

Chapter 1

Social Systems and Their Environments

INTRODUCTION TO THE SYSTEMS IDEA

The term *system* is of Greek origin. The word itself is a combination of *syn* (together) and *histanai* (to set). Systems analysts such as J. G. Miller (1955, 1978) claim that things or events, at all levels of complexity, can be viewed as wholes—that a common analytical model can be used to describe the human body, a person, a family, a group, an organization, a neighborhood, a community, a region, a country, an international arrangement (like the European Union, NATO), earth, our solar system, even the universe. As Olsen wrote in 1968:

A social system is a model of a social organization that possesses a distinct total unity beyond its component parts, that is distinguished from its environment by a clearly defined boundary, and whose subunits are at least partially interrelated within relatively stable patterns of social order. Put even more simply, a social system is a bounded set of interrelated activities that together constitute a single social entity.

A system implies an entity whose parts are seen to make up an orderly and complex totality in accordance with some underlying set of rules. However, this orderliness is the product of the analyst's mind rather than an empirical fact. Warren (1963) summarizes that a system is defined as the relationships among units "which endure through time" and engage in roles "within an enduring pattern of interactions." To put the matter humorously, a systems outlook tends to make a "mesh" out of everything.

Of course, this book focuses on *human* social systems and on their implications for the people-helping professions. Eventually, you should be able to use systems analysis to describe a diversity of social processes or interactions that happen regularly in specific parts of your workload. Since human beings interact and grow within a variety of surrounding environments, a systems-derived person-environments model seems appropriate for social work intervention. This will become clear as you examine some of the ways in which people interact with their family environments; non-kin environments; and community, national, and regional or international environments.

PEOPLE AS THE FOCUS

Social work scholars like Coulton (1981), Engel (1980), or Germain (1973) emphasize that the object of professional intervention can be a single person, a social collectivity (such as the Red Cross organization), or a wide-ranging environment (such as a metropolitan region or a rain forest). In short, social system analysts perceive their model as equally applicable to the smallest micro and the broadest macro social units.

This chapter focuses on the relationships between individual persons (as systems) and the complex external world (often other systems) which make up the environment. Furthermore, you will note that people are not only the product of their environment but, through interacting with it, are also capable of influencing or changing their external settings.

THE INDIVIDUAL AS A SYSTEM

Every human being is an “organized complexity” worthy of systems analysis. Within the skin of the biological body, the system includes at least the skeletal, assimilatory, respiratory, eliminatory, endocrine, emotional, and nervous subsystems (i.e., components) — all in dynamic interaction. Within this body (an “open” system, which is defined in the next chapter), information is communicated by means of the genes, the senses, electrical impulses, intuition, etc.,

and many simultaneous feedback channels. Psychosomatic medicine recognizes many cross-boundary interactions between the body's physical-emotional condition and real or imagined threats within its physical-social environments.

Any analysis of an individual person as a system must also take into account what lies beyond that person's boundary. Moos (1976) speaks for many ecologists when he defines environment as including geography, historical perspectives, society, culture, organizations, architecture, weather, noise levels, and even utopian thought. Natural, social, and constructed things or events in the environment can be stressful, inhibiting, challenging, or freeing for specific individuals. Moos's emphasis on human free will rather than on deterministic external forces is refreshing. For the purposes of this book, a multienvironmental model is favored and is elaborated below.

The human body takes in energy (food) from its environment and converts it into cells, tissues, organs, and other matter for self-repairs. All these dynamics mirror a steady-state or growth condition, with continuous inputs contributing to a person's well-being and to other person-systems in the environment. Nonbiological elements such as dreams, thought, memory, willpower, and consciousness contribute to the coherence of this remarkable life form. In an environment that is neither barren nor polluted, a baby will grow from infancy to maturity, from dependency to self-fulfillment, and from relative simplicity to increasing complexity.

