Organizational Intelligence:

A Systems Perspective

Sherryl Stalinski, MA
Aurora Now Foundation

Sherryl Stalinski

Sherryl Stalinski has nearly 20 years of executive leadership experience in development, management and communications in both corporate and non-profit environments. Sherryl co-founded the Aurora Now Foundation in 1998, and continues to manage its research and programs. She works regularly with corporations and consulting firms nationally as a leadership & OD trainer, strategic consultant, and executive coach.

Sherryl's work has been published by research and education organizations in the U.S. and internationally, including World Futures (*Journal of General Evolution*) and the *Journal of Culture and Consciousness*.

Contact Information
Sherryl Stalinski, MA
Co-Founder, President
Aurora Now Foundation
http://www.auroranow.org

Abstract

This paper explores the theory of Organizational Intelligence (OI) as recently proposed by Albrecht (2003), and expands the concept to a more systemic concept of cultural intelligence as an emergent property, and thus indefinable or measurable as merely a sum of individual intelligence of a group's membership. Such an understanding is proposed as useful and relevant in understanding the evolutionary capacity of culture, and for helping organizations and OD professionals evaluate the long-term systemic viability of the organization.

Many organizational consultants use the concept of *groupthink* to warn work teams and business leaders about the dangers of collective thinking or mob mentality. However, the potential for organizational cultures to understand and utilize both conscious and unconscious aspects of their collective mind and intelligence for positive benefit seems to be a new theory with much to offer.

"However, the potential for organizational cultures to understand and utilize both conscious and unconscious aspects of their collective mind and intelligence for positive benefit seems to be a new theory with much to offer."

Albrecht (2003) proposes, "Organizational Intelligence is the capacity of an organization to mobilize all of its brain power, and focus that brain power on achieving the mission" (p. 15). Albrecht describes this capacity as "intelligence writ large," essentially, the collective sum of individual intelligence within an organization. He additionally proposes that like individual minds, the organizational mind has both conscious and unconscious aspects (chapter 1) that influence organizational behavior and effectiveness.

His model of Organizational Intelligence (OI) integrates learning that takes place at both the conscious and unconscious levels. Citing the work of Howard Gardner, he suggests that organizations, like individuals, have multiple intelligences or *dimensions of competence* and that OI can be seen as "a useful envelope for thinking about organizational effectiveness, and in particular how to help organizations evolve toward their full potential" (p. 43).

This paper seeks to explore and clarify some foundational conceptual understandings implied in Albrecht's latest work, plus expand his propositions to a more systemic understanding of learning and intelligence as a potential emergent property of cultural systems. This capacity can enable human systems to consciously catalyze and guide their own evolution.

Specifically, understanding the nature of organizational culture and OI can enable leadership and organizational development professionals to assess the ability of an organization to maintain itself and even evolve within its containing environments, and more effectively design and implement organizational interventions toward those objectives.

"Specifically, understanding the nature of organizational culture and OI can enable leadership and organizational development professionals to assess the ability of an organization to maintain itself and even evolve within its containing environments, and more effectively design and implement organizational interventions toward those objectives."

Before proposing a more systemic model of OI as proposed by Albrecht, meaningful exploration about the nature of organizational culture, conceptual understanding of intelligence as a capacity, and the impact of both on the long-term viability of organizational systems is necessary.

Defining Intelligence at the Individual and Organizational Level

Cyberneticians have closely studied successful self-regulating organisms as systems capable of learning in order to efficiently remain stable and grow. Morgan (1998) describes that

> To self-regulate, learning systems must be able to
>
> 1. Sense, monitor and scan significant aspects of their environment,
> 2. Relate this information to the operating norms that guide system behavior
> 3. Detect significant deviations from these norms, and
> 4. Initiate corrective action when discrepancies are detected.
>
> If these four conditions are satisfied, a continuous process of information exchange is created between a system and its environment, allowing the system to monitor changes and initiate appropriate responses. In this way, the system can operate in an intelligent, self-regulating manner. (Morgan, 1998, pp. 77–78)

"The additional process of questioning whether operating norms are appropriate is a critical ingredient of successful, sustainable learning, resulting in continued growth and increased sustainability."

