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## ABSTRACT

The conceptual framework of the family presented in this paper views the family as a reality in itself. The four-dimensional energy field that is the family system is a living open system, a dynamic whole engaged in mutual and simultaneous interaction with a four-dimensional energy field that is the environment. The family system is patterned and organized; it evolves unidirectionally and irreversibly through space-time; it is sentient and thinking. It was postulated that the family system is described and explained by the principles of helicity and resonancy, and that these principles predict the evolution of the family system. The properties and principles of the framework provide a model which is useful for the field of family study. An example of the incorporation of family development theory into the framework was presented, as was a research example, with substantive theory and hypotheses derived from the model. (Author)

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The Family As A Living Open System:  
An Emerging Conceptual Framework\*

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## Introduction

As the field of family study evolves, the need for conceptual frameworks which accurately describe, explain, and predict family interactions becomes more obvious. While many frameworks have been advanced in the past (see Nye and Berardo, 1966), most have not sufficiently accounted for the complexities of family life in the real world (Broderick, 1971).

Increasingly, general systems theory has been viewed as a more comprehensive base for models of family interactions. Several theorists and researchers have begun to utilize systems theory in their work with families (Bowen, 1966; Watzlawick, et al., 1967; Lederer and Jackson, 1968; Speer, 1970; Kanto and Lehr, 1975; Lewis, et al., 1976). This trend has supported Broderick's (1971) contention that the systems approach fosters a conception of the family as a complex system and provides an opportunity for incorporation of other theoretical models.

General systems theory also provides the base for the conceptual framework of the family presented in this paper. However, the framework is unique in that the family is viewed as a system of coextensive four-dimensional energy fields engaged in a complementary relationship with the energy field that is the environment. This conceptualization precludes many of the basic concepts usually found in models using systems theory, such as feedback, adaptation, and steady state. The framework represents the continuing effort of the writer to conceptualize empirical observations of family life. It is an emerging model of the family and its relationship with the environment, making no pretense of being complete at this time. The framework is an abstract one, from which substantive theory and testable hypotheses may be derived.

### The Framework

The conceptual framework is based upon the assumption that the energy field is the fundamental unit of life (Rogers, 1970). This assumption identifies the energy field as more than an electro-dynamic biological field (Burr and Northrop, 1963) or a psychological field (Lewin, 1951; Benedek, 1970). Rather, the energy field is a four-dimensional field differentiated from other fields by imaginary and artificial boundaries.

The central concepts in the model are the system and its environment. Hall and Fagen (1968) claimed that a system and its environment comprise the universe of all things of interest in a given context, and that the division of the universe into system and environment is arbitrary, depending upon the intentions of the investigator.

A system is defined as a set of components together with relationships between the components and their properties (Hall and Fagen, 1968:81). A family is a system because it is composed of interrelated parts. The basic family members (e.g., children, relatives) are added. The components of the family system are the individual family members, whose properties are those of four-dimensional energy fields. The family system itself is a four-dimensional energy field, "a complete organism, a unity in its own right, as real as an individual." (Howells, 1972:127).

The system has an environment, which is defined 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 (Hall and Fagen, 1968:83). The environment is also a four-dimensional energy field. In this conceptual framework, the individual family member is a system whose environment is the family system. The environment of the family system is the larger society,

the culture in which it is located. As four-dimensional energy fields, the individual family members and the family system are engaged in complementary relationships with their respective environments.

The properties of four-dimensional energy fields in general, and of the family system in particular, are wholeness, openness, unidirectionality, pattern and organization, sentience and thought (Rogers, 1970). The family system is an integral, unified whole, more than and different from the sum of its parts. It is not simply a group of individuals, but rather a system of relationships that is new, emergent, unique. The characteristics of the family system cannot be completely explained by the." (Herrick, 1956:51). The behavior of the family system is coherent and inseparably whole. All phenomena within the system are part of the system as a whole (Watzlawick, et al., 1967; Howells, 1970). The unified whole of the family system interacts with the unified whole of the environment. This interaction cannot be fully explained by reducing it to component parts, although it may be convenient at times to deal with specific types of system-environment interactions.

The family system is a living open system engaged in mutual and simultaneous interactions with the environment. Since the family is an open system, any change in one family member is accompanied by changes in the other members (Bowen, 1966; Watzlawick, et al., 1967; Iederer and Jackson, 1968).

