (smiles with detached tenderness at Edmund) It was Edmund who was the crosspatch when he was little, always getting upset and frightened about nothing at all. (She pats his hand -- teasingly.) Everyone used to say, dear, you'd cry at the drop of a hat.

**Edmund:** (cannot control his bitterness) Maybe I guessed there was a good reason not to laugh.

**Tyrone:** Now, now, lad. You know better than to pay attention --

A minute later Tyrone is himself pulled into the exchange with Mary and Edmund admonishes; "Papa! You told me not to pay attention" (pp. 110-111). Thus, it can be seen, each member is capable of control as well as attack.

**Symptoms within Systems**

The use of alcohol and drugs, unquestioningly, play an important part in this family process. On the one hand the symptoms of alcoholism and drug addiction give reign to the pattern of blame and reproachment, on the other
hand, they make it more difficult to exercise control. The addictions are functional within the system.¹ All day the Tyrones look to Mary in great apprehension and anticipation of her return to morphine. Their constant suspicions create an atmosphere almost designed for her to fail in her fight against drugs. In fear, Tyrone, James and Edmund watch and spy on her every move, paving a route from which she seeks to escape. It is as though Mary's addiction serves as the epitome of pain for the whole family. She bears the family pain in the same way that Jamie carries the family failure as scapegoat. The system hangs precariously on the edge of destruction and individual pains can be tolerated as each member observes Mary's predictable surrender to euphoria. In the end, Jamie confesses that maybe part of him "is even glad the game has got Mama again!" (p. 166), thereby pointing to the inevitable pain she symbolically carries for all.

Mary's role of symbolizing the family pain is functional within the family because it provides a focus of concern for all members, and because the suffering involved is actually related to the pain of the whole family. Her unhappiness of which she seeks to rid herself through drugs includes: concern about her sons, the physical well-being of one and the mental deterioration of the other; anguish over her failure as a mother; and disappointment with her husband. The symptom of addiction as communication presents a metalevel report about the family system. Not only can Mary give a nonverbal message about the tremendous pain in the family which must be deadened by drugs, she can resign herself to forces beyond her control. When the "game gets Mama" she escapes the hurt that all of the Tyrones feel and

¹Clinical impressions of opiate addiction and family process perpetuating each other were recently reported upon observation of addict families in therapy (Alexander and Dibb, 1975).
from which they all seek to free themselves.

True to the characteristic of a system, where a change in one part, necessarily effects other parts, James, Edmund and Tyrone start drinking heavily after Mary begins to show signs of having taken drugs. Her defeat was to be all of their defeat in the fight against addiction. Her flight from reality precipitated equal flights by all of them. One can only speculate about the future state of this system. Change within any family is dependent upon its fundamental stability, its "constancy within a defined range" (Watzlawick et al., 1967). Possibly for the Tyrones the constancy observed earlier will be re-established or possibly the system will be recalibrated at a more functional fixed range. The drug and alcohol usage may have had an adaptive function in that all members are given a break as the system ceases to function smoothly.

Equifinality

No one is better at inferring the initial conditions that led to the present state of the Tyrone family system than the Tyrone family members themselves. As an explanation for their actions each family member delves into past events for causal explanations. In each case the members view themselves as separate entities having suffered at the hands of each other. It is precisely this looking backwards that leads to their rigid interactions of mutual blame. Yet they are blind to the interlocking nature of their relationships.

The genesis is, in fact, not as important as the organization of their interactions. Explorations of the past alone do not yield an understanding of the Tyrone family nor do they allow for change. It is the present state, independent of initial conditions, that characterizes the family and serves
as explanation. No amount of looking back renders how the system presently functions.

Summary

The complex organization of the Tyrone family is one of systems and sub-systems wherein a limited range of behaviour is maintained in the service of stability. The Tyrones are organized along the lines of innocent victim and guilty oppressor as the past becomes the present in an endless cycle of accusations. In order to control tensions and resentments, apologies serve as control mechanisms. Each member controls others by setting limits to their interaction. Alliances are balanced in the form of dyadic subsystems. For example, attacks on Jamie are counteracted by support from Edmund.

