SYSTEMS-CENTERED EMOTIONAL INTELLIGENCE: BEYOND INDIVIDUAL SYSTEMS TO ORGANIZATIONAL SYSTEMS

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This article introduces a systems-centered model for emotional intelligence (EI). This makes it possible to consider not only the emotional intelligence of individuals, but the emotional intelligence of work groups and organizations themselves. Agazarian’s theory of living humans systems (TLHS) (and its constructs) applies to all levels of living human systems. Using these constructs, we operationally define emotional intelligence from a systems-centered framework (Agazarian & Peters, 1981, 1997). From the systems-centered perspective, individuals contribute energy that is necessary for organizational emotional intelligence. Yet equally important, emotional intelligence in organizations is a dynamic output of the function and structure and energy of the organizational system itself, rather than a property of individuals. This conceptualization extends the focus in the field of emotional intelligence from individuals with a selection and personnel development emphasis and instead to building work groups and organizations that function with greater emotional intelligence. Introducing a systems-centered perspective on emotional intelligence enables emotional intelligence to be viewed at all system levels in the organization, including individuals, work teams and the organization itself.

The interest in emotional intelligence (EI) in the last decade has bourgeoned. Goleman’s 1995 book brought the concept into the public realm where the popular press seized upon it. Goleman’s work built on and integrated the academic work that dates to the theoretical articles in the early 1990’s of Salovey and Mayer (1990) and Bar-On (1988).

This article integrates the work on emotional intelligence with the theory of living human systems and its systems-centered methods (SCT) [Agazarian & Peters, 1981, 1992, 1997]. This enables
a shift, from focusing primarily on individual performance or individual intelligence to systems-centered functioning. Re-conceptualizing emotional intelligence from the systems-centered perspective broadens the study of emotional intelligence by introducing operational definitions of emotional intelligence for living human systems that can then be applied to organizations and work groups, as well as individuals.

Conceptualizing systems-centered emotional intelligence also builds a bridge between the field of emotional intelligence and the strong interest in organizational learning that began with Argyris and Schon’s introduction of their theory of organizational learning (1974, 1978).

THE MAJOR THEORIES IN EMOTIONAL INTELLIGENCE

Salovey and Mayer (Salovey & Mayer, 1990; Mayer & Salovey, 1997; Mayer, Salovey & Caruso, 2000) emphasized emotional intelligence as related to the interaction of emotion and cognition and the integration of emotion into thought, and reasoning with emotion. Bar-On (1988) focused on emotional intelligence as accounting for some individuals succeeding in life more than others. Goleman integrated the brain research of Damasio (1994, 1999) with this earlier work and in his synthesis, extended the parameters of the concept of emotional intelligence to “a theory of performance” related to clusters of interpersonal and emotional competencies.

The proliferation of writing and research in the area of emotional intelligence has been extensively reviewed and summarized both by Mayer, Salovey and Caruso (2000) and Goleman (2001). In their reviews, both offered an analysis of the current models of emotional intelligence.

Mayer et al. (2000) categorized the range of models on emotional intelligence as either mental ability models that focus on “emotions themselves and their interactions with thought” (p. 403) or mixed models that also include mental abilities and other personality components. They characterized their own model as a mental abilities model and the work of Bar-On (1988) and Goleman (1995), as mixed models of emotional intelligence.

Goleman (2001) also summarized the current work on emotional intelligence. He classified the work in emotional intelligence as either a model of intelligence (Salovey & Mayer, 1990; Mayer, Salovey & Caruso, 2000), a model of well-being (Bar-On, 1988), or a theory of performance (Goleman, 1998).

All of these models share a core understanding of emotional intelligence: emotional intelligence as relating to “assimilat(ing) emotion in thought, understand(ing) and reason(ing) with emotion, and regulat(ing) emotion in the self and others” (Mayer, Salovey & Caruso, 2000, p. 396); “the ability to use emotional knowledge to solve problems” (Abraham, 1999, p. 210); and “tapp(ing) into the extent to which people’s cognitive capabilities are informed by emotions and the extent to which emotions are cognitively managed” (George, 2000, p. 1034).

Most of this work in emotional intelligence to date has focused on applying the models of emotional intelligence to understanding the skills that foster successful business and educational functioning. These applications have largely focused on selection and assessment and training to maximize emotional intelligence in individuals (Cherniss & Goleman, 2001). Others (George, 2000; Cooper & Sawaf, 1996) have focused on emotional intelligence and leadership. Caruso and Wolfe (2001), in a chapter on emotional intelligence and the workplace, focus on career development, management development and training for increasing emotional intelligence.
APPLYING EMOTIONAL INTELLIGENCE TO ORGANIZATIONS

Few theorists have conceptualized emotional intelligence in understanding the functioning of organizations themselves. Abraham (1999) focused on the organizational level and hypothesized relationships between emotional intelligence and its impact in organizational behavior and functioning. He also proposed criteria for operationally defining emotional intelligence in organizations.

Apart from Abraham, only the recent, edited book by Cherniss and Goleman (2001) addresses the emotional intelligence of organizations or organizational groups directly. Yet even their book entitled, The Emotionally Intelligent Workplace, offers only limited discussion of emotional intelligence as other than applicable to individuals: only one article of the twelve is devoted to emotional intelligence in work groups and one other of the articles discusses group emotional intelligence as a relevant variable. In the latter, Cherniss (2001) argued for a broad model for discerning what contributes to group and individual emotional intelligence in an organization. He hypothesized that both individual emotional intelligence and group emotional intelligence contribute to organizational effectiveness.

In this same text, Druskat and Wolff (2001) focused on emotional intelligence in group functioning and introduced a formulation of group emotional intelligence relevant for developing organizational work teams. They proposed that group norms support the awareness and regulation of emotion in groups and viewed the regulation of emotion in groups as the essence of group emotional intelligence. In their formulation, group emotional intelligence relates to how groups manage individuals’ emotions, how groups regulate group emotions, and how groups interact with others outside the group boundaries.

Our focus here is to introduce the idea of emotional intelligence as a systems phenomenon that is relevant at all system levels, whether it be the organizational level, the work group level, the role level, or even the level of the individual. We are proposing that orienting to emotional intelligence at an organizational level and with work teams requires an alternative model from the current conceptualizations which leave the focus on individual resources at the expense of the system context. Thus, this paper presents a systems-centered paradigm for conceptualizing emotional intelligence and discusses how this applies at the work group and organizational levels.

Agazarian developed systems-centered training (SCT) by operationally defining a theory of living human systems (Agazarian & Peters, 1981, 1989, 1992, 1997; Agazarian & Gantt, 2000). The theory of living human systems provides constructs for understanding system dynamics that are isomorphic to individuals, groups or organizations, in fact, all forms of living human systems (Agazarian & Philibossian, 1998; Agazarian & Gantt, 2003). Agazarian’s systems theory and its systems-centered methods builds on the work of Durkin (1972, 1981), Bertalanffy (1969), Bion (1959, 1985), Bennis and Shepard (1956), Lewin (1951), Miller (1978), and Shannon and Weaver (1964) and introduces a set of constructs and operational definitions that are applicable to all living human systems. The systems-centered approach orients to living human systems rather than focusing on people. With its focus on “complex adaptive systems as they change over time” (Brabender, 1997, p. 227), the systems-centered approach also has many similarities with the science of complexity and its subset of chaos theory.

SCT and the Goal of Common Sense

The goal of systems-centered training (SCT) and consultation is to increase common sense in living human systems so that the system’s energy can be used for work toward the goal of the con-
text. Common sense is operationally defined as using and integrating the two kinds of human knowledge to solve problems and make decisions, the intuitive, emotional knowledge and the thinking, cognitive knowledge. In SCT, functioning with common sense (often accompanied by a sense of humor) comes from accessing intuition and reasoning, in context. In contrast to systems-centered systems, self-centered systems are at the expense of both the self and the context, and interfere with common sense (Agazarian & Gantt, 2003).

A systems-centered definition of emotional intelligence requires operationally defining emotional intelligence in all living human systems and at all system levels. This necessitates a definition that can be applied to a system as small as a person or a role or as large as a work team or a department or an organization. Thus using the theory of living human systems to formulate an operational definition of emotional intelligence moves it away from being a property of an individual and instead defines emotional intelligence in terms of living human systems. This then makes it possible to consider and assess the emotional intelligence of any living human system, at any system level.

A systems-centered model of emotional intelligence then provides a way of understanding and developing the living human systems (work teams, organizations, and communities) that create the conditions for emotional intelligence at all levels of the system. Thus, the community and the individuals living in it can flourish, or in systems-centered language, survive, develop and transform, with increasing access to emotional intelligence for solving the problems that all living human systems have to solve.

THE THEORY OF LIVING HUMAN SYSTEMS AND THE SYSTEMS-CENTERED FRAMEWORK: LINKING THE CONSTRUCTS TO EMOTIONAL INTELLIGENCE IN ORGANIZATIONS AND WORK GROUPS

The theory of living human systems postulates a hierarchy of isomorphic systems that are energy-organizing, self-correcting and goal-directed (Agazarian, 1992; Agazarian & Carter, 1993; Agazarian & Janoff, 1993; Agazarian, 1997). The two major constructs in the theory, hierarchy and isomorphy, are operationally defined below, and are the building blocks for developing hypotheses about emotional intelligence in organizations and work groups. The hypotheses then link to methods and strategies for influencing organizational emotional intelligence at each of these system levels.

Hierarchy

Seeing the systems hierarchy makes it possible to recognize the potential impact that each system level will have on the other systems in the hierarchy. For instance, when a mid-level department is in disarray as a result of rapid turnover in key positions, the disarray will immediately impact the
larger division in which the department is nested as well as any subsystems like work groups nested within the department.

**Core System**

In defining the systems hierarchy, systems-centered theory also introduces the idea of the core system. The core system identifies a 3-level hierarchy in a living human system. In turn, the core system itself exists in a hierarchy of living human systems (Agazarian and Gantt, in press).

Figure 1 illustrates this concept applied to an organization. In Figure 1, the core system is drawn in two ways. The core system contains the 3 systems: the organization, the work groups and the member roles.

The core system of the organization also exists in a hierarchy of other living human systems. In Figure 2A, the organization exists in the context of the community which in turn exists in the context of the nation. In Figure 2B, the community is the middle system that is the context of the organization and the community exists in the context of the nation.

**FIGURE 2**
The core system (framed by the rectangle) which shifts levels in the hierarchy dependent on the goals of the change strategies. In 2A, the goal relates to community change. In 2B, the goal relates to the nation. In 2C, the goal relates to organizational change.
The concept of the core system provides a theoretical map that orients to the middle system as the most efficient point of change. The middle system has boundaries that are contiguous to the subsystem below it and above it in the core system. Thus a change intervention to the middle system has to cross only one boundary to transfer the change to the system above it or below it in the core system. So that conceptually, change interventions to the middle system with its contiguous boundaries to both levels have more immediate impact on the entire core system than do interventions made to other levels in the core system.

For example, interventions to work teams in an organization will influence more directly both the organization and the work roles that are nested in the work teams. In addition, the idea of the core system can be applied to a work team itself. Whereas intervening to the work team by intervening to an individual may or may not influence the work team, and intervening to the work team may or may not influence the individual, intervening to the subgroup (the subsystem of members focused on an aspect of the work) is more likely to influence both the members and the team.

In change interventions, identifying the core system relevant to the desired change then leads to pinpointing the middle subsystem as the most efficient target for system change. For example, returning to Figure 1, changing an organizational culture around diversity would begin by targeting the work groups first in order to shift the organizational norms. As the work groups develop new norms for integrating differences, they will relate to the larger organization using these new norms. Members of the "changed" work groups also import the new norms into their roles in other contexts.

The core system is defined according to the change goals (Agazarian & Gantt, 2003). Once the relevant core system in a change strategy is determined, it is also possible to identity the middle system within the core system. Since the middle system of the relevant core system is theoretically the most efficient point of intervention (as it shares boundaries with the systems above and below it), it is then the primary target of the change strategy. Thus, Figure 2 illustrates how the definition of the core system can be shifted, depending on the change goals. The rectangular outline traces the core system. In Figure 2A, the goal relates to community change and the core system is the community, its organizations and work groups. Thus, the target of change, the middle system, is then the communities. In Figure 2B, the goal relates to the nation. The core system is then the nation, its communities and the organizations within the communities. The target of change, the middle system, is then the communities. In Figure 2C, the goal relates to organizational change and the core system again shifts. The target of change for this core system is the work groups.

Context and Contextualizing

Each subsystem in a core system introduces a different context. Different contexts have different goals and contribute different perspectives. How a department views a reorganization is different than the work team's perspective and still different again, from the perspective of the organization as a whole. Being able to change perspectives is critically important in today's workplace where rapid changes require employees to change roles and contexts frequently. Further, being able to recognize the impact of context and the concomitant goals of the context increases the likelihood of successful communication across subsystems.

In operationally defining the construct of hierarchy, SCT introduced the technique of contextualizing. For a work team, contextualizing trains the team and its members to shift perspectives and to view the system from different hierarchical levels. In this process, the team learns how perceptions change as the context changes. For example, a work team learning to contextualize would be...
asked to examine the new proposal for inventory from at least three perspectives: their own perspective, from the departmental perspective, and from the individual store’s perspective. Learning to see the other contexts shifts the work team from being just team-centered to systems-centered so that decisions can be made or implemented with a broader perspective. The work team then learns to see themselves as part of a larger context. This decreases the tendency for “group think” (Janis & Mann, 1977) or group pressure (Asch, 1953) that results in distortions, misperceptions or compliance at the expense of reality. Instead, contextualizing expands the work group’s perspectives. By integrating the cognitive and emotional knowledge from each of the perspectives, the work group expands its resources for exploring and responding to the new proposal.

Contextualizing is also critical to the consultant’s work. To the extent that the consultant designs his or her interventions with the work team with an awareness of changing the core system, and not just the work team, the consultant is much more likely to encourage changes within the work team that can be supported and integrated into the organization.

Contextualizing provides an important alternative to personalizing. Contextualizing introduces a systems-centered perspective in contrast to personalizing, where the only perspective available is one’s own. This is true at all system levels. Thus learning to shift to a systems-centered perspective from a predominantly self-centered, team-centered or organization-centered perspective, introduces additional and significant resources to the decision-making process. In contextualizing, there are as many perspectives as are useful in understanding the process of change. Discriminating between contextualizing and personalizing is equally important to consultants who often orient to the “problem” system rather than seeing the system in the context of the system hierarchy.

**Hypothesis 1.** There is an inverse relationship between contextualizing and personalizing, and the greater the proportion of contextualizing in an organization, the greater the emotional intelligence.

Returning to the example above, if the work team reacts to the new proposal for inventory only from the perspective of its impact on the work team, its range of exploration will be limited and personalized. In addition, communications with other teams and departments will be more difficult. Personalizing is always high on reactivity and low on exploration and data collection. To the extent that the team attends to the perspectives of the other organizational contexts (departmental and individual stores), personalizing will be reduced and the potential for emotional intelligence increased.

Operationally defining this hypothesis in terms of work team behavior focuses on the work team’s communication patterns. Work teams that are high on reactivity and blaming and with low tolerance for differences will have more personalizing and less contextualizing. Operationally defining this at the organizational level requires looking not only at how departments perceive and relate to other departments but also looking at the relation of the organization to its larger environment. Thus assessing communication patterns between departments and between the organization and the larger environment will provide information on the ratio of personalizing to contextualizing. In addition, most organizations formally delegate the function of contextualizing to an executive team or management group. Shifting to a systems-centered perspective expands this role beyond just offering “contextualizing” vision. Instead, the role would include monitoring and influencing the ratio of personalizing to contextualizing in the organization’s communication patterns, within each system level and between system components, and between the overall system and its larger context.

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Isomorphy

Another important construct in the theory of living human systems is isomorphy [adapted from Bertalanffy (1969) and general systems theory]. Defining systems as isomorphic defines the structure and function of all systems in a specified hierarchy as equivalent. Structure is operationally defined as system boundaries. Boundaries are permeable or impermeable to energy. Energy in living human systems, borrowing from Miller (1978), is equated with information. Systems-centered defines function as the process by which living human systems discriminate and integrate information. Thus structure and function relate to how information is managed in living human systems, how it is communicated across and within systems boundaries and organized (discriminated and integrated) within system boundaries.

Applying isomorphy to organizations means that what we learn about the function of a department (how it discriminates and integrates information) helps us understand how the work teams within the department function and also how the larger organization in which the department is nested functions. Similarly, understanding the structure of the department (defined by its boundaries which are relatively permeable or impermeable to information exchange) helps us understand the structure (boundary permeability) of the work team and the larger organization. Thus whether the system is a matrix group or a product group, its structure and function will be similar to that of all other groupings nested in the system hierarchy. Thus subsystems in a hierarchy will be similar in how they discriminate and integrate information (function) and in how permeable or impermeable their boundaries are to information transfer (structure).

Hypothesis 2. Organizational emotional intelligence is different from the sum of the individual emotional intelligence.

Applying isomorphy moves us beyond a linear perspective where emotional intelligence is located in individuals. The implication of locating emotional intelligence in individuals is that organizational emotional intelligence is increased by adding individuals. This treats organizational emotional intelligence as an additive phenomenon. Viewing emotional intelligence as an additive phenomenon fails to account for the findings in that work groups with the resources available to solve a problem, do not do so. Steiner (1972) cites several studies in which “truth” in a group problem-solving task fails to triumph over “untruth.” In Thomas and Fink’s (1961) study, 28 groups moved to unanimity following discussion but only 15 of 44 groups produced correct answers. This was in spite of the fact that 29 of the 44 groups had at least one member who had solved the problem correctly before the discussion groups met. With this example, we could characterize the failure of using available resources as characteristic of low emotional intelligence at the work group level.

Instead of seeing organizational emotional intelligence as additive and tied primarily to resources, we are proposing that organizational emotional intelligence is an emergent system phenomenon that relates to the interaction of the whole. An emergent system phenomenon is never predictable from the sum of resources. Steiner (1972) alludes to this issue when he discusses the pieces of a system as behaving differently when apart than when together. As Senge (1990) points out, there is often an effective team IQ of 63 even when the team is composed of individuals with IQ’s of 120. Similarly, we see organizational emotional intelligence as moving beyond the idea of adding resources and instead emphasizing the interactions within and between system components. Thus, in the systems-centered approach, organizational emotional intelligence is more easily understood with the idea of emergence. “Emergent phenomena are neither predictable from, deducible from,
nor reducible to the parts alone” (Goldstein, 1999, p. 57). Emergence refers to phenomenon that instead of being predictable from summing its components, arise from interactions. Seeing organizational emotional intelligence as a systems phenomenon provides a radical alternative to the additive model where emotional intelligence is attributed to the individuals within the organization.

Organizational emotional intelligence may then account for the discrepancy between what Steiner (1972) calls actual productivity and potential productivity. Actual productivity relates to the reality of the work a group or organization does. Potential productivity is the productivity predicted by summing resources. We could hypothesize that the failure of using available resources may be characteristic of low emotional intelligence at an organizational or work group level. In contrast, in an organization with high emotional potential, we would anticipate that the actual productivity would come closer to or even exceed the potential productivity.

In contrast to the additive solution which attempts to increase emotional intelligence by adding more individuals with high emotional intelligence, systems-centered practice develops the conditions for emotional intelligence at all system levels. The systems-centered approach focuses on the isomorphic transfer within and through all system levels. This includes identifying the structures that influence information transfer. For example, when the boundaries are overly permeable to information, it is difficult to clarify subsystem functions and role. Equally important is recognizing when boundaries are impermeable to information exchange which creates the properties of a closed system with entropy. Further, identifying the system function that can potentiate or limit the potential for emotional intelligence is also essential. For example, when differences are encapsulated or reacted to with contentiousness, integration is preempted and the potential for innovation is lowered. Or when a subsystem is high on discriminating new information yet fails to integrate it, potential innovations are never made practical or implemented. Thus, applying the understanding of isomorphy in systems orients toward devising strategies for developing the system components (structurally and functionally) that increase the emotional intelligence potential throughout the organization.

Structure and Boundaries

Bertanlaffy (1969) defined isomorphy as similarities in structure and function. Agazarian (1997) defined structure as boundaries. Boundaries exist between an organization and the larger context; and between subsystems, like its departments and work teams; and within organizational subsystems, like departments or work teams.

Boundaries structure what is inside a system or subsystem and what is outside at each system level. The boundaries demarcate what an organization does and does not do. When boundaries are functional, they support the organizational goals. Similarly, boundaries mark what subsystems (like departments or work teams) do and do not do. Boundaries also delineate roles (roles are subsystems) and structure what belongs to a role and what is outside of the role. Clear boundaries facilitate work. When a work team is clear what role is responsible for what function, it is easier for the team to work.

Boundary Permeability and Differences

SCT defines system boundaries as potentially permeable to information/energy. Communication is defined as information transfer (Simon & Agazarian, 2000). Thus, boundary permeability influences the communication and information that is then available for work.
In any change process, boundary permeability is then critically important, and equally challenging, as living human systems close boundaries to differences that are too different (which threaten system survival). This is true at all system levels, whether between a system and its environment or between and within subsystems.

**Hypothesis 3.** Organizational emotional intelligence is influenced (limited or potentiated) by how change information is transferred across the boundaries between the different system levels within an organization, and within each subsystem, and between the organization and its environment.

The flow of information in an organization and more particularly, the openness to differences, has tremendous impact on whether or not the system operates more like a closed system with little or no innovation, or an open system with ongoing development. Systems in which change is introduced at rate faster than it can be integrated have a much lower potential for organizational emotional intelligence. Similarly, systems in which differences are excluded also have a lowered potential for the development necessary for an emotionally intelligent system.

**Within an organization.** Within an organization, each of the systems in a specified hierarchy has contiguous boundaries with the adjacent systems. Looking at system boundaries and boundary permeability is particularly relevant when change is introduced within a subsystem. If the change information is not transferred across the boundaries between the changing department and other system levels in the organization, the changes within the department can become too different for the organization to integrate and the change can either be washed out or the changed department treated as deviant (Agazarian & Philibossian, 1998). Thus if innovation is a goal, the changing department has the challenge of bringing in its changes to the larger organization in a way that the change information can be integrated. Similarly, the larger organization has the challenge of keeping its boundaries permeable to change information.

Also within an organization at all system levels, organizational emotional intelligence will be impaired when role boundaries are not clear and are inappropriately permeable to information. When roles are not clear, responsibility and authority often gets muddled and personalizing increases, often with significant disruption in the work product.

**Within organizational subsystems.** Within subsystems, like work teams or departments, boundary permeability influences what information gets communicated. For instance, in many organizations, emotional information is taboo. Theoretically the boundaries are relatively impermeable to emotional information, that is, the emotional information is too different from the group norms. As a result, frustrations get discharged in gossip or acted out in absenteeism and little of the information in the frustration comes into the work group itself. Yet these very frustrations often contain important information about difficulties in the work. In work teams where the norms support voicing these frustrations as information (rather than as complaints), the data and energy contained in the frustrations can enter the system in a way that it can be used rather than be kept out. Often at such a point, the team then has much more of its energy available to direct towards its work goals.

Within work teams, emotional intelligence is also impaired when emotionality is high as a result of the boundaries that are relatively impermeable to cognitive information and data. In these situations, decisions are made without clarifying reality, often resulting in decisions that are hard to implement and that have to be redone later.

Differences are essential both for innovation and development. How differences and conflicts are managed also influences the organizational or work group climate. Since boundaries close to dif-
ferences, it is a significant challenge for work teams to address the reality that boundaries will be relatively impermeable to any information that is outside the norms of the work group. This will be true regardless of whether the norms discourage frustrations from being voiced (keeping out the emotional information) or discourage data collection (keeping out the cognitive information). Organizational emotional intelligence is then influenced by developing norms for appropriate boundary permeability within each system level and between each system level. Thus, both the cognitive and emotional information relevant for the work is available to the system at all levels.

Between the organization and its larger context. Finally, organizational emotional intelligence also relates to how information is transferred between the organization and the larger environment. To the extent that an organization’s boundaries are appropriately permeable to the larger environment, then the organization will both influence and be influenced by the larger environment. Interestingly, Hawkins (1994), in an inspirational challenge to the organizational learning field, highlighted this same issue in relation to organizational learning: “Important organizational learning ... [takes place] at the interface of the organization and the world surrounding it” (p. 80).

Noise in Communication and Boundary Permeability

Boundaries open to clear communication and close to noisy information, just as with differences that are too different for a system to integrate (Agazarian, 1989 & 1993). Noisy communications contain ambiguity, contradiction or redundancy (Shannon & Weaver, 1964) and are entropic. Ambiguity in organizations is characterized by speculations, ruminations, and vague communications, expressed as “maybe’s,” “perhaps,” or “we could.” Contradictions in organizations are predominantly “yes, but” communications. Redundant communications say the same thing, albeit in different ways, over and over again. Noisy communication interferes with work. Clear communication carries information that can then be used for work (Simon & Agazarian, 2000). Thus, clear information enhances the emotional intelligence potential of an organization and noisy communications reduce it.

Hypothesis 4. Reducing noisy communication (which influences appropriate boundary permeability and affects the probability of the information being transferred) increases the potential for emotional intelligence in organizational functioning. Or, to the extent that noise in the communication process is reduced, emotional intelligence will be increased.

For example, an ambiguous departmental memo introduces noise. This in turn stimulates more noise in the form of speculations, anxious interpretations, and frustration. A memo stating, “The current economic conditions are such that imminent changes will be required to cut expenditures in all departments” is highly likely to increase anxiety and worrying. “Imminent changes” is very ambiguous and most of those reading such a memo will immediately begin speculating and worrying. Noisy communications beget further noise, as those who are now worried will speculate further and gossip with others. The communication environment then gets increasingly noisy and emotional intelligence and common sense is significantly impaired as little information can get collected and verified in a noisy communication climate.

Noise also creates frustration in all living human systems. In a climate of frustration, noisy communication increases further and emotional intelligence decreases. In a climate where communications are congruent and clear, and ambiguity, contradiction and redundancy is low, emotional intelligence is potentiated. Thus, many of the SCT methods were designed to reduce noisy commu-
nations and increase clear communications, making it more likely that common sense and emotional intelligence are available for work.

Appropriate permeability of boundaries is influenced by the amount of noise in the communication. This in turn influences the amount of clear information available in an organization. The permeability of the boundaries to the transfer of information between the department and its work teams determines how much ‘information versus noise’ is transferred. This then influences how much energy/information is available for work. This applies not only between the subsystems up and down the hierarchy but also within a department or work team.

**Function**

Function relates to how information is organized within a system or subsystem. Living human systems function through the process of discriminating and integrating differences. SCT assumes that, to the extent that information is discriminated and integrated, living human systems survive, develop and transform from simpler to more complex.

**Hypothesis 5.** An organization’s emotional intelligence correlates with its capacity for discriminating and integrating differences.

**Within a work team.** The challenge of managing differences in an organization so that the differences can be used as resources, rather than as a point of contention, is well known to managers and consultants. From the systems-centered perspective, this challenge is critical and central to the emotional intelligence of an organization. To the extent that an organization or work team is unable to resolve its conflicts so that the resources contained in the conflict can be used, its potential for development and transformation is curtailed and its emotional intelligence limited. When differences are not discriminated and integrated, not only is the information in the differences that is a potential resource to the organization lost, but the working climate often becomes contentious and focused on preserving the status quo at the expense of inhibiting innovation and creativity.

**Within an organization.** This is a particularly important challenge at an organizational level where resolving conflicts and integrating differences provides the potential for development and transformation essential for stability and change in living human systems. The sometimes proposed solution of achieving team harmony through homogeneity of work groups accentuates the challenge of organizational integrations of differences across work groups. The greater the homogeneity of work groups, the more the challenge of integrating the differences critical to change and innovation at the organizational level.

**Within work groups.** Within work groups, differences are often managed through stereotyped communication patterns that maintain near equilibrium condition. These stereotyped communications replicate closed systems and are noisy and entropic.

For example, many of the communication patterns at meetings actually reflect stereotype subgrouping, which maintains a status hierarchy, whether or not it is functional. An analysis of “who speaks to whom” in a typical, “multi-level” status meeting will almost certainly demonstrate that both lower status and higher status members talk to high status members, and that communications are rarely directed to lower status members. However, it is often the lower status line staff, who contain the information that is needed to implement some of the decisions of the meeting.

Differences are also typically communicated in an environment with significant communication noise. Obfuscation or contradiction is a common response to differences that ensures the new

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information is never really considered. In a “noisy” work group, very little information /energy is available for actual work. Instead, conflicts are either avoided or serve as ammunition for repetitive political contentions rather than potential resources for work.

**Functional Subgrouping**

Functional subgrouping is the SCT conflict resolution method that implements the process of discriminating and integrating differences in group systems. Using functional subgrouping enables a work group to integrate differences, both differences in the apparently similar and similarities in the apparently different. This is implemented in a work group by organizing the conflicts so they are discussed sequentially in two different subgroups. Members in one subgroup explore their perspective together, in the environment of similarity where the small differences in their similarities are more easily tolerated. As they finish, the second subgroup works, bringing in their “difference” and also exploring their similarities until the small differences between them surface and are understood and accepted. At this point, the work group begins to integrate as members discover the similarities in what was initially different. Thus, as the work group integrates and resolves its conflict, it is able to use this resolution in the service of problem-solving or decision making.

The understandings introduced by complexity theory elucidate this method more fully. Complexity theory has introduced the idea of near or far-from-equilibrium as descriptors of a “systems function.” To the extent that a system functions near-to-equilibrium, it approaches the conditions of entropy and a closed system. To the extent a system is functioning far-from-equilibrium, it approaches conditions of chaos (Kossmann & Bullrich, 1997). Functional subgrouping creates what we would call a “mid-from-equilibrium” condition. This “mid from equilibrium” condition creates enough stability for system containment while simultaneously introducing the conditions for system change through discriminating and integrating differences.

Functional subgrouping introduces an alternative to the stereotypic subgrouping present in all organizations. Functional subgrouping changes stereotyped communication patterns where differences are washed over by group enthusiasm (Janis & Mann, 1977) or group pressure (Asch, 1953). Instead, all members who have information around one aspect of an issue are encouraged to talk together (in a subgroup). In addition, all members who have different perspectives on the issue are required to wait until the first subgroup has finished gathering all its data. Only then is the other subgroup encouraged to discuss its perspective on the data relevant to the work group agenda. This interrupts the tendency to contend with or convert the differences. Functional subgrouping then enables communications to be valued for the information they contain relevant to the work, rather than differences being skipped, ignored or only valued in terms of the status of the person who is communicating. Functional subgrouping can be used to explore the two sides of a conflict irrespective of organizational structure and within any system level, whether it be in a matrix structure or hierarchical structure or team meeting or a board meeting.

Functional subgrouping also influences the ratio of information to noise in work group communications. A familiar signal of conflict in meetings is the high use of “yes, but ...” in the communication pattern. The “yes” is a token join, the “but” is a different or contradictory opinion that does not in fact address the ideas of the person who has just talked. Functional subgrouping encourages the exploration of the “yes” ideas in one subgroup, and the “but” ideas in another subgroup, the two subgroups working sequentially, or alternately, until all the information from both sides is available to the meeting as a resource.
For example, in a manager’s meeting where a proposal for implementing a new sales plan is being explored, functional subgrouping is introduced for exploring the two responses to the new plan.

Dick: It just feels too soon to me to make a change. [voice for stability]
Jan: Yes, it is soon, but, Dick, you are always dragging your feet and this is the time to capitalize on the present market conditions. [voice for change]
Tom (leader in the meeting): Jan, sounds like you have the other side. Rather than reacting to Dick’s point of view, which is different from Jan’s, let’s find out who else besides Jan wants to go ahead with the new plan so you can explore together. And who else, like Dick, is concerned that it is too soon?

As the two subgroups work, one at time, the information in both sides gets thoroughly explored, so that the decision then integrates both viewpoints. In this case, the outcome is that the “energy for change” gets integrated with the “voice for stability.” This result makes it possible to implement change at a pace that will be easier for the organization to manage. Thus, exploring differences by using functional subgrouping preempts the redundant communication patterns that maintain the status quo or the redundant or stereotype communications which inhibit new learning. Instead, functional subgrouping organizes information in a way that increases the potential for integrating cognitive and emotional understandings contained in the differences. A pilot study of this in small stranger task groups suggested both greater efficiency in problem solving as well as a more positive climate in groups using functional subgrouping compared to a control group given ice-breaker exercises (Parks, 2003).

The above example with Tom, Dick and Jan also illustrates how functional subgrouping can assist a work group in making room for both the emotional information (“it feels too soon”) as well as the cognitive analysis (“the market conditions are right”). This makes it possible to integrate the two kinds of information (the emotional and cognitive) in decision-making rather than the often familiar contentious back-and-forth between the two.

Hypothesis 6. Using functional subgrouping in work groups increases emotional intelligence in decision-making, reduces personalizing and increases organizational learning.

Using functional subgrouping to discriminate and integrate differences in a work team reduces the pull to personal agendas and increases the systems thinking that Senge (1990) saw as critical in organizational learning. Learning to see one’s perspective as a subgroup voice that contains information for the team or department or matrix group, and recognizing the organizational information that other subgroups contain, increases systems thinking. Containing the inevitable bifurcations in living humans systems in functional subgrouping reduces the restraining forces to system change and development. This makes it possible for the system to re-organize itself with ever increasing complexity.

Functional subgrouping and double-loop learning. Functional subgrouping may also facilitate the double-loop learning that Argyris and Schon (1978) described in their pioneering work on learning organizations. Argyris (1999) characterizes single-loop learning as the correction of errors “without questioning or altering the underlying values of the system (be it individual, group, intergroup, organizational or interorganizational)” in contrast to double-loop learning in which errors are corrected by “first examining and altering the governing variables and then the action” (p. 68). To
the extent that conflicts are managed without integrating the differences in the conflict (by avoiding
them or arguing against them), system resources are split off and the status quo is more likely to be
maintained and problems solved by single-loop learning. SCT would characterize single-loop learn-
ing as promoting survival and development while double-loop learning potentiates development and
transformation. Thus, we would predict that an organization with high emotional intelligence would
evidence both.

By legitimizing differences as a system resource, functional subgrouping also develops an
organization’s capacity for seeing the larger context. Using this larger perspective as part of deci-
sion-making and problem-solving enhances the emotional intelligence potential.

Functional subgrouping with an organization. The second example below illustrates how
functional subgrouping facilitated a small organization surfacing the important issues that two dif-
ferent and competing proposals contained. This enabled the organization to take both proposals into
account in their decision-making process, and the work resulted in clarifying the purposes that the
existing organizational structures served. The resolution in this example demonstrates both emo-
tional intelligence and double-loop learning.

The decision being explored was whether to change the frequency of the stakeholders meeting
from twice a month to once a month. By the time of the meeting, the group of 35 stakeholders had
received 2 hours of coaching in functional subgrouping, with the goal of decreasing the arguments
and contentiousness evidenced in earlier meetings.

The discussion began with those wanting to reduce the meeting frequency to once a month
exploring together. As the subgroup explored, they began to understand that they were holding frus-
tration over the redundancy of the discussions in the meetings and resentment over how much work
they were contributing. Those wanting to maintain the twice monthly meetings surfaced the strong
wish for more personal connection with every one. By the time both subgroups had finished explori-
ing (alternating their work), the group understood that whatever decision was made about the meet-
ing structure needed to address two important considerations: 1) how to reduce the redundancy in
the discussions and the overwork of certain members, and 2) how to support contexts for more con-
nection. This enabled the group to move beyond a simple solution (single-loop learning) to looking
at the important issues in the decision and the implications that the decision has for the organization.
Thus, functional subgrouping surfaced both the cognitive and emotional knowledge in the system to
inform its decision-making, more consistent with double-loop than single-loop learning. To the
extent that conflicts are resolved without integrating the differences in the conflict, system resources
are split off. This kind of split maintains the status quo in that decisions fail to address the important
issues and “governing variables” (Argyris, 1999). All too often it is the emotional knowledge that
gets split off and goes unacknowledged in organizations and that links to the governing variables. In
this example, without using functional subgrouping, the organizational discussion would have likely
reverted to arguing over the differences with a high likelihood of developing a contentious climate.
In all likelihood, the resulting decision in this climate would not only be unsatisfying to all involved
but would also fail to address the organizational issues contained in the conflict.

Summary of Hypotheses

To summarize, from the SCT framework for emotional intelligence, the following hypotheses
are made: First, the amount of contextualizing evident in an organization will correlate highly with
its emotional intelligence and the amount of personalizing will be negatively correlated. Second,
organizational emotional intelligence is different from the sum of the individual emotional intelli-

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gence. Third, boundary permeability (within and between subsystems and within and between cognitive and emotional information at all system levels) affects the probability of the information being transferred and influences the emotional intelligence potential in organizational functioning. Fourth, clear information enhances the emotional intelligence potential, and decreasing noisy communications influences the boundary permeability to clear information. Fifth, an organization’s emotional intelligence correlates with its capacity for discriminating and integrating differences, in both cognitive and emotional information. Sixth, functional subgrouping increases emotional intelligence in decision-making, reduces personalizing, and increases organizational learning.

IMPLICATIONS AND SYSTEMS-CENTERED DEFINITION FOR EMOTIONAL INTELLIGENCE IN ORGANIZATIONS AND WORK GROUPS

Building on the hypotheses discussed above, we propose a systems-centered definition of emotional intelligence. A systems-centered definition introduces a lens for moving between system levels and thinking systemically about the conditions that potentiate emotional intelligence in organizations and work groups. Rather than focusing simply on emotional intelligence as a property of individuals, a systems-centered definition applies to all system levels, the organization, its departments, its work team, and the individual members.

A Systems-Centered Definition of Emotional Intelligence

From the SCT framework, emotional intelligence is defined as a system’s ability to discriminate and integrate information/energy (cognitive and emotional) in the service of the goal of the context. Each of the constructs in this definition are discussed below and operationally defined in its contribution to organizational emotional intelligence.

Energy and Emotional Intelligence

The energy of living human systems is information. The two kinds of information in living human systems are the thinking or cognitive knowledge and the emotional or intuitive knowledge. The goal of SCT is to make the boundary appropriately permeable to cognitive and emotional knowledge within each system level and between system levels. In the SCT approach, emotional intelligence is defined as a systems ability to discriminate and integrate both the cognitive and emotional information in the service of the goal of the context.

Discriminating and Integrating Information as a Function of Emotional Intelligence

Using the definition of function (the process of discriminating and integrating information) provides a way of assessing the process by which information is managed in the service of emotional intelligence. Discriminating and integrating the two kinds of information (cognitive and emotional) requires the flow of information back and forth, so that the emotional knowledge is used to inform and revise the cognitive maps [the map is not the territory (Korzybski, 1948)]. The cognitive maps and models then provide a framework for collecting more emotional knowledge. The interplay of discriminating and integrating the two kinds of human knowledge increases emotional intelligence and counters the tendency to rationalize dissonant information (Festinger, 1957) at the expense of reality, a common organizational defense (Argyris, 1999).

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Goals and Context and Emotional Intelligence

Discriminating and integrating information in relation to the goals of the context requires recognizing both the context, its place in the organizational hierarchy, and the relation between the goals of the context and the organizational goal. Shifting contexts within a system and increasing the boundary permeability between system levels increases the information available in the system for work. The process of recognizing shifts in context and goal develops the potential for emotional intelligence at all system levels.

Putting it All Together

A system’s potential for emotional intelligence is enhanced to the extent that the cognitive and emotional information in a system is discriminated and integrated and used in the service of the goal of the context. The degree to which the boundaries are permeable to the flow of information influences the information that fuels the system’s work. Thus, the potential for organizational emotional intelligence in an SCT framework is defined in three dimensions: 1) the extent to which a system’s boundaries within each system level and between system levels are appropriately permeable to both cognitive and emotional information, and 2) the degree to which the system is functioning to discriminate/integrate both cognitive and emotional information, and 3) the degree to which both the cognitive and emotional information is used in the service of the system goals at each system level. These conditions maximize the likelihood of the organization’s functioning with high emotional intelligence.

SCT defines the inherent developmental goals for all living human systems as survival, development and transformation from simpler to more complex through the discrimination and integration of information. Thus, at an organizational level, the degree to which the system’s structure and function support both its developmental goals (inherent in all living human systems) and its organizational goals (specific to each organization), and the extent to which the developmental and organizational goals are in alignment, predicts the emotional intelligence in an organization.

ASSESSING EMOTIONAL INTELLIGENCE IN ORGANIZATIONS

This systems-centered formulation of emotional intelligence can then be used by consultants, managers, leaders and other change agents for assessing emotional intelligence in organizations and formulating interventions.

For instance, to the extent that an organization or its work groups are low on contextualizing and high on personalizing; has boundaries that are overly permeable or impermeable either within subsystems or between subsystems; has communications that have more noise than information; or manages differences by targeting, or extruding or encapsulating them; then it is highly unlikely that either the organization or the individuals in it will be able to use their emotional intelligence.

When an organization or its work groups are low on contextualizing and high on personalizing, the organization will have high emotionality but very little emotional intelligence. Personalizing generates emotions, often painful ones, and reactivity that interferes with seeing things in context and impairs common sense. Blaming the other department is a common indicator of personalizing and a lack of a systems-centered focus.

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When boundaries are overly permeable, the organization will have difficulty clarifying its roles, and its boundaries will often be obscured. This lowers the potential for organizational emotional intelligence as lack of role clarity weakens goal orientation and makes it less likely an organization will work effectively or succeed in its goals. This is particularly difficult in organizations when personnel changes occur, and even further exacerbated for those organizations reliant on individual emotional intelligence when the individuals with high emotional intelligence leave the organization.

Either within subsystems (like work groups or departments or even with individuals) or between subsystems, boundaries that are impermeable or inappropriately permeable reduce the information/energy available for work. When boundaries are closed to emotional knowledge, decisions are often devoid of common sense or difficult to implement as little emotional energy is connected to the decision. When boundaries are inappropriately permeable to emotional information, interpersonal difficulties may increase and compete with work-related interactions. When boundaries are closed to cognitive information and data, decisions will be made without a reality orientation that is inevitably costly to the organization. Any of these dysfunctions in boundary permeability correlate with low organizational emotional intelligence.

When communications are noisy, the climate for work will be difficult and personalizing will increase at the expense of contextualizing. When differences are targeted or extruded or encapsulated, not only are the resources in the differences lost to the organization or to the work group, but the climate will be negatively impacted so that fewer and fewer innovations are introduced and less and less organizational emotional intelligence evidenced.

From a systems-centered perspective, the difficulties described above will be true notwithstanding the individuals who have been specifically hired for high emotional intelligence: how a person functions depends less on their emotional intelligence potential than it does on the norms of the organization or the work group. Thus, in organizational consultancy, interventions can be formulated that target the specific dimensions of organizational functioning or structure that is impairing the emotional intelligence potential rather than hiring personnel to increase emotional intelligence.

DISCUSSION

We have proposed a theoretical, systems definition of emotional intelligence that can be applied to any living human system, by linking the work in the field of emotional intelligence with the SCT methods and its theory of living human systems. One advantage of a theoretical definition is that the same definition can be applied to any living human system, as small as individual people or as large as companies. Thus it is possible to shift from the perspective of emotional intelligence as characteristic of an individual, to emotional intelligence as systems-centered, at the level of a work team, a department or an organization.

Our focus has been applying the definition to work groups and organizations and developing a systems-centered definition of organizational emotional intelligence. We have chosen organizations as our starting point. We assume that to the extent that organizations themselves manifest emotional intelligence, the individuals who work within them will increase in their own emotional intelligence. Thus, increasing the emotional intelligence potential for organizations creates the conditions in which individuals develop themselves and utilize their emotional resources in the service of organizational development.

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Using this systems-centered paradigm has helped us translate Goleman and Mayer and Salovey’s work to an organizational level. Assessing organizational potential in relationship to the organization’s ability to “assimilate emotion in thought, reasoning in emotion, regulating emotion in self and others” can be done by assessing the organization’s functioning in three dimensions: 1) the system’s boundary permeability to cognitive and emotional information within and between system levels, 2) the systems’ ability to discriminate and integrate both cognitive and emotional information and 3) the degree to which both the cognitive and emotional information is used in the service of the system goals at each system level and in communicating between system levels. This has made it possible for us to develop organizational change strategies that target the system to foster the organizational emotional intelligence potential. This strategy has proven useful when intervening to the organization as a whole or to specific subsystems, like work teams or departments.

Practical Implications

Developing organizational emotional intelligence is particularly important in providing stability in today’s workplace with the rapid turnover in personnel. To the extent that an organization functions with high organizational emotional intelligence, it limits the fallout from key personnel changes of individuals with high emotional intelligence. Specifically, when key personnel leave and role clarity is high, and the relationship between organizational roles and the goals of the context is clear, it will be a much easier transition.

Applying the systems-centered framework to organizational emotional intelligence also enables consultants and managers to shift their perspective. Seeing an organization through a systems-centered perspective decreases personalizing and the prevalent tendency for consultants and managers to orient to individuals as either the problem or the solution. Also, seeing emotional knowledge in an organizational context legitimizes it as an important part of organizational functioning while discriminating between emotionality (as a restraining force for work) and emotional information (as a driving force for work).

This framework also offers tools for shifting organizational emotional intelligence. For instance, functional subgrouping can be introduced at any system level. Functional subgrouping changes the problem-solving potential in an organization or team by increasing the range of resources for problem-solving and decision-making. Simultaneously, functional subgrouping creates a climate that both increases the emotional knowledge and enhances the potential for innovation and creativity.

For consultants, expanding one’s perspective on emotional intelligence to an organizational focus increases the range of intervention strategies. Further, it makes it more possible to develop new strategies for assessment that may encourage the kind of consultation and assessment that itself manifest high emotional intelligence and foster double-loop learning in organizations.

For managers and leaders, focusing on organizational emotional intelligence or team emotional intelligence provides new perspectives for leadership and for assessing and influencing their organizations. For example, clarifying boundaries in roles, teams, and departments; boundary permeability (communications) within and between roles, teams, and departments; provides an added organizational perspective. Similarly, monitoring how differences and conflicts are resolved or assessing how emotional and cognitive knowledge is used toward the work team goals enables leaders and managers to become more systems-centered in their own focus.

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LIMITATIONS AND FUTURE DIRECTIONS

Much work is still needed in applying and researching this paradigm in order to test the hypotheses of SCT at each of the system levels, and to see if, in fact, the theory provides a meta-theory for understanding emotional intelligence in organizations. To date, we have applied this paradigm in work with companies in transition with successful outcomes yet the only data supporting this paradigm are case reports. Formal studies have not yet been done to see if applying this theory helps organizations function with greater emotional intelligence.

The next steps in testing the SCT paradigm for emotional intelligence would be to continue the work started here of applying the operational definitions and articulating the criteria for emotional intelligence at each organizational level, so that the validity of these proposed hypotheses and definitions can be tested empirically. The empirical test of the hypotheses would provide important research about the validity of the theory in practice. In addition, it would contribute to furthering our understanding about organizational emotional intelligence. Lastly empirical data is vital to finding out if using the systems-centered model facilitates the development of human technology for implementing emotional intelligence at the organizational level.

Another important step is to explore more fully the relationship between systems-centered emotional intelligence and organizational learning1 in that the organization learning field struggles with the very issue this paper addresses for emotional intelligence, of moving beyond the mechanistic understanding of the process of learning (Hawkins, 1994) to organizational learning at the organizational rather than the individual level (Altman and Iles, 1998; Lahteenmaki, Toivonen & Mattila, 2001). For instance, Cunningham and Iles (2002) in discussing the differences between individual, team and organizational learning, propose that team learning could significantly contribute to organizational learning in a way that individual learning is less likely to. This proposition fits well with our systems-centered understanding of hierarchy and boundaries. The team is often the mid-level system and has boundaries immediately contiguous to both the organization and its members. Thus theoretically, the team, when it is the mid-level system, is a more effective point of intervention in an organizational system (Agazarian and Gantt, 2000). So it may well be that integrating both the similarities and differences between organizational learning and organizational emotional intelligence may facilitate the development of a further understanding of emotional intelligence as a dynamic systems-centered process.

The rapid changes in technology and workplace conditions have accentuated the importance of organizational emotional intelligence. If we take seriously applying the premise that the whole is different from the sum of its parts, then we must take the challenge of expanding from the emphasis in emotional intelligence on individual resources to one that includes organizational and work group emotional intelligence. This shift requires us as managers, leaders and consultants to learn to think systemically. The importance of learning to think systemically is not a new idea, as Senge (1990) emphasized this in his well known 1990 book. What we are introducing is a developed systems theory with its operational definitions that introduce methods that enable the implementation of a systems-centered perspective. Further, we are proposing that developing systems-centered systems develops the potential for organizational emotional intelligence at all system levels.

NOTE

1. Many thanks to Dan Svyantek for this suggestion.

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REFERENCES


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