The family system moves through space-time unidirectionally and irreversibly. It is a negentropic system, tending toward increasing order, complexity, and heterogeneity. The family system is constantly becoming, constantly evolving, constantly increasing its differentiation (Speer, 1970; Lewis, et al., 1976).

The family system is patterned and organized. Pattern and organization are the observable properties of a system, identifying it and reflecting its wholeness (Herrick, 1956). The pattern of a family system is unique. It is never complete, but rather is fluid and everchanging. Changes in pattern are effected by the mutual interactions among family members (Bowen, 1966; Hess and Handel, 1967) and between the family system and the environment.

The family system possesses the capacity for abstraction, imagery, language, thought, sensation, and emotion. It is sentient and thinking. It is these capacities that serve as shapers of the mutual and simultaneous interactions among family members and between the family system and the environment.

The properties of the family system which have been presented underlie the formulation of certain principles, which while subject to verification in the real world, "postulate the way the [family system] is and predict the nature of its evolving." (Rogers, 1970: 96). The principle of helicy is defined as "a function of continuous innovative change growing out of the mutual interaction of [the family system and the environment] along a spiralling longitudinal axis bound in space-time." (Rogers, 1970:101).

The principle of resonancy hypothesizes the change in the pattern and organization of a system and its environment is propagated by waves (Rogers, 1970:101-102). The pattern of the energy fields that are the family system and the environment is a wave phenomenon encompassing the totality of both fields.

These principles, along with the properties of the family system previously discussed, form the conceptual framework of the family developed by the writer. It is believed that this model of family system-environment interaction has many implications for the field of family study. For the purpose of clarification, two examples will be presented.



As noted earlier in the paper, the conceptual framework is an abstract one. However, it is maintained that many well-established theories of the family may be useful in explaining parts of the family system-environment relationship, as long as the artificial dichotomies engendered by these theories are recognized. Family development theory was chosen to illustrate how a particulate theory may explain some aspects of the family system-environment relationship.

The family has a life cycle, just as the individual does. Duvall (1971: 112-113) stated, "Much as an individual grows, develops, matures, and ages, undergoing the successive changes and readjustments from conception to senescence, . . . , so families likewise have a life cycle that is seen in the universal sequence of family development." The family system evolves unidirectionally and irreversibly along the continuum of its life cycle. Development is negentropic, such that the pattern and organization of the family system becomes more complex and differentiated as the life cycle progresses.

The life cycle of the family system may arbitrarily be divided into stages. The divisions are for the purpose of study and may be operationally defined by the investigator. Although "each stage has its beginnings in the phases that are past and its fruition in development yet to come" (Duvall, 1971:118), each stage is unique; each an expression of the totality of events present at that point in space-time. And, because the pattern and organization of the family system constantly change as the system interacts with the environment, there is no repetition as the family progresses through its many stages.

Both the family system and individual family members have developmental tasks to master during their life cycles. As these tasks are undertaken, the pattern and organization of both individual family members and the family

system change. Change in any one member of the family effects change in the other members and in the system as a whole. The rate of change in pattern and organization varies throughout the life cycle of both individual family members and the family system.

It may be seen, then, that family development theory helps to explain certain aspects of family life within the context of the model of the family as a living open system.

It was noted earlier that the abstract nature of the framework fostered derivation of substantive theory and testable hypotheses. A study recently completed by the writer will serve as an example (Fawcett, 1976). A theory was derived from the concepts of openness, pattern and organization, and mutual and simultaneous interaction within the family system. Using identification as an empirical indicator of mutual and simultaneous interaction, it was hypothesized that spouses' strength of identification was positively related to the similarity in their changes in body image during and after pregnancy. Results indicated that multiparous wives and husbands demonstrate similar changes in the amount of space they perceive the bodies to occupy from the eighth month of pregnancy through the second postpartal month. However, strength of identification between spouses could not be demonstrated to be a mediator of those changes. The findings of the study suggested that the more abstract theory of mutual and simultaneous change in pattern and organization was supported, but that identification was not an appropriate indicator. Current research efforts are being directed toward exploration of role relations as a more appropriate empirical indicator.

#### Summary

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is the family system is a living open system, a dynamic whole engaged in mutual and simultaneous interaction with a four-dimensional energy field that is the environment. The family system is patterned and organized; it evolves unidirectionally and irreversibly through space-time; and it is sentient and thinking. It was postulated that the family system is described and explained by the principles of helicity and resonancy, and that these principles predict the evolution of the family system.

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