Homeostatic mechanisms are evident in the closed parts of the system where negative feedback maintains stability. Mechanisms of scapegoating, the formation of alliances, the designation of Edmund as family healer, Mary as the family sufferer, all keep the conflicts within a prescribed range thereby reducing tension and resentment. In this family, as in all families, each member functions in reaction to another. Yet what typifies the tragedy of the Tyrones is that the members function at the expense of each other. Severe dysfunction or despair of all at the dramatic end of the day marks the culmination of what could be termed maladaptive behaviours. Edmund's pending departure to the sanatorium for treatment of tuberculosis designates a shift in parameters for the others.

The Subject Was Roses

Frank Gilroy presents a dramatic portrayal of a family triad, the parents John and Nettie Cleary and their son, Timmy, aged twenty-one. Timmy
has returned home after three years in the army during the second World War. The two days he spends at home before making the decision to move out are the unmasking of this family. The underlying weaknesses of the parent's relationship come to the surface as each member relives old patterns, yet attempts to bring about change.

On the first morning John and Nettie discuss their son's homecoming party, which occurred the evening before. The brittle aspects of their relationship are at once apparent, but inadequately disguised as Timmy enters the kitchen for breakfast. During the course of the next two days transactions reveal the push and pull of family relationships as the parents attempt to resume closeness with their son, and with each other, and as the son tries to create a new position for himself within the family triad.

Predictably each parent has plans for how to spend the day with Timmy. After some uneasiness on all sides Timmy attends a ball game with his father. Upon returning the son buys a bouquet of roses for his mother and succeeds in getting John to pretend that the roses were a gift from him. In the evening the family goes out for dinner and enjoys a cheerful time together, but the festivities turn into a grim confrontation between mother and father after Timmy has gone to bed. The evening ends with Nettie hurling the vase of roses against the floor whereupon John discloses, "I had nothing to do with the roses... They were his idea" (p. 41).

The following morning the Clearys' hostilities and grievances come into the open. Nettie disappears for the day after a fight with Timmy. Father and son spend the day distressed and bitter. Nettie returns that evening claiming she has been at the movies all day. During the night Timmy and his mother, both unable to sleep, have a talk in which Timmy announces that he
will be leaving the following morning. In the final scene the father implores his son not to leave. Timmy reconsiders after having been able to express his love for his father and decides to stay a bit longer. Yet the futility in trying to change old patterns emerges, and both parents, in their own way, let Timmy know that he had better leave.

System and subsystems

The Cleary family can be divided into three dyads contained within the larger system: father and mother, father and son, and mother and son. Each dyad operates at various levels of complexity. At the defining level each dyadic system undergoes a change as Timmy's return home, as an adult, strains the previously established relationships.

John and Nettie have both a symmetrical and complementary communication relationship. Early in the day as they discuss Timmy's homecoming party each one competes to prove the other one at fault or in the wrong position. The rivalry over Timmy is unmistakable:

John: ... Think he enjoyed the party?
Nettie: He seemed to.
John: First time I ever saw him take a drink.
Nettie: He drank too much.
John: You don't get out of the army every day.
Nettie: He was sick during the night.
John: Probably the excitement.

1Jackson (Lederer and Jackson, 1968) has described this type of dyadic relationship as "parallel". Two people compete in order to avoid being less equal, yet at other times differences are emphasized as one person occupies the more superior, knowledgeable and right position. Reciprocally, the other member occupies the more inferior, less knowledgeable, wrong position.
Nettie: It was the whiskey. You should have stopped him. (p. 6)

But John rejects Nettie's criticism and accuses her of being "ready to repeat old mistakes" and of treating their son like a baby:

Nettie: For a baby he certainly did well in the army.

John: I didn't say he was a baby. I said you treated him like one.

