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Reflections

The SoL Journal
on Knowledge, Learning, and Change

FEATURE ARTICLE

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IN THIS DOUBLE ISSUE OF *REFLECTIONS*, we're experimenting with combining a feature article, book excerpt, working paper, commentaries, and a brief digest of current and related readings. Based on your feedback to our survey on Volume 5, this synthesis is one of the things you hoped *Reflections* would provide. We're delighted to feature in this issue a range of perspectives on what is often referred to as the "informal organization" – the unofficial network of relationships that represents the collective intelligence and power for change that resides in organizations.

In June of 1998, cognitive biologist Humberto Maturana spoke at SoL's Annual Meeting. His remarks catalyzed a variety of conversations and projects in SoL about how networks of social relationships create learning and results.* SoL researcher Dennis Sandow has been working with Hewlett-Packard (HP) for several years, helping the organization develop the capacity to see, name, and leverage the network of human relationships that produce product innovation, environmentally sustainable design, and enviable business. In our feature article, Sandow and HP executive Anne Murray Allen describe their experience of discovering "The Nature of Social Collaboration: How Work Really Gets Done."

Our Emerging Knowledge feature, "Group Magic: An Inquiry into Experiences of Collective Resonance," presents the results of research that examined the characteristics of "collective resonance," the felt physical, intuitive, and energetic sources of connection between people that influence their interactions toward achieving goals. Author Renee Levi applied laws of physics to human experience in group situations to answer the question, "How are diverse contexts in which collective resonance occur described in terms of felt experience, shift awareness, assigned significance, and recurrence of the original felt experience?" In her article she also discusses her findings and their usefulness in designing groups to cultivate resonance toward collective goals that enhance human spirit and life.

In our featured book excerpt, author and educator Art Kleiner poses and responds to a question that many people ask: "How does change happen from within an organization? And what can a small group of people do to effect change?" By appreciating network principles, Kleiner outlines how small groups build legitimacy and power in a larger social context. This selection is a chapter entitled "The Shadow Core Group," taken from his recently published book: *Who Really Matters: The Core Group Theory of Power, Privilege, and Success* (Doubleday, 2003).

Despite genuine inquiry, we've concluded that relatively little organizational literature exists that addresses these kinds of questions well. For those of you who might enjoy the field notes of a few pioneers in this new territory, we bring recent and relevant work to your attention in our "Recommended Reading" column. We invite you to share your responses and recommendations by emailing us at *reflections@solonline.org*.

C. Sherry Immediato
Managing Director, SoL

* You can find a synthesis of his remarks at *www.solonline.org/static/research/workingpapers/maturana/index.html*

The Nature of Social Collaboration:

How Work Really Gets Done

By Dennis Sandow, Reflexus Company and
Anne Murray Allen, Hewlett-Packard Company

Dennis Sandow

Anne Murray Allen

Organizations are in the midst of a significant transformation as knowledge and innovation – fundamental in the creation of intellectual property – become important sources of capital in a rapidly changing global economy. At the very heart of these changes lies a shift in our perception of how work is done. In the Industrial Age, which symbolically began with Ford's assembly line, value was found in the application of physical sciences to the manufacturing of products. Mechanistic philosophies, creating practices such as separation and reductionism, dominated this era and affected the social sciences, as well. The "father of sociology," Auguste Comte (1852), divided education into categories such as biology, chemistry, physics, etc. Organizational science followed this pattern, subdividing organizations into departments such as finance, manufacturing, and purchasing. According to the practices of mechanical engineering, the organization was divided horizontally by a division of specialization and vertically by a division of authority. This network image, known as the "org chart," is still popular today. Missing from the chart are vendors, customers, and families of employees – all of whom are part of the system by which an organization creates value.

