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Systems Theory

BRUCE D. FRIEDMAN AND KAREN NEUMAN ALLEN

Biopsychosocial assessment and the development of appropriate intervention strategies for a particular client require consideration of the individual in relation to a larger social context. To accomplish this, we use principles and concepts derived from systems theory. Systems theory is a way of elaborating increasingly complex systems across a continuum that encompasses the person-in-environment (Anderson, Carter, & Lowe, 1999). Systems theory also enables us to understand the components and dynamics of client systems in order to interpret problems and develop balanced intervention strategies, with the goal of enhancing the “goodness of fit” between individuals and their environments. Systems theory does not specify particular theoretical frameworks for understanding problems, and it does not direct the social worker to specific intervention strategies. Rather, it serves as an organizing conceptual framework or metatheory for understanding (Meyer, 1983).

As a profession, social work has struggled to identify an organizing framework for practice that captures the nature of what we do. Many have identified systems theory as that organizing framework (Goldstein, 1990; Hearn, 1958; Meyer, 1976, 1983; Siporin, 1980). However, because of the complex

nature of the clinical enterprise, others have challenged the suitability of systems theory as an organizing framework for clinical practice (Fook, Ryan, & Hawkins, 1997; Wakefield, 1996a, 1996b).

The term *system* emerged from Émile Durkheim’s early study of social systems (Robbins, Chatterjee, & Canda, 2006), as well as from the work of Talcott Parsons. However, within social work, systems thinking has been more heavily influenced by the work of the biologist Ludwig von Bertalanffy and later adaptations by the social psychologist Uri Bronfenbrenner, who examined human biological systems within an ecological environment. With its roots in von Bertalanffy’s systems theory and Bronfenbrenner’s ecological environment, the ecosystems perspective provides a framework that permits users to draw on theories from different disciplines in order to analyze the complex nature of human interactions within a social environment.

RELEVANT HISTORY

Ludwig von Bertalanffy (1901–1972), as mentioned above, is credited with being the originator of the form of systems theory used in social work. Von Bertalanffy, a theoretical biologist born and educated

in Austria, became dissatisfied with the way linear, cause-and-effect theories explained growth and change in living organisms. He felt that change might occur because of the interactions between the parts of an organism, a point of view that represented a dramatic change from the theories of his day. Existing theories had tended to be reductionist, understanding the whole by breaking it into its parts. Von Bertalanffy's introduction of systems theory changed that framework by looking at the system as a whole, with its relationships and interactions with other systems, as a mechanism of growth and change. This changed the way people looked at systems and led to a new language, popularizing terms such as *open and closed systems*, *entropy*, *boundary*, *homeostasis*, *inputs*, *outputs*, and *feedback*.

General systems theory is likened to a science of wholeness. Von Bertalanffy (1968) advocated "an organismic conception in biology that emphasized consideration of the organism as a whole or a system" (p. 12). He saw the main objective of the biological sciences as the discovery of organizational properties that could be applied to organisms at various levels for analysis. This led to the basic assumption that "the whole is more than the sum of its parts" (p. 18). Von Bertalanffy's approach is derived from a basic concept that relies heavily on linear-based, cause-and-effect properties to explain growth and change in living organisms. There are two conditions on which these properties depend: (1) that an interaction occurs between parts and (2) that the condition describing the relationship between the parts is linear. When these two conditions are present, von Bertalanffy felt, the interaction was measurable and was subject to scientific inquiry.

Figure 1.1 depicts the linear nature of the system. There are inputs, outputs, and outcomes. However, what happens in the system is somewhat mysterious, and one can only measure the changes by observing the outputs in relationship to the outcomes or goals of the system. Workers can vary or modify the inputs, including their own actions, to create a change within the system.

To measure the interaction, von Bertalanffy applied basic scientific principles to various types of

organisms that explain and measure behavior. It is important to understand that von Bertalanffy's original conception of systems theory was one of organization. He saw it as a method of organizing the interaction between component parts of a larger organism. Since it was a way of organizing information rather than explaining observations, it was easily adaptable to many different scientific fields, including psychology, psychiatry, sociology, and social work. The important distinction among the various fields adopting these principles was how they used other theories to explain the interaction within the organism. Thus, systems theory is an organizational theory that looks at interactions between systems: How a field defines the system determines the nature of the interaction. Von Bertalanffy was influenced by a number of sociologists, and their contributions are important to social work. To understand more fully the interactional properties of systems theory, it may be useful to understand the key concepts used by von Bertalanffy and other systems theorists.

Other Contributions to Systems Theory

Von Bertalanffy was influenced by Durkheim and Max Weber, both of whom were early pioneers in the field of sociology. They took early systems theory as it was initially applied in the late 1800s and early 1900s to biological organisms and applied it to human social systems. Durkheim was interested in how societies were organized and how they maintained cohesion or group identity over time. He believed that human beings experience a unique social reality not experienced by other organisms and that order can only be maintained through the consent of individuals within the group who share the same morals and values. In his 1893 doctoral dissertation, later published as *The Division of Labor in Society*, Durkheim (1984) explained that in highly organized systems, the division of labor contributes to the maintenance of societies. In complex societies, individuals perform various roles that, while they lead to specialization and segmentation, also create a high degree of mutual interdependence