Nettie: You were surprised he did well. You didn't think he'd last a week. (p. 7)

and later:

Nettie: . . . you never understood him. (p. 7)

As Nettie again brings up the drinking of the previous evening she implies John has encouraged his son to drink too much. John is ready to counter attack:

John: You sound like you're jealous.

Nettie: The two of you so busy drinking you hardly paid attention to anyone else.

John: You are jealous!

Nettie: Don't be absurd.

John: He and I got along better yesterday than we ever did before and you're jealous. Well, well, well. (p. 8)

The nature of John and Nettie's relationship is partially revealed in these early morning exchanges. They are mutually critical and at war over their son. Symmetrically they find fault with each other in relation to the son. John's drinking is a clue to a complementary aspect of their relationship, he is often defensive about his outbursts as Nettie takes up the more righteous critical stance. Mutual affection is hard to find in their exchanges, and it is later, by means of their son's presence that each one hopes to gain a more satisfactory relationship with the other.
Timmy and his mother had developed a pattern of alliance against the father which during the next two days begins to break off. Nettie uses this alliance against John:

Nettie: If you're saying I have confidence in him you're right. And why not? Who knows him better. (p. 7)

John signifies his position as an outsider of that dyad as he remarks bitterly:

John: What a charming little breakfast you and he will have together. . . . My ears are burning already. (p. 8)

When Timmy joins his parents at breakfast he jokes with his father, continuing the contact initiated at the homecoming party the night before. Nettie suddenly reminds John that its time for him to go, and after her husband leaves, the style of communication changes as Nettie becomes affectionate trying to maintain the relationship as it was before, and Timmy fights to maintain a less binding one with his mother:

Nettie: I've looked forward to this morning for three years and nothing's right.

Timmy: Why do you say that?

Nettie: Not one thing.

Timmy: What isn't right?

Nettie: Not one thing.

Timmy: Will you please stop?

Nettie: The things you've been saying -- your attitude. (p. 15)

She reacts to the change in the triad attempting to minimize that change by criticizing Timmy. When he exhibits his father's style of humor Nettie exclaims; "I'm surprised at you", or "I never expected to hear that nonsense from you", and finally; "Don't talk to me like that!" (p. 14).

The father and son, as mentioned earlier, are changing the parameters
of their relationship, as well. From a distant, mutually critical relationship, Timmy and his father begin to interact on a new level. Not only have they begun to discard old hostilities, but they express admiration for each other for the first time (to be discussed in a later section).

The Cleary family system is in a state of upheaval as attempts are made to redefine each dyad. The discomfort of changing old patterns describes the uncertain state of the system.

Steady state or stability

The two days at the Cleary home reflect an attempt to change from within the stability or equilibrium of the system. The mother and son have had a close relationship while the father held the distant position.1 Reference to the distance between parents and ensuing conflicts are made by Timmy to his father:

Timmy: All those nights I lay in bed waiting for your key to turn in the door: Part of me praying you'd come home safe; part of me dreading the sound of that key because I knew there'd be a fight. (p. 55)

It is clear that during their son's absence the parents have withdrawn to a safe distance from each other, thereby avoiding conflict. Now that he is back Nettie and John attack each other, Nettie wants to lean on her son as she used to, and John is then left on the far side of an emotional triangle. In the jubilance of his son's homecoming, John, himself, hopes for a change. At a rare moment in the conflict-laden two days, John reveals the expectation that the son will bring him and Nettie closer together; "Now

1Monane (1967) comments on the following phenomenon which relates to the Cleary triad: "In social systems involving three people, two of them are found to combine against the other. These systems form a two-some, corner the flow of energy/information within the system and isolate the one left out (p. 28).
that he's back we'll have lots of good times" (p. 39). Yet Nettie resists her husband's efforts and takes a distancing, one-up position: "What's wrong between you and I has nothing to do with him" (p. 39).