We are now in a Knowledge Age (Drucker 1988; Sakaiya 1991; Deming 1993; Senge 1993) and can look at how the system sciences explain the process of value creation. As a philosophy of the physical sciences dominated the Industrial Age, a philosophy of the biological sciences is beginning to dominate the Knowledge Age. This philosophy views knowledge, people, and organizations as living systems. This transformation of perspective was laid out by Gregory Bateson (1951), who described a way of viewing the world that shifted from: (1) focusing on parts to focusing on the whole, (2) focusing on categorization to focusing on integration, (3) focusing on the individual to focusing on interactions, and (4) focusing upon systems outside the observer to focusing on systems that include the observer.

Perhaps the most profound contributor in this area is the Chilean biologist, Dr. Humberto Maturana. In his seminal book (coauthored with Francisco Varela), *Autopoiesis and Cognition: The Realization of the Living* (1980), he described knowing from a perspective of living systems and living systems from a perspective of knowing. He defined knowing as doing. His unique understanding has influenced sociologists, psychologists, and organizational scientists. At Hewlett-Packard (HP) we have carefully studied Dr. Maturana's work and have found that his insights into social systems are particularly helpful. He claims that intelligent action is created in social systems where all the members of a network accept everyone else in the social network as legitimate participants in the network (Maturana and Bunnell 1998). Legitimacy, or the mututal acceptance of one by another, is our natural social

order. Conversely, negation of one person by another is an invention of more-modern society. We concur with many studies that show that performance improvement, innovation, and invention occur in social systems where this principle of legitimization is present.

We define "value" as those accomplishments that result in the creation of organizational, shareholder, customer, or employee well-being.

Through many years of research and collaboration we have come to conclude that value is created in dynamic, self-organizing social systems where shared knowl-edge is created through the collective coordination of action. While contemporary management literature has described different organizational concepts such as high-performing organizations, self-directed work teams, communities of practices, chaordic organizations, learning organizations, etc., we have become increasingly interested in the *nature* of social organizations. Through the use of social action research we have documented that organizational value is created in dynamic social systems that cross the boundaries of traditional organizational charts – charts that are becoming increasingly irrelevant. We maintain that these collaborative social systems are our natural social order. They are networks of relations that, like language and learning, are innate building blocks of human, social, and organizational development.

The Value of Collaborative Social Systems

Today it is common for organizations to distinguish between formal and informal systems. This is a good sign. It indicates that we are beginning to discern the differences between Industrial Age hierarchies (formal systems) and Knowledge Age collaborative social systems (informal systems). But we have learned that we can accelerate organizational transformation by leaving these distinctions behind. The distinction between formal and informal systems maintains the tension between management hierarchies and self-organizing employee networks. We believe this tension is unnecessary and impedes organizational performance. Instead, we would like to make one distinction of importance to the company – value-creating social systems. Value-creating social systems are the associations of employees, vendors, customers, and other stakeholders that share the purpose of creating business value. Here are some examples.

Material compatibility

Hewlett-Packard's inkjet cartridges depend upon a sophisticated understanding of the interaction between ink and other materials. To solve a particularly perplexing problem, HP engineers brought two highly competitive vendors together to collaborate on the development of a new understanding of material chemistry. Figure 1 is a social-network map of the HP-vendor social system that reduced new inkjet cartridge development time by 16 weeks after just a few weeks of collaboration. Though people always work together to get work done, what made this simple network more effective than others was that all members were equally legitimized through building trust and openness early on, and through focusing on a common purpose: HP's success. This was accomplished through HP's insistence that the vendors focus on their customer (HP) and on the agreement to generate value for all three organizations.

Quality escalations

Customers purchasing HP inkjet cartridges demand consistent and reliable performance. To meet this demand, HP has established a set of procedures that ensure that any potential quality problem is identified, isolated, and corrected long before the customer purchases the new cartridge. Quality issues reaching a predetermined level of severity are called quality escalations and can cost the company millions of dollars each time they occur.