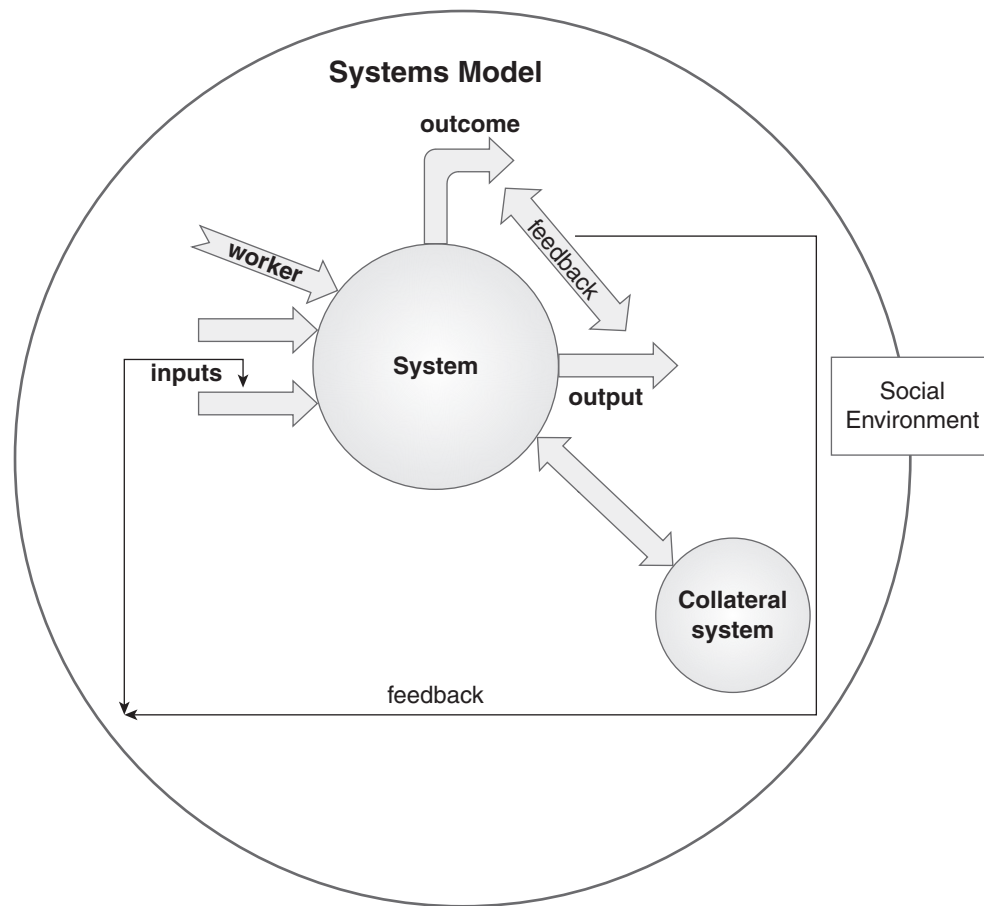


Figure 1.1 Systems Model

between units. Although the individuals performing them will change, these roles persist over time and maintain a society (Durkheim, 1984). Durkheim also wrote about crime and suicide, believing both to be a result of disruptions or imbalances in the integration of individuals and society.

Durkheim was particularly interested in how roles and the division of labor maintained society in a macro sense. For example, the role of the police in a society is to protect citizens from criminals and preserve order by enforcing the law. The stability or equilibrium of a society is threatened when the police abuse their authority.

We can also use role theory to judge how well individuals are functioning at a more micro level.

Social workers are often called on to evaluate how well mothers and fathers care for their children. As parents, they are expected to conform to certain norms and role expectations that include providing their young with adequate food, shelter, and medical care and ensuring that their educational needs are met. Severe cases of role disruption can lead to state intervention through protective services. Durkheim is famous for his concept of “anomie,” which describes individuals who are alienated because they are unable or unwilling to fit into society through compliance with the normative expectations of the group and thus fail to fulfill expected roles. To a social worker, *anomie* describes situations where there is a severe disruption in the goodness

of fit between an individual and his or her social context (Merton, 1938).

These concepts are identified in Figure 1.1, where the system exists within a social environment. Thus, certain factors in the social environment affect the system and its outcomes and outputs. The system also interfaces with other systems or collateral systems. There are expectations on the role and function of the system to conform to standards within the larger social environment. If the system does not subscribe to those norms, then the system is considered dysfunctional.

Max Weber was a contemporary of Durkheim known for his work studying complex social institutions and organizations. In addition to being one of the first sociologists, he was a lawyer, politician, and economist. Unlike Durkheim, who believed that societies are sustained through consensus and the willingness of individuals to comply with normative expectations and roles, Weber believed that governments and bureaucracies are essentially coercive in nature and are maintained through their “monopoly” in the legitimate use of violence or force. He also studied the way in which various types of leaders may influence society. Because they are very often government employees carrying out the policies of the state, it is important for social workers to be mindful of Weber’s position, that the best interests of the individual or client system they serve may conflict with the interests of those in power.

The work of Durkheim and Weber directly influenced Talcott Parsons (1951), who augmented their work by elaborating on the specific functions of social systems. Parsons was an American philosopher, economist, and sociologist interested in articulating a unified conceptual framework or “grand” theory for sociology. Parsons called his theoretical framework “structural functionalism.” Structural functionalism states that social structures involve interaction and relationships among “actors” and are characterized by a functional imperative. This is to say that a defining attribute of a social system is its function in the larger social environment. Parsons delineated four functional states of social systems: (1) adaption (to the external environment), (2) goal

attainment or growth, (3) integration (with other social systems), and (4) latency (homeostasis) or pattern maintenance (preservation of interactional patterns, norms, and customs through socialization processes). These states are not mutually exclusive but are integrated.

Adaptation describes the dynamic process in which a given system responds to the demands and pressures of external forces and conditions. It also includes the way in which a system is able to bring in resources from its outside environment. Adaptation involves reciprocal interactions and exchanges between the system and its environment, which ultimately results in both being changed. When a system determines and prioritizes its goals and then obtains and mobilizes resources in directed action to achieve those goals, it demonstrates the function of *goal attainment*. *Integration* describes the coordination and orchestration of the system’s internal components. Finally, *latency* or pattern maintenance describes a system state in which the system is invested in maintaining and transmitting its norms and values (*Blackwell Encyclopedia of Sociology Online*, 2009).

Therefore, when attempting to understand and intervene in social systems, social workers must also consider the functional imperative of the system. Thinking of the function a particular system serves can help social workers to evaluate the extent to which the system is succeeding in fulfilling that purpose and to determine areas of weakness or dysfunction that can be strengthened so that the organization functions properly and supports the individuals and subsystems within it. For example, if we examine the prison system, we might raise questions about the function of prisons in protecting good citizens from criminals by their removal from society and institutionalization. We might then ask, does a higher rate of incarceration lead to a reduction in criminal activity? However, if we argue that a function of prisons is the rehabilitation of offenders, we may then pose very different questions. What are the recidivism rates for released prisoners? How do they fare once they are released? How well prepared are they to reenter society?

Cybernetics is an interdisciplinary approach that grew in part out of structural functionalism and an interest in understanding how systems create and use processes to regulate themselves. Niklas Luhmann, a contemporary German sociologist, was, like Parsons, attempting to explicate a “grand theory” in sociology that could be applied to all social systems. For Luhmann, all social systems are communication networks, and a particular system selects what kind of information it will accept. This creates and maintains the identity of the system. When studying a particular society, Luhmann (1995) argued, its mass communications and media are its defining features.

All social systems receive input from the environment, engage in processes, and generate outputs. In addition to having a structure, social systems serve particular functions. The family is an essential social system with the function of socializing and caring for its members. Family systems theory looks at the dynamic processes of a family and intervenes to correct or adjust maladaptive processes or structures (Bowen, 1978; Minuchin, 1974). One essential process for a family, as well as other social systems, is communication. As social workers, we often work to facilitate and clarify communication.

Communication and information constitute an input into a system, a process occurring within the system, and an output in interactions with other systems. Communication regulates and either stabilizes or disrupts a system. In the late 1950s, a group of mental health professionals in Palo Alto, California, began to use communication theory and cybernetics to study the origins of schizophrenia. Don Jackson, Gregory Bateson, and Virginia Satir, among others, recognized that communication patterns in dysfunctional family systems were disrupted. Although such patterns were not the cause of schizophrenia, as they had theorized, their contribution to family systems theory has remained an influential one. Bateson (1972) and Bateson, Jackson, Haley, and Weakland (1956) identified a particularly disruptive communication pattern in dysfunctional families. A “double bind” occurs when an individual is placed in a no-win situation through contradictory instructions or

expectations. For example, when a child is told to “kiss mommy,” but her mother demonstrates rejecting behavior, the child is placed in what is termed a *double-bind* situation. If she doesn’t follow the injunction to “kiss mommy,” she risks her mother’s displeasure. However, she also risks displeasing her mother if she *does* comply.

Virginia Satir (1967) used the term *metacommunication* to describe “communication about a communication.” Such metacommunications may be made openly or implicitly by verbal as well as non-verbal mechanisms. The extent to which a message and a message about the message (metamessage) agree with each other is referred to as *congruence* or *incongruence*. Incongruence in communication may result in confusion and anxiety. For example, if a child is told that he performed well on a task but perceives through facial expressions or verbal tones that a parent may be disappointed, he is unable to discern the quality of his performance and the true nature of his parents’ approval.

The Terminology of General Systems Theory

Von Bertalanffy believed that all things, living and nonliving, could be regarded as systems and that systems have properties that are capable of being studied. A *system* is defined as “an organized whole made up of components that interact in a way distinct from their interaction with other entities and which endures over some period of time” (Anderson et al., 1999, p. 4).

A familiar demarcation of systems in social work involves the designation of particular social systems as being micro-, mezzo-, or macrolevel depending on system size and complexity. Microsystems are understood to refer to small-size social systems, such as individuals and couples. Mezzosystems focus on intermediate-size systems, including groups, support networks, and extended families. Macrosystems focus on large systems, such as communities and organizations. This differentiation of systems by size can be somewhat arbitrary, depending in part on the social worker’s perspective as well as the organizational context, and its purpose, in which he or she

practices (Greene, 2000). For example, an organization can be viewed from a macro perspective, or it can be viewed as a mezzo unit within the context of its broader community and its political context.

Each system is a unit of wholeness with a distinct property or structural limitation that delineates it from other systems, a property von Bertalanffy termed the system's *boundary*. The boundary is what makes each system unique and gives it definition. Some boundaries are clearly defined; others may be permeable. In defining a person as a system, one may literally identify the person's skin as the boundary. Access to the person beyond the boundary is through various forms of communication, through the five sensory modalities, or through microorganisms that find ways of permeating the outer shell, or skin, of the person. However, the structure of the person is clearly defined by his or her physical being.

The boundaries of social systems can be partially defined by norms and customs. For example, a family is a system that defines its boundaries through sociological and legal definitions; groups are social organizations that define their boundary through group membership; communities are social organizations that define their boundaries through either geographic definitions of community or an ethnic boundary definition, as in ethnic communities. Through this process, it is possible to see that each system has a characteristic boundary and way of defining itself. These invisible boundaries also regulate how individuals enter and exit the system.

A system grows through an exchange of energy between the system and its environment, a process that is possible only if the boundary possesses permeability. This energy can be tangible or intangible. Tangible resources would be food, money, shelter, and other things that contribute to the physical maintenance of the system. An intangible resource could be information, as exemplified when a member of the system is educated or has useful knowledge that helps the system. The amount of information or energy that is permitted to pass through a given system's boundary determines the permeability of that boundary. The more permeable

the boundary, the greater the extent of interaction that the system has with its environment, thus leading to greater openness.

Von Bertalanffy (1968) differentiated between open and closed systems, observing that "living organisms are essentially *open systems*" (p. 32, italics added). An open system, unlike a closed system, exchanges matter with its environment; *closed systems* "are isolated from their environment" (p. 39). An example of a closed system that may serve adaptive purposes could be an ethnic minority community that has limited access to the majority cultural institutions due to active discrimination directed against its members.

Recognizing that system growth derives from the ability of the system to import energy or system inputs from other systems, openness is a critical quality for system functioning, and possibly even survival. However, there are other times when a system does close as a perceived means of protecting itself. In these instances, the system is exporting (system outputs) more energy than it is able to import. Since systems rely on a flow of energy, with outputs relying on fresh inputs, too much exporting can lead to a state of disorder, referred to as *entropy*. When the system is importing more than it is exporting, it is termed *negative entropy*, or *negentropy*, a state of system growth.

The exchange of information between the system and its environment is regulated by a process called *feedback*, a method of evaluation used to determine whether the system's outputs are consonant with the perceived *outcomes* (goals) that the system has established for itself. In addition to this internal feedback, the system also has a method of measuring responses from the external environment. In both situations, if the system perceives a variance between output and outcome, it can alter the process by varying the level of inputs. A classic example of system feedback and response is the thermostat in your home. The thermostat is set to a certain temperature; the sensors in the device read the room temperature (input) and adjust the furnace (output) to reach the preset temperature. The room temperature is read again in a continual feedback loop that regulates the furnace.

This modifying of levels of inputs and outputs is the form of control that all systems have in their interactions with their environment. In social work terms, an open system would generally (though not invariably) be considered a functional system, while a closed system would be classified as dysfunctional. A functional system interacts dynamically with the larger environment, a need that supports the survival of the system. Because there is a cause-and-effect relationship between the system and the environment, both are constantly changing in consequence of this interaction, so that the open nature of the system is one of constant change. Change does not always relate to disorder. Von Bertalanffy (1968) believed that if a system was working properly, it would achieve a form of dynamic equilibrium with the environment that he called *steady state*. Steady state is achieved through a process of ordering and growth that von Bertalanffy referred to as *negative entropy* (Dale, Smith, Chess, & Norlin, 2006).

The concept of steady state is a little misleading; *steady* here does not mean “constant” but a sense of balance between the system and the larger social environment (Anderson et al., 1999). To put it slightly differently, the ability of the system to adapt to its environment through changes in its structure leads to states of *equilibrium* and *homeostasis*, both of which relate to different types of balance. Equilibrium is the sense of being in balance. When something is in balance, there is little variability in movement before the state of balance is disrupted. On the other hand, homeostasis is a state of variable balance where the limits to maintaining balance are more flexible (Anderson et al., 1999). These limits are determined by the system and may be likened to the idea of something bending without breaking.

ECOLOGICAL ENVIRONMENT

The concept of ecological environment is credited to Uri Bronfenbrenner (1917–2005). Bronfenbrenner grew up in a state institution for the “feeble-minded,” where his father was the neuropathologist. Prior to receiving any formal training in psychology, Bronfenbrenner lived on the 3,000

acres of the institution, where patients spent their time working on the farm or in the shops. Through these early-life experiences, combined with his extensive study of the work of theorists such as Kurt Lewin, Bronfenbrenner developed a strong belief in the resilient nature of human beings. He regarded this resiliency as embedded in a cultural context that helped form and shape the individual.

Von Bertalanffy’s model assumed a single-dimension cause-and-effect relationship between social units within the environment. Bronfenbrenner, however, had some difficulty with the single-dimension relationship and felt that systems theory did not fully capture the complex dynamics that occur within social systems. In pure scientific situations, all aspects of systems can be carefully controlled for environmental effects. However, Bronfenbrenner (1979) observed that there are a number of additional environmental factors in human social systems, which he referred to collectively as the *ecological environment*:

The ecological environment is conceived as a set of nested structures, each inside the next, like a set of Russian dolls. At the innermost level is the immediate setting containing the developing person. . . . The next step, however, already leads us off the beaten track for it requires looking beyond single settings to the relations between them. (p. 3)

In essence, this view states that human development cannot be seen in isolation but must be viewed within the context of the individual’s relationship with the environment. In addition, each individual’s environment is unique. The “person’s development is profoundly affected by events occurring in settings in which the person is not even present” (Bronfenbrenner, 1979, p. 3). For example, within the context of a family, there may be forces affecting the parental subsystem that trickle down to affect the children without the children even being aware of them. For example, if a parent is experiencing stress at work and displaces his or her frustration at home by yelling at the children, one may see how events outside the child’s immediate environment may exert a pronounced effect on the child’s development.

When the concept of ecological environment is introduced into the formula of human development, the result is a complex matrix for defining behavior that not only includes “here-and-now” circumstances but also involves understanding the historical and cultural factors surrounding the family as well as any biological concerns, hence the bio-psycho-social nature of ecological systems. Systems theory, as an organizational theory, can begin to introduce order to this complexity by lending it conceptual clarity.

Figure 1.2 depicts a graphic configuration of the ecological environment. There are individual systems embedded within systems, and those systems interact in a three-dimensional way both vertically and horizontally. Thus, if the unit of analysis is the individual, there are other individuals (horizontal interactions) that relate to him or her. There are also vertical interactions. These vertical interactions may originate from “below” (in relation to individual biology), or they can come from “above” (in relation to family or community values or even social policies).

Ecological Systems Theory and Perspective

The juxtaposition of Bronfenbrenner’s ecological environment with von Bertalanffy’s systems theory

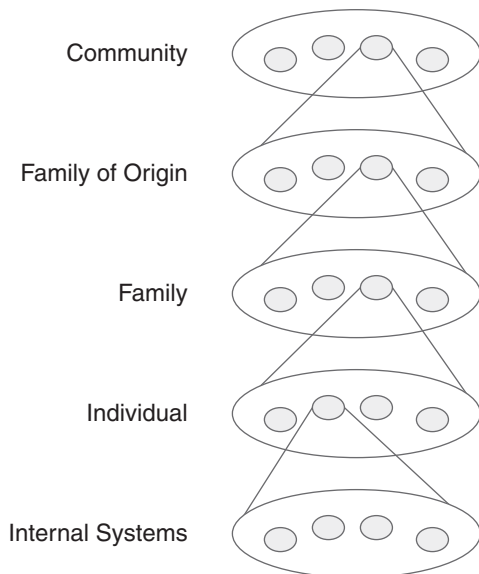


Figure 1.2 Ecological Systems Model

leads to the ecological systems perspective, which examines transactional relationships between systems. Since von Bertalanffy and Bronfenbrenner developed their theoretical concepts for other disciplines, the connection to social work was not readily apparent. Carol Germain has made strides in applying these concepts to the social work profession.

Germain was instrumental in adapting these two theoretical models to an ecological systems perspective with specific applicability to social work. She strongly advocated looking at the biopsychosocial development of individuals and families within cultural, historical, communal, and societal contexts, a perspective that requires us to look as well at all events in the person’s life. Social workers need to go beyond the scope of looking at the individual and rely on public policy, practice, and research to gain the information needed to make an adequate assessment. Germain (1991) characterized the nature of relationships between systems as transactional and “reciprocal exchanges between entities, or between their elements, in which each changes or otherwise influences the other over time” (p. 16). Such relationships are no longer linear but are circular, each system in the interaction affecting the others.

The idea of behavior as a function is adapted from Lewin’s field theory, which asserts that an individual can be studied by examining that person in the context of his or her environment. This may be symbolically represented through the equation $B = f(PE)$, where B is the individual’s behavior, a function of the interplay between person P and environment E (Lewin, 1935, 1976). Field theory adumbrates aspects of both Bronfenbrenner’s theory and Germain’s ideas regarding the person-in-environment.

Early social science practice focused on either the behavior of the person or the environment, not the complex interactions between the two (Bronfenbrenner, 1979). The ecological systems perspective, in contrast, is specifically concerned with the nature of such interactions between the individual (or group, family, or community) and the greater environment.

A case vignette may help illustrate the dual nature of person and environment interactions.

Valerie was a 16-year-old African American high school student who was involved in a program titled Career Beginnings, designed to identify at-risk high school students who had the potential for graduating from high school and then continuing their education at the college level. Valerie showed much promise and was academically successful. Her goal was to pursue a career in medicine.

Everything seemed to be progressing well for Valerie in the program. She had a good job, was responsible, had a good mentor, and maintained a 3.8 grade point average. Shortly before her 17th birthday, she appeared to be gaining weight. When asked, Valerie admitted that she was pregnant. On further exploration, Valerie said that she was the first generation in her family to be close to graduating from high school. She also revealed that she was being pressured by her mother and her grandmother to have a baby. Valerie was a firstborn child, as was Valerie's mother. Both Valerie and her mother were born when their respective mothers were 16. As Valerie approached her 17th birthday, both her mother and her grandmother (who lived with them) began pressuring her to have a child since they viewed motherhood as Valerie's primary role and 16 as the appropriate age to begin to have children. In effect, the family environment did not place the same emphasis on completing high school as did the program.

This case demonstrates the interplay of familial values on the individual. There may be times when the individual's goals are at variance with the environmental forces that are acting on the individual and dictate a different path.

This example raises the importance of understanding the interactional quality of person-in-environment relationships. Shulman (2009) refers to this as "client-system interaction" (p. 5) and describes the need for understanding the context surrounding the individual. In such a process, the worker begins by looking at the client's strengths rather than trying to identify the causes of the problem.

The nature of transactional relationships in the matrix of person-in-environment leads to the following nine assumptions of the ecosystems perspective:

Assumption 1: There is an underlying general order in the world.

Assumption 2: Social ordering is a constant and dynamic process.

Assumption 3: All human social behavior is *purposive*.

Assumption 4: All forms of social organization display self-maintaining and development characteristics.

Assumption 5: All social organizations are greater than the sum of their parts.

Assumption 6: Well-being is the natural state of all humans and human social organization. (This assumption serves as the foundation of the *strengths perspective*.)

Assumption 7: All forms of social organization can be characterized and studied as social systems.

Assumption 8: The social relationship is the fundamental unit of all social systems.

Assumption 9: The helping process seen in professional social work is the formalization of a natural social process (Dale et al., 2006, p. 13).

Germain's (1991) position is that all organisms exist in a particular order in the world. A reductionist approach necessitates the need to understand that order. However, through the ecosystems perspective, it is not necessary to know the order to facilitate systemic change or adaptation; change becomes possible through the identification of the system's strengths.

The ecosystem perspective views individuals as both the cause and the effect of their situation. Since the person is in a dynamic situation, each change he or she makes causes a reactive change in the larger system. Germain (1991) identifies adaptation, life

stress, coping, power, and human relatedness as important concepts for understanding the nature of the interactions of person-in-environment.

ADAPTATION

Given the dynamic nature of interactions in person-in-environment relationships, adaptation is the central ecological concept. Adaptation relates to the cause-and-effect relationship between the person and the environment, with change as the inevitable outcome of the interaction.

Adaptation may be directed to changing oneself in order to meet environmental opportunities or demands, or it may be directed to changing the environment so that physical and social settings will be more responsive to human needs, rights, goals, and capacities. (Germain, 1991, p. 17)

Adaptation as it relates to equilibrium would provide a short list of choices, whereas in achieving homeostasis, the system would have a more extensive range of options from which to choose. The following case example illustrates the process of adaptation.

Sarah, a 95-year-old woman, had suffered from polio since the age of 2.

Throughout her life, she constantly fought both her own body and her inability to access the larger systems that society had to offer. Sarah had undergone a number of spinal fusion procedures that temporarily alleviated some of her more distressing polio symptoms, helping her to adapt somewhat more successfully to the environment. But Sarah did not stop there. As an early activist, she became involved in bringing about awareness of the plight of disabled individuals. She served on her local town's disabilities committee, and when the Americans with Disabilities Act was passed in 1990, she became the director of the town's commission on disabilities. She was recognized as the person who fought for and got the curb cuts installed in the town.

Although confined to a wheelchair because of her polio, Sarah continued to be an active leader in helping businesses in the town become more accessible to the disabled. When Sarah's husband died, she might have become reclusive, since in many respects he was her link to the outside world, chauffeuring her to meetings and otherwise helping her remain connected to the world outside their home. However, because she was able to identify and develop strengths and to adapt to her environmental milieu by using the resources she had helped create, Sarah remained active and involved.

LIFE STRESS

Person-in-environment interaction leads to a normal tension, also referred to as *life stress*. Whenever different entities interact with each other, the ebb and flow between them creates some friction. The system's need to continue to adapt and achieve a state of homeostasis is itself a source of stress:

Life stress encompasses both the external demand and the internal (conscious and unconscious) experience of stress, including both emotional and physiological elements. What is perceived as

stressful varies across age, gender, culture, physical and emotional states, past experience, and the perceived and actual nature of the environment. (Germain, 1991, p. 20)

In other words, two people in exactly the same environmental situation may have different experiences owing to their differing perceptions of that situation. For one it may be comparatively stressful, while for the other it could be comparatively stress-free.

Irrespective of the unit of analysis—individual, couple, family, group, or community—the ecosystems

perspective is applied in essentially the same fashion, as the following example will illustrate.

A group of previously married individuals, Center Singles, consisting of persons in their mid-30s to mid-50s, provided a variety of functions for its members. For some the group symbolized a social outlet, for others it was purely educational, and for still others the group was a means of social support. This was possible since the group's goals

were global, with a central focus on the problem of being single again following a divorce or the death of a member's spouse. The global nature of the group's goal was an attraction, since in all likelihood more specific goals would have limited its membership. As a consequence, there were significant differences among group members that represented each person's capacity to cope with that particular life stress.

Two group members will be used as further illustration of this concept. Susan was in her mid-40s and had three children, ranging in age from 14 to 18. Susan's husband had recently told her that he wanted a divorce, to which Susan reacted with surprise and anger. She felt unable to function and had problems concentrating on simple tasks such as addressing envelopes. She was constantly on the verge of tears.

Elaine was also in her mid-40s. She had four children, ranging in age from 13 to 21. When her husband told her that he wanted a divorce, the first thing she did was to look at the want ads and find a job. Both Susan and Elaine were motivated to join the group for similar reasons, yet each dealt with this life stress differently.

Coping

The ability to cope requires both problem solving—what needs to be done to manage stress—and the ability to regulate negative feelings. The outcome of these factors leads to increased self-esteem, which helps diminish the negative feelings caused by a particular stressor.

For a person to cope successfully with stress, the individual must partially block out negative feelings “so that hope is maintained and some problem solving can begin. As problem solving proceeds, self-esteem is elevated, hope is strengthened, and the defenses that

were needed at the outset begin to relax” (Germain, 1991, p. 22). Each individual deals with life stress along a continuum in which adaptive coping and maladaptive defenses constitute the extremes.

The locus of the stress is an external source; however, the need to cope and to develop defenses arises from the internal anxiety created by an external stressor. Each person relies on his or her own strengths to cope with stressful situations. When people feel as though their resources have been tapped, their coping ability is reduced, and maladaptive defenses may predominate.

Laurie, a 40-year-old single mother of six, had a history of using drugs and alcohol to cope with the stressors in her life. She needed to supplement her income since the amount that she was earning was not sufficient to feed her family. She began working as a topless dancer but relied on drugs to diminish the shame and anxiety such work stirred up in her. As her financial situation worsened, she supplemented her meager income by performing lap dances and prostituting herself. Increasingly desperate, she turned to shoplifting and passed several bad checks.

By the time Laurie sought help through the Welfare-to-Work program, she had a long rap sheet with multiple convictions for shoplifting, passing bad checks, and welfare fraud and had already spent some time in jail.

(Continued)

(Continued)

When the worker discussed strategies for potential employment with her, Laurie said that the only things she knew were shoplifting, sex, and drugs. Thus, clinical intervention involved more than simply finding this client a job; it was as important for the worker to promote new coping strategies that would keep her from landing in jail again. Intervention occurred on multiple levels to assist Laurie in developing more adaptive coping strategies for dealing with her financial situation. Other therapeutic foci included building her self-esteem and helping her confront an early childhood trauma stemming from molestation and rape by her maternal uncle when she was 8 years old.

Power

Power has its derivation from a source extrinsic to the individual. Dominant groups in society use their position of power to influence subordinate groups through transactions in which resources are either provided or withheld. Germain (1991) observes, "The abuse of power by dominant groups creates both social and technological pollutions" (p. 24).

The abuse of power by a dominant group can also be a source of tension in person-environment interactions. These tensions affect whole segments of the population, not just one individual. How the individual experiences this tension and is able to adapt to the tension-producing situation determines that individual's capacity for negotiating power inequities and imbalances. Abuse of power may occur at any systemic level, including within families.

HUMAN RELATEDNESS

Paramount in the concept of person-in-environment is the individual's ability to develop relationships

and attachments. Three important relational aspects of person-in-environment interactions have been identified: (1) the attributes of human relatedness, competence, self-direction, and self-esteem, which are all outcomes of the person-in-environment gestalt; (2) the interdependence of such attributes, each deriving from and contributing to the development of the others; and (3) the apparent absence of cultural bias in such attributes. In other words, every human society, apparently irrespective of culture, values relatedness. Kinship structures and the rules for relating may vary by culture, but the attributes of human relatedness, competence, self-direction, and self-esteem are predictable outcomes of the person-in-environment relationship (Germain, 1991, p. 27).

Since these attributes—human relatedness, competence, self-direction, and self-esteem—exist in all cultures regardless of how the particular culture defines them, it underscores our need to understand the cultural values that contribute to the makeup of each client system.

Joe was a 40-year-old Jewish professional who had recently gone through a messy divorce. In this case, the divorce meant that he had minimal contact with his two sons. This proved especially difficult for Joe since much of his identity as a Jew was linked to culturally prescribed responsibilities as a husband and a father. His lack of contact with his sons was dissonant with his cultural value of fatherhood.

NEW DEVELOPMENTS

Clinical Tools for Information Gathering

Certain assessment tools can be helpful in gathering information about the client and his or her

environment. Three such tools—the genogram, the ecomap, and the social network map—permit a graphic depiction of some aspect of the client's ecological environment, providing important inter-actional data that can aid the social worker in the

assessment process. Such tools can also significantly shorten the traditional case-recording process (Holman, 1983; Sheafor & Horejsi, 2008).

Genogram

The genogram is similar to a family tree. It can describe family relationships in as many generations as the worker and the client wish but is typically limited to three generations. The genogram provides a

historical overview of the family and is a useful way of obtaining a sense of the client's historical milieu. By involving the client in helping identify each generation and the characteristics of the people within it, visual pieces of data are created that can be used to great advantage in the assessment process. Such data provide a picture that can often be used by the client to identify previously hidden patterns. Once these historical patterns emerge, the client is much better equipped to develop strategies for behavioral change.

Karen, 42 years old, had been married and divorced three times and was involved in a relationship with a man addicted to drugs and alcohol. A genogram helped Karen and her worker understand that all the men in Karen's life—her grandfather, father, and previous husbands—had been substance abusers with depressive personalities just like that of the man in her current relationship (see Figure 1.3).

Ecomap

Whereas the genogram identifies the historical ecology of the client, the ecomap identifies the client's current social context. The ecomap

works by using circles to represent different factors affecting the client and by identifying other systems that have an interface with the client system. An ecomap of a family can also identify the

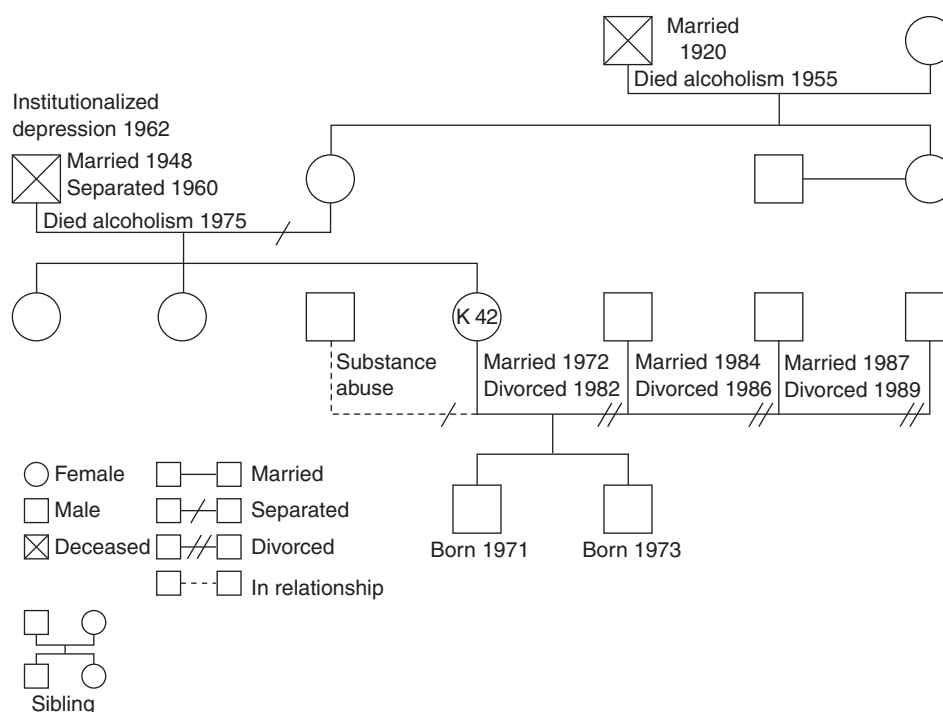


Figure 1.3 A Genogram of a Client's Relationships

exosystems, or those systems that affect other family members but do not have a direct impact on the identified client. The ecomap is constructed by having the client identify all the organizations that have some impact on his or her life. Each organization is depicted by a circle. The client then identifies the nature and direction

of the flow of energy between the organization and self. Because this process meaningfully involves the client in identifying the current situation and pictorially expressing it through the ecomap, the client may develop a better understanding of his or her situation and ultimately reveal strategies for resolving the dilemma.

Helen was a 39-year-old single mother who had recently moved into the community but continued to have strong ties to her former residence. Her 8-year-old daughter was experiencing problems resulting from the girl's father's decision to move out of the country. An ecomap helped the mother identify resources and supports in her new community (see Figure 1.4).

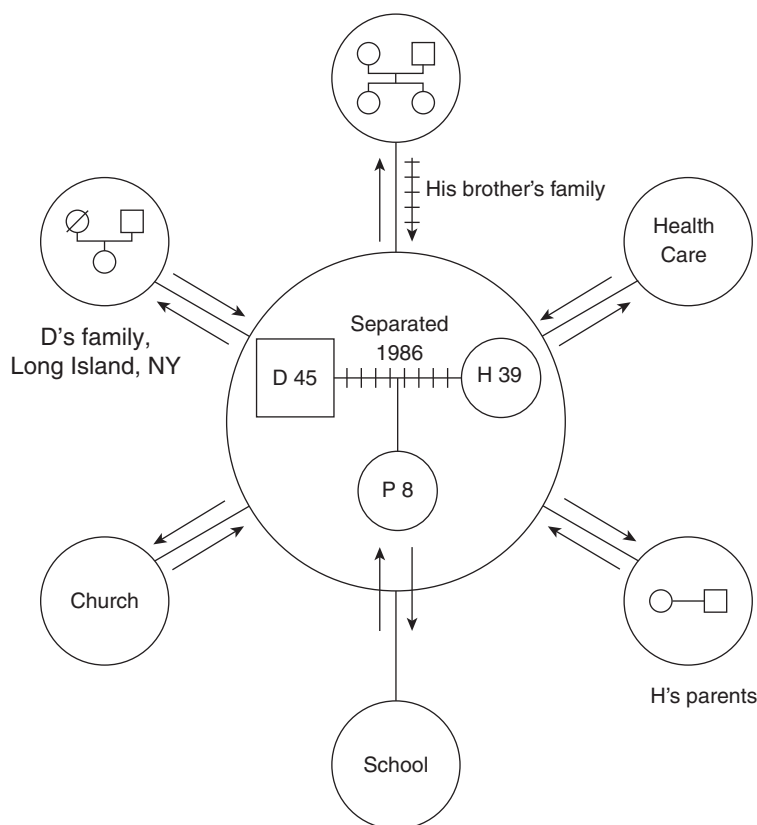


Figure 1.4 Ecomap

Social Network Map

A social network map is “a tangible aid that is proffered by social intimates or inferred by their presence and has beneficial emotional or behavioral effects on the recipient” (Gottlieb, 1983, p. 28). The social network map is used in tandem with the social network grid to identify and engage the client in defining his or her social supports. Social supports are important and can be classified into five interaction systems necessary for an individual’s well-being: emotional integration, social integration, opportunity for nurturance, reassurance of worth, and assistance (Friedman, 1994, p. 16). They enable the individual to negotiate problematic situations and sustain well-being.

The social network map consists of concentric rings, with the client identified as the innermost ring. The client is then asked to identify supports and place them on the map, quantifying the amount of support received through placement in closer proximity to the center of the map—that is, the closer to the center, the greater the amount of support provided to the client. The tandem social network grid is used as a means of quantifying the level of support the client receives from his or her network. This is not an objective measure but is based on the client’s subjective perceptions in identifying the valence of the support.

Mark, 40 years old and homeless, had bounced around from shelter to shelter and was linked to the formal support system. However, he had no informal support system, as a network map revealed. This became a tool in building positive informal supports that helped him sustain a job and independent housing (see Figure 1.5).

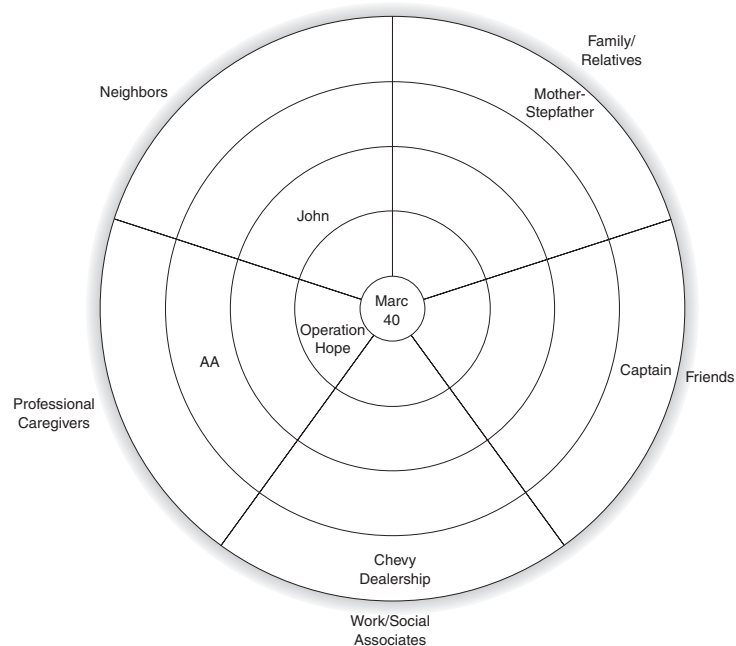
CONCLUSION

Social work has been defined as “the professional activity of helping individuals, groups, or communities enhance or restore their capacity for social functioning and creating societal conditions favorable to this goal” (Barker, 1995, p. 357). This definition emphasizes the role of the professional in understanding the client system within its ecological environment to build on client strengths. Social work clinicians need a theoretical framework that will enhance their understanding of person-in-environment interactions, which the ecosystems perspective can provide.

Regardless of the system’s size (individual, family, group, or community), an ecosystems perspective provides an interactional view of any system within the context of its environment. The environmental context includes the interplay among multiple

influences—biological, psychological, social, and spiritual. The role of the worker is to support the growth of the client system, a perspective that enables the clinician to work on multiple levels, incorporating other theories to develop strategies that address the person-in-environment change process. An ecosystems perspective places the focus on the interaction between the person and his or her environment rather than on one or the other. Since this perspective is not a theory but a method for organizing information, the worker uses other substantive theories, such as psychoanalytic and/or cognitive and behavioral theories, to help in the analysis of a particular person-in-environment interaction.

Germain, who was an influential social work theorist, adapted von Bertalanffy’s and Bronfenbrenner’s frameworks and created a social work model to describe person-in-environment interaction. She



ID _____ Respondent _____		Areas of Life 1. Household 2. Other family 3. Work/school 4. Organizations 5. Other friends 6. Neighbors 7. Professionals 8. Other	Concrete Support 1. Hardly ever 2. Sometimes 3. Almost always	Emotional Support 1. Hardly ever 2. Sometimes 3. Almost always	Information/ Advice 1. Hardly ever 2. Sometimes 3. Almost always	Critical 1. Hardly ever 2. Sometimes 3. Almost always	Direction of Help 1. Goes both ways 2. You to them 3. Them to you	Closeness 1. Not very close 2. Sort of close 3. Very close	How Often Seen 1. Few times 2. Monthly 3. Weekly 4. Daily 5. Does not see	How Long Known 1. Less than 1 yr. 2. 1–5 yr. 3. More than 5 yr.
Name	#									
Operation Hope	01	7	3	3	3	2	3	3	4	1
John	02	5/6	2	3	3	2	1	3	4	1
Chevy Dealership	03	3	3	1	1	1	2	1	4	1
AA	04	7	1	2	2	2	1	2	3	3
Mother	05	2	1	1	1	3	2	1	1	3
Stepfather	06	2	1	1	1	3	2	1	1	3
Capital	07	5	1	1	1	2	2	2	4	2
	08									
	09									
	10									
	11									
	12									
	13									
	14									
	15									
1–6		7	8	9	10	11	12	13	14	15

Figure 1.5 Social Network Map

believed that the best method of analysis was to break down this interaction into its component parts—adaptation, life stress, coping, power, and human relatedness—to gain a clearer picture of client strengths. All systems interact with the environment as both causes and effects of a given situation, and it is important for the worker to understand fully the dynamic nature of this interaction. Just how the social worker chooses to gain that knowledge is left to the worker, since the ecosystems perspective does not dictate which tools to use but relies on the creativity of each worker to assess fully the dynamics of person-in-environment interaction.

Three specific tools—the genogram, the ecomap, and the social network map—were presented as methods for acquiring that knowledge. These tools demonstrate the variety of techniques that can be used to gain information about different aspects of systemic interaction. The more knowledge the worker has about person-in-environment interaction, the better informed he or she is and the better able to identify system strengths that will enhance or restore the client's social functioning.

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