The previous dysfunctional state is brought into question by Timmy. When chastising himself for flaring up at his father, his mother follows the old pattern and consoles him, "It wasn't your fault" (p. 49). But Timmy rejects her comment and remarks satirically "It never is" (p. 48). The old collusion, a structural component of the system, is succinctly expressed by Timmy with a plea for change:

Timmy: That's what we must seem like to him -- an alliance. Always us against him. . . . Why?
Nettie: If you're through eating, I'll clear the table.
Timmy: Didn't you hear me?
Nettie: Evidently, your father's not the only one who got up on the wrong side of the bed this morning.
Timmy: I'm not talking about this morning.
Nettie: There's no need to shout.
Timmy: You, and him, and me, and what's been going on here for twenty years. . . . It's got to stop.
Nettie: What's got to stop?
Timmy: We've got to stop ganging up on him. (p. 49)

But Nettie is unable to comment on the patterns and structure of the family and pleads ignorance. Timmy persists and begins to question, probably for the first time, her relationship with John.

Timmy: You said you never understood him.
Nettie: And never will.
Timmy: Have you ever really tried? . . .
Nettie: Go on.
Timmy: Have you ever tried to see things from his point of view? (p. 49)

After unprecedented accusations of cruelty and selfishness, Nettie leaves abruptly and John later in the day reveals his awareness of the system constraints: "I never thought I'd see the day when you and she would argue" (p. 57).

Thus by their abrogation the previous relationship rules are revealed, simplified for purposes of explanation: Timmy and his mother don't fight, Nettie and John do fight, and Timmy and his father relate to each other indirectly through mother\(^1\), perhaps thereby avoiding and at the same time prolonging their distant relationship. It is precisely here, by redefinition of the relationship between father and son that the equilibrium in the family is upset. The defined range of behaviours are changed. In the following exchange it is not so much the content as it is the nature, or style of coming together that indicates a possible change:

John: ... Can I say something to you?
Timmy: Sure.
John: You won't take it the wrong way?
Timmy: No.
John: I owe you an apology.
Timmy: For what.
John: You were always sick; always home from school with one thing or another. I never thought you'd last in the army.

---

\(^1\)After John and Timmy have breakfast together, John then leaves the apartment, Timmy looks after him and asks his mother, "How's he feeling?" and "How's his business?" (p. 12). Later on when it is clear that Timmy will be leaving home, John asks Nettie to speak to him, "All I want you to do is tell him how you feel" (p. 66). In fact, John is unable to communicate directly.
Timmy: Neither did I.
John: Really?
Timmy: Really.
John: When Doctor Goldman heard they took you he said it was ridiculous. When they put you in the infantry he said it was inhuman.
Timmy: And when I survived?
John: He said it was a miracle. (Both laugh.) I don't think it was a miracle. I think we just underestimated you. . . . Especially me. . . . That's what I wanted to apologize for. (p. 24)

Each item in the above exchange becomes a reinforcement as well as a stimulus for the next item as the skill at conciliation is developed. Timmy and John mirror each other's behaviour and the complementarity is reversed as Timmy says, "The old man wasn't so bad after all" (p. 25).

Timmy: . . . taking into account where you started from, and the obstacles you had to overcome, what you've done is something to be proud of.

John: Well, thank you. (p. 25)
The relationship parameters change rapidly now and John escalates conciliation with a generous offer about Timmy's college education:

John: Speaking of college . . . if you get into one of those big ones and it's more than the G.I. bill pays for, I'll help you out.

Timmy: Thanks. (p. 25)
The Cleary family system is now in what Jackson referred to as a "runaway" (Haley and Hoffman, 1967), a rapidly escalating change within the system. To review events, Timmy and his mother have begun to separate the symbiotic "we" of their relationship, Timmy and his father have begun to redefine their relationship and move closer together, and John and Nettie have had new input into the system by means of the symbolic roses.
By asking his father to pretend that he, himself, brought the roses for Nettie, Timmy has initiated a change in that relationship. Expressions of affection were not within the defined range of behaviour between father and mother as evidenced by their discomfort. Nettie repeatedly mentions the roses while John says: "Are you going to talk about those roses all night?" (p. 32). Yet clearly the gift has an impact and Nettie herself responds affectionately. Thus once a deviation of the relationship rule has taken place, amplification occurs. After a festive evening together John and Nettie are left alone (Timmy has gone to bed) to deal with the change. It is here that the first blow-up, which brings the system back to its homeostatic plateau, occurs.

John escalates expression of affection to the physical realm and Nettie, having at first reciprocated, can no longer keep up nor accept her husband's moves. Her resisting is complemented by his advances and the exchange ends dramatically as Nettie hurls the vase of roses to the floor. The process of change had escalated so rapidly that John and Nettie very quickly grope back for the more comfortable patterns of the past.

The old familiar triangle is called into play the next morning with John critical and distant from both Timmy and Nettie. Timmy tries to extricate himself from the imposing structure, but is unwittingly drawn back into old patterns. It is that very realization, that view of himself as a member of the system, that brings about his decision to leave. He is needed in order to supply life to the system, but is trapped by its limits for change "I know that if I stay two weeks I'll never leave" (p. 68).

As though he recognizes his own role in the rigid configuration of his family, Timmy makes one final attempt to free himself from the limits
imposed by implicit family rules. He attempts one more time to redefine his relationship with his father:

Timmy:  
Listen to me! (Pauses - then goes on quietly, intensely.) There was a dream I used to have about you and I. . . . It was always the same. . . . I'd be told that you were dead and I'd run crying into the street. . . . Someone would stop me and ask me why I was crying and I'd say, "My father's dead and he never said he loved me".

John:  (Trying unsuccessfully to shut out Timmy's words.) I only tried to make you stay for her sake.

Timmy:  I had that dream again last night. . . . Was thinking about it this morning when something occurred to me that I'd never thought of before.

John:  She's the one who'll miss you.

Timmy:  It's true you've never said you love me. But it's also true that I've never said those words to you.

John:  I don't know what you're talking about.

Timmy:  I say them now --

John:  I don't know what you're talking about.

Timmy:  I love you, Pop. (p. 70)

In the above exchange Timmy comments on his own behaviour and also changes it. John attempts to disqualify the message and avoid the redefinition of the relationship with his son by first denying anything was said and then claiming not to understand. Yet after Timmy expresses his love, John is unable to maintain the old distance, and he embraces his son in response. The context of the above interaction is changed by Nettie suddenly emerging on the scene; and, as though on cue, John and Timmy separate, and the father resumes the previously established pattern of distance.

For his part, Timmy has successfully defined a new place for himself in the family. He is no longer trapped and therefore decides to stay home a few more days. Yet his father shocks both Nettie and Timmy, saying: "I'm
afraid that's out of the question" (p. 71). The attempt at change fails. The previously defined range of behaviour prevails as John is unable to allow a recalibration of the system. Timmy must now leave because he is threatening the basic structures of the interactional system. Nettie, for her part, agrees.

Feedback

The Cleary family presents a complex configuration of negative and positive feedback loops. At the subsystem level, variations in interaction are kept within a defined range by what could be labeled "error-activated" responses. For example, when Timmy violates the rules of his relationship with his mother she indicates he is straying from the expected course: "That's not funny, I'm surprised at you", and "What a thing to say" (p. 14). At times when Timmy attempts a change in the relationship with his father, his input is ignored in an effort to halt it.

In relation to feedback Haley (1963) has pointed out that people function as "governors" in relation to one another. Members in a family act upon one another to diminish change, thereby governing the relationship. "When one person indicates a change in relation to another, the other will act upon the first so as to diminish and modify that change" (p. 189). This law of human relationships is evident in the Cleary family. Nettie and John both attempt to correct the variations of output by Timmy.