Figure 1: HP-Vendor Social System

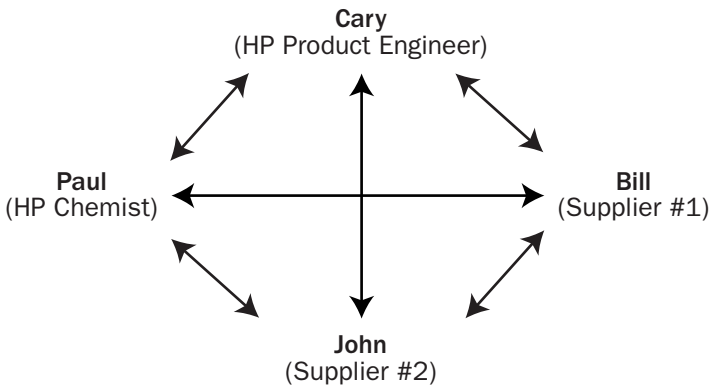
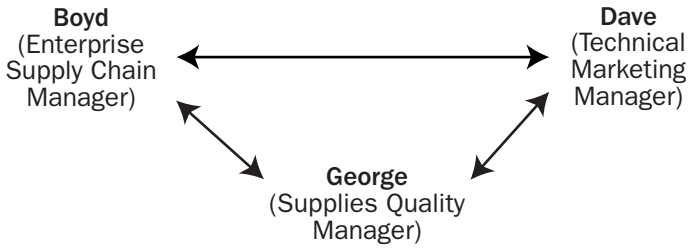


Figure 2: Initial Quality Escalation Social System



The social system shown in Figure 2 – composed of the initial group of managers who discussed quality escalations – began the process of self-organization, resulting in a significant decrease in quality escalations in inkjet cartridges. That social system would grow over time, attracting new members, through the process of self-organization. Self-organization occurs when people inside a given system change the pattern of their relations with each other or with others outside the social system.

After such self-organization, quality escalations that historically had occurred every 20 days (on average) virtually vanished. The last escalation occurred more than three years ago, and the decrease has saved HP hundreds of millions of dollars.

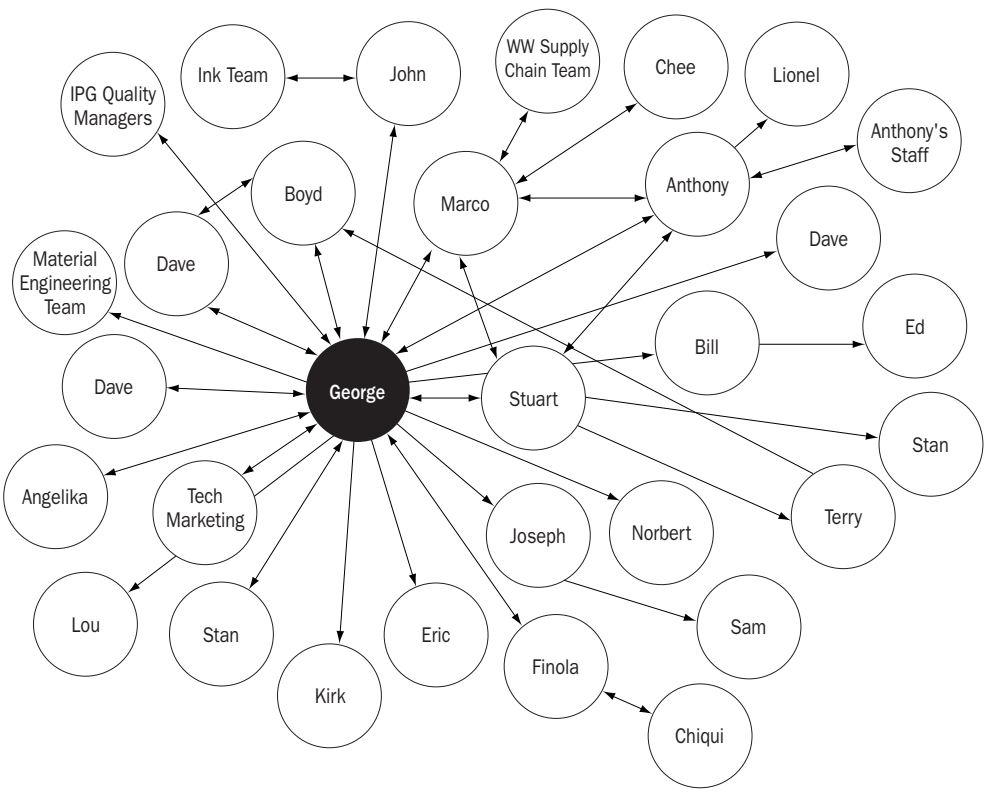
We have learned that collaborative social systems such as this expand rapidly in numbers because employees are eager to contribute to a solution that will serve the business. This particular collaborative social system, aimed at resolving quality escalations, actually generated a very large network (shown in part on the social map in Figure 3) that spanned the