The most complex and evolved open systems (such as humans and their social systems) have added to this capacity the ability to question the value of their learning itself. Humans uniquely possess the ability of questioning the value of our values (Banathy, 1996; Laszlo, 1996; Morgan; 1998).

Additionally, we have the ability to question the *operating norms* and our ways of doing and being, which are based on those values. The additional process of questioning whether operating norms are appropriate is a critical ingredient of successful, sustainable learning, resulting in continued growth and increased sustainability.

Failure to consciously engage in continual *double-loop learning* not only affects our organizations' and communities' ability to grow and transform, it could potentially

affect our ability to even maintain their stability and viability.

Intelligence is any system's ability to engage in information transfer with its internal and external environments in order to maintain stability, adapt, and grow. That *information exchange* can happen in many ways, supporting the perspective that a variety of intelligences—reason, emotion, perceptive (or physical) and intuitive—all hold validity. It is likewise reasonable to propose that, as integrated, various multiple intelligences create a synergetic intelligence that cannot be measured by combining the sum of any of the various intelligences. As complex, open systems, cultures are cybernetic systems (can be intelligent as an *entity*) and do possess a unique *mind* or collective personality (an emergent property) that is a reflection of—but more than—the individuals who make up that culture.

Albrecht suggests that at an individual level, one can strive to improve *whole brain* cognitive ability by tapping into strengths and working on weaknesses. So too, might organizations use a comprehensive enough profile to integrate knowledge, skills and even cultural values that complement their existing strengths. Osborn (1997) supports the integration of various values, skills, and knowledge in the design and development of healthy organizational cultures.

It seems worthwhile to point out than when assessing individual intelligence or personality style, most current tools emphasize that there is no *best* answer or *right* way to be. The OI model, however, might suggest such a bias. Up until the mid 80s, even into the 1990s, IQ was measured as a way to predict a student's success in the education system. Certain skills and knowledge were required for students to succeed in a system that required certain outcomes. Gardner's theory of multiple intelligences and Goleman's concept of emotional intelligence recently demonstrated that such a narrow measure of IQ was inadequate to define *intelligence* although IQ still by and large evaluates the criteria for success deemed most valuable in education systems (Gardner, 1999).

Dr. Paul Werbos, a cybernetician currently working with the National Science Foundation in an effort to further understand the nature of learning and intelligence as understood from the fields of mathematics and neuroscience, confirms a more practical definition of intelligence from a broader perspective of learning capacity, rather than strictly capacity for reason. He describes the processes of intelligence to include emotional experience, and notes that reason and emotion are not separate, but integrated functions of intelligence, noting the necessity of translating certain Freudian theories into mathematical algorithms in order to create computational structures needed to implement optimization (personal correspondence, April 16, 2003. *Paraphrasing Werbos*, p., 1994, chapter 10).

Werbos' position is that *formal reasoning* is a dimension of intelligence, complemented by emotional experience, not opposed to it. If neuroscience and cybernetics continue to demonstrate this proposition, it will enable us to finally free ourselves from the limits of understanding and applying intelligence as strictly a rational function. Werbos further described recent work in neuroscience that is pointing to certain *mirror neuron,* which enable empathy or *vicarious experience* and such capacity as a pre-requisite for symbolic reasoning.

Jung presents both thinking and feeling as rational functions of the mind. Traditional science seems to be pointing in the same direction, giving support to the emotional intelligence and multiple intelligence theories of Goleman and Gardner, and underscoring the potential for expanding *practical intelligence* as described by Albrecht, rather than an unchangeable measure of logical and linguistic reasoning as defined by traditional IQ measurement.

The problems arise when measurements of intelligence, such as those traditionally used in education, are used to make a judgment or place a label on an individual or a group. Just as a more balanced understanding of a student's learning preferences could help teachers create more flexible pedagogical approaches for various learning styles, rather than use a measure of certain aspects as a means of predicting success or failure, understanding OI could clarify strengths and weaknesses and provide to organizational leadership and the OD practitioner an area of focus for the design of training and intervention programs.

OI as a Dimension of Culture

Intelligence is a capacity for a system to engage in information exchange with its internal and external environments and use that information—whether acquired through physical experience, emotional experience, reason, observation or intuition—to learn to maintain itself, adapt, change and grow within those environments. Unlike other natural systems, however, human systems are not driven by innate instinctual drives. We have the inescapable capacity for free choice—we can be other than what we are (Checkland, 1993; Frankl, 1984; Banathy, 1996). Because of this capacity, we do not automatically make choices that enable us to remain viable within our environments. Understanding the nature of all systems can help us choose behaviors and values that will lead us closer to systemic viability.

Ervin Laszlo (1996) explains that all natural systems (ecological, biological, etc), because of their future-seeking, evolutionary nature, revolve around certain inherent values: to utilize our physical environments for energy, to sustain ourselves by responding and adapting to those environments. "You must keep yourself running against the odds of the physical decay of all things, and to do so you must perform the necessary repairs, including (if you are a very complex system) the ultimate one of replacing your entire system by reproducing it" (p 79). These are values common to all natural systems, Laszlo explains, and no system can deny them for too long because a reversal would eventually lead to increased entropy—disorganization—and inevitable decay.

Humans learn, create, and adopt additional values. Our social systems also develop values according to their knowledge, insights, language, technology and so on, which guide their ways of knowing, ways of being, and ways of doing. These values evolve into our human cultures. In groups, culture emerges as ways of knowing, being and doing that (a) reinforces the meaning and understanding of the world and one's place within it and (b) reinforces and defines the values that support that understanding. Those values are transmitted efficiently and effectively in groups of humans through their culture. Culture emerges in human systems as a value-guided system (Laszlo, 1996; Banathy 1996) even if those values are not explicitly defined, and most often they are not.

Cultures are, in the final analysis, value-guided systems. Values define cultural man's need for rationality, meaningfulness in emotional experience, richness of imagination and depth of faith. All cultures respond to such suprabiological values. But in what form they do so depends on the specific kind of values people happen to have (Laszlo, 1996, pp 75–76).

Culture is the product of individual minds expressed as shared meaning, values and purpose within the whole of a group. It is very often hidden and unpredictable. It can be nurtured, but not controlled. "The metaphor helps us to rethink almost every aspect of corporate functioning," Morgan (1998) notes, "including strategy, structure, design, and the nature of leadership and management. Once we understand culture's influence on workplace behaviors, we realize organizational change is cultural change and that all aspects of corporate transformation can be approached with this perspective in mind" (p. 111).

"As open systems capable of evolving, cultures can be understood as also having intelligence. OI, therefore, can be understood as an integral dimension of an organization's culture."

Culture, born of humankind's ingenuity, consciousness, and a symbol-based language capable of addressing both the near and distant future, is uniquely human. Additionally, "culture is more than a tool of human survival—it is a qualitatively higher phenomenon… [humans] alone have developed an autonomous culture" (Laslzo, 1996, pp. 73–74).

Evolved language afforded our species the ability to create models and symbols to communicate current knowledge and pass that knowledge on efficiently for future application. Culture includes such things as knowledge and understanding, ways of knowing and doing, beliefs and dispositions, customs, rituals and habits shared by a community of people and evolved by passing down these things through social interaction.

Culture is "learned and structured and it embraces every realm of human experience. […] [Cultural] maps are alive; created, confirmed, disconfirmed, elaborated, changed and redrawn" (Banathy, 1996, p 33). As open systems capable of evolving, cultures can be understood as also having intelligence. OI, therefore, can be understood as an integral dimension of an organization's culture.

The Organizational Mind: The Collective Conscious, Unconscious and Intelligence of Culture

In organizations (human systems in general) certain criteria must be met in order for the system to remain viable over time in its environment. Knowing what those criteria are is not enough; most behavior is habitual

and unconscious. Behavior is driven, by the core values and fundamental beliefs (Basic Assumptions) that are learned through enculturation. Culture is likewise largely a hidden and invisible process of non-verbal, unconscious transference of tacit knowledge such as the values and fundamental beliefs held by a group. An in-depth observation of processes, behavior and interviews to uncover beliefs and values is the only way to understand the real nature of a culture.

"An in-depth observation of processes, behavior and interviews to uncover beliefs and values is the only way to understand the real nature of a culture."

Building on Ornstein's Multi-Mind theory, integrated with Gardner's multiple intelligences and Maslow's pyramid of needs plus others, Albrecht (2002) proposes a hierarchy of thinking at the individual level. It is suggested here that organizational culture is essentially the equivalent of the individual mind: there are visible, tangible aspects (artifacts such as systems and processes), communicated and verbalized aspects, (espoused values, philosophies, strategies) and hidden, unconscious non-verbal basic assumptions, values and beliefs that are usually learned through observation and experience of people and groups around us, and the meaning and value we apply to such subconscious learning.

If one could think of the organizational mind as reflecting the same fundamental levels as the individual mind, there would be several levels. The collective unconscious would not only hold what has been identified as the *organizational shadow* from a Jungian perspective (Sievers, 1999) but the useful/beneficial unconscious: the things we know, feel and respond from automatically. At a collective level, this is often too narrowly identified as the culture of a group: "It's the way we do things around here." For individuals and groups, this automatic, habitual behavior is what makes us function effortlessly. We do not have to consciously evaluate every decision every time we need to make it. Of course, the downside of not evaluating every decision is forgetting to evaluate decision-making at all.

It seems reasonable to maintain that if there is a collective unconscious or *automatic mind*, then there must also be a collective consciousness—and in highly evolved cultures, even a collective super-consciousness or *transcendent function* as identified by Jung. Researchers at CWA, Ltd., (Christakis, 1996, 2001) demonstrate empirical evidence that a collective, evolutionary learning occurs—new insight and knowledge form out of the collective. This creates what Christakis refers to as *demosophia,* a Greek word that translates literally to *wisdom of the people*.

A model for organizational culture is proposed here that mirrors Albrecht's triangular pyramid of individual minds at the organizational level. This *Organizational Mind* model seeks to illustrate organizational culture and learning as encompassing multiple dimensions of the organization. The

model integrates Schein's (1992) three levels of organizational culture, Jung's concept of the *collective unconscious* and Christakis' (1996, 2001) concepts of evolutionary learning and demosophia as an appropriate integration of the unconscious, subconscious, conscious, and transcendent dimensions of the organizational culture. OI would manifest itself throughout these various dimensions much the way that individual intelligence emerges from and manifests itself within and among the various individual *minds*.

Leadership's Role in Culture, Subculture and Supra-cultural Systems

As value-guided systems, cultures evolve around explicit or implied values, usually modeled by the behavior of individuals or groups of individuals charged with the leadership of an organization or system. At the organizational level, leadership plays a major influential role. And beyond formal leadership, any individual who demonstrates that unique ability to influence others through modeled behavior will have a dramatic impact on the whole of a culture in what can be understood as the *trimtab* effect.

As organizations grow and evolve into increased size and complexity, formal leadership may find it has less direct impact on the whole. Smaller subcultures emerge around more visible and modeled values by informal leaders, and at the societal level, systems such as media, the business and economic community, and other, more visible groups may have more ability to influence the foundational values around which cultures may emerge.

As family, organizational, community, and societal cultures evolve, the likelihood grows that seeming conflicting values will emerge among these various cultural systems, and individuals who exist within multiple cultural systems will also be confronted with the consequences of such conflicting values, behavioral norms, and even basic assumptions about reality and the nature of truth. This conflict can be the source of individual and cultural competition and dysfunction, or it can be an opportunity for conscious reflection, integration, and the creation of congruence and alignment toward increased wholeness, soundness, and integrity at the individual, organizational, and societal levels.

Albrecht's *Hierarchy of Thinking*	The Organizational/Cultural *Mind*
Spiritual	Demosophia
Creative	Cultural artifacts and evolutionary learning
Practical	Espoused values, philosophies and strategies
Subconscious	Basic assumptions
Automatic	Collective unconscious

Figure 1

"Currently there are few commercial assessment tools available to OD practitioners to assess and evaluate organizational culture."

Assessing Culture

Currently there are few commercial assessment tools available to OD practitioners to assess and evaluate organizational culture. Such tools are useful in helping practitioners design and develop appropriate interventions within an organization. Likewise, they could provide organizations and other human systems a tool to use in evaluating whether change initiatives will be sufficient to achieve organizational objectives, or whether total redesign and transformation are required.

The Cultural Due Diligence assessment developed by Daniel Denison at the University of Michigan is one of few instruments that sets criteria for evaluating the actual effectiveness of an organization's culture, and the CDD model evaluates culture at the performance level using traditional criteria for success: Profit, sales growth, market share, development and innovation, quality and employee satisfaction (Juechter, Fisher & Alford, 1998).

Other assessment and profiling methods are more useful in profiling the *type* of culture present, but offer no bias or judgment as to the effectiveness of the culture (Schein, 1992; Osborn, 1997).

Osborn (1997) and Schein (1992) assess organizational culture for the purpose of understanding. Both identify a more comprehensive dimensional structure of the nature of the culture. Schein identifies five dimensions and 10 *phenomena* associated with culture; Osborn identifies 14 *dimensions* of culture and identifies five cultural *shapes* or *types*. Schein additionally identifies three levels of culture and suggests an exploration of all three levels in order to understand both the visible and invisible aspects of organizational culture:

- Cultural artifacts: visible structures, processes [I would add products.]
- Espoused goals, philosophy and strategy
- Basic Assumptions: [invisible] unconscious beliefs, thoughts and feelings (source of values and action) (Schein, 1992, p. 17).

Osborn and Schein help organizations and OD practitioners assess and understand the *nature* of an organization's culture, but stop short of assessing whether a certain cultural style is better than another. Osborn suggests, however, as these basic assumptions and values are understood, organizational effectiveness can be improved by integrating the skills, practices, and values inherent across the cultural spectrum.

Albrecht (2003) defines OI as the capacity for an organization to learn, adapt, change, and grow within its environments. He stops short of identifying such "intelligence writ large" as a dimension of organizational culture, likely because of a lack of consensus

about the nature and definition of organizational culture. Albrecht identifies seven dimensions of OI in his work:

- Strategic Vision (the capacity to form and evolve such a vision)
- Appetite for Change
- Alignment and Congruence (structure supports strategy)
- Performance Pressure (shared drive to achieve)
- Knowledge Deployment (permeable information exchange)
- "Heart" (shared energy and commitment)
- Shared Fate

Support for such integrated models can also be found in work proposed earlier by researchers at the International Systems Institute who propose eight criteria for evolutionary capacity of human systems. Laszlo et al. (1996) state that such systems must be:

- Operationally viable
- Economically sustainable
- Technologically feasible
- Culturally appropriate
- Psychologically nurturing
- Socially acceptable
- Environmentally friendly
- Generationally sensitive

Osborn makes a critical clarification for those interested in a systems perspective of organization. Systems thinking should not be confused with some new "ism" such as postmodernism. Systems thinking is not a new way of thinking; it is learning to think in new ways—to explore the *goodness of fit* among a variety of disciplines and perspectives. Likewise, organizations can explore and integrate a variety of approaches, even create new ones by identifying a goodness of fit among values, conceptual and process models, and criteria for success.

"Systems thinking should not be confused with some new "ism" such as postmodernism. Systems thinking is not a new way of thinking; it is learning to think in new ways—to explore the *goodness of fit* among a variety of disciplines and perspectives."

In Albrecht's OI assessment, questions are asked that evaluate a variety of values, skills and practices. His foundational assessment addresses specific criteria for success from a broader set of criteria than Denison's Cultural Due Diligence. Besides remaining financially viable, it is clear in his work (although he does not explicitly list specific success criteria) that organizations must be humane, flexible, and clearly committed to providing value to their market environments. All of these capacities impact an organization's bottom line, but Albrecht's model provides a broader understanding of an organization's viability beyond Denison's six criteria for success. Denison's model could be compared to a traditional

assessment of IQ, while Albrecht's model provides a broader understanding of a variety of intelligences and capacities present and available in the development and long-term viability of an organizational system. Where the traditional IQ test proved inadequate to predict long-term success of the individual, the traditional measures of organizational success ultimately have proven inadequate to predict long-term viability. Of the criteria for systemic viability outlined above, integrated with the value for human potential, human creativity and innovation, and the inevitable emergence of culture, the only area of Albrecht's assessment only marginally present is attention to requisite diversity and complexity, which seem implied but are not made explicit.

Usefulness and Application

Banathy (1996, 2000) proposes a model for consciously guiding the evolution of human culture, but eventually, new cultural processes must become automatic, subconscious, and habitual in order for learning and transference to take place at the efficient experiential level of the *automatic mind*. If an organization, like an individual, hopes to become healthier and more functioning in their environments, all levels of the mind (individual and collective) must be engaged and addressed. One of the limits of many approaches in OD is that they seek to only address health and growth through conscious learning approaches. They fail to translate and instill new learning at the more powerful and efficient level of the automatic mind or collective unconscious. Likewise, they fail to consider the invisible, unconscious dimensions of organizational culture as it impacts organizational effectiveness, and ultimately, its viability.

"If an organization, like an individual, hopes to become healthier and more functioning in their environments, all levels of the mind (individual and collective) must be engaged and addressed."

The habitual, unconscious behavior of individuals or groups is largely what drives decision-making and behavior, but in order to impact the hidden, it is not enough to simply shed light on it. It is half the equation: understanding the foundational beliefs and values (individual and cultural) that trigger the emotional and habitual behavior is important so that individuals, and likewise cultures, can consciously examine and evaluate their usefulness.

If new or different beliefs and values seem healthier, those can be infused into the individual's or group's consciousness in visible, tangible ways. By infusing a system's visible and conscious processes (*cultural artifacts*) and espoused and verbalized values in order to represent and communicate the knowledge and values that enable any system to remain viable over time, an organization can begin to learn, model, and integrate those values and beliefs until they stick as basic assumptions that

drive automatic and habitual behavior. This could happen much the same way that driving a car or riding a bike is largely a conscious learning process until the behaviors become automated and habitual.

"By infusing a system's visible and conscious processes (*cultural artifacts*) and espoused and verbalized values in order to represent and communicate the knowledge and values that enable any system to remain viable over time, an organization can begin to learn, model, and integrate those values and beliefs until they stick as basic assumptions that drive automatic and habitual behavior."

References

Albrecht, K. (2002). "Brain power." *Training & Development [T+D] 56*(11). Chicago: ASTD

Albrecht, K. (2003). *The power of minds at work: Organizational intelligence in action*. New York: American Management Association (AMACOM).

Banathy, B. H. (1996). *Designing social systems in a changing world*. New York: Plenum.

Banathy, B. H. (1998). "Evolution guided by design: A systems perspective." *Systems Research and Behavioral Science, 15*(3), 159.

Banathy, B. H. (2000). *Guided evolution of society: A systems view*. New York: Kluwer Academic/ Plenum.

von Bertalanffy, L. (1968). *General system theory*. New York: George Braziller.

Checkland, P. (1993). *Systems thinking, systems practice*. Chichester, England: John Wiley & Sons.

Christakis, A. (1996). "A people science: The CogniScope™ System Approach," *Systems*, *1*(1), 16-19.

Christakis, A. (2001). *The dialogue game*. Paoli, PA: CWA Ltd.

Frankl, V. (1984). *Man's search for meaning* (3rd Ed.). New York: Simon and Shuster.

Gardner, H. (1999). *Intelligence reframed: Multiple intelligences for the 21st century*. NY: Basic Books.

Juechter, Fisher & Alford (1998). "Five conditions for high performance cultures" reprinted from *Training & Development*, May 1998 by ARC Worldwide, Aspen, Hong Kong.

Laszlo, E. (1996). *The systems view of the world*. Cresskill, NJ: Hampton Press.

Laszlo et al. (1996). *Fruits of our conversation*. Proceedings from the 1996 Conference for the Comprehensive Design of Social Systems. Carmel, CA: ISI.

Morgan, G. (1998). *Images of organization*. San Francisco: Berrett-Koehler.

Osborn, S (1997). *The system made me do it! A life changing approach to office politics.* Newark, CA: LifeThread Publications.

Schein, E. (1992). *Organizational culture and leadership (2nd Ed.).* San Francisco: Jossey-Bass.

Schein, E. (1999). *The corporate culture survival guide: Sense and nonsense about culture change.* San Francisco: Jossey Bass.

Sievers, B. (1999, October). *The Organization Shadow*. Workshop Introduction: "Getting from

Psychosis to Mindfulness in Organizations" Albuquerque, New Mexico, October 10 - 15, 1999

Stalinski, S. (2001). *Creating futures: A systems view of transformation for our organizations, communities and world*. Tucson AZ: Aurora Now Foundation

Werbos, P. (1994). *The roots of backpropogation*. NY: John Wiley