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## **The Systems Perspective**

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The introduction of systems theory into the study of groups and group practice provides a metatheory for understanding groups and group dynamics. Systems theory can be used to look at the functioning of any group, regardless of the theoretical orientation of the group practitioner or leader, or of the group goal. This applies to all groups, whether a therapy or work group, an organization, or a political body. Systems theory offers an orientation for thinking about how groups form, develop and change, and manage the vicissitudes of group dynamics.

Systems thinking emerged from the shift of scientific assumptions that occurred in the early 20th century as theories of relativity and quantum mechanics upended the security of Newtonian reductionist explanations (Agazarian & Janoff, 1993; Boer & Moore, 1994; H. E. Durkin, 1981). This shift in the *Zeitgeist* influenced the work of Lewin (1951) and Bion (1959), neither of whom actually labeled themselves systems thinkers but who both contributed significantly to systems thinking.

Lewin (1935, 1951) stated that the whole is different from the sum of its parts and formulated a field theory that postulates individual behavior as an output of the person's perception of his or her environment. Agazarian (1986) translated Lewin's *person* into *system* and formulated system behavior as an output of system function.

Bion (1959) postulated three basic assumptions about the dynamics of groups (flight/fight, dependency, and pairing). These basic assumptions laid the foundation for the important work on the reciprocal influence of the group and the individual in both small groups and organizations; it also laid the foundation for the open systems theorists (Miller & Rice, 1967). Bennis and Shepard (1956) developed Bion's basic assumptions into a theory of group development. Agazarian (1981, 1994), building on Bennis and Shepard's work, reconceptualized these phases as subsystems within the developmental process of all living human systems.

The shift from implicit to explicit systems thinking originated in the social and biological sciences. One of the most important systems thinkers was von Bertalanffy (1969), who developed a general systems theory that focused on the dynamic interactions among living systems. He introduced the concepts of isomorphy, hierarchy, boundary permeability, autopoiesis, energy, and goals. Miller (1978) stressed the importance of information and energy flow in open systems. Most important, Miller equated energy and information in systems and noted that information provides energy to a human system. Miller (1978) credited Shannon for recognizing that "the statistical measure for negative entropy is the same as that for information, which Schroedinger has called negentropy" (p. 13). Later, Agazarian and Gantt (2000) translated entropic and negentropic communications into the driving and restraining forces that determine the quasi-stationary equilibrium of the system. Wiener (1948/1968) focused on system feedback through self-regulation of system boundaries and introduced the term *cybernetics*. Bateson (1972; Bateson, Jackson, & Haley, 1956) applied the cybernetic concepts of equilibrium and feedback to family therapy.

Helen Durkin (1972a, 1972b) was the first to apply von Bertalanffy's general systems theory to group psychotherapy and initiated the American Group Psychotherapy Association's

General System Theory Committee to explore the application of systems theory to group therapy. This think tank provided an important environment and influence for a number of theorists and practitioners who were beginning to apply systems theories to their group practice and research (Agazarian, 1986, 1989; Beck, 1981; J. Durkin, 1981, 1989; Fidler, 1987; Vassiliou, 1973)

Subsequently, other practitioners and theorists have applied the principles of general systems theory to groups (Astrachan, 1970; Barber, 1988; Beeber, 1988, 1991; Borriello, 1992; Brabender, 1997; Burck, Hildebrand, & Mann, 1996; Donigian & Malnati, 1997; Hildebrand, 1988; Hildebrand & Forbes, 1987; Hills, 1994; Lapponi, 1996; MacKenzie, 1990; Mathews, 1992; O'Neill & Stockwell, 1991; Wilson & Hutton, 1992), child and adolescent day treatment programs (Kiser & Pruitt, 1991), training trainees (Bor, 1989; Nicholas, 1989), and ecosystemic group therapy (Boer & Moore, 1994; O'Connor, 1999).

Agazarian's (1997) theory of living human systems, with its systems-centered approach to group practice, represents the most fully developed and comprehensive systems theory applied to groups thus far. The theory of living human systems has defined theoretical constructs and operational definitions that function as hypotheses to test both the validity of the theory and the reliability of its practice. In this chapter we define *group* using her theory of living human systems and its systems-centered practice as the orientation to group theory and practice.

## **Applying the Constructs of a Theory of Living Human Systems to Understanding Groups**

The theory of living human systems defines a hierarchy of isomorphic systems that are energy organizing, self-correcting, and goal directed (Agazarian, 1989, 1992, 1997). Defining all groups as living human systems makes it possible to view them from the perspectives of

hierarchy and isomorphy. In the hierarchy, every system exists in the environment of the system above it and is the environment for the system below it. Both conceptually and practically, this is the core system in a hierarchy. Thus, hierarchy is defined by a series of core systems, each core system existing in the environment of the core system above it and existing as the environment for the system below it. The member system exists in a group system, the group system exists in organizations of groups, and organizations exist in nations, and so on. Because all systems in a defined hierarchy are isomorphic (similar in structure and function), the core system is governed by the same principle as all systems in the hierarchy.

### ***Hierarchy***

Operationally, the core system is defined for group practice as the group-as-a-whole system, the subgroup systems of the group-as-a-whole, and the member systems that make up the subgroups. The subgroup exists in the environment of the system above it and is the environment of the system below it. As the midlevel system, the subgroup shares its boundaries with both the group-as-a-whole system and the member system. Thus, the most efficient way of influencing the core system is through the subgroup because its boundaries are contiguous to the group-as-a-whole and to its members.

Testing this assumption began with observing how subgroups within groups respond to group conflicts. This, in turn, led to actively intervening to move the group away from stereotypical responses to conflict and toward functional responses. Thus the systems-centered therapy (SCT) technique of functional subgrouping was developed as a conflict resolution method, which influenced both the group-as-a-whole and its members.

Functional subgroups differ from stereotypical subgroups in that members address the information that is relevant to the task by joining only those who have the same point of view.

Only when the one side is thoroughly discussed is the other side addressed by the contending or different subgroup. Functional subgrouping precludes the *we/they* and *yes, but...* pattern of communication that generates stereotypical subgrouping. For example, rather than condoning a *yes, but...* fight, all the members who are for the issue (the *yes* subgroup) explore how their agreement relates to furthering the understanding of what is involved in their *yes*. When this *yes* subgroup peters out, the *but* subgroup explores the contribution that their caveats contain. Predictably, as both subgroups hear the work of the other subgroup, not only does a greater understanding of each develop, but also each subgroup notices the similarities between them and how those similarities relate to the task at hand.

Practically, introducing functional subgrouping into groups has had a predictable impact on the development of the task and process dimensions in groups, as well as the developmental phases. Transforming redundant stereotypical subgroups into task-related functional subgroups changes both the task and process dimensions, reducing the restraining forces that lie on the path to the goal.

For example, in hierarchical organizations, typical subgrouping is often redundant and stereotypical, based on status (structure) rather than on function. In stereotypical subgrouping, high-status members speak to high-status members, and low-status members talk to high-status members. Thus the high-status subgroup can process information, whereas the low-status subgroup cannot. Thus, information that would arise from low-status subgrouping is unavailable to the system as a whole. Transforming the subgrouping pattern from stereotype (structure) to function (process) enables members to subgroup around the information that is relevant to the task, independent of status.

## ***Isomorphy***

Applying the construct of isomorphy also has important implications for understanding group system dynamics. Isomorphy is defined as similarity of structure and function within a defined hierarchy. In other words, all system dynamics are equivalent.

*Structure* is defined by boundaries. Boundaries are potentially permeable to transactions of energy. Energy is defined as information in living human systems (Miller, 1978). The permeability of boundaries determines what information/energy crosses into the system. Boundaries open to clear information and close to noise. For example, just as static on a telephone line makes it hard to hear what a caller is saying, a significant amount of noise in communication makes it less likely the information will get across. Shannon and Weaver (1964) identified noise in communication as ambiguities, redundancies, and contradictions. Vague memos, for example, are frequently either misinterpreted or reinterpreted in terms of wishes and fears, and the intent of the memo is lost; when the same information is reiterated in different words at a meeting, members are easily lost to boredom; and the fastest way to create a climate of suspicion is to say one thing and mean another. Reducing noise is a function of filtering out the noise from the information. The more efficiently the system develops a process to filter out the noise, the more energy is available for work.

*Function* is defined as the ability to discriminate and integrate differences. The system's function, then, is to organize energy (information) through discriminating and integrating differences - both differences in the apparently similar and similarities in the apparently different. This is the process by which living human systems survive, develop, and transform. The method of functional subgrouping discriminates and contains differences in separate subgroups, where each viewpoint is explored until the similarities in the differences are

recognized and the differences are integrated in the system-as-whole.

Thus, with isomorphy, whatever one learns about the way one system functions (by discriminating and integrating similarities and differences) also applies to every other system in the hierarchy. Whatever one learns about the principles by which groups manage the permeability of their boundaries will apply to all core systems within that system hierarchy: all member systems, all subgroup systems, and all system-as-a-whole systems.

## **Groups as Systems**

In the systems-centered approach, a group is a core system. Like all living human systems, the group also exists within a hierarchy of core systems. The core system exists at every level of the hierarchy and is defined as a hierarchy of three. Each system in the core system exists in the environment of the system above it and is the environment for the system below it. Whereas a group-as-a-whole is the containing system for the subgroup (and the subgroup for its members), from a different perspective, the group-as-a-whole in its turn can be viewed as a subsystem of a larger system. For example, an employee is a member of a department, which is in turn a subgroup of an organization, which in turn is a subgroup of a nation, and so on.

Applying the idea of the core system to group is especially significant for change agents in that every change strategy always has a three-point impact. Thus, in all SCT interventions, the subsystem that is the target of the intervention is chosen with this three-point impact in mind. Interventions involving a subgroup will influence both the group-as-a-whole and its members. Interventions involving a department are made with the knowledge that they will have an impact not only on the department but also on the work groups within it and the division in which the department is located.

## **Individuals as Systems**

The concept of the core system also applies to individuals. Individuals as living human systems are described as a system-as-a-whole with subsystems. In earlier work, Agazarian (1981) suggested that *role* was a bridge construct between the individual and the group. From the systems-centered perspective, role is a midlevel subsystem in the person, just as the subgroup is a midlevel subsystem in the group. Just like subgroups, roles can be functional or nonfunctional. A good example of a nonfunctional role is a stereotypical role with boundaries impermeable to information. Every subsystem has a role in every context, and every role is a subsystem. Thus, these two words are interchangeable, and which one is used depends on which fits best with the context. For example, influencing the role system in the individual is equivalent to influencing the subgroups in the group-as-a-whole.

When a person moves into a stereotypical role, it is the role that determines his or her perceptions and behavior. Role boundaries are closed to any information that contradicts the role system and open to information that reinforces it. For example, someone in a stereotypical “victim” role is oriented predominantly to all the ways he or she has been mistreated. Similarly, the boundaries of a stereotype subgroup are closed to differences that do not support the stereotypes. An all-too-familiar example of stereotypical subgroups in group is when all the women complain about the men not understanding them, and all the men complain about the women always criticizing them. Roles have the potential for being adaptive or maladaptive depending upon the group context in which they manifest. For example, the scapegoat in one group may be the innovator in another.

The scapegoat is also a good example of how stereotype roles function both for the group and the individual. For example, the group creates a scapegoat role to contain the differences that the group system is not yet ready to integrate. By keeping an impermeable boundary between the

scapegoat system and the group, the group system maintains its equilibrium. Similarly, taking on the scapegoat role sets up impermeable boundaries between the person system and the differences in the group, thus maintaining the equilibrium of the person system. When (and if) the boundaries between the group and the scapegoat become permeable (which they do, either through an intervention or through group development), both the person and the group can gain access to information that can then be integrated.

An individual relates to many subsystems and plays many roles in life. For example, every individual has a role at home and a different role at work. The many roles people play represent not only membership in outside subgroups but also internal subgroups. There is an internal change when one shifts from home to work. Different internal resources are relevant in each of the two contexts. How efficiently people take up their roles influences both their internal and external environments.

## **Goals**

The theory of living human systems defines two levels of goals. The primary goals of systems are to survive, develop, and transform from simpler to more complex (Agazarian, 1997). In practice, the primary goals relate to the system development and transformation in each of the phases of system development, which are authority, collaboration, and work (Agazarian, 1994, 1999). The secondary goals of systems are the explicit goals, which are represented by the tasks that a group has come together to accomplish. For systems to function, information (energy) must be organized in such a way that the system can move along the path to its goals.

Applied to group processes, this formulation is translated into a force field of driving and restraining forces. This force field represents the position of a system on its path to its goal (Lewin, 1951). Lewin demonstrated that it is simpler and more efficient in energy expenditure to

reduce the restraining forces along the path to a goal than it is to attempt to increase the driving forces. Each phase of system development can then be defined in terms of a force field of driving and restraining forces. This makes it possible to map change strategies that target the restraining forces for the relevant system phase (Agazarian & Gantt, 2003).

For example, a work group was having difficulty with the task of clarifying work roles. The group was largely silent, and members were not participating. Rather than trying to push the group to work (the Sisyphus approach!), the facilitator suggested the group identify what was making it hard to work (the restraining forces). After identifying and reality-testing the group's concerns that the work of identifying roles would be too controversial (a restraining force of negative predictions characteristic of the flight subphase in the authority phase), the group energy was released, and members were able to do the work.

### **Reducing the Restraining Forces of Noise and Reactions to Difference**

From a systems perspective, achieving primary goals is dependent on the system's ability to appropriately open and close its boundaries to the energy/information transactions within the system hierarchy. How permeable system boundaries are to information depends upon two major factors: the ratio of noise to information in the communication transaction and the degree of difference in the communication relative to the existing system. Systems close their boundary to noise. Noise is entropic to information. There is an inverse relationship between noise and information in a communication channel: the greater the noise, the lower the probability that the information contained within the channel will be transferred (Shannon & Weaver, 1964). Therefore, systems-centered leaders deliberately reduce the restraining force of noise (the ambiguities, redundancies, and contradictions in communication) to increase the permeability of group, subgroup, and individual boundaries to information (Agazarian & Philibossian, 1998).

The systems-centered filtering methods reduce entropy by systematically reducing the entropic contaminants of contradictions (*yes, but...rebuttals*), ambiguity (vagueness), and redundancy (repetitive talk and storytelling). Filtering methods also reduce the restraining forces of cognitive distortions, restrictive tensions, avoidance of frustrations, misdirections of the retaliatory impulse, role-locks, and resistance to autonomy and collaboration.

The second factor that affects boundary permeability is *difference*, which is the compatibility between the information that is crossing the boundary and the organization of the information within the system. When information is too different, it acts as entropic noise to the system. A system responds in several ways to information that is too different. A system closes its boundaries to prevent the information from entering the system. If the information has already entered the system (or if the difference is generated from within the system), the system encapsulates the difference in a subsystem behind impermeable boundaries. This subsystem is either contained as a closed system or extruded. These are the system dynamics that explain the phenomenon of scapegoating, institutionalizing, or boycotting individuals, groups, and organizations (Agazarian, 1983).

However, if the system continues to develop its ability to discriminate and integrate differences, the encapsulated information has the potential for being integrated within the system at a later time. If a later integration does not occur, then the potential resources in the information contained within the encapsulated system remains unavailable to the system, and the system's potential for development is permanently reduced.

The systems-centered method of functional subgrouping is a conflict resolution technique that directly addresses the issue of integrating differences so that the primary goals can be worked on rather than disrupted by reactions to differences. Differences can then be explored as

potential resources toward goal achievement.

Asch's (1953) well-known experiments on the effect of social pressure illustrated the enormous challenge that groups face in addressing differences. In his research, two lines were presented: Line A was long, and Line B was short. When the group was asked which the longer line was, all but one person said B. This left one naive subject to struggle with group pressure. Asch found that more than one third of the naive subjects yielded to group pressure, with one of three predictable responses: (1) deciding their perceptions were inaccurate and the strong majority viewpoint was accurate, (2) deciding to go along with the majority in order not to appear different, or (3) literally misperceiving in a way that put them in line with the majority viewpoint. Those who remained independent in their judgment ranged from confident to withdrawn and anxious.

What is particularly important for us is Asch's (1953) follow-up study. He found that if just one other person validated Line A as the longest, the naive individuals had no difficulty standing by their own perception: They did not need to rationalize, they did not need to comply, they did not need to misperceive, and they were not anxious. This highlights an added dimension of the importance of exploring reality in functional subgrouping, where no individual ever stands alone without another member subgrouping with them to explore a perception or a viewpoint. This is particularly significant for organizational work groups in that functional subgrouping maximizes the likelihood that information can be introduced as a potential resource important to the issues under discussion, rather than withheld because of social pressure.

Functional subgrouping is one of two major methods for reducing the entropic effect of difference. Functional subgrouping influences the way systems discriminate and integrate differences in the organization of information inside the system. The second method, filtering,

titrates the permeability at the boundaries of the system by filtering out noise, on the one hand, and attuning to the internal capacity of the system to manage differences, on the other. Both of these methods influence the ability of a group to achieve its primary and secondary goals.

## **Group Formation**

Human beings are social animals and have, from the beginning of time, come together in groups around common interests and goals. Also from the beginning of time, humans have split away as a result of differences and come together around similarities. Humans always have closed the boundaries around their own groups and attacked groups on the other side of their boundaries. In short, we humans tolerate similarities and have great difficulty integrating differences.

In the 21st century, many million years since the beginning of human existence, human beings still operate with the same predispositions: to come together around similarities and to split away as a result of differences. Whether this is built into human nature or constitutes a failure of humans to develop past the conflict phase of human development remains a question. Applying systems thinking has allowed us to explicitly develop groups whose norms are to explore these apparent human predispositions rather than acting them out. The group culture that results has enabled individuals in these training groups to do much of the work that is usually attempted in therapy groups. A systems-centered assumption is that who one is at any one time has more to do with the group culture that one is in than it does with one's individual potential.

Typically, the systems approach assumes that systems (like groups) come together around secondary or task goals. Once formed, their dynamics are governed by the inherent drive to come together around similarities and split as a result of differences. Stereotypical groups form as a function of coming together around similarities and separating (splitting away) as a result of

differences. Functional groups form as a result of coming together around similarities and discriminating and integrating differences.

Joining around similarities inevitably leads to stereotyping. In our culture, it manifests as male and female, high status and low status, white and nonwhite, old and young, in-group and out-group, and the like. Joining such groups tends to serve group survival. Stereotypical subgrouping is predictable and stabilizing but also fixating and expensive in terms of group development. Stereotypical groups are closed systems. Stereotypical groups are excellent arenas for understanding the individual dynamics that are elicited in response to stereotypical norms.

Given these predispositions, the challenge for the systems-centered approach was to develop a nonstereotypical, functional group culture that supported both primary and secondary system goals. In systems-centered groups, the goal of the member is to join a subgroup by function rather than stereotype; the goal of the subgroup is to discriminate, contain, explore, and integrate differences. The goal of the group-as-a-whole is to use its resources to solve the problems that lie along the path to the goal.

Systems-centered groups form by deliberately developing appropriately permeable boundaries, discriminating and integrating differences, and developing familiarity with the issues inherent in each phase of development. We assume that restraining forces never disappear and that whenever there is a return to an earlier phase, those same restraining forces reappear (at deeper and deeper levels of meaning). However, as the group becomes increasingly able to recognize and undo these forces, the group increases its ability to work and move toward the goals.

## **The Individual and the Group**

The theory of living human systems was developed to create a common language for talking about groups and their members. It also was developed to make it possible to research the dynamics that occur with individuals and groups (and groups of groups) using a common set of definitions (Agazarian, 1981, 1997; Agazarian & Gantt, 2000). What made this possible was the systems concept of isomorphy.

When individuals and groups (and subgroups) are conceptualized as isomorphic systems in the same hierarchy, their structure and dynamic function are equivalent. This means that whatever one learns about the dynamics of the individual as a system will apply to the group system, and whatever one learns about the dynamics of the group system will apply to the individual. This solves the problem created when using the language of psychodynamics to understand the individual and the language of group dynamics to understand the group. It also renders unimportant the controversy in the field as to whether a group is simply a collection of individuals or whether a group is different from a collection of individuals.

To make systems concepts useful, one not only has to learn the language, but also has to see individuals and groups as systems, not as people. Systems do not exist in the real world. They exist only as ideas in the mind. The test as to whether thinking systemically is useful or not is whether or not we as people can understand things and do things in groups that are more useful to us than before we applied the principles of systems thinking.

A group member and the group are interdependent systems. The member influences the group, and the group influences the member. Unfortunately, once the group norms are established, it is no longer so easy (and sometimes impossible) for the member to influence the

group and all too easy for the group to influence the member, as we know from incidents such as the mass suicides at Jonestown.

This is due to an important fact of human life: reactions to difference. Groups require conformity to their norms and are powerfully influential in maintaining them. Therefore, the initial norms that are set have long-lasting impact. If boundary permeability is not titrated against the stereotypical norms of the outside culture, it is all too easy for members to import these norms and for the group to replicate and maintain stereotypical cultural norms. However, it can equally be said that group norms themselves can easily become stereotypical if the group becomes fixated in its development.

The systems-centered method of functional subgrouping builds a functional relationship between the individual and the group and specifically addresses the issue of splitting and stereotyping for the individual and the group. Introducing functional subgrouping into a group redirects the stereotyping tendency to split in order to avoid differences by substituting functional splitting.

Functional splitting requires subgrouping around each difference that the system cannot integrate. Coming together in the relative comfort of similarity, each subgroup explores the issues around which its members have come together. In so doing, each subgroup discovers the “just noticeable” differences in their apparent similarity.

Functional subgroups work alternately. When one subgroup’s energy diminishes, the next subgroup takes over the work of exploring its side of an issue. For example, one subgroup may be exploring the impulse to take care of a member of a group, while the other subgroup may be exploring the impulse to vicariously take care of others rather than to take care of themselves. Thus, rather than acting out, both the individuals and the group contain and explore the dynamics

of the “identified patient.”

Through the subgrouping process, differences are recognized and integrated within each subgroup. Thus, each subgroup develops from simpler to more complex. As complexity of awareness develops, not only do issues become clearer, but also a culture develops within each subgroup (and within each member) that supports tolerating and exploring differences rather than splitting.

Then, at some unpredictable point in time, it is as if the system-as-a-whole has developed a critical mass. The different subgroups come to recognize the similarities between them, which they were unable to see when the issues they contained had seemed too different. This is the moment of integration of the group-as-a-whole, which also is a transformation of the group-as-a-whole from simpler to more complex. Isomorphically, as the group-as-a-whole develops and transforms through integrating its subgroups, so do the individuals. System dynamics are the larger system context, the character of which is determined by how functional the subgroups are, which in turn is determined by how functionally members can work within subgroup norms. Similarly, how functionally members work to create functional subgroups determines subgroup functionality. Subgroup functionality determines how successfully the group-as a whole is able to move toward its primary and secondary goals. Thus, influencing the subgroups so that they are functional in the service of the group’s development provides a way of intervening on both the individual and the group-as-a-whole level.

## **Group Culture and Structure**

The norms of a group tend to reflect the norms of the larger context unless there is a structural intervention that permits a different group culture to develop. From the systems-perspective, therefore, leaders of systems-centered groups cannot afford to allow maladaptive

norms to be imported, in that norms, once set, are very difficult to change. What is more, the norms that are set stereotypically also will reflect the repetition of individual role conflicts at the individual level, and they will develop stereotypical role conflicts within the group. Worse, the communications between the group-as-a-whole and the larger environment will also reflect stereotypical conflicts of role.

A systems-centered group with its unique culture and structure is developed through applying the methods and technique that are the operational definitions of the theory. Systems-centered groups do not just happen; they are deliberately developed to create functional norms and to weaken the cultural stereotypes and maladaptive roles that impede group development. Thus, developing a systems-centered group requires using systems-centered methods from the very beginning so that the culture of the larger environment is not imported into the group.

The systems-centered leader works actively from the first moments of the group to influence the group toward a systems-centered culture and norms. The hypothesis is that developing a systems-centered culture will make it possible for the group and its members to work in ways they could not work, were a stereotypical culture to develop.

The four major methods (and the techniques that implement the methods) used to build the systems-centered culture are described below: functional subgrouping, vectoring and the fork-in-the-road technique, filtering, and contextualizing. These methods operationally define the theoretical constructs discussed earlier.

### ***Functional Subgrouping***

The leader introduces functional subgrouping right from the beginning. As soon as one member responds, the leader begins actively training group members to follow their contribution with the question, “Anybody else?” This makes it possible to train a group in a relatively short

time (less than 30 minutes) to subgroup functionally around the similarities that are emerging in the group. Members learn to build on similarities and hold differences until the actively working subgroup pauses; then, those who have been holding the difference are encouraged to start the other subgroup around the difference.

Functional subgrouping is an essential method in building a systems-centered culture, as it implements the principle of discrimination and integration described earlier. It makes it possible for a group to explore its differences and conflicts without enacting the culturally stereotyped roles in relation to differences, institutionalizing the differences in an identified patient role, or targeting them in a scapegoat role.

### ***Fork-in-the-Road***

The fork-in-the-road technique operationally defines the method of vectoring. The fork-in-the-road technique of choice also develops the systems-centered culture. Members learn to choose one or the other side of their conflict to explore in a subgroup with others. Typically, the first fork-in-the-road introduced in a therapy group is between *explaining*, which takes one to what one knows already, or *exploring* the experience one does not yet know, an option that becomes available as one shifts away from the explanations. The fork-in-the-road technique implements the construct of vectoring as members learn to choose and then vector their energy in relation to their goals.

In an organizational work group, establishing the culture of choice with the fork-in-the-road technique helps build autonomous work groups and reduces nonfunctional dependency. For example, giving a free choice to a work group about which aspect of a problem to explore first reduces the typical power struggles characteristic of much organizational work.

### ***Filtering in the Phases of Group Development***

Once a working climate of functional subgrouping is established, the systems-centered leader introduces filtering techniques, which implement structure (Agazarian, 1997). Filtering out noise at the boundary into the group increases the permeability of the boundary so that more clear information and less noise comes into the group and information is available for work.

For instance, in systems-centered groups in the flight phase, members learn to undo the anxiety that comes from cognitive distortions such as negative predictions about the future and to reduce the tensions that constrict access to the emotional knowledge centered in the body. These methods make it more likely that members and groups in organizations can develop emotional intelligence (Damasio, 1994; Goleman, 1995), which is one of the variables that help groups to work with common sense (Gantt & Agazarian, 2004). Each of the systems-centered protocols implements systems-centered structure and develops the culture by reducing the restraining forces that link to the specific phase of the group's development.

### ***Contextualizing***

The other important method that develops the systems-centered culture is contextualizing. From the beginning, members are trained to see themselves not only as a voice for themselves as a person but also as a voice for a subgroup (as members learn to ask, "Anyone else?"). Similarly, group members begin to see the two sides of whatever issue is being explored contained in the two different subgroups and, later, to see their personal experience as a by-product of the conflict the group is managing as contained in the subgroup voices. This training makes it possible for group members to reduce the human tendency to personalize (and to reduce the anguish that comes from personalizing). Instead, members learn through contextualizing to develop an array of perspectives from which to view their experience and discover how their

relationship to their experience changes as they change perspectives.

### ***The Culture in a Developed Group***

Establishing a systems-centered group requires training the group actively until the systems-centered norms are established and the group has learned the skills it needs to work. Thus, an established systems-centered group subgroups functionally, explores rather than explains, and supports the norm that no member works alone. Members learn to attune to each other and to explore the inevitable “mis-attunements” among them. Group members learn to reduce defenses as they surface and to explore their undefended experience or alternately to explore their defenses. Furthermore, members learn the alternatives to personalizing as they begin to see their experience in the context of the group work and the group’s phase of development. This makes it possible for systems-centered groups to develop a culture of curiosity about their experience and its relevance for the context.

### **Group Productivity**

From a systems perspective, a productive and successful group has developed itself as a system that is able to solve the problems along the path to its primary and secondary goals. Two major factors are prerequisites for both primary and secondary goal achievement. One factor is managing the structure that contains a group’s existence. This is put into practice by developing boundaries with appropriate permeability to the information/energy exchanges, both within the group’s core system (member system, subgroup system, group-as-a-whole system) and between its core system and the other systems in its hierarchy. The other factor is managing the way the group functions to organize the energy within the system. How successfully the system can move toward its goals depends on how efficiently the information is discriminated and integrated and vectored toward the goals.

Meeting the primary goals (survival, development, and transformation as a living human system) is necessary but not sufficient for secondary goal achievement. The amount of energy available in a group is determined by how much energy is available after the primary goals are met. The amount of work that a group can do at any one time is governed by the boundaries of its phase of group development. Therefore, how successful and productive a group can be at any time is governed by how much energy is bound up in the vicissitudes of the developmental phase and how much energy is free to be directed toward the task.

Groups change and adapt to accomplish goals by weakening the restraining forces so that the drive toward the system's primary and secondary goals is released. All group movement toward the goal can be conceptualized as systems moving along a goal line. As problems occur along the path to goal, the system can approach the problems, avoid the problems, or freeze at the problems (Howard & Scott, 1965). These three different reactions pose three different system challenges, each one of which has a characteristic primary and secondary field of driving and restraining forces.

## **Conclusions**

The theory of living human systems is an umbrella theory in that its definitions apply to all systems in a defined hierarchy. As an umbrella theory, it neither contradicts nor detracts from any other theories of how groups work. The methods and techniques that guide the systems-centered approach to change can be applied to all living human systems, as small as an individual or a group and as large as an organization or a nation. This enables change agents, working in small or large systems, to use a systematic series of interventions that are directly related to the context in which they are attempting to influence change.

Formal research on this new theory of living human systems is just beginning. Preliminary studies suggest that a systems-centered approach to group therapy has positive effects on individuals diagnosed with generalized anxiety disorder and depression (Ladden, Gantt, & Agazarian, 2004). Also, members of task groups who had been trained to use functional subgrouping reported greater satisfaction in their task and evidenced greater efficiency in decision making than those in the control or icebreaker group (Parks, 2003).

In addition to these early investigations, an action research component is built into this model. This enables practitioners to track the effectiveness of their interventions in that every intervention is understood as a hypothesis that tests the reliability of the practice and the validity of the methods. For example, the technique used for crossing the boundary and decreasing noise in the communications into the group is called *undoing distractions*. This technique is implemented at the beginning of a group with the goal of the distracted member becoming more present and ready to work. Built into the technique is the group leader asking this research question: Do you feel more present in the group, less present in the group, or the same? This kind of action research is built into all clinical applications.

We have also collected survey data from practitioners and trainees who are members of training groups learning to apply the SCT methods. Of those completing the survey, 21% were consultants to organizations, 19% workshop leaders or trainers, 40% therapists, and 12% members of a group. In effect, the questionnaire presented the major hypotheses operationally defined by the SCT methods and asked the participants about whether or not these hypotheses were confirmed based on their experience in SCT groups. Overall, participants' responses strongly supported the systems-centered hypotheses.

Research on systems-centered theory and practice has just begun. However, both

systems-centered theory and practice draw strength from research in other theoretical perspectives. The social identity perspective's investigations of stereotyping and studies of group development are particularly relevant. Important research remains to be done. We hope that this theoretical explication will generate questions for future research.

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