Timmy, by virtue of his recent absence from the family, seems able to persist in bringing about initial changes. Once an angle of deviation from established relationship rules has been introduced by him, positive feedback loops are evident in what has been described as a runaway in the system. Positive feedback means that deviations escalate. Thus Timmy and John move
closer together in the rapid, mutual exchange of compliments; John, Timmy and Nettie enjoy a rare evening out together; and Timmy and his mother establish a more functional distance in their relationship. At the family system level a recalibration is required, so that new ranges of behaviour can be defined for the system's maintenance. Yet, in the end, the previously defined range prevails. While all families are characterized by some degree of negative feedback in order to maintain functioning, the Cleary's are unable to sustain growth in the relationship arena. Growth requires both positive feedback and recalibration.

The rapid succession of unprecedented changes (deviation amplifying, positive feedback loops) occurring within a short period of time fails to bring a new setting to the system. Were the deviations too great, too sudden? Was the stability of the whole system at stake? Nettie herself puzzles over the interactions of the day:

Nettie: You moved me this afternoon. . . . When you brought the roses, I felt something stir I thought was dead forever. (Regards the roses on the floor.) And now this. . . . I don't understand. (p. 41)

Bringing about change in a rigid, relatively closed, interactional system has been a difficult challenge for not only family members themselves, but family therapists, as well (Haley, 1971).

**Equifinality**

As in the Tyrone family, the Clearys look back at their history as a way of explaining present events. Timmy wonders aloud about the kind of family that would have evolved had his brother not died in infancy; "I wonder what difference it would have made if John lived" (p. 53). Timmy has looked at initial conditions and in turn blames each of his parents for the unhappiness of the family. Yet much the same as Mary does in the Tyrone
family, Timmy resigns from finding causes which determine the family state:

Timmy: When I left this house three years ago, I blamed him for everything that was wrong here. . . . When I came home, I blamed you. . . . Now I suspect that no one's to blame. . . . Not even me. . . . (p. 65)

The present state of the family system has been explained in terms of the present parameters. By observing ongoing interaction the question is not so much how the Cleary family started, but rather what is the nature of its present state. The systems property of wholeness characterizes the family relationships as being more than the individual traits they historically bring into the family. The initial conditions are not unimportant, yet they do not constitute an explanation of present events.

Summary

The Cleary family maintained a relative interactional constancy until the need for growth and change occurs when Timmy returns home as a young adult. The system undergoes a state of disequilibrium which is, in fact, an essential requirement for growth and change. Recalibration in terms of newly defined ranges of behaviour fails on the level of the whole family system. Yet important changes do occur at the subsystem level between Timmy and his father and mother as a change in one part of the systems effects changes in other parts.

Even though the attempt at change in Nettie and John's relationship fails, the undertaking was only possible with new input into the system provided by Timmy. The drama ends with Timmy withdrawing from the family, and his position within the system's parameters is left open to speculation.
CHAPTER V

DISCUSSION

The implications of the analyses of the Cleary and Tyrone families center around their organization as systems. It is apparent that the members of each family are "elements in interaction". The search for patterns in the interaction has produced a complex of subsystems with the organization of one hinging on the functioning of the other. The descriptions of each family strongly reflect the property of wholeness, with a change in one part leading to a change in other parts. The families function as interacting networks, wherein each member influences the nature of the entire system and is, in turn, influenced by it.

When Timmy colludes with his father about a gift of roses, he sets into motion a series of changes which, in the end, affects him as well. When Mary's communication with her family reveals her retreat to drugs, the rest of the family succumbs to alcohol. The general relationships are determined not so much by what is said, but rather by the nature and pattern of the interactions. When Nettie tries to comfort Timmy after his fight with John, he rejects her support; the content is not as important as the fact that Timmy is distancing himself from the previously protective relationship with his mother. When Tyrone and Mary verbally assault their son Jamie, the reasons for the attack are not as relevant as is the fact that there is a repeatable pattern of assault.

The order of essential parts of a system is evidenced in the organization of interaction in both families. Jamie and Edmund maintain repeated interactive balance in a setting that attempts to upset that balance. Nettie, John and Timmy present an established pattern of relating which in-
volves an overly close twosome and a distant third. During the course of the plays, sequences begin to vary for both families and the order undergoes a change as increased information exchange requires an organizational shift. Pre-established limits are maintained by both the Clearys and the Tyrones as evidenced by the feedback-governed, error-activated properties of the system.

The Tyrones and Clearys attempt to govern the range of interaction by either correcting or disqualifying messages, by redefining relationships. In the Cleary family a new point of equilibrium fails to evolve as John and Nettie resist change by attempting to bring Timmy's behaviour back into congruence with previously existing standards.

The need for change or recalibration in the Tyrone family is evident in the breakdown of functioning of all members. The constancy or stability, a defined range of potentially destructive, mutual accusations, reveals the need for change. The Tyrones seem incapable of altering the basic interactive structure and organization of the family in order to survive at a more functional level.

Structural similarities between living systems, in general, and the Cleary and Tyrone family systems in particular, are evident in the properties of wholeness and relationship. Each family is organized according to certain relationship rules which have evolved over time as ceaseless activity defines a certain constancy. The relationships "tie the system together" and are revealed in the ongoing interaction between each of the family members. In general, the family-as-system model is demonstrated in the descriptions of interaction of the two families; yet, specifically, it is not always obvious how to translate systems characteristics to family interaction data.
The problem of applying the theory is due in part to its abstract, at times elusive, nature. While it emphasizes those aspects of objects or events derived from general properties of systems, "simple definitions do violence to its richness, while rigid definitions stifle its growing and developing nature" (Gray et al., 1969, p. xvii). The question is whether the theory is useful for describing and understanding the complexity of living processes such as the family.

As shown, a systems approach provides a powerful method for describing many interrelated events. It does not necessarily replace the specific theories of specialized disciplines yet it does present a model for describing the general relationships of family dynamics. It is not suggested that specific theories in the area of family interaction are to be rejected; in fact, the need for more specialized concepts becomes evident in an analysis of the intricacies of communication. At each level of abstraction, however, there is an optimum degree of generality (Boulding, 1957) and systems theory provides the breadth and emphasis needed to represent the complexity and interrelatedness of behaviour.

In an effort to specify exactly what it means to say that the family is a system, the attempt has been to display the system characteristics of the family. The interactions were not distorted for purposes of vigorous application, though some interactions were condensed for the sake of brevity. Not all of the principles introduced in the conceptual framework were applicable in the analysis of the two families. For example, entropic and negentropic processes were only implied by the descriptions of order and organization compared to distribution at random. Both families revealed a patterning and interrelatedness characteristic of the organized complexity of
systems in general. Although stability was discussed in relation to some of the error-activated, self correcting-properties of the system, the observation of the steady state of Bertalanffy's "autonomously active system" would require longitudinal data of a family case history.

The restrictions imposed by the data from family plays, and the limitations of this type of analysis, in general, should be noted. First, in selecting two family dramas the focus, in this instance, is on family interactional phenomena, which means that other phenomena are inadvertently deselected. For example, interpersonal occurrences in the Tyrone and Cleary family systems do not provide illustration of how these occurrences connect with the larger framework of society. Thus, not much evidence is offered as to how the family interacts within the broader context of its environment. There are, therefore, contextual variables which are not specified because the interaction data is limited to the family system boundary. A systems view would require some specification of suprasystem elements, in that any system is dependent on the functioning of the larger system of which it is a part. However, the risk of generality without specific content would then be a foreseeable problem.

Second, during the selection process it was found that families in stress provide a vivid picture of interaction patterns. A threat to the stability of the family brings homeostatic-like mechanisms into play and reveals the control aspects of systems maintenance. The abrogation of relationships rules reveals the nature of the rules themselves and signifies stress at the same time. In one respect the Cleary and Tyrone families do not represent the smooth organization of a perhaps "healthier" system, yet systems function at all levels of efficiency from optimum functioning to
total dysfunction or failure. The inadvertent deselection of less stressful family situations is not seen as a disqualification of principles observed.

Finally, a more specific restriction encountered relates to interaction as verbal and nonverbal communication or behaviour. The communication patterns of the families observed were restricted to the verbal realm with accompanying descriptions of nonverbal behaviour. To help overcome this limitation, emphasis and styles of delivery presented by the author were included, whenever possible, in the examples given.

On a theoretical level an overriding but necessary limitation was that the conceptual framework presented was based on selected components which Bertalanffy, the primary author of general systems theory, regarded as significant to an organismic conception. It did not, however, include all the components which have been identified with general systems theory by him or others. The scope of this work did not allow for an extensive, all-inclusive application of systems components; the holistic perspective of Bertalanffy's work is maintained by emphasis on organized complexity and dynamic interaction of variables. As a theory, general systems theory presents a set of principles which explain living things. As a conceptual framework it presents a set of concepts from which to approach interactional variables.

What has been presented in the analysis of the family plays is essentially a way of seeing. The unit of analysis is the system itself. The perspective is one of individuals in relationship to other individuals. The view is the picture of families, which therapists have only recently begun to observe, but which the playwright has known all along.
APPENDIX


(The following plays were indexed under the category: *Family Life*)

All my sons
All summer long
All the way home
The amazing Abernathys
The American dream
Anna Lucaster
Anniversary waltz
Background
The bees and the flowers
Big brother
Billy Liar
The brass ring
Cat on a hot tin roof
Cheaper by the dozen
Comes a day
The cream in the well
Dear Charles
Dear me, the sky is falling
The diary of Anne Frank
Edward my son
Family circle
Father knows best
Father of the bride
The five dollar bill
Five finger exercise
Flight into Egypt
Flowering cherry
The flowering peach
The 49th cousin
Four twelves are 48
The fourposter
The glass menagerie
The Goldbergs
Good housekeeping
The great American family
The Hallams
The happiest millionaire
The happiest years
The happy time
The hidden river
High button shoes
A hole in the head
The holly and the ivy
Home is the hero  
I know my love  
I remember Mama  
Juno and the paycock  
The keep  
Life with mother  
The linden tree  
Listen, professor  
Little scandal  
Long day's journey into night  
Look homeward, angel  
Love and kisses  
Matilda shouted fine  
Me and Molly  
Meet me in St. Louis  
Melody Jones  
The member of the wedding  
Middle of the night  
Mr. Hobbs' vacation  
My mother, my father and me  
A new life  
The orchards of Polovchansk  
The penny  
Period of adjustment  
The phoenix and the dwarfs  
Power without glory  
A raisin in the sun  
Ransom  
The remarkable Mr. Pennypacker  
The rich full life  
The rope dancers  
Sabrina Fair  
The same sky  
Seven times Monday  
The sin of Pat Muldoon  
Strange bedfellows  
Summer days' dream  
Summer scene  
This happy breed  
Three's a family  
A touch of the poet  
A tree grows in Brooklyn  
A very special baby  
The wall  
When Joe comes back  
Who's batty now?  
Wild horses  
The years of Pilar  
Years ago  
Years between  
Young man of today  
Your money or your wife
Smarden, Laurence E. The use of drama in teaching family relationships.


After the fall
All my sons
All summer long
All the way home
Be your age
Black chiffon
Blue denim
Christopher Blake
Come back, little Sheba
The dark at the top of the stairs
The days between
Dear Ruth
Death of a salesman
Five finger exercise
For love or money
The fourposter
A gift of time
The glass menagerie
The happy time
A hatful of rain
The heiress
I know my love
I remember Mama
John loves Mary
Life with father
The little foxes
Long days journey into night
Luv
A majority of one
Middle of the night
Mrs. Dally has a lover
Natural affection
Not quite a love song
Our town
Period of adjustment
A raisin in the sun
A roomful of roses
The rope dancers
The shrike
The silver cord
Strange interlude
The subject was roses
Take a giant step
Take her, she's mine
A very special baby
Who'll save the plowboy
Who's afraid of Virginia Woolf?
The wooden dish
A worm in horseradish


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