A PERSON-ENVIRONMENT MODEL

It is impossible to describe the full complexity of person-environment interactions without resorting to some kind of systems model. As mentioned above, all human beings find themselves within a multiplicity of nearby and distant environments. The following six-layer model is based on the work of Baker (1975), Capelle (1979), Engel (1980), Gotteschalk (1975), and Hall (1966) and is proposed as relevant to everyone. Potentially, all persons interact with elements of the following environments:

1. A nuclear family or multigenerational tribe/clan
2. A participatory environment or reference group

3. A local or municipal community
4. A culture, society, or nation
5. The international scene
6. The cosmos

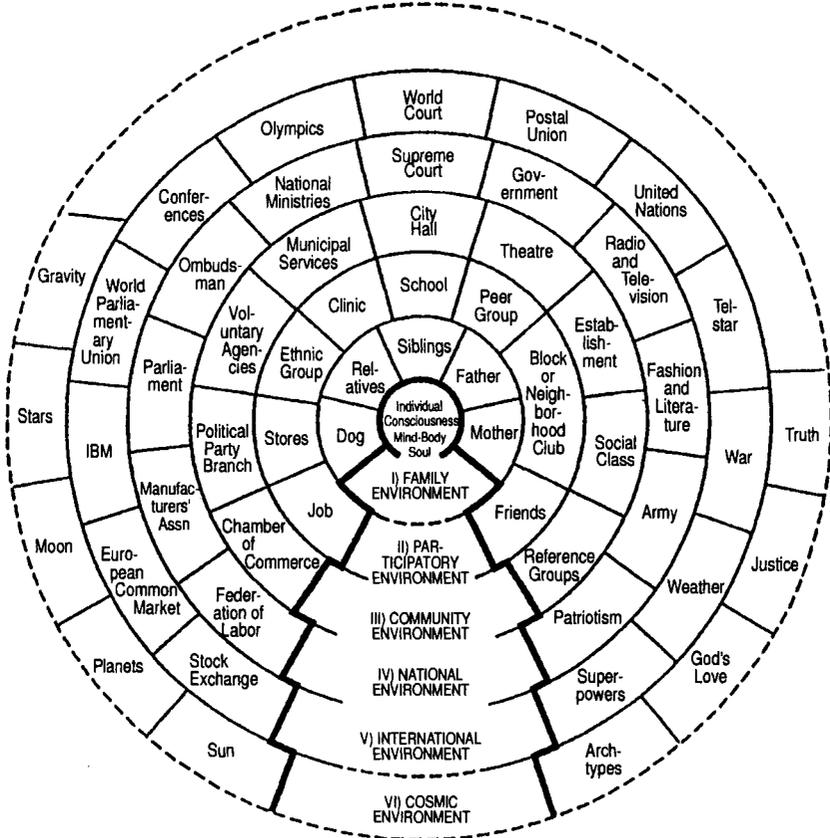
In any systems analysis, each of these six environments can also be examined as a system, and they all influence, and/or are influenced by, the others. In fact, social workers often have to help their clients deal with the consequences of changes which have taken place in near or distant environments.

The multienvironment model is shown in Figure 1.1. Normal human beings have close family ties (Circle I), and are nurtured by this primary environment. They also participate personally in a range of local (or local branches of) social collectivities such as villages, neighborhoods, schools, factories, recreation centers, stores, health clinics, banks, etc. Even if people are not involved personally with one of these units, awareness of its importance gives them a feeling of belonging (Circle II). In both circles, people experience important primary relationships (e.g., with peers/friends during the first years of life). The importance of job-related friendships, for example, is not sufficiently appreciated by societies when making universal policies for retirement or fighting inflation through enforced disemployment.

Some components of the community environment (Circle III) also lend themselves to primary relationships, but these tend to favor elitist people. If you are a member of the local establishment, you are likely to know the mayor, be a patron of the museum, serve on the executive board of a political party, be invited to join civic agency boards, or act as one of the decision makers in the chamber of commerce. Many studies show that if you are a member of the impoverished lower class, your community involvements may well be much more limited.

The national and international environments (Circles IV and VI), although often the locus of important policy decisions regarding social service standards, are both remote for the average citizen. However, young adults in many parts of the world are finding that one of the serious tension-causing realities of today is the decreasing match between ethnic-cultural-linguistic identity ("people-

FIGURE 1.1. The Six Environments



hood”) and legal-political-national boundaries (“country”). At the other end, multinational corporations are making national boundaries obsolete.

A common result of feeling cut off from your roots is to identify with a political ideology, become a devotee of some cult, join a hippie commune, engage in fanatic antiestablishment violence, make demands for territorial independence, give fundamentalistic support to some new school or technique of healing, or scapegoat

others. Although they appear to be negative, these activities actually help to build a feeling of participation among otherwise disconnected individuals, and seem much less painful (to each of them) than suffering anomie (Fromm 1941).

If your ethnic group is among the stigmatized minorities, national and international issues tend to assume low priority while survival gets primary attention. Only especially intact persons (and some senior professionals) are involved in, say, the national office of an agency serving the blind, the entertainment media, government, commercial sports (or the Olympics), the European Common Market, Interpol, a World Mental Health Congress, or the Board of IBM.

Perhaps you are wondering why the cosmic environment (Circle VI) is included. Every human being is affected by (the consequences of) the pull of gravity, sunspots, or great ideas (in the Platonic sense). The moon's impact on the tides, or the behavior of lovers, is well known. Today, the possibility that the full moon causes a rise in the incidence of hot-line telephone calls for help was studied by Lieber (1978). Also, a number of therapeutic approaches, such as those using meditation or yoga, emphasize the importance of being in harmony with the energies of the universe (Turner 1979).

According to this analysis, each of the environments in the model can contribute to (or hinder) a person's development and, in turn, can be influenced by this growing person. In order to help a client in distress, you may well have to intervene at many levels—as will be clarified.

The Family As Environment

In accordance with the model, the family is a person's first, and no doubt most significant, environment. Children raised by wolves can function as animals, but remain imperfect human beings. In fact, Portmann (1965) contends that human children emerge from the mother's physiological womb too soon (especially when compared to the newborn of other mammals).

He goes on to underscore the significance of the next nine months in "the social womb" of the family. In this womb, babies learn to sit, stand erect, trust, talk, walk, and even learn the rudiments of abstract thinking. This second set of nine months is so

important that the human baby has to be expelled from the biological womb long before it is physically self-reliant.

The Participatory Environment

All individuals and families engage in relationships with nonkin persons, neighbors, peer groups, formal organizations, and intergroup collectivities such as public schools, churches, police, local stores, places of work, trade unions, well-baby clinics, day care centers, and Boy/Girl Scouts. Such services or agencies, each a complex organizational system, are located within the geographic neighborhood or within one's life space (Hall 1966, Watson 1970, Riemer 1959).

In the same way young men become tough Marines by participating in boot camp (Eisenhart 1977), all people are, in meaningful ways, products of the environmental units within which they are personally active during critical periods in their lives.

The Community Environment

Individuals, families, and complex organizations themselves become components of a larger collectivity—the community. In fact, Moe (1960) defined the community as a “system of systems.” In the days of the Greek city-state, boundaries were geographically specific. However, whether small town or metropolis, the urban community is characterized by vague boundaries and seems more vulnerable to the impact of national level systems every year.

The “Distant” Environments

Systems analysis can be done for the three remaining environments in the model: the national, international, and cosmic. Although these impinge in important ways on the individual and the family, only relatively sophisticated people are aware of them. For most people, the family and the participatory environments are the world, and anything beyond them does not seem very important in daily life.

At the national level, you could analyze the functioning of such structural units as federations of labor unions, chambers of com-

merce, departments of government, head offices of voluntary agencies, etc. Internationally, you might benefit from a detailed systemic study of the European Common Market, the United Nations, the International Football Federation, OPEC, Interpol, etc., but these efforts are beyond the purpose of this book.

Ecology: The System of Environments

Scholars of ecology use a very inclusive model of complex reality—open to physical and material things, people, social institutions, information, and traditional values as well as new ideas (Emery and Trist 1965). These scholars strive to coordinate a diversity of activities scattered over a wide region and a high density of interacting units into one macrosystem. As our technological capacity continues to develop from human muscle power to animal power, wind and water power, steam power, electric power, computer-television-telephone interfacing, and nuclear power, the ecological scope of systems analysis is becoming more and more important (Hawley 1979).

Today, practitioners at the level of regional ecosystems deal with such broad issues as the humanization of metropolitan regions, birth- and death-rate changes of large population groups, human and animal migrations, preservation of the planet's ozone layer and the purity of the oceans, and reversal of desertification in Africa (Bennett 1976, Ophuls 1977). They rely on all the concepts of systems analysis that are covered in the next chapters of this book. In addition, they stress the capacity of open systems to adapt to environmental changes or even innovate solutions to problems with which other, less open systems are content merely to cope.

Ecologists are wary of tampering with only one item in any large system. They know, for example, that the spraying of DDT against mosquitoes or the use of pesticides by farmers can end up poisoning entire food chains or underground water networks. All sorts of environmental problems are created when whole forests are cut down or grasslands deteriorate: plants begin to die out, erosion occurs, and even large watersheds dry up. Because there is little to eat, animals, birds, and insects go elsewhere. When the local soil is no longer replenished by their nutrients, the outcome is drought, uninhabitable deserts, large-scale starvation, and even enforced mass migration (Ehrlich 1987).

Like other ecologists, Erlich advocates systemwide action that deals with all aspects of a deteriorating region simultaneously.

Germain (1973), in searching for new ways to redefine casework, utilized some ecological perspectives in the systems model she adopted. Specifically, she emphasized the interface between a person and the environment/milieu. She expects social caseworkers to promote growth-inducing experiences in the client's environment (e.g., a prenursery enrichment program) as well as offer direct counseling (to members of impoverished families). Many client difficulties are seen as arising from the inadequacy of housing, education, medical care, or from maldistributions of power in the environment.

As an ecologically oriented caseworker, Germain includes new service-delivery arrangements, volunteer and paraprofessional resources, and interdisciplinary consultations as part of the treatment plan. In 1978, Germain emphasized that the healthy ego takes an active and even creative role in adjusting to environmental changes such as physical migration or value shifts. Environmental nutrients and stimuli are seen as essential for the proper development of the ego throughout all stages of the life cycle.

In 1987, Germain further suggested that social workers abandon the still popular age-related models of human development and life transitions. She cites cohort theory, data on age and sex crossovers in postindustrial society, attachment theory, findings from research on normal infants, and longitudinal studies of handicapped children to make a strong case for growth models that do not rely on inflexible developmental sequences. Among her many sources, she cited Bronfenbrenner (1979), whose model focuses on the level of environmental complexity (from dyads to class and ethnicity groups) within which the growing individual interacts. She speculates about whether or not life transitions are essentially ecological ones.

EXPRESSING SYSTEM PRINCIPLES VISUALLY

In order to see how systemic variables interact (each influences the others and is influenced by them simultaneously), please study Figures 1.2 and 1.3. When two variables interact (e.g., husband and wife in a family system), the situation can be seen as two boxes joined by an arrow in both directions, or as two overlapping circles. As

is pictured in Figure 1.2, these versions show that there are two relationships, and that there is a defined sub-area of common interests. Notice what happens when three variables (say a coalition of political parties) interact. In Figure 1.3, we can spot immediately that now there are six relationships. It is equally informative to see how there are three arenas in which only two of the variables interact, and one opportunity for the three of them to operate cooperatively.

As the number of factors or variables increases, so does the complexity of our system. Tools such as those above help us both to understand such complexity and to design effective ways of intervention in such a reality.

FIGURE 1.2. A Two-Item System

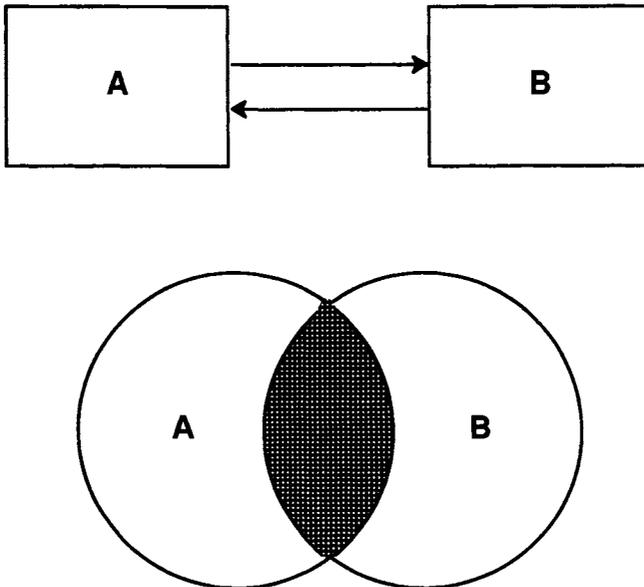
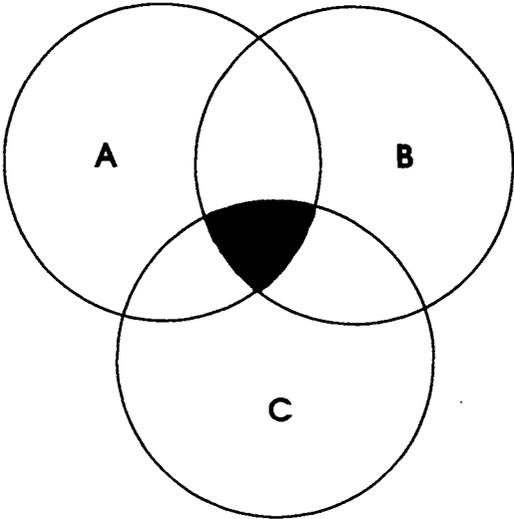
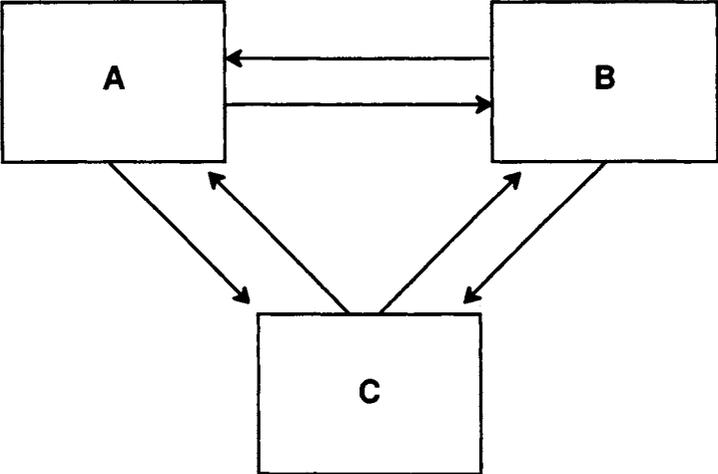


FIGURE 1.3. A Three-Unit System



SUMMARY

You have been introduced to the idea of systems and to the possibility that systems analysis might be helpful in your social work practice. You were shown how to conceptualize a person as a social system and became acquainted with the six environments which surround every person. A section on ecology rounded out the chapter and helped you see how the client and the environment should be linked together in today's practice of social work.

It follows that any social unit can be analyzed as a system, as a component of a system, or as an environment (see Table 1.1). As you move from components to environments, your unit of analysis becomes more complex. In all instances, components, the system itself, and the environment regularly interact with one another. Specific exercises have been included to help you apply a systems approach to familiar situations.

Throughout this book, such multilevel analysis is used often. However, in order to be able to do this yourself, you will have to learn some of the basic concepts and characteristics of systems analysis. The next two chapters are meant to help you accomplish this goal.

TABLE 1.1. Components, Systems, and Environments as Units of Analysis

Components	Systems	Environments
Personality	Human being	Family or city
Human being	Family or peer group	M.H. Clinic or neighborhood
Family or neighborhood	Community or town	Ecological region or nation
Town or city	Nation or metropolitan area	NATO, EEC, or planet Earth

EXERCISES

Exercise 1: Environment Hopping

Please study the following example of multienvironment involvements.

The tough, oldest son of a suburban family (who speak of him as their “black sheep”) is making a lot of money pushing hard drugs in the high schools. He is a member of a criminal gang in his participatory environment while some of his victims, as participants in a drug-rehabilitation program, are struggling to “rid themselves of the habit.” In the community and national environments, his activities are known as “organized crime” and are the targets of considerable police effort. Internationally, the World Health Organization, Interpol, and customs officials are fighting the “crack” trade. Some rehabilitated drug users might even speculate whether this “black sheep” is part of evil forces in the cosmos, or if he was born under an unlucky conjunction of stars and planets.

Using this model, fill in Table 1.2 with an example of your own. Using this multiple-environment model, try to analyze some person in your current work situation (male or female, young or old, majority or minority culture member, etc.). You might, for example, make up the profile of one of the “normal” relatives of the young man in the above example.

TABLE 1.2. Doing Some Multienvironmental Analysis

Environmental Level	Example of the “Black Sheep”	Your Example
Family:	Youngest son	_____
Participatory:	Drug pusher, gang member	_____
Community:	Criminal underworld	_____
National:	Organized crime	_____
International:	Mafia	_____
Cosmic:	“Evil stars and planets” (astrology)	_____

Exercise 2: Studying the Impact of Environments

Imagine a young man in the United States during the 1960s. Having just finished high school, he is facing induction into the army and is likely to find himself in the midst of the war in Vietnam. Even as a young person, he is already a Red Cross volunteer (having specialized in first aid) and hopes to go on to study medicine at a nearby college. On the other hand, he is being pressured by conflicting demands from various environments. For example:

In the family environment, his father is a patriot. His mother does not want to “lose” her only son. Friends (from Canada) invite him to join them. Community institutions support and oppose the war. His country has just sent him a draft notice. News media continue to criticize the destruction in Vietnam.

If you were counseling such young adults back in the 1960s, what might you do to help one of them cope with these conflicting environmental demands?