Social Action Research

We have used social action research to generate the case studies in this article. Social action research is a configuration of relationships that include the following qualities:

- being **social**: social action research generates a social system of reflection wherein everyone in the social system is a legitimate contributor to explaining how value is created. This follows the principle of love and legitimacy.
- being in **action**: social action research reflects on the praxis of living (or emergent) and collective coordination of action in the daily lives of the participants.
- being in **research**: social action research studies the theories of living and knowing and how social, biological, and financial well-being are interdependent in a new economy.

Figure 3: George's Social Network



George's network graph: George documented his social network ties by drawing a social network. The basic social pattern is a radial, or hub and spoke, graph. This is typical of social networks drawn from an individual's perspective. It is important to note that the relative position of, or distance between, George and others in the network does not indicate quality of relationships. Everyone in George's social network is a legitimate contributor.

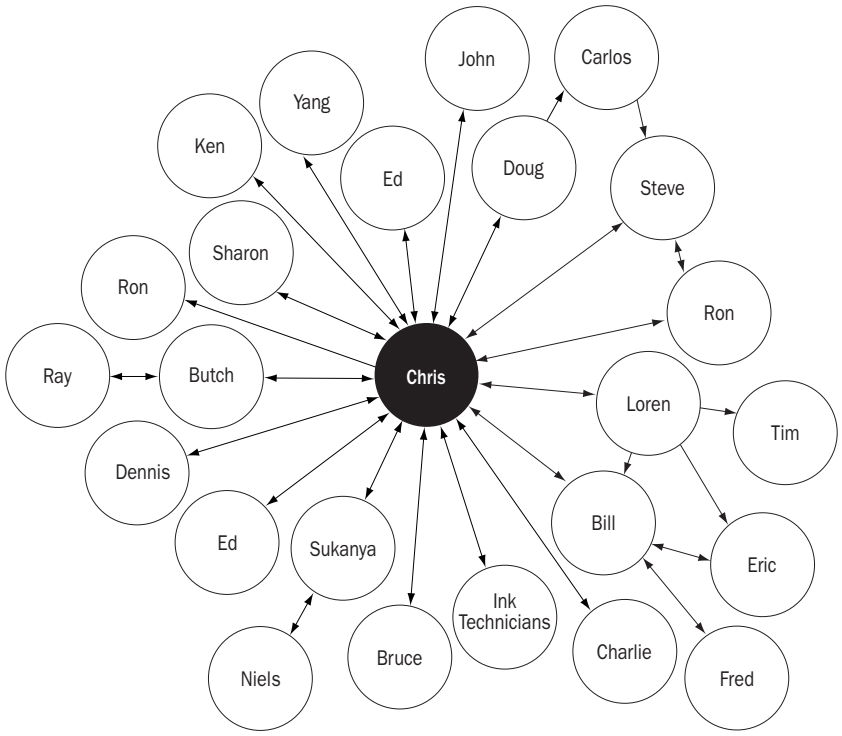
entire company. It differed from the standard quality escalation approach by appealing to employees who were already in the cartridge-production design, work, and distribution network, rather than forming a special outside "SWAT" team to fix the problem. The existing production network became a learning network that created the knowledge not only to solve the problem but also to prevent it in the future.

New product invention

The social system represented in Figure 4 is in the process of inventing a new product that has a significant potential market size and could save hundreds of thousands of lives. The originator of the idea mapped his social network as he worked on the idea, documenting its growth over time. In doing so, he was learning about the nature of self-organizing networks while he was in the process of inventing. He found that value creation lies at the heart of healthy, dynamic social systems.

