

**SYSTEMIC MODELS FOR HOME ECONOMICS RESEARCH
AND APPLICATION**

David R. Imig	3	Family Process Paradigms: A Means for Facilitating Conceptual Synthesis in Home Economics
Scott D. Wright	5	Toward a Family Ecology
Donald A. Herrin	9	An Ecological Model of the Family
Margaret P. Ray	12	Family Functioning and Resource Management: Two Views of One Dynamic
Alma J. Owen	14	Family Systems Process and Behaviorally Based Design: An Integrated Model
Ronald G. Phillips	16	Using Family System Theory for Interior Design Research
Sandra J. Evers	18	The Individual System: Character, Change, and Context
James D. Moran, III	20	A Commentary on the Quest for a Single Theoretical Framework for Home Economics
Janet K. Sawyers	22	The Search for Theory in Home Economics
John C. McCullers	2	Kappa Omicron Phi Fellowships and Project Grants
James D. Moran, III	2	Omicron Nu Fellowships and Project Grant
David R. Imig	23	Call for Papers



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Family Process Paradigms: A Means for Facilitating Conceptual Synthesis in Home Economics

David R. Imig

The continuing efforts to facilitate integration through theory building in Home Economics is in many ways a function of conceptual maturation. Bloom (1956) hypothesized that cognitive learning from a developmental perspective progresses from the simple to the more complex in a stage or hierarchical manner (i.e., knowledge, comprehension, application, analysis, synthesis, and evaluation). Theory building in Home Economics represents an effort to integrate the diverse subject matter areas and research findings at the synthesis level. Central to this process is the issue of strategy.

Burr et al. (1979) discussed the failure of an attempt to *inductively integrate* theoretical diversity into a higher order theory of the family. It appears, given the lessons learned by family scholars, that home economists would have much to gain by rejecting the inductive methodology for building theory. Certainly there are a number of well established theories that could be used to synthesize the diverse research findings, propositions, and models found in Home Economics. The most immediate challenge confronting scholars is to debate the relative merits of theories to serve as the focus for such deductive theory building.

In the spirit of this challenge, the purpose of this article is to consider the essential concepts of one specific variation of systems theory (Kantor and Lehr's descriptive theory of family process, 1975). The legitimacy of using a family focus and a systems orientation for theory building in Home Economics has been previously discussed (Hill, 1984).

Kantor and Lehr — Constantine Family Process Theory

A basic premise of Kantor and Lehr's descriptive theory is the explanation of how families function in the commonplace — the dynamics of families as they make day-to-day decisions and solve problems over the course of time. This decision-making perspective is consistent with the stated mission and intent of Home Economics. Kantor and Lehr introduced

five major concepts to explain family process; access dimensions, target dimensions, family types, family subsystems, and player parts (See Figure 1). Larry Constantine, a former student of David Kantor, expanded upon these concepts (Constantine, 1986).

The core of the family systems paradigm is comprised of the four *Access Dimensions* of time, space, energy) and matter (i.e., material goods) as the primary resources, and the four *Target Dimensions* of affect, control, meaning, and content as the family's principal goals. All family transactions take place within this four by four resource-goal matrix. The access dimensions provide the descriptive substance of the management strategies and processes families employ in their effort to achieve valued goals (targets).

The family consists of personal (individual), interpersonal (dyads, triads, etc.) and the family-unit *Subsystems*. Each subsystem develops strategies intended to achieve goals important to its system. For enabled families the strategies would be consistent with the families overall homeostatic ideal design or *Family Type* (closed, open, random, synchronous). Families become disabled when the strategies become competitive and, unintentionally but systematically, deny access to the intended tar-

gets. The family types have different primary themes that guide the behaviors and interactions of the family members, as well as the interaction of the family with the larger environment. The closed families core purpose is stability through tradition. Be strong and self sufficient, but have faith in the meanings of the family. The open family values adaptation through consensus and negotiation. A family must be free to fight if it is to be free to love. The random family espouses exploration through intuition. Ownership is like imprisonment, and doing your own thing is important. The synchronous family strives for harmony through identification. Be of one mind, cooperation without conflict, and continuity without process characterize this family type.

Family member interaction is described in terms of *Player Parts* (mover, follower, opposer, bystander). Movers set the strategy to be used in determining the access dimensions for achieving selected targets. Opposers and bystanders provide checks and balances for the system by monitoring the mover. Followers empower both movers and opposers. The psychopolitics of the family involves the distribution of resources to subsystems to achieve targets in a manner consistent with the family type.

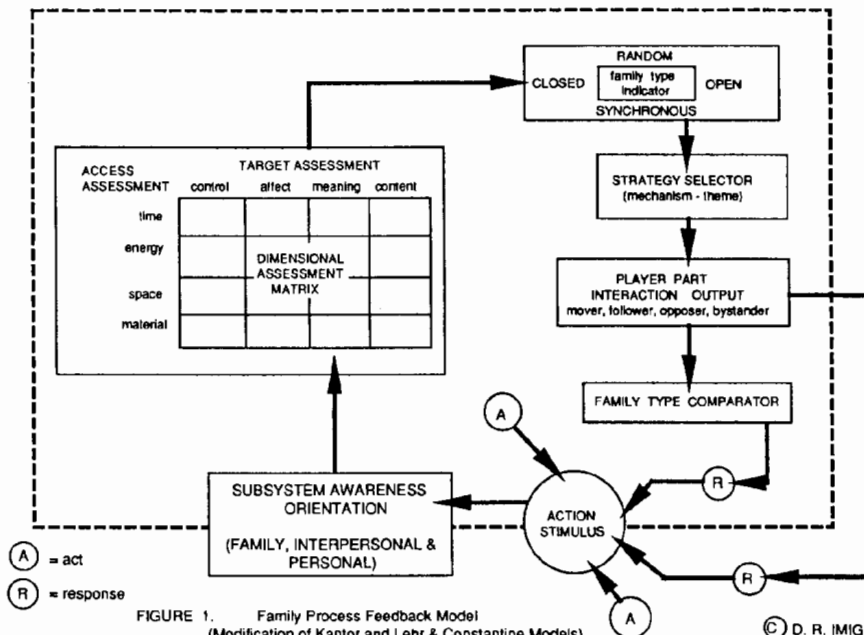


FIGURE 1. Family Process Feedback Model (Modification of Kantor and Lehr & Constantine Models)

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The General Synthesis of Home Economics

The systems theory briefly described above can be used by home economists in several ways to facilitate the task of theory building. First, it can serve as an orienting or conceptual framework to catalog what is known. Hill (1984) argued that the Kantor and Lehr systems model contained concepts historically representative of Home Economics. Family economics/resource management, for example, focuses on time, financial management, household production, and consumerism as processes central to effective family decision making. Housing/interior design studies the influence of space and the arrangement of material objects within that space as related to meaning, control, and interpersonal relations. Clothing/textiles addresses the symbolic influence of apparel in the development of self-concept and identity. Human nutrition focuses on affect and control behaviors as related to the under and over consumption of food as a primary material source of basic energy and symbolic meaning. Familychild studies focuses on the development of affect as a consequence of the quality of interpersonal interaction (marriage and parenting) within the family environment.

Secondly, conceptual advancement could be achieved by identifying the major findings from each of these subject matter areas. What do designers know about space and how it influences affect, meaning, or control in the course of interpersonal interaction? How is the time related to meaning, control, and affect? How does affect influence the processes of giving and getting energy? Can the material environment influence one's sense of perceived control? One can only speculate as to the number of hypotheses that could be generated and probably answered by the integrated Home Economics data-base as it now exists.

Building Depth of Understanding

The systems theory described in this paper is not advocated as the "end all-be all" but as a starting point for the process of conceptual integration and theory building in Home Economics. All of the subject matter areas in Home Economics could, if so inclined, add considerable depth and breadth to each of the components comprising the Kantor and Lehr/Constantine theory. The time management studies conducted by those in family management could enrich the time access mechanisms and submechanisms discussed by Kantor and Lehr. They virtually ignored the material aspects of family process. Constantine added matter as a fourth access dimen-

sion instrumental to family processes. Interior designers, clothing, and family management scholars have developed considerable insight regarding the contributions of artifacts and materials to family interaction and decision making—insight and depth far beyond those offered by Kantor and Lehr or Constantine.

Kantor and Lehr only marginally discussed the external environment as a factor in family process. Home Economics within the past several decades has purposefully included the ecosystems concept to describe the family's interaction with the external environment. It would be logical to explore the conceptual contributions that other theories might make to this ecosystems perspective. Bronfenbrenner's (1979) work in describing different system levels (i.e., microsystem, mesosystem, exosystem, and macrosystem) could be integrated with Kantor and Lehr's family process theory to provide a multilevel systems framework. Bronfenbrenner also addresses the influence of development on systemic processes. Constantine goes beyond Kantor and Lehr's discussion of developmental processes, but much could be gained by integrating Bronfenbrenner's theory.

Checking for Omissions

A major contribution of the Kantor and Lehr framework was the description of different family types. They observed that not all families used resources to achieve goals in the same manner. Affect (intimacy and nurturance), control (efficiency), meaning (sense of identity), and content (a sense of knowing) vary in importance and have different connotations to each family type. For home economists this means that the family decision-making strategies are fundamentally different. Consequently educational and intervention programs designed to assist families ought to reflect these differences. One example of the application of family type to problems relevant to Home Economics involves the study of people enrolled in a weight control program (Barbarin & Tirado, 1985). Dieting programs involving support groups were apparently more effective for individuals from open rather than closed or random family types.

A logical question to study regards the family types that home economists have studied, or not studied, in developing conclusions about family decision making and family functioning. Have we unknowingly espoused an ideal family type while excluding or demonstrating bias towards others? In family studies, research points to the open family type as the ideal. Communications, open feedback, adaptability, flexibility, and consensus are important

attributes of the healthy family. Yet in family management, it seems to this observer that the closed family type is favored. No subject matter area, however, seems to address the functioning of the random or synchronous family types.

The Purpose of this Special Issue of FORUM

The following articles presented in this special issue of *Home Economics FORUM* were selected because each, in a unique way, attempts to apply a systemic perspective to a Home Economics related issue, topic, or subject matter area. The Wright and Herrin paper presents the background rationale for why Home Economics ought to use an ecosystems framework. Ray discusses the contributions of Bronfenbrenner, Kantor and Lehr, and Reiss for developing a multidisciplinary theory. The Evers and Phillips papers consider the influence of environment, design, and material artifacts on the family. Owens compares family resource management with family functioning and asks the reader to consider the importance of family type when developing decision-making and management principles. Moran and Sawyers discuss the need to conceive of human development within a contextual and integrative (systemic) change oriented focus. Finally, McCullers provides commentary on the promises and pitfalls of the task of the theory building in Home Economics.

In the behavioral and social sciences the implementation of innovation is a slow and laborious process. Professionals often respond to innovation by defending their own paradigms rather than opening their conceptual boundaries and objectively considering a new and different perspective. This, it seems, is the conceptual challenge being presented to home economists in this special issue of FORUM. Home economists are being asked to consider a different perspective of how to approach the issue of integration in Home Economics. We challenge you to read with an open mind; to compare and contrast your understanding of your subject matter interests with those of the models and descriptions discussed; and to expand your knowledge-base by reading original sources, by forming discussion groups within departments, and by sharing working ideas in classes. Professionally it is important to get involved by participating (not just observing) in conference sessions, by presenting papers, and by submitting manuscripts that question, expand, or present alternative models. By engaging in this process you will be constructively contributing to the synthesis of knowledge in Home Economics.

References on Page 17

Toward A Family Ecology

Scott D. Wright and
Donald A. Herrin

Our concern in this paper is to present a conceptual framework for understanding the complexities of family dynamics: the link between the principles of ecology and the study of the family. What is at stake for all who have an interest in the scholarly understanding of the family is whether ecology has become a tempting Zeitgeist or a conceptual force to be reckoned with for decades to come. The current interdisciplinary interest is further sparked by the increasing awareness that family dynamics can be understood best from a multicontextual/dialectical process of interconnections within and surrounding the family system (Andrews, Bubolz, and Paolucci, 1980; Belsky, Lerner, and Spanier, 1984; Bronfenbrenner, 1977, 1986; Milner, 1987; Kilsdonk, 1985; Hill, 1981; Riegel, 1976; Whittaker, Schinke, and Gilchrist, 1986).

The application of ecology as a conceptual approach to the family is, of course, not as novel or recent an event as one might believe. The presence of an ecological consciousness about the family and its interactions with various environments can be traced back to the turn of the century, as is evident from the proceedings of the American Home Economics Association Lake Placid Conference (1902). From this auspicious beginning, we assumed strong ecological underpinnings in family studies throughout the century. Recently, this lineage culminated in colleges and departments of Home Economics becoming realigned with the label *Human Ecology*. Yet in retrospect, the link of ecology and family studies appears to have reascent qualities.

Furthermore, given that ecology and [home] economics are derived from the same Greek word *oikos* (or house), one should feel comfortable that the spirit of the meaning of ecology is as highly appropriate to the study of the family and home environment as it is to the natural environments in botany and zoology. Yet, as more disciplines claim an ecological perspective in their approach, Home Economics (and its traditional study of the family, child, and home) has been cited as attempting to co-opt human ecology (Young, 1983).

It remains to be seen whether or not the

label of human ecology is merely a name-switching ploy to advertise the modernization of Home Economics or a genuine epistemological endeavor with historical justification. We agree with Young (1983) that no attempt should be made by any discipline to monopolize human ecology for its own exclusive use. We believe that the synthesis of an ecological perspective is at a crossroads in the field of Home Economics and in family studies. Acceptance of what human ecology is conceptually, and how it should be used as a framework for the study of the family and home environment, is still in a state of flux.

In trying to sort out the jurisdiction of ecology, it would be helpful to identify the sources and historical foundations which could help to clarify the conceptual issues in ecology that seem to plague current interdisciplinary endeavors. Yet we must heed the caveat of "retrospective ecology" (McIntosh, 1985), because trying to identify a direct lineal connection in ecology is bound to be a difficult task when it has recognized multiple origins.

Ecology emerged at first as an informal science without its founders recognizing the great potential that ecology would play in future scientific inquiry. Furthermore, when looking back in a historical perspective, it is easy to see that just about everyone was doing something similar to what later came to be recognized as an aspect of ecological science (McIntosh, 1985). This complicates the matter of trying to find the original source of ecological thought. If the emergence was fragmented among the various founders of ecology, it is very clear that botany (a branch of biological science) provided the catalyst in the 1890's for ecology to become a tangible discipline with scientific credentials (McIntosh refers to this as the crystallization of ecology). Other subdisciplines such as marine biology (oceanography) and limnology (freshwater biology), and then finally zoology, began to integrate ecological principles within their scientific methodology.

In 1935, A.G. Tansley, a British botanist, provided impetus to the field of ecology by introducing the term *ecosystem* as a distinct level of analysis in a hierarchy of biological systems which are omnipresent on earth. Although many competing terms were also proposed to describe a unified study of the interrelationships among plants, animals, and their environments, ecosystem became the choice concept among ecologists to encom-

pass the whole complex of biotic community and physical environment (McIntosh, 1985). The new ecology as it progressed in the 1950's and 1960's was becoming a systems ecology which then was transformed into a more purified form of *ecoenergetics* as represented by flow charts resembling energy circuit diagrams by H. T. Odum (1971; 1983) and E.P. Odum (1968).

McIntosh (1985) pointed out that the ecosystem concept itself was perceived to be inadequate until cybernetic and general systems theory were integrated in ecosystem analysis. This new and revolutionary integration of systems theory with ecology not only produced a higher technical level of analytical sophistication but also enhanced confusion over the use of ecology and its related terminology. For example, terms such as ecosystem ecology, ecosystem analysis, analysis of ecosystems, and systems analysis were bounced around in biological and mathematical/engineering camps. McIntosh (1985) stated that ecosystem ecology (or the study of ecosystems) took many forms and not all of them recognized it as the hybrid of ecology and systems analysis. It became apparent that ecologists were being challenged by the more complex analysis of *ecoenergetic ecology* which involved a curious mix of biology, chemistry, and physics. As a result, systems ecology by the 1960's and 1970's had infiltrated ecosystem ecology and brought with it a whole host of new ideas, techniques, and some would say a new philosophy (McIntosh, 1985).

Ecosystem had become the premier ecological concept that not only had biological applications but permeated throughout theoretical studies in sociology (Micklin and Choldin, 1984b), in anthropology (Moran, 1984b), and in family studies (Andrews, Bubolz, and Paolucci, 1980). But despite the heralded match between systems thinking and ecology and the resulting impact on ecosystems analysis, some ecologists have wondered where the ecology went in systems ecology.

Although the historical foundations of human ecology are less well defined before the 1920's, its emergence appeared to have crystallized in the discipline of sociology as evident in the early writings of Robert E. Park, Roderick McKenzie, Ernst Burgess, and their students (Micklin, 1984). In fact, Park, Burgess, and McKenzie are widely recognized as the founders of human ecology (Young, 1974).

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Human ecology (as a subdiscipline of sociology) used many bioecological concepts which resulted in a true interdisciplinary interchange, but eventually human ecology separated from the mainstream of ecological thought (Hawley, 1944, 1986; Young, 1974, 1983a). Hawley (1944) recognized that although some social scientists followed the interdisciplinary path (biology and sociology), the exchange of terminology was pursued at the expense of theoretical unity. Many other social scientists felt that human ecology was being promoted as a discipline that should develop independently from other branches of ecology (Hawley, 1944). The position that a human ecology differs from a biological ecology (that includes humans) is at the very heart of the conceptual confusion in ecology. For example, human ecologists are very well aware of the conceptual contributions of the parent discipline to a socioecology, but many would argue that other concepts beyond the bioecological level are needed to understand the uniqueness of men and women in relation to physical and cultural environments.

One of the fundamental barriers toward developing human ecology as an interdisciplinary concept is the lack of any transdisciplinary acceptance for concepts that could potentially unify the various disciplines. Young (1974) viewed the *interaction* concept as having the potential for being the basic, unifying human ecological concept across many disciplines. We also believe that interaction has great potential as a unifying concept, but currently the commonality that appears to permeate the majority of disciplines using an ecological paradigm is ecosystem. As Young (1974) pointed out, ecosystem is now generally recognized as the fundamental unit in ecological analysis. It has even been suggested that ecosystem has attained paradigmatic status as a result of the concept becoming so entrenched in the normal science of ecology (see Kuhn, 1970).

Golley (1984), in reviewing the historical origins of the ecosystem concept in biology, credited Eugene Odum with modernizing the concept of ecosystem for usage in both pedagogic and research spheres. The modernization of ecosystem was also dramatically influenced by the integration of both systems analysis and cybernetics (Golley, 1984; McIntosh, 1985). What then emerged from this hybrid was a systems ecology which was represented in the works of Bernard Patten (1975), George Van Dyne (1969), Kenneth Watt (1966), H.T. Odum (1971), and others involved in large scale studies that McIntosh (1985) aptly described as big biology. With sys-

tems theory firmly integrated within ecology, ecosystem ecologists became more focused on the functional attributes of the ecosystem such as ecoenergetics, the measurement and analysis of input/output dynamics of matter and energy (McIntosh, 1985; Odum, E.P. 1968; Odum, H.T., 1971).

In Home Economics and human development/family studies, ecological concepts have played a major role in theoretical frameworks for understanding family dynamics (Bronfenbrenner, 1977, 1986; Andrews et al., 1980; Edwards, 1985b; Bubolz and Whiren, 1984; Deacon and Firebaugh, 1981; Kilsdonk, 1983; Paolucci, Hall, and Axinn, 1977). However, the issue that we have confronted is that while the ecosystem concept is used throughout the social/behavioral sciences, there is some uncertainty as to whether the bioecological concept of ecosystem can be applied to human populations (Micklin and Choldin, 1984a). In other words, the borrowing of terms in an interdisciplinary manner does not assure an isomorphic meaning or utility in one discipline to the next. What works well in biology may not work so well in the social sciences.

Young (1974) anticipated the difficulties of applying the ecosystem concept and the potential conceptual confusion within human ecology by addressing the following questions:

- How has the ecosystem concept been defined, particularly in the context of human ecology?
- Are methods of definition and measurement used in biological ecology acceptable and adaptable in human ecology?
- How does ecosystem analysis fit into the broader framework of general systems theory?
- How do ecosystems and general systems differ?

These questions stimulate debate and inquiry, but the prognosis looks uncertain for interdisciplinary agreement on the usage and meaning of the ecosystem concept in human ecology. Young (1974) was concerned that "no one seems very sure of how to define a human ecosystem and no one can be positive what is meant when a student from another discipline uses the term" (p. 86).

This is of great concern to us. With the growing interest in rising the ecological paradigm in Home Economics and in human development/family studies, we believe that we are obliged to exercise closer scrutiny in our domain. Human ecology is the new name for many colleges and departments that were once associated with traditional Home Economics programs. Whether or not the transition to a new name represents a genuine and

substantive change in theoretical, methodological, and applied ecological studies is another matter entirely.

On the surface, Home Economics and family studies appear to be slightly guilty of the eureka complex (Young, 1983a). What kind of human ecology has Home Economics and family studies bought into? Can we claim a heritage beyond the fact that *oikos* means home, so therefore we must be ecological?

Ecological Connections in Home Economics and Family Studies

A substantial number of ecological studies (both in name and substance) in the area of Home Economics, family studies, and human development emerged in the 1970's and 1980's (see for example, Auerswald 1971; Bronfenbrenner, 1979; Bubolz, Eicher and Sontag, 1979; Bubolz and Whiren, 1984; Garbarino, 1977; Hook and Paolucci, 1970).

One might assume that this flurry of scholarly activity in ecological paradigms was the natural result of the spirit of the time when the general public and academic institutions became involved in consciousness-raising due to environmental concerns (e.g., Earth Day). Some departments and colleges associated with traditional Home Economics programs had also changed their names and identities to human ecology in the late 1960's and 1970's, reflecting the growing awareness of the need to understand the interaction of humans with their environments (see Edwards, 1985b).

But it has been accurately pointed out that the application of ecological concepts for improving human life and well-being has unique historical connections dating back to the turn of the century (East, 1980; Edwards, 1985a; Melson, 1980; and Kilsdonk, 1983). It can be stated that the heritage between Home Economics and ecology has historical foundations that match the much publicized origins of ecology in biology.

The beginnings of the ecological foundation in Home Economics are usually identified with the writings of Ellen Swallow Richards (circa 1890's) and the proceedings at the fourth Lake Placid Conference in 1902 (East, 1980). Ellen Swallow Richards is credited with developing a home oecology which focused on applying science for improving the immediate home environment of humans (Kilsdonk, 1983). Because her perspective examined reciprocal influences between individuals and their home environment, she has been given the honor of "the woman who founded ecology" (Clarke, 1973).

In unison, the visions of Ellen Swallow



Richards and the Lake Placid Proceedings (1902) were centered on the application of science for improving everyday life, which then became the foundation of a human ecology that is closely identified with the heart and soul of the mission of Home Economics (Paolucci, 1980). Yet, this mission somehow became diffused and lost within the field, and in its place was the emergence of a traditional Home Economics. Although the human ecological perspective was claimed to be implicit within the early beginnings of home oecology, there is little established lineage between the early 1900's and the current renewed interest in human ecology. In other words, for about 70 years there was an ecological dormancy that is either unexplained or blamed on natural science hegemony.

Regardless of the authenticity of an ecological dormancy before the recent resurgence of interest in human ecology, the goals and objectives of Home Economics have stressed a broad multidisciplinary approach to the study of families and households. Perhaps the best way to describe the historical approach was an overarching goal toward holism, a unified interpretation of family life which has been evident in Home Economics since its early beginnings. What we are proposing is that the reemergence of an ecological perspective (unified under the label, Human Ecology) was facilitated and enhanced by the social and intellectual changes throughout the 1960's and 1970's.

With the integration of ecosystems ecology, systems ecology, and general systems theory, many fields used systems concepts (i.e., energy and matter input-output models, cybernetic processes) and emphasized the ecological perspective of transactions between the physical and psychosocial environments (Andrews et al., 1980). Because the systems and ecological approaches relate to a holistic perspective, the integration of both are complementary to the overall mission of Home Economics and related specialties (Edwards, 1985b; Paolucci, 1980).

One of the primary ecology and systems concepts in Home Economics/family studies is ecosystems. This concept is holistic and ecological, because it emphasizes natural and social environments of the family and interrelationships among the various systems and subsystems (see Bubolz and Whiren, 1984).

With all of this burgeoning conceptual activity one may ask: What impact has the ecological perspective had on the theoretical domain in Home Economics and family studies? This question can be answered in different ways, depending on the source. For example, Holman and Burr (1980) in a review of the growth of family theories in the 1970's,

designated ecosystems as minor theory that is having little intellectual or practical payoff, despite its theoretical status (p. 733). We strongly disagree. The systems and ecological approaches had a major impact in the family therapy field (see for example, Robinson and Parkinson, 1985; Conyne, 1985; and Wedemeyer and Grotevant, 1982, for practical applications of systems theory).

Although empirical studies using an ecosystems framework are virtually lacking in the literature on Home Economics and family studies, some research efforts have been initiated, (see Sontag and Bubolz, 1985). But we question whether some of these studies are indeed ecological in the theoretical sense. A major problem in the social/behavioral sciences is the confusion that abounds in the theoretical, methodological, and applied aspects of an ecological perspective. For example, a study may be considered ecological simply because the design includes numerous person and environmental variables or because the statistical analyses were multivariate and used sophisticated causal models (i.e., path analysis, LISREL, etc.).

Towards A Family Ecology

The conceptual commonalities found throughout human ecology have important implications for using an ecological perspective in family studies. First, human ecology "emphasizes the intricate relationships of humans within their relevant contexts—expanding upon the scientific perspectives of biological ecology and embracing the approaches of the social sciences, the humanities, arts and design" (Borden, 1986; p.v.). Secondly, because human ecology is integrative and interrelational, it therefore depends on inputs of information from many different academic disciplines. Thus, human ecology benefits from active involvement of "sympathetic specialists" who are interested in the integrative ecological process and who are, in the context of a given human ecological biosocial problem or issue, willing to contribute pertinent knowledge and ideas from their particular areas of expertise (Boyd, 1986, p. 7). We believe that family ecology is a multidisciplinary perspective and will, after time, become more integrative and thus evolve into an interdisciplinary perspective (see Jungen, 1986). By continuing to emphasize its interdisciplinary nature, family studies will be enhanced by the integration of the predictive and explanatory powers of various theories as they apply to the study of the family (see Micklin, 1984; Micklin and Choldin, 1984a).

Although we encourage the development of conceptual terminology to describe the dynam-

ics between families and their contexts, we are proposing that we need to examine our tendencies to adopt new terminology that can be potentially redundant and confusing and quickly lead to the dangers of *eco-babble*. For example, given that the application of a systems perspective in the study of the family has been previously undertaken (Kantor and Lehr, 1975), it is important to differentiate the study of the family as an *ecosystem* from the study of the family as a *system*. Both emphasize the interconnectedness of families within contexts and cybernetic processes. By conceptualizing the family as an ecosystem, we assume that cybernetic processes (feedback, homeostasis, etc.) affect family adaptation and growth. But it has been proposed in a natural science journal article that ecosystems are noncybernetic (Engelberg and Boyarsky, 1979). This article has been critiqued by Jordan (1981), McNaughton and Coughenour (1981), and Patten and Odum (1981), and the lesson to be learned is that we need to integrate knowledge (including viewpoints that are contradictory to our own) from other disciplines (i.e., natural sciences) especially when the terminology is relevant to family studies. Another case in point is the association of systems theory with the holistic perspective. Huchingson (1985) challenged this notion by proposing that a systems perspective promotes a technocratic elitism which runs counter to the holistic paradigm. The systems approach has been promoted as the only viable means by which "earth's multitudinous and complex problems may be successfully inventoried, addressed, and solved" (p. 411). Massey (1986) indicated that by emphasizing a systems approach, family researchers could fixate on the whole and ignore the parts.

These critiques have important implications for us in using an ecological perspective: Are systems and ecosystems similar or different? What makes up the *eco* in the ecosystems study of the family? Is it the study of the family as an ecosystem or the ecological study of the family? Furthermore, as the ecological perspective emphasizes the dynamic and reciprocal interrelationships between families and their contexts, we will have to avoid the trappings of over-emphasizing the system at the expense of the family members who constitute it.

We are proposing that one of the primary means by which the goals and objectives of family ecology (the development of systematic knowledge about family issues and family policy) can be attained is by the active integration of knowledge on family dynamics from a diversity of disciplines and academic areas.

Of course what we are proposing is not new or dramatically innovative. Yet the simple and



obvious goals are the hardest to attain. We think family ecology has the unique ability to weave the various perspectives and issues regarding families into a comprehensive whole. Family ecology is a descriptive label that does not connote a new discipline or theory. It does not subsume or replace the existing area known as family studies. Rather, family ecology is a prismatic label that emphasizes

1. a philosophical approach that follows closely the orientations of an organismic and transactional worldview which focuses on the changing relations among psychological, social, and physical aspects of holistic entities (see Altman and Rogoff, 1987);
2. an integrated curriculum on family phenomena based on knowledge and conceptual issues from complementary disciplines (i.e., psychology, sociology, biology, anthropology, consumer studies, history, ethics, architecture/design, law/politics);
3. a methodological eclecticism for investigating family phenomena with both quantitative and qualitative methods that capture the dynamic interactions of families and contexts; and
4. the promotion of policy and intervention programs for families based on the synthesis of the above notions.

Due to the spatial limitations of the paper, readers may wish to examine two related documents (Wright and Herrin, 1988; Herrin and Wright, 1988).

In our attempt to systematically investigate the background of ecology, human ecology, and the application of an ecological perspective to the study of the family, we have considered the potential for the development of an area of inquiry known as family ecology. It is proposed that family ecology will offer viable new directions in theory, research, and practice and provide an integrated framework which can capture the dynamics of family interaction.



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An Ecological Model of the Family

Margaret P. Ray

There is a natural affinity between systems theory and Home Economics. From its inception, Home Economics was committed to integrating knowledge from diverse disciplines and bringing that knowledge to bear upon the improvement of individual and family life. The character of Home Economics as a field of study and profession was stated clearly by scholars throughout its history.

Systems theory provides a lens for viewing reality from a multidisciplinary perspective. Indeed, the multiple levels of systems theory posit that an adequate model of reality is multidisciplinary. Thus, systems theory provides a conceptual framework which, properly developed, can enable the direct development of theory and theoretically relevant research for Home Economics.

The integrated multidisciplinary perspective of Home Economics has been critical to the nourishment of the subject matter areas it includes. It is the thesis of this paper that family studies has flourished within Home Economics precisely because the family cannot be adequately understood within a single disciplinary perspective.

Purpose

This paper argues that a theory of the family must be problem-focused, value-laden, integrated, and multidisciplinary. It examines the contributions of Bronfenbrenner's Ecological Model of Human Development (1979), Kantor and Lehr's Distance Regulation Model of the Family (1974), and Reiss's *The Family's Construction of Meaning* (1981) to the development of such a multidisciplinary theory.

An adequate theory of the family must begin with a model which is epistemologically accurate, which captures the essential nature of the phenomenon under study. The major thrust of this paper will be to demonstrate that focus on the family as a single system, existing at only one level, seriously distorts our understanding of the family. Thus, an understanding of the family requires simultane-

ous focus on two systems, the individual and the family, within the context of several ecological levels.

The Need for A Multidisciplinary Theory of the Family

The general systems approach to the family holds that the first step in the use of systems theory is to define the elements belonging to a system and the elements belonging to the system's environment (Broderick, 1985; Broderick and Smith, 1979). This approach views the family level as the appropriate level of analysis for family studies. The definition of the individual remains as a "black box" (Broderick, 1985).

Within the context of the "black box/environment" approach, any dysfunction of the individual can only be viewed as a reflection of dysfunction in the family system. Indeed, when the family system is in a particularly rigid and dysfunctional equilibrium, this assumption is frequently valid and an important theoretical insight, as the family therapy literature attests (Haley, 1967; Minuchin, 1974). However, for less dysfunctional families with more open family systems (e.g., when dysfunction is the result of an external stressor event), this assumption is far more questionable. Thus, although the black box/environment approach may be appropriate for a family process theory of dysfunctional family functioning, it is not adequate for a general theory of the family.

It is not surprising that the two most successful applications of systems theory to the study of individuals and families capitalize on system theory's potential for a multilevel approach. Both Bronfenbrenner (1979) and Kantor and Lehr (1974) direct attention toward the interaction between systems at two or more levels rather than toward a single system. A third application of systems theory, the study of work-family linkages, is also concerned with the interaction between systems rather than within a single system (Voyandoff, 1984, 1987).

Bronfenbrenner's Ecological Model of Human Development

Bronfenbrenner's Model (1979) is concerned with individual development and the contexts within which individual development occurs.

The contexts are the cultural beliefs, values, and attitudes surrounding modern individual and family life (the macrosystem), the institutions of society (the exosystem), the community versions of these institutions (the mesosystem) and the actual systems in which the individual interacts, such as the family, school, or peer group (the microsystems).

The contribution of Bronfenbrenner's Model is careful delineation of the contexts for development and the extensive discussion of the implications of interrelationships among these contexts. Belsky (1980a, 1980b, 1981) and Garbarino and Gilliam (1980) apply his theory to research in the area of child and family studies.

From a family studies perspective, Bronfenbrenner's Model is inadequate because of its focus on the individual. The family is lumped together with all other microsystems as a context for human development, and the special status of the family is lost.

It is epistemologically unsatisfying to regard the family as one of several microsystems which serve as contexts for individual development. Whether the family's impact is for good or ill, the qualitatively greater and different character of the family's impact on individual development in comparison to daycare centers, schools, peer groups, or work environments is extensively documented (Clarke-Stewart, 1982; Davies and Kandel, 1981; Kandel and Lesser, 1969; Kagan, Kearsley and Zelasco, 1978; Passow, 1968; Scarr, 1984). Moreover, the relationship between the individual and the family is not adequately described by the description of the family as a context for development.

Kantor and Lehr's Distance Regulation Theory of the Family

In *Inside the Family*, Kantor and Lehr (1975) define the elements belonging to the system and the elements belonging to the system's environment (Broderick, 1985; Broderick and Smith, 1979). They write:

To designate the family as a system, however, raises as many questions as it answers. Perhaps the most basic question is, "A system of what: of roles? of acts? of levels of communication?" (p. x) [They define the family as a system of social acts—] manipulations of the environment which have meaning only in terms of context (formally defined or not) and others (whether they are present or not). (p.16)

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This definition of the family system holds that the family exists in the process of family interaction. The family's organizing patterns of daily living, the patterns of interaction between members that persist over time, provide the deep structure of both the family and the individual.

Much of Kantor and Lehr's book is concerned with the relationship between individuals and the family. They articulate the complexity of the relationship between individuals and the family. They write:

Each individual seeks and negotiates for a place in the family system, in order that his personality may be affirmed by the family in ways that are compatible with his own needs and, optimally, with the goals of the family establishment. . . a place within the family in which he can use the space, time, and energy available to him in order to gain access to the targets of intimacy, nurturance, efficacy, and identity he is seeking. . . The lives and processes of individual and family are inextricably bound (p. 180).

From the systems point of view, we affirm the reciprocal nature of controls. Systems control individuals, but individuals, in turn, control systems. . . all family members share some responsibility for family strategies (p. 19).

Given this perspective on the individual and the family, it is not surprising that Kantor and Lehr's theory is *not* a theory of the family at the family system level but a theory of the relationships between the subsystems of the family. A critical premise is that "systemic interactions are . . . phenomena that affect two or more subsystems of family simultaneously" (p. 23).

Distance regulation is the central construct of Kantor and Lehr's theory. This notion is inevitably concerned with the relationship between subsystems. For example, they may have conflicting goals. Kantor and Lehr describe how scapegoating of one family member arises when families choose to pursue the goals of one subsystem and as a consequence sacrifice those of another subsystem. This attention on the potentiality for conflict between individual and family goals is a major contribution of their theory. It alerts us to examine the degree to which both individual and family goals are or are not achieved.

Kantor and Lehr persistently speak of the interpersonal system in the singular. This interpersonal system includes all members of the family. But Kantor and Lehr's interpersonal subsystem is only one of several interpersonal subsystems, e.g., mother-father subsystem, mother-daughter subsystem, father-daughter subsystem, father-mother-daughter subsystem. If the family included more than three members, there would be substantially more interpersonal subsystems. The inclusion of dyadic and triadic interactional subsystems of the family would enhance Kantor and Lehr's

theory. A clear focus on the study of the family as including the study of relationships would open up opportunities to examine the contributions of developing theory in the area of close relationships (e.g., Kelley, et al., 1983) to a multidisciplinary theory of the family.

Kantor and Lehr's theory is both a theory of family process and a typology of family structures. One of the strengths of *Inside the Family* is its success in depicting structure as the flip side of process. The later chapters of the book describe a typology of three family types. The relationships between the outcome of family process and the theory of family process is credible. However, inevitably, as their process theory focuses on structure it becomes a static rather than a dynamic theory. Moreover, they describe a typology of outcomes of family process, rather than formulating how the process leads to various outcomes.

Another criticism of Kantor and Lehr's theory is that their family types ignore variations in families such as changes across the life cycle. Families are not only complex but infinitely variable and regularly changing as the individuals who compose them age, die, marry, reproduce, and move. Families vary by stage in the family life cycle, class, gender, generational and age composition, marital status, as well as by actual size of unit. The lack of consideration of family developmental stages can be regarded as a *current limitation*, not a defect of Kantor and Lehr's theory. To focus on the typology suggested by Kantor and Lehr rather than on their theoretical model of family process is to seriously undercut the contribution which *Inside the Family* makes to family theory. The typology is the weakest, not the most important, contribution of this work.

The Difficulties of A Multidisciplinary Theory

It has been surprisingly difficult to envision the possibility of a multilevel theory. Despite the fact that family studies has developed as a multidisciplinary area, the tendency has been to view this character as deriving from its applied nature. Family studies has been trapped in a self-definition as an applied field of study, not a discipline. This self-conception is self-limiting. It discourages the development of theory and theoretically relevant research. It is based upon an out-moded positivist, empiricist view of science.

The positivist view of science is that science is the value-free, objective analysis of empirical data for the purpose of developing predictive theory (Christensen, 1964). In the 1960's, developments in society and in physics forced a new and radically different view of science.

The new philosophy of science which emerged argued convincingly that adequate theory should be problem-oriented and would inevitably be value-laden (Brown, 1977; Davis, 1984; Kuhn, 1962; Suppe, 1977; Thomas and Wilcox, 1987).

Thus, the philosophical basis for a multidisciplinary conceptualization of the family has existed since the 1960's. Effective movement in that direction will require a vision of theory in which the dichotomy between research and practical application is rejected. Such a multidisciplinary theory will inevitably be based upon reciprocal patterns of relationships and a multivariate concept of causation. It will be as concerned with understanding as with prediction and more concerned with consequences than with causes.

Comparison of Reiss and Kantor and Lehr

Without attempting a detailed comparison of Reiss's *The Family's Construction of Reality* (1981) and Kantor and Lehr's *Inside the Family* (1975), it can be suggested that these two formulations can be merged. In combination, they provide a powerful conceptualization of the family.

Reiss and Kantor/Lehr assume that the family exists in the process of family interaction. Kantor and Lehr define boundary regulation as the process through which the family regulates subsystem strategies to attain the targets of affect, power, and meaning. Reiss defines meaning as arising out of family interaction processes in terms of level of cohesion, status, and openness. Cohesion and affect are clearly related, as are power and status. Thus, Reiss makes meaning the primary concept and boundary regulation the secondary concept, whereas Kantor and Lehr make boundary regulation the primary concept and meaning the secondary concept.

The question of whether boundary regulation or meaning should be regarded as the core component of family interaction processes is not unlike the debate between cognitive and behavioral psychology. After long debate, psychology has come to recognize that only a cognitive-behavioral psychology provides an adequate model of the individual (Bandura, 1974). Boundary regulation is the core process of family interaction. Meaning constructs are the core cognitive products of family interaction. Family theorists will need to view both boundary regulation and meaning as necessary core components of a theory of the family.

If meaning constructs are viewed as arising out of processes of boundary regulation of family subsystem strategies for attaining the targets of affect and power (interdependence),



then Kantor/Lehr and Reiss formulations can be placed in correspondence. Moreover, both can be placed in correspondence with the detailed theoretical formulation of the social psychology of *Close Relationships* (Kelley, et al., 1983).

One interesting question that arises from this comparison is the question of whether or not a system is necessarily equally open to its individual members and to the environment. Empirical investigation of family meaning by Reiss indicated that the configuration (environmentally sensitive) and coordination (interpersonally sensitive) dimensions were orthogonal. A family process theory based upon the contributions of Kantor/Lehr and Reiss will have expanded possibilities for generating research hypotheses.

The Need to View the Individual and Family Focal Systems in an Ecological Perspective

Bronfenbrenner's emphasis on the contexts for individual development applies also to the family. An adequate theory of the family would be concerned not only with the interaction between the individual, interpersonal, and family-unit subsystems, but also with the micro-, meso-, exo-, and macrosystems which form the context for individual and family development.

At the microsystem level, such a theory would recognize that the individual and the family are influenced by the congruence between their values, attributes, and behaviors and the values, attitudes, and behaviors of the microsystems which provide a context for their development. Basically this is an issue of role strain, role conflict, and social support (Cannon, 1987). When the demands of work and family produce role overload and exhaustion, families function less effectively. When schools, churches, or neighbors stigmatize members of single parent families, families function less effectively. The adequacy of a family is a function of the social support available in the surrounding microsystems, as well as of the family members themselves.

The exosystem represents broad social factors that do not directly affect the developing person (or family) but do impinge on the family setting (Bronfenbrenner, 1979). The resistance to domestic spending of the Reagan years is an exosystem factor which has had a substantial impact on the family. Only if we recognize the interdependence of the family and the surrounding contextual systems will we be able to develop services to individuals and families which assist them to function more effectively.

At the macrosystem level, the family is a system of ideas of what the family is or should

be. This is an important aspect of the family, but it is different from the actual interaction of individuals in families. Many kinds of families exist today: married couples without children, single parents with children, grandparents and single parents with children, etc. No family completely corresponds to the ideology of the nuclear family. In general, a very wide gap exists—and has existed—between ideals and ideologies about families and how individuals actually live out their lives together (Barrett and McIntosh, 1982; Cott, 1977; Davidoff, 1979; Degler, 1980; Ehrenreich and English, 1978; Hartmann, 1981; Gittins, 1985; Zaretsky, 1982).

Implications of a Value-laden, Problem-focused, Multidisciplinary of the Family

Home Economics is concerned with the well-being of individuals and families. Recognizing that the individual and the family must be focal systems in any theory of the family helps to disentangle some aspects of the nature of the family in contemporary American society:

1. American society does not value the well-being of families which is detrimental to the well-being of their individual members. When forced to confront such issues, Americans have favored legislation regarding divorce and protecting women and children from family violence.

2. Family well-being is essential to individual well-being. The best social service agency that can support and help families is the family. The new wave of familism has occurred in the context of an overly polarized and not particularly thoughtful political debate. Careful examination of why and under what circumstances the family needs help is warranted.

3. An adequate conceptualization of the family must focus simultaneously on individual and family well-being. In our society, families exist to stabilize the personality and foster the development of their individual members. The family is expected to ensure the growth and happiness, in addition to physical health, safety and socialization, of its individual members (Ruddick, 1980). Any analysis of the functioning of the family cannot simply describe the system of interaction among family members. It must describe that system in terms of the adequacy of its functioning and its relationship to the well-being of the individual family members. It is simply not possible to develop an adequate conceptualization of the family at the family level. It is in the interplay between the individual and family

level that the family exists. Focus only on the individual level ignores the importance of the family. Exclusive focus on the individual level leads to a model of independent, self-sufficient individuals and denies the female perception of social reality as relational (Gilligan, 1982; Thorne, 1982).

4. The individual and the family must be simultaneous focal units for a theory of the family. The individual and the family system shape and are shaped by each other. Neither system is derivative of the other. Other micro-, meso-, exo- and macrosystems form the contexts within which individuals and families develop. Individual and family well-being are the product of the creative interplay among the individual, family, and surrounding contextual systems as they operate in tension with each other.



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Continued on Page 15

Family Functioning and Resource Management: Two Views of One Dynamic

Alma J. Owen

Integration implies that there is a complementarity between units. Within Home Economics, this notion implies that mapping the assumptions and constructs of one subject matter area against another can elaborate a total picture of human behavior in its near environs. Another benefit is that the identity of the profession as a whole can be advanced. Hill (1984) indicated that family functioning was an overarching concept for the unity of Home Economics and that management was an essential tool for family interaction within each of the physical dimensions.

Meetings of professionals who focus on families (e.g., American Home Economics Association and the National Council on Family Relations) provide opportunities for a blending of these two powerful constructs of family systems. Colleges of Home Economics often have family development, family therapy, resource management, and/or family economics within the same department. Some home economists have identified management, family interaction, and human development as essential, interrelated aspects of family life, though such studies are not prevalent.

It is easy to understand why: family interaction (or functioning) and family resource management often use the same terms with different meanings. They have different root disciplines and different intermediate objectives, though the overall one is to better family life. Family functioning as la Kantor and Lehr (1975) is derived from the practice of family therapy. *Family Resource Management* (Deacon and Firebaugh, 1981), though written as a result of direct work with families, is more grounded in theoretical constructs. However, study of the two approaches discloses an essential unity.

This paper compares Kantor and Lehr's (1975) family functioning models with Deacon and Firebaugh's (1981) systems approach to management in order to determine whether the commonalities are sufficient for simultaneous use in empirical research. In the process

of comparison, elaboration and deficits of each theory are explicated, benefits of complementary use of each professional emphasis to the other are presented.

A Systems Approach to Family Functioning

Kantor and Lehr (1975) defined three types of family systems: closed, open, and random.

Simply defined, a closed family seeks to maintain the status quo. It engages in activities and attends to ideals and values that maintain continuity with the past. One adult is in charge of decisions and direction, though some authority may be delegated, especially based on traditional sex roles. Analysis of the systems embedded in and around closed families shows the family, not the individual or the community, as the most distinct unit, i.e., the one with the most definite boundary.

Constantine (1986) described the random family as one that revels in variety and change. It is present oriented, seeking a constant influx of new experience. Members are in charge of their own direction and action with little or no coordination between them. The individual has the most distinct boundary.

The open family combines aspects of closed and random ones. Its members seek to introduce some change into the enduring family unit. There is little role delineation inside the family, though some, based on age, may exist. Individual members and the family unit have equivalent boundaries. Members consider the family's identity as important as their own and each others' in determining actions and goals.

A Systems Approach to Home Management

In 1981, Deacon and Firebaugh revised their comprehensive systems theory of home management, defining physical, emotional, and social contexts both within and outside the family that impinge upon the managerial function. The core of Deacon and Firebaugh's model is a detailed analysis of what happens inside the family management system. In this input-throughput-output model, resources and demands, presented to or chosen by a family, serve as inputs to the system. Resources, both

human and material, are the means for achieving goals and meeting demands. Human resources are embodied in family members as knowledge, skills, and abilities. Outputs to the family system are met demands, including goals achieved, and used resources.

The throughput of the family system is made up of two subsystems: personal and managerial. The personal subsystem evolves basic values of individuals, develops personalities, provides for expression of interpersonal relationships, and socializes family members.

The managerial subsystem consists of the processes by which resources are used to meet demands. To manage implies doing any or all of the following activities: planning, which includes standard setting and action sequencing; implementing, which includes controlling by adjusting and checking and facilitating; bypassing some steps if desired; and using feedback loops within the managerial subsystem. In addition to each of these parts, management encompasses the interrelationships among its component parts.

Family Types in Resource Management

Deacon and Firebaugh (1981) include Kantor and Lehr's (1975) family types in the planning and implementing chapters, along with a detailed analysis of morphogenic and morphostatic planning styles and their implications for management. With respect to planning, Deacon and Firebaugh (1981) stated that relatively closed families have unchanging goals, limited resource expansion, and little flexibility in how they sequence actions. In implementing, they are change resistant, i.e., use feedback to help maintain the same course (Deacon and Firebaugh, 1981). Control in closed families emphasizes maintaining identified standards that are continuously monitored.

According to Deacon and Firebaugh (1981), random families do not engage in goal oriented planning in that they can adopt a new goal at any time. Their resource assessment is erratic, and they are viewed as extremely flexible in how they sequence actions. Random families do not have identifiable control or feedback mechanisms.

The relatively open family explores the pos-

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sibility of changing goals and adopts new ones if they are appropriate. The open family actively seeks new resources and is flexible in how it sequences actions. In implementing plans, the open family uses feedback to set new directions. Control is achieved through interaction of family members and occurs infrequently (Deacon and Firebaugh, 1981).

Overlap of Family Theories

Family resource management as a subject matter emphasis, along with many of its researchers, has strong roots in economics. Together with its early history in household work, these economic roots give rise to an underlying assumption that time and energy must be used efficiently, i.e., that actions will be planned and implemented in a way that conserves human and material resources. Another assumption follows from the adaptation of business management theory: one strategy of management will prevail within a family for the time period under analysis. Finally, though Deacon and Firebaugh (1981) discussed the personal and managerial subsystems, emphasis was on these subsystems within each individual in a family. This led to an assumption that the impact of the personal subsystem of the family as a whole will be consistent with the impact of each of the personal subsystems of family members.

Deacon and Firebaugh (1981) define the family as having both a managerial and a personal subsystem, but they do not pursue the structure and processes of the personal subsystem. They do, however, allude to the tight intertwining of the two systems in the processes of everyday family life. The interactive realm of those topics (goals, values, socialization, etc.), which Deacon and Firebaugh (1981) call personal, is defined as the psychosocial subsystem in this paper. It is critical to define the individual personal subsystems as distinct from the family's psychosocial subsystem since Kantor and Lehr's (1975) definition of family types is based on observation of this unit of analysis. Results of the failure to explore this distinction is explicated in the next section.

Comparison of Family Types Within Managerial Processes

The assumptions of efficiency and central management strategy are congruent with observational data on how a closed family works. Not surprisingly, there is the least difficulty in mapping Kantor and Lehr's (1975) definition of a closed family to Deacon and Firebaugh's (1981) managerial strategies. Both find the family relatively morphostatic (change minimizing) with low flexibility and high con-

trol processes. However, Constantine's (1986) discussion of control denotes a different interpretation: family functioning emphasizes who is in control and to what degree. In resource management, the concept of control changes with each type of family. For the closed family, control is defined by the objective sought. For open families, control is defined by the process used to make decisions.

Control is considered to be indefinable for random families, primarily because random families have no overall management strategy. Rather, it is left to each family member to plan and implement actions to meet individual objectives. Thus the random family violates not only the assumption of efficiency, that the household works together to assign tasks in a way that conserves energy in the unit as a whole, but also the assumption of one central management strategy. To be sure, a random family does conform to Deacon and Firebaugh's (1981) minimization of the family as a unit. However, they also assume conformity of management strategies within a family, not discontinuity across the individuals as subsystems.

Shifting of units of analysis also shows up in the process of sequencing. In the closed family, sequencing not only has little flexibility but is often determined by other factors associated with Kantor and Lehr's (1975) closed family, i.e., the pattern of sequencing is likely to be determined by one person, and assignment of tasks is delineated by traditional sex roles. In a closed family, the socially reinforced model that men move furniture takes precedence over the efficiency of mopping the kitchen and dining room during the same task implementation. In a fashion conceptually consistent with Kantor and Lehr (1975), the open family's flexibility in sequencing is a result of lack of role delineation and diffusion of responsibility across family members. That is, flexibility is a result of psychosocial structures of the family.

Members of random families may or may not be flexible. Their activities are an agglomeration of individuals seeking to achieve objectives, not a coordinated movement toward agreed-upon objectives. Contrary to Deacon and Firebaugh's (1981) analysis, random families may have goal oriented behavior. However, goals among family members may be conflicting, resulting in a family unit that appears to be without goals.

Family Resource Management Research

Most family resource management studies lack a variable to account for the variety of family types and how they might impact on

managerial regimes. Though a notable exception, Beuhler and Hogan's (1985) research lacks conclusive results. This may be explained, in part, by a failure to account for all types of families; by the difficulty in measuring the management concepts; and/or by having insufficient management data with which to draw conclusions.

Family functioning theory has roots in social and psychological dynamics of humans, whereas resource management incorporates economic assumptions into its most basic theoretical constructs. This creates difficulties in integrating the two theories into empirical research. However, if managerial strategies can be linked with family paradigms, resource management researchers will have a much broader source of data for determining a family typology consistent with both the psychosocial and managerial subsystems of families.

Family Functioning Theory Refinement

Constantine's (1986) paradigm of family functioning readily conforms to Deacon and Firebaugh's (1975) personal subsystem if the family as a unit is included. The ease of fit is, in part, because Deacon and Firebaugh (1981) only roughly outlined the personal subsystem. While not defining management strategies as such, Constantine (1986) detailed many concepts related to managerial strategies, e.g., time orientation, decision making, problem solving.

Constantine (1986) mentioned that most family typologies for therapy favor the open paradigm as the healthy or normal family, the one toward which therapy should be directed. This preferred family, analogous to resource management's assumptions which favor the closed family, is part of the reason for limited integration between these two theoretical constructs.

As stated earlier, family functioning's contribution to resource management is in its potential to give fullness to the personal and psychosocial subsystems of family members; to explain the variance in family management that is based in that part of human behavior that does not follow economic rationale in its decision-making processes; and to complete the link with the ultimate purpose of management—the enrichment of family life. There is a complement to that in resource management's potential to contribute to the understanding and practice of family interaction.

In reading Kantor and Lehr (1975) and Constantine (1986), a resource management scholar might be struck with the emotional richness ascribed to the physical means through which members have their needs met. These physi-



cal means, called access dimensions, are time, space, and energy (Kantor and Lehr, 1975). Constantine (1986) added the concept of matter to the access dimensions, thus completing the essential components of the resource inputs that families direct toward their goals.

Kantor and Lehr (1975) and Constantine (1986) use access dimensions primarily in terms of a family's present, psychosocial life. But these dimensions also have implications for the managerial subsystem of families in ways not considered in family functioning theory. Concepts borrowed from managerial strategies let the family scholar sort the non-human and human aspects of the access dimensions concepts and catalog inputs to family activities based on replaceability of resources by persons outside the family or by nonhuman resources. This gives fresh insight into the reasons that some families are more flexible than others in meeting their needs (economists would call it substitutability of resources). Thus, intervention strategies can be based on a broader understanding of the means that families use to meet their needs and wants.

Summary

This article compared family functioning (Kantor and Lehr, 1975) and family resource management (Deacon and Firebaugh, 1981) systems theories and explored their congruities and divergences. Using this information, the author discussed how the theories of one can be used complementarily to strengthen the other's research and practice.

Kantor and Lehr (1975) suggested that, while preferring the ideal of the open family, most institutions prefer to deal with closed families, perhaps because the closed family helps maintain the social order. The management system theory developed by Deacon and Firebaugh (1981) is most consistent with the closed family. Family resource management's origins hailed efficiency as the guiding objective. It has adopted many management techniques of business and public institutions over the years of theory development. The managerial regime of the closed family is consistent with many of the basic premises of the institutions which prize interaction with that family type. Through increased understanding of what each theory fails to articulate as a result of basic assumptions and emphases, research and practice in these two subject matter areas can be enhanced and the identity of Home Economics can be advanced.



References on Page 17

Family Systems Process and Behaviorally Based Design: An Integrated Model

Ronald G. Phillips

The behavior of people in their environment is a central focus of Home Economics. Richard's concern about sanitation within the home and its effect on the health and well-being of the family members led to the founding of the profession. The link between people and their near environment has been a clearly articulated, if not so theoretically substantiated, concept of Home Economics since post-World War II.

Since 1960, another field of academic endeavor, focused on the interaction between people and their near environment, has grown parallel to the housing and interior design departments of Home Economics. Referred to as environment/behavior studies, environmental psychology, or behaviorally based design, it is a union of architects, interior designers, and urban planners on the environmental side and psychologists, sociologists, and anthropologists on the person side.

The purpose of this article is to (a) describe the nature of behaviorally based design and (b) to discuss how this subject matter area can be applied to different types of families using the Kantor and Lehr family systems process model.

The Behavioral Basis of Design: What Is It?

Collaborations based on the sharing of theory from apparently unrelated disciplines yielded an integrated conceptual model of people's behavior in environments (B). The three primary dimensions of the model include information about the person (P), the environment (E), and the interaction of people and the environment (PxE).

$$B = P, E, (PxE)$$

Behaviorally based design views people as active participants in the environment. People are goal-directed beings who exert demands on their environment and are in turn influenced by it. As people modify their environment, they

are modified by it. Secondly, this approach emphasized the importance of generating design solutions which are based on an understanding of people interacting in their everyday milieu and not as isolated behaviors that need to be controlled by principles of style.

Barker's (1968) development of the concept of *behavior settings* demonstrated the pervasive effects of physical design on the behavior of people and provided initial support for the systems concept of adaptation. Subsequent work focusing on person-environment congruence (Kahana, 1975; Lawton, 1975) began to conceptualize the construct. Using the systems concept, one would argue that when the *fit* (French, 1974) between environment and system is discrepant the system is said to experience stress; using the behaviorally based design model, adaptation outside an individually defined *comfort zone* is defined as environmental stress (Lawton, 1975).

The Connection: Behaviorally Based Design and Family Systems Theory

One example of how behaviorally based design complements family systems theory is represented by the work of Alexander (1974). He argued that design is the carrier of the spirit and the feeling of a particular kind of spatial order. Interestingly, Kantor and Lehr (1975) at about the same time presented the idea that families could be perceived, and thus described, as a spatial metaphor. They suggested that the design of a family was reflected in their figurative use of space and that families have stereotypical spatial designs—closed, open, and random. If, as Alexander suggested, design is the carrier of spatial spirit, then it would be critical, if not absolutely essential, that the design of living spaces embody the spatial design of the family.

With only a slight modification, the behaviorally based design model can be altered to respond quite elegantly to the family systems concept suggested by Kantor and Lehr:

$$B = F, E, (FxE)$$

where family type (F) replaces the person component (P). The clear theoretical implication is that family type influences spatial behavior at two levels: directly in its interaction with the

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members of the family as indicated by the (F) component and indirectly through an interaction with the environment as indicated by the (FxE) component.

By using the Kantor and Lehr family paradigms of open, closed, and random, environmental designers who design from a behavioral base could begin to classify environment/behavior phenomena as a means to systematize within-field knowledge. Such potentially insightful understandings could ultimately make significant contributions to knowledge in family relations. For example, a random family highly prizes each individual's definition and meaning of space. If they could financially afford it, each person would have a separate room and there would be little use of public areas of the house except perhaps as appropriated by each member to use for visiting with non-family members. If there was not sufficient physical space for individual rooms (highly likely given the socio-economic class where these families predominate), family members could find other ways to define personal territories (e.g., furniture arrangements to maximize privacy).

A closed family would seek ways to engage in activities that reinforced their togetherness. For these families, behaviorally based designers would need to identify family themes and to design spaces responsive to them. Alexander's (1974) farmhouse kitchen pattern as a meeting place is an example of space that meets more than functional nutritional needs. This space is where entry and exit to the household is monitored by a homemaker who spends much of her time there. It is a meeting place for friends and neighbors. Even social activities may be centered there with some guests playing cards while others interact or fix snacks.

The open family would require a design responsive to a mix of the needs for personal private space and total family unit space. The *great room* concept of combining the living room, kitchen, and dining areas lacks the formal structure of the closed family but promotes more togetherness than might be comfortable for the random family design. Separate bedrooms in a sleeping-private area of the house would provide for the individual family member's needs for separation. Family guests would be quite welcome to drop-in and informally socialize in the family areas, but rarely would be invited into the private bedroom areas.

The potential opportunity for applying an integrated model is quite evident in my own research in environmental gerontology. I have been examining the effects of loss of personal

independence among older adults during retirement migration. I have found that husbands and wives who migrate as a healthy unit report severe reductions in life satisfaction over time when the unit experiences loss of personal independence (e.g., health deterioration, loss of spouse, or income reduction). The Kantor and Lehr family typology provides a conceptual structure necessary to explore the family (the unit) component of the phenomenon.

Conclusion

Traditionally, environmental designers thought of design as separate from the people who occupied it. Behaviorally based design scholars, such as Alexander, not only state that the interaction between the person and the environment matters but that the person-to-person interaction must also be a component of responsive environmental design.

Environmental settings which fail to respond to a range of family types will result in maladaptive behaviors among family members. The integration of family systems theory and behaviorally based environmental design theory serves to strengthen the family/environment interaction.

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Using Family Systems Theory for Interior Design Research

Sandra J. Evers

The interior design specialist, as a contributor to the development of an overarching systems, framework for Home Economics, is placed at the synapse of the social and physical science domains. Most of the theoretical literature is from one or the other, and the interior design researcher must use both. Such a framework must include energy and information transactions. A further necessity is to have the capacity to investigate the several kinds of interactions between the physical environment and its users.

It is helpful to use the strategy proposed by Hill (1984) to examine the Bronfenbrenner and Kantor/Lehr Models for this integrative function. One begins by identifying concepts common to specializations within Home Economics. Hill proposed five central concepts: family, management, energy, space, and time. To his observation that the last three are common also to the physical, biological, and social sciences, one should add that they are common to the arts and humanities, which are the basic disciplines of interior design. The three additional concepts needed for an interior design specialist are design, artifacts, and physical environment. Each could be subsumed under management and energy respectively, however it is necessary to keep the concepts separate for investigations of how families use homes and household objects.

Are these eight concepts present in the two models under review and do they represent significant components of each model? Are the definitions of the concepts relatively consistent for use across specializations? If they lack consistency, how extensive are the theoretical adjustments needed to accomplish this?

One encounters many examples of family events involving space and specific artifacts in the explanation of the Kantor and Lehr model (1975), and initially one has the impression of congruence across the two fields. On closer inspection many of the examples are recognized as analogies and metaphors, which create a strong identification with the model because they are so evocative of human ex-

perience. Given this strong association, which the authors so aptly use, it is doubly strange that material goods have such a minor conceptual role.

Space, time, and energy are the three access dimensions of the Kantor and Lehr model. In the explanation of the dimension of space where one would expect to find some elaboration of the ideas of place specific to family activities, sub-division and dimensioning of that place, and the normative characteristics of the setting in which families act, one finds instead a kind of force field among actors. The image conveyed is that of people existing in a kind of ether and of inattention to standards that ensure a comfortable environment.

The Constantine (1986) revision of the Kantor and Lehr theory provides for the influences of the material world on the interactions of family members by adding two dimensions to the model. One is the access dimension of *matter*; the other is the target dimension of *content*. Within the matter dimension are the many material exchanges of everyday life which can be interpreted in each or all of the four target dimensions. Constantine pointed out that a high proportion of the exchange of material goods has no more than literal content. Though Constantine warned against psychologizing (1986, p. 152), by such statements he reinforced the tendency to diminish the universal functions of the family unit in sharing material resources over time to meet the basic human needs of food, clothing, and shelter.

Not present in the Model is energy as an ecological concept, which potentially subsumes artifacts as specific stable forms of matter energy. Like the space dimension, the target dimension of energy also has a purely interpersonal definition. It is presented as a combination of personal charisma and level of activity characteristic of each member of the family. There is no recognition that the dimmed spontaneity and faded charisma could be an outcome of chronic fatigue from attending to basic needs of the family, such as those comprising the literature on the ergonomics of the household.

Because the theoretical gap between the Kantor and Lehr model and the needs of interior design research appears to be large, are there social scientists working with systems theory who have integrated the influence of the

physical environment on human behavior? Rapoport (1976) identified logical options regarding the influence of the physical environment. They are a) environmental determinism, b) no environmental effect, and c) *probabilism*. The probabilistic viewpoint is that the environment provides options and constraints, encouragements, and inhibitions to human behavior.

That people behave differently in various physical settings is self-evident. They select a behavior pattern that is appropriate based on their reading of the culturally encoded artifacts of the setting. It is the responsibility of interior designers, architects, and other designers of places to provide the readable code and the menu of artifacts, plus the structured space, to successfully carry out those behaviors. Because the codes are embedded in the characteristics of the artifacts and the structure of the space, it is frequently assumed that by definition such interrelationships cannot fail. A cursory review of our experiences of places, equipment, and confusing situations puts that assumption to rest. Though most people are capable of coping with most of the inhibiting features and even some of the barriers of physical settings, others are not due to ability, motivation, or an assortment of psychosocial factors. These are the people for whom it is critical that their living situation is well designed ergonomically, socioculturally, and aesthetically.

Rapoport (1976) made two additional important points. The first is the distinction between direct and indirect effects of the physical environment on human behavior. Direct effects are those that affect behavior, mood, performance, and interaction. These include Maslow and Mintz's ugly and attractive rooms (1956) and may include the ergonomic literature on work performance. The indirect effects are derived from information about the physical environment (e.g., the social standing and status indicators of the people in a given place). This distinction offers the possibility for incorporating stylistic components of environmental codes that are very important to the design specializations. To a certain extent the material dimension of the Constantine model is one of the better frameworks for incorporating direct and indirect effects of the physical environment on human behavior.

His second important point is a challenge

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to the implicit assumption that people are somehow placed in environments that then act upon them. Most of us select the settings in which we find ourselves. To quote Rapoport: "... in effect people vote with their feet and a major effect of the environment on people is a positive or negative attraction" (1976, p. 11). The family is a unique unit in regard to this distinction. The parents do vote with their feet. By various means they create the physical environment of the home for their offspring. Though the children have no choice, it is their enduring environment and a very powerful influence upon them.

The potentials and restrictions of the Bronfenbrenner Model (1979), which focuses on human development, are totally different from the Kantor and Lehr model. Its advantages are the absence of shared terms with multiple meanings and the emphasis on the influence of the setting. This allows the interior design specialist to insert the basic model of a person to space to artifact interaction necessary to this field, plus various second and third level concepts, such as personal space (Sommer, 1969), territory, activity space, traffic paths, fixed and unfixed features, work stations, tool kits, and the various categories of environmental messages derived from the characteristics of physical settings. Childhood, essentially a time for learning the codes and behavior patterns, provides a major opportunity to operationalize these concepts. Additionally, this stage encompasses several distinctive transitions in autonomy and control over a personal environment.

The micro-, mezo-, exo-, macrosystem relationships provide the structure to analyze the direct and indirect effects of material life-style choices on the ecosystem. If we are to gain any sense of the true cost of such life-style choices (e.g., consumption of various fuels) and how they relate to our professed values, it is likely to come from a multilevel framework such as the Bronfenbrenner Model. That possibility is dependent, of course, on tracking energy and material transformations.

Summary

Basically, the difficulty of developing a theoretical framework, usable by all specializations within Home Economics, relates to different and even conflicting viewpoints. In this case the specialists in family and human development regard artifacts and characteristics of the physical setting as instrumental to the communication needed for healthy families. The design specialists regard the encoding of artifacts and the ensuing communication as secondary to the fulfillment of basic family needs through human interaction with the ar-

tifacts and physical settings. Agreement on shared fundamental concepts and definitions is a necessary early strategy. Preceding that, however, is the need to find areas where specialization values overlap. That territory is someplace beyond the enhancement of the quality of life of individuals and families and the current theoretical positions.

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Endnotes

- ¹ The work of Constantine (1986) is referred to in defining Kantor and Lehr's (1975) family types where his exposition gives clarity to the definitions. The synchronous family, another central addition in Constantine's book, is not treated here since it comprises so few families.

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The Individual System: Character, Change, and Context

James D. Moran, III and
Janet K. Sawyers

The complexity of systemic theory provides both an enticing lure and a constant source of frustration for those dealing with the behaviors of individuals and families. Such complexity allows researchers to address the development of the person within the context of the family, in relation to the near environment, and through the larger social milieu from multivariate frameworks. We believe that a common orientation toward all of these components (and their respective disciplines) will allow us to fully benefit from this reconceptualization of individual development. With this perspective comes the need to conceive of human development within an integrative framework so that biological (e.g., nutrition), physical (e.g., clothing, housing, or design), social (e.g., family or organization), or communication (e.g., management) considerations become more than a tangential concern of those studying the behavior of individuals.

We will attempt to deal with several critical issues in this paper by suggesting that we need to consider character, change, and context in dealing with any living system. These concepts are similar to those found in other studies of development. For example, play is conceptualized as involving dispositions, behaviors, and contexts (Rubin, Fein, & Vandenberg, 1983), or creativity is envisioned as personality, product, or process variables (Barron & Harrington, 1981). We are suggesting that in order to predict or understand the behavior of an individual or family system (or the relationship between systems) we need to know the character of the system as evidenced in change within a given developmental period appropriate for a specific context. Failure to attend to

each of these components leads to inadequate description of the system.

The move toward recognizing multivariate and reciprocal effects in the developmental process is clearly one of the most significant advances in human development in recent years. This not only alters research strategies but also changes how we conceive of development and context. We must be able to build into our models the recognition that behavior is affected by a variety of variables operating at different levels. Moreover, we also must account for the complexities of reciprocity which suggest that the behavior of individuals and families is not only a product of environmental influence but also changes the environment in which the system operates. This consideration of reciprocal effects appears to require a move to a systemic concept of development. It becomes a means of defining the character of the system (e.g., permeability of boundaries.).

The use of systems theory and systemic concepts, such as boundaries, has been less dominant within the scope of human development than it has been within the study of family functioning. Systemic perspectives to individual development, though, do exist and seem to be gaining more recognition within the last decade. Thirty years ago Anderson (1957) specifically described the development of the individual through a systemic approach emphasizing the characteristics of openness, activation, growth, selection, learning, mechanization, cumulation, emergence, and symbolization. Many traditional theories of development (e.g., Piaget, 1952; Werner, 1948), used an organismic conception of development, which is systemic by nature (Sameroff, 1983). These theories (e.g., Piaget) can be used to fill in the details regarding the content of developmental processes. We see little problem in adapting these existing theories (especially those with an organismic basis) to fit a more formal systemic orientation. Thus, adopting a systemic perspective is not meant to replace other developmental theories but to provide an overarching framework which better accounts for how individual systems interact with each other and other systems (e.g., family or near environment). Yet, at the same time, systemic perspectives must become developmental. Anderson's (1957) model sug-

gested that qualitative changes in systemic functioning occur over time especially in terms of the characteristics of emergence and symbolization. Hill (1974, 1984) also suggested that the family system undergoes predictable changes over time. This consideration of inevitable change as a developmental process clearly distinguishes living systems from mechanical ones.

Certainly, adoption of a systems perspective is not without its price. We must recognize the futility of striving for the same level of experimental rigor demanded of univariate procedures, at least for now. This means that our theoretical models will be somewhat imprecise until we are able to better deal with multivariate research models. At this point, however, this impreciseness should not deter us from moving from univariate or linear models toward more encompassing multivariate ones—a trend that is inevitable in the study of individuals and families with their near environments. We are moving closer and closer to that goal with the development of complex causal models (e.g., Laosa & Sigel, 1982).

Perhaps some of the problems associated with adapting individual development to systemic perspectives have resulted from the historical dominance of the tension-reduction model (e.g., Freudian or Hull-Spence theories). These models appear more appropriate for mechanical (i.e., closed) rather than biological (i.e., open) systems. The tension-reduction model, though providing some insight into single-unit functioning, does not provide adequate explanatory mechanisms to account for development or for the interrelations among individuals. The more recent dominance of cognitive theories (e.g., Piagetian) in the development literature has brought a focus on adaptation—a concept which we see as the central focus of systemic principles (Anderson, 1957; Sawyers & Moran, 1985). A recognition of the multivariate and reciprocal interactions occurring throughout the life span appears to necessitate a more systemic orientation among developmentalists. Belsky's (1981) description of individual interactions within the family not only calls into question previously accepted linear causal relationships but also forces individual development to be considered in the context of the family. The recent inclusion of Sameroff's (1983) chapter

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in the classic *Handbook of Child Psychology* edited by Mussen gives clear recognition that the systemic approach is becoming incorporated into the mainstream of child development. Works by recent theorists (Belsky, Lerner, & Spanier, 1984; Brazelton, Tronick, Adamson, Als, & Wise, 1975; Bronfenbrenner, 1977, 1979; Huston-Stein & Baltes, 1976; Lerner & Spanier, 1978) provide clear indications that development occurs within a context and that, due to the reciprocal influences, the developing person not only is influenced but also directly influences that context. The focus moves from individual units of behavior in isolation to consideration of process, of change, and of relationships. Notions of steady state and status quo give way to progressive equilibration (Sawyers & Moran, 1985) and concepts of openness/closedness should consider dynamic permeability as a guide to adaptation (Moran & Sawyers, 1986). The focus on adaptation as a critical developmental component brings to the fore the importance of context as a critical and inescapable variable. Indeed Sameroff (1983) argued that it is our evolutionary model which suggests that the structure and functions of the organism can be understood only through reference to context.

Bronfenbrenner (1977, 1979) is one of those theorists who places a strong emphasis on context. His contextual emphasis is twofold: (a) an emphasis on ecological validity suggesting that context is inevitably a variable in any research study and (b) the need to adopt a multisystemic framework in which every system is considered in the context of larger systems. Bronfenbrenner's discussion of ecological validity demonstrated that both the laboratory and the field provide appropriate, perhaps even necessary, settings for research. He noted that each of these settings yield data relevant to different conclusions. This conceptual framework avoids the false laboratory versus field dichotomy, recognizing instead that the choice of setting is a function of the desired context (e.g., behaviors in an unfamiliar versus familiar setting) and the desired outcomes. This legitimizes a wide variety of research methodologies and settings but forces us to consider context as an inevitable (and possibly powerful) factor in every study. Additionally, it makes the real-life experiences of individuals and families a consideration in research studies.

Bronfenbrenner also discussed the need to adopt a multiple systemic orientation (i.e., which includes the near and far environments) as another critical component of his theory. His discussions of the microsystem, mesosystem, the exosystem, and the macro-

system brings developmental theory into much closer alignment to family systemic approaches (e.g., Kantor & Lehr, 1975). We need to recognize, however, that each system that Bronfenbrenner defines as containing the individual (e.g., the family, the work group, etc.) has a life of its own. Bronfenbrenner's notion of the mesosystem speaks to the interrelationships of these systems but not necessarily to the dynamics within each of these systems. As Sameroff (1983) pointed out, too often we have focused only on individual units (i.e., the child, the family, the culture) and not on the connections between these units.

The application of systems theory as related to the individual can best be characterized by concepts descriptive of the underlying processes involved in development, i.e., a focus on change. In the family literature, however, systems concepts typically describe products or behaviors of the family or family members, i.e., a focus on characteristics. For example, Olson, Russell, and Sprenkle (1983) discussed power structure, roles, and rules of the family system. Likewise Kantor and Lehr (1975) focused on variables such as power, affect, and meaning. These tend to be character rather than change variables, and neither approach has given adequate attention to context.

We need the integration of the multivariate, multisystemic framework to explain how the needs of each system are met within specific contexts at specific periods of development. We believe the adaptation of each subsystem is directed toward self-preservation. Any given individual is part of several systems (e.g., family, work, community, state), and the needs of each of these systems are not always in concordance. Moreover, the person's involvement in these systems changes with development.

Systems compete with each other for resources, whether the systems in question are individuals or nations. At times, the basic needs of one subsystem (e.g., individual) give way to the needs of larger systems (e.g., family or state). Thus, a parent sacrifices for the good of the family, or a person fights for his or her country. Explanations of behavior must recognize that any given behavior will be adaptive for one of the many systems to which a person belongs.

We also need to recognize that the scope of those interlocking systems is becoming ever larger with our expanding economic and social reliance on more complex social and political systems. Individuals, at one time, may have belonged only to other systems composed of a clan or small band of other individuals. This gradually expanded to larger social networks such as tribes, communities, even nations. Today, as we attempt to deal with

resource use and allocation on the global level, a similar expansion occurs in the type and number of systems a person may belong to, affect, or be affected by. This certainly complicates our task of explaining or predicting behavior.

The interrelationship among various systems highlights the need to focus on adaptation as a dynamic process. For optimum adaptation, boundaries must be flexible (i.e., open at times, closed at others). Only labile individuals or families will be stable. Adaptation is gained with an appropriate balance of assimilation and accommodation. In this sense, we must view adaptation as an organizational construct (see Sroufe & Waters, 1977). This notion suggests that adaptation will be evidenced by different characteristics at different times within different contexts.

Home economists seem to be in an advantageous position to provide the necessary theory and research efforts for understanding the behaviors and processes underlying individual behavior within a systemic framework. Without a doubt these efforts rest on the ability of theorists to conceptualize a complex multivariate approach that incorporates multiple systems (i.e., the individual, the family, the near and far environments) and to conduct research appropriate to such conceptualizations. Our task is not to suggest that one theory is common to all of Home Economics but to organize the knowledge areas of Home Economics in a common framework to explain the variety of behaviors of individuals and families. To do this we believe we must focus on adaptation and use models that consider character, change, and context variables simultaneously.



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Continued on Page 17

A Commentary on the Quest for a Single Overarching Theoretical Framework for Home Economics

John C. McCullers

The importance of enhancing the theory base of Home Economics cannot be overemphasized; it is perhaps the most critical problem facing our profession today (McCullers, 1984). We do not have a long, historical tradition of research linked to theory in Home Economics, but there now is an increasing number of home economists who recognize the importance of theory and have the training and motivation to conduct sound research (McCullers, 1987). So, this search for a unified theory base for Home Economics comes at a critical and an opportune time.

The project, as I understand it, has several goals. These are to encourage a greater use and development of theory in Home Economics research and to begin to develop a theoretical base for Home Economics, a theory of Home Economics, a conceptual framework that will enhance communication between the subject matter areas, and ultimately a greater integration and unification of the field. Although all of these goals are interesting and worth pursuing, they differ considerably in importance and in how readily they could be achieved.

We cannot know in advance if this search for an overarching theory will be fruitful or whether such a theory, if developed, would help us to produce more and better research or to better unify Home Economics. There would seem to be much to gain if the project succeeds, but the task is formidable and there appears to be many obstacles to success. The chief purpose of this commentary is to examine the relative importance of the various project goals in order to distinguish those that are vital to the future of Home Economics from those that are not and to take note of some of the difficulties and potential pitfalls of the project. The point of all this is to increase our awareness of the size of the challenge being laid before us, to be fore-

warned of some problem areas, to avoid the expectation of a quick and easy success, and to persevere in our efforts to achieve the essential goals.

The first goal, to encourage greater use and development of theory in our research, is, I believe, of vital importance. If Home Economics is to survive into the next century on university campuses, we must take our research and scholarly activity much more seriously than we have been doing, and the results of our research must begin to earn the respect of other professionals outside of Home Economics. If we do not achieve this first goal, the others may not matter. Fortunately, this may be the most attainable of the project goals at this time. However, I do not believe that significant progress will be possible without an active involvement in theory. Systems theory offers one, but obviously not the only, theoretical avenue for achieving this goal.

By contrast, the goal of trying to develop a theory of Home Economics, although an interesting challenge, does not appear to be an essential goal. That is, we could achieve a significant improvement in the quality of our research, through an increased use of theory and/or a better unification and integration of the field of Home Economics, without developing a theory of Home Economics. Theories are usually developed to explain the phenomena that comprise the content interests of a discipline rather than the discipline itself. There is, for example, no "theory of psychology," and yet psychology has managed to achieve a reasonably unified and integrated status and to produce good theory and research.

The goals of developing a common theoretical base for Home Economics and of enhancing communication and linkage between the subject matter areas through a common conceptual framework appear to be related to the goal of greater integration and unification of the field. This may sound strange, but I do not consider the goal of greater unification and integration to be vital to the future of Home Economics. Many home economists are concerned about the present status of the field. Some feel that excessive development in the specialization areas is causing the demise of Home Economics. I believe that the root of the problem is just the other way around: The

quality of scholarship in the general field of Home Economics has not kept pace with that in the specialization areas.

For this reason, home economists often enjoy greater academic respectability in their specialization areas than they do as home economists. This may help to explain why Home Economics units, in droves, have been dropping the name Home Economics like a hot potato. It is difficult to imagine that so many home economists would have been interested in shedding the label if it conveyed as much status as the specialization areas presently do; I am not aware of any mass movement to change the names of the specialization areas.

A greater unification and integration of Home Economics may make us feel more comfortable but, in the absence of improved research and scholarship, would not likely assure our future. On the other hand, with stronger research and scholarship, we could probably be less integrated and unified than we now are and still survive quite well. At least, the disciplines that comprise the typical college of arts and sciences, for example, do not approach Home Economics in the degree to which they form a unified and integrated whole, and yet their individual futures and their collective future as a college appear to be secure.

Nevertheless, because of our history and our mission, a better unification and integration of Home Economics is a highly desirable goal, even if not essential. If we wish to reach it, we clearly will need to increase the flow of theoretical and research ideas across the subject matter areas. A common conceptual framework for the field as a whole should facilitate research communication between the subject matter areas of Home Economics, and systems theory could provide the vehicle for developing the framework. Because the subareas of Home Economics are not equivalent in their relative maturity in research and theory, we should not become discouraged if we find that our new conceptual framework does not entirely eliminate communication problems.

A common theoretical framework may be much more difficult to develop and to implement than a common conceptual framework, and perhaps it is less essential. Researchers

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will not rush to embrace a systems perspective or the particular models under consideration, unless they see some value in doing so. It will be the task of those who advocate systems theory to make this value clear. This message will need to be communicated to at least four types of Home Economics researchers, and each will require a somewhat different version. There are, first of all, home economists who have never learned theory or used it in their research; they will have to be persuaded that they should. Secondly, there are those who recognize the importance of theory but may wonder why they should have to learn a new theoretical perspective based on the Kantor and Lehr (1975) or the Bronfenbrenner (1974, 1979) models, rather than devoting their energies to the theories of their own specialization areas; this will be of more concern to home economists whose specialization areas lie outside family relations and child development.

A third group of home economists, competent in theory and research, may conclude that a systems perspective does not offer any advantages. The two models being considered here are ideally suited to research of a multivariate, correlational nature. Much Home Economics research is of this sort, but much is not. Research into aspects of nutrition, energy, textile chemistry, food science, child development, and equipment, for example, typically employs more narrow-gauged, experimental models. So, the advocates of a systems theory approach must demonstrate the value of a common conceptual framework based on systems theory without denying that other theoretical approaches may be better suited to the research problems and needs of individual investigators.

Finally, there is a fourth group of home economists who already use systems theory and who may not see any advantage in changing to another version created for the field as a whole. Systemic models differ, and knowledge about one does not ensure acquaintance with others. Child developmentalists, who generally know about Bronfenbrenner's ecological model, typically know nothing of Kantor and Lehr. This situation is not peculiar to Home Economics. In his most extensive and eloquent plea for adopting an ecological (systems) perspective, Bronfenbrenner (1979) does not reference Kantor and Lehr, or Bertalanffy (e.g., 1950), the person generally credited with having formulated general systems theory.

Inasmuch as all Home Economics researchers could possibly be fitted into one of the above four groups, they constitute a formidable force with respect to the ultimate adoption of any new theoretical perspective. There may not be many researchers who presently feel

that they need this new framework in order to do their research work, but few should oppose it in principle. Most would support any effort to achieve the general goals of this project.

There are two important issues to be addressed if we hope to achieve a common theoretical framework that embraces the entire field of Home Economics and that receives support from most researchers in Home Economics. One of these is the matter of how the framework will be implemented. I hope it would not be by an administrative edict that makes the new model the official theoretical framework and requires all research to be conducted from this perspective in order to have the approval and support of the profession. Our research base in Home Economics is very thin, and most Home Economics research is not based on systems theory. We simply could not afford to exclude good research, because it did not conform to a systems perspective.

A second important issue is how the new model would be evaluated. Talk alone, including exhortations to adopt the model and logical arguments for its utility and applicability to the problems and subareas of Home Economics, may not prove convincing. Sooner or later, the case will have to rest on the only type of evidence that is ever convincing to the scientist—the weight of hard data. Hard data, however, may be difficult to provide. A brief look at the Bronfenbrenner model may help us to understand why. Although Bronfenbrenner (1979) claimed to “offer a new theoretical perspective for research in human development” (p. 3), his model is not a theory of human development in the usual sense. Rather, it is a conceptual framework for child development research that is very similar to the one being proposed here for Home Economics research.

The field of child development is already highly integrated and theoretically oriented, as compared to Home Economics. Bronfenbrenner is a senior, respected, and highly influential human developmentalist. He has argued broadly and eloquently for the adoption of an ecological perspective for more than a decade (e.g., Bronfenbrenner, 1974). It is fair to say that his arguments have been heard and that his influence has been great. It is also fair to say that the Bronfenbrenner model has not been adopted as the single, overarching theoretical framework for the field of child development.

So, a conceptual framework for Home Economics could be very useful and valuable without becoming the single, overarching theoretical framework for Home Economics. The major strength of Bronfenbrenner's ecological model is as a conceptual framework that serves to remind us of a world of poten-

tially important influences in the social environment and to increase our sensitivity to these in our research. However, if we wonder why this ecological framework has not produced an abundance of high quality, ecologically-oriented research, the answer may be that the model is not a theory in the usual sense and cannot give us specific theoretical advice. That is, the Bronfenbrenner model does not tell us how to measure or control a plethora of potentially important variables, exactly what these variables are, how they relate to or interact with each other, or which ones from a sea of possibilities should be more important or fruitful to study. This may help us to understand how a conceptual framework for Home Economics could be very useful and still not provide the theoretical means for generating the hard data needed to support and confirm the model.

My intent in this brief essay has been to provide some food for thought on a problem of great importance. It is an immense challenge to develop and implement a useful and legitimate overarching theoretical framework for Home Economics that will be freely embraced and used by home economists, that will result in an improvement in theory and research and better communication between researchers across the subject matter areas of Home Economics, and that will lead to a more unified and integrated field of Home Economics. I wish this project complete success in every aspect of its undertaking, but I would consider it to have been successful even if it does not achieve every goal or if it takes longer than planned to do so. This project will have rendered a great service if it only helps us to make progress toward that first and vital goal, the enhancement of theoretically grounded research in Home Economics.



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The Search for Theory in Home Economics

**James D. Moran, III and
David R. Imig, Guest Editors**

In 1984, John McCullers acknowledged the belief that home economists have avoided the use of theory in research and concluded that we have been paying an intolerable price in terms of stature and recognition accorded Home Economics research within the scientific community. In that same issue of the *Home Economics Research Journal*, Marjorie Keiser suggested that establishing a theoretical base was one of the critical needs for Home Economics research. Given these comments and despite the attempts of a number of prominent scholars (e.g., Andrews, Bubolz, and Paolucci, 1980; Bubolz, Eicher, and Sonntag, 1979; Deacon and Firebaugh, 1981; Paolucci, Hall, and Axinn, 1977), we can only conclude that as a field we do not as yet have theoretical perspectives that are well-articulated. We apparently still need theoretical work that will give us "a set of concepts which can bridge across [our] several disciplines . . . and make sense out of the diverse contents [our] research scholars are working on" (Hill, 1984, p. 9).

The search for an overarching theory does assume, of course, a commonality of perspective which cuts across various specialties. Can researchers speak the same language in the different departments in Colleges of Home Economics, Human Ecology, Family Life, Human Resources, Family and Consumer Sciences? What makes these Colleges distinct from other disciplines on campus? How do they justify their existence as separate Colleges? What makes child development or interior design or merchandising within a Home Economics perspective different than those within Colleges of Education, Architecture, or Business?

Indeed, what is the Home Economics perspective? The *Accreditation Documents* (Haley, 1984) call for attention to "the com-

mon body of knowledge"—the well-known criteria of 6.21a-f. Yet, often overlooked within these guidelines are additional criteria that go beyond knowledge of families, human development, nutrition, design, and management principles. These include evidence of "the synergistic, integrative nature" of the Home Economics profession (6.23) which is more specifically spelled out in 6.2a as "the family as a system, the interaction of individuals and families with the near environment, and the interrelatedness of the family within other societal systems" (p. 56). This emphasis is also reflected in the content specifications for the new certification examination.

We then have in our accreditation and certification standards the basis for a theoretical perspective but, unfortunately, do not have a theory. They are, of course, multiple variations of systems theory that exist. One needs only to look at the fascinating and heated debate within Marriage and Family Therapy literature of the last several years to recognize these variations and the advantages of attention given to theoretical issues. Because of the lack of a forum, perhaps, we have yet to engage in a serious discourse regarding the refinement, revisions, and refutation of possible theories that are candidates for providing the field with an overarching framework. This, indeed, was the purpose of this special issue.

We start with the premise that Home Economics does have a common perspective and that this perspective is rooted in systems theory. What we need to address is how that perspective can be applied to various research models so that theory building, theoretical debate, and theoretical advancement clarifies a perspective that is uniquely ours.

This is by no means an attempt to return to the timeworn generalist-specialist debate. Integrated does not mean that one needs detailed information about every specialty—such a task is impossible. Perhaps we should consider Hirsch's (1987) comments regarding extensive and intensive curricula. The extensive curriculum is knowledge, information, attitudes, and assumptions that are shared, i.e., common associations for concepts. The intensive curriculum involves understanding of a specific subject and integrating that knowledge into a coherent whole. Indeed, though Hirsch is talking about a general education (i.e., the literate American) in discussing the extensive curriculum, parallels to "the literate home

economist" are intriguing.

What integration does imply (or requires) is that we possess the means to take information from various specializations and place it within a coherent framework. To us, this necessitates a theory that allows one to take knowledge generated by any specific specialty and apply it to his or her own. If a common theoretical thread exists across these specialties this task becomes not only easier but more meaningful. We are not as interested in a theory of Home Economics so much as a theory for home economists.

The papers in this special issue of FORUM demonstrate that the potential exists for accomplishing this task. Systems thinking has a rich tradition in Home Economics and conceptually has the promise to advance the integrative efforts of the field. The range of articles in this issue provides the reader with a variety of examples of the various stages of systemic thought as applied to a number of Home Economics subject matter areas (e.g. Owen, Evers, Phillips, etc.). It will be necessary, however, if progress is to continue, to struggle with the problem of operationalizing the important systems concepts. Many of the authors have directly, and indirectly, generated important research questions that need to be investigated. The ability to actualize the promise of Home Economics lies in the capacity of its scholars to operationalize systems theory within an integrative, multisubject matter context.

McCuller's comments are certainly necessary for all to consider—indeed we know we have a long way to go. He has pointed out some of the gaps which need to be plugged. This special issue is viewed as a starting point. As we have read and reread the papers we felt we were on the launching pad, following years of abortive efforts and years of attempts that failed to catch hold except in isolated pockets, because we weren't ready conceptually or methodologically. The successful launch requires the collaborative work of many—some working on specialized tasks, others on broader issues. All, however, should provide data and concepts appropriate to integration.

As we go through our preparations for launch we need to attend to our system checks: the fuel system to provide energy; the guidance system to provide direction; the communications system to provide coordination; the evaluation system to provide feedback; and

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the ignition system to provide liftoff. We hope that this special issue has served as the impetus for Home Economics to seriously consider the refinement of theoretical perspectives that allow us to better understand and predict the behaviors of individuals and families. We hope that this special issue will serve as the catalyst. 10, 9, 8, 7, 6,



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Topic — HUMAN NEEDS

For some time the notion has prevailed that an understanding of universal human needs would provide a foundation for public and private decisions affecting the quality of human life. A few theorists (eg., Etzioni, Maslow) explored the elements of universal requirements, but validation attempts have not been fruitful. If basic human needs are believed to vary according to cultural and environmental differences, it is not difficult to explain nonconfirming results. But the idea persists that humans have more than physical needs in common.

A consideration of this topic raises a number of questions. It is agreed that the physiological need for air, food, water, and sleep are common human requirements. Should a definition of basic needs include only those elements essential for physical survival, or should it include that which is necessary for a human being to thrive? What is the relevance of anthropological and other recent studies of people in preindustrial social systems to understanding human needs? What is the relationship of development of social systems to human needs? How can we organize needs in such a way that they serve a variety of cultures, environments, and stages of development? Give support for or against motivation as a theory of human needs. Assess the approaches for validating theories of human needs and propose an alternative one. Justify the need for a theory of human needs for Home Economics.

These are some of the questions and topics that will expand our understanding of the human condition and help us to address the critical issue of our social responsibility for satisfying global human needs and improving the quality of life. Manuscripts may respond to any of the above suggestions but need not be limited to them.

Suggested length of articles: 1,000 - 2,000 words.

Information — Home Economics FORUM is a refereed publication outlet for members and non-members. "Guidelines for Authors" is available upon request.

Deadlines — Copy is due September 1, 1988 for Spring 1989 publication.

For further information, to obtain a copy of "Guidelines for Authors" and to submit papers, contact —

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Topic — COMPLEMENTARY USES OF QUANTITATIVE AND QUALITATIVE METHODOLOGIES AND PARADIGMS IN HOME ECONOMICS

The controversy about the appropriateness of quantitative versus qualitative research methods was discussed by Reichardt and Cook (1985). Generally in Home Economics, preference has been for either a quantitative or qualitative approach rather than for one that integrates both research methodologies. Brown and Paolucci (1979:39) in their paper, "Home Economics: A Definition," indicated that any practical science, including Home Economics, must rely upon all of the scientific perspectives (analytic-empirical, interpretive, and critical) for reasoning about concrete problems of professional service. Complementary uses and integration of methodology and paradigms are essential to adequate conceptualization of the multifaceted dimensions of the problems that have an impact on individuals and families. For example, Diana (1983) used insights from an ethnographic study to supplement information from previous empirical studies on parent-toddler interaction patterns. These insights amplified the design and development of a new empirical study by enhancing the formulation of hypotheses, clarifying procedures, identifying additional variables, and improving the instrumentation process.

This issue of Home Economics FORUM will focus on research that documents complementary uses of both quantitative and qualitative methodologies and paradigms, and authors should summarize the value of the integrative approach to the research.

Papers should be 1000 to 3000 words in length or longer with approval of the editor. Preference will be given to representation from each of the subject matter specializations within Home Economics.

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