Employees in this network have already developed the initial concept, built the first prototype, and begun testing regulatory requirements. Accomplishments expected to take up to six months to achieve were realized in a matter of weeks. We have found that group

Figure 4: Chris's Social Network



Like George, Chris also drew his social network. In doing so he captured three social systems in which participants were connected in reciprocal relationships. Both Chris and George updated their social network graphs over time and found that the social networks expanded with time. Their social networks' growth in size is an indicator of collaborators being attracted to the value they were creating.

productivity expands in self-organizing social systems because the process of coordination of action requires no outside management practices.

The Nature of Social Collaboration

By applying the principles of biological science (Maturana and Bunnell 1998) to the study of social systems, we can see how these networks constantly self-organize to generate the knowledge necessary to create extraordinary value. For example, in an organization where relationships are strong, as an engineer develops a new product others will usually contribute their skills, resources, and knowledge to accelerate the product's development. This phenomenon is commonly called "collaboration" and relies on knowledge and learning.

Collaboration is simply the social coordination of action around a shared purpose.

As we mentioned earlier, *knowledge* is doing (Maturana and Varela 1992, 26) or the coordination of action (Piaget 1971). *Learning* occurs when we reflect on our actions. *Social learning* is our collective reflection on our coordinated actions. By creating an environment that nurtures social learning, leaders assure greater organizational performance. We predict such a process will someday be as routine as today's popular process of individual performance evaluations. However, it will be much

more effective as a means of understanding how work is done and as a means to improving the productivity of the system of value creation.

Collaboration can be initiated in many ways, depending on your perspective and beliefs about collaboration. You might teach a class on collaboration with the belief that students will leave the class and collaborate. Or perhaps you approach someone and declare, "We must work together on this." Someone may write about collaboration (as we are now), thinking that his or her explanation will move the reader to take action. One common thread here is that none of these approaches, by itself, will generate collaboration or knowledge of the power of collaboration. We have discovered that the most profound knowledge of collaboration emerges in the *doing* – that is, as we work and reflect on our work with others.

"Listening to learn" and learning to listen

Collaboration begins with listening (Jewell-Larsen and Sandow 1999). This is simple, but not easy. It is especially difficult if we tend to dominate others by believing that talking, teaching, describing, convincing, debating, and influencing them is the most effective approach to social collaboration. In a few words, "The world would be better if everyone would just listen to me." What is often implied with these words is, "I know the right answer."

As we become curious and interested in learning more about collaboraton we also learn to listen better to others.

In true listening one learns from others. When we listen to a group describe a common experience, we learn from the group. If we wish to learn about the nature of social performance we simply listen to those who demonstrate exemplary group performance. We know when we are "listening to learn." As we become curious and interested in learning more about collaboration we also learn to listen *better* to others. This increases mutual trust and respect in the organization, resulting in an added and not insignificant benefit – the expansion of social well-being. Why is this so? Because we all like not only to be heard but also to be recognized and accepted by others for our contribution. This social capital, defined as the potential productivity of a social network or organization, is a valuable asset that adds a force factor to sustained organizational performance.

Listening to others explain how they create value leads to the sharing of collective knowledge. This was a key role for both Chris and George. By viewing everyone as legitimate, they took the time to listen to them and thereby gather knowledge from the entire group to coordinate action. The knowledge inside the social system is shared with us as we begin to understand the nature of group performance. We become rapacious learners as we explore the wisdom of the group – a requirement for any leader in the new knowledge economy. This approach is often described by employees as a reduction in informal meetings, and has become popularly referred to as "management by walking around" – a management practice of Bill Hewlett and Dave Packard.

Performance improvement is proportional to the collective knowledge that flows through social systems; listening is the key to accessing the flow of that knowledge. This is a bit difficult to discuss because most people intellectually know that listening is a critical personal skill for success. Still, many people may appear to be listening when actually their listening is superficial at best. It is helpful to understand when we are listening to learn and when we are not really listening at all.

Consider some examples of how poor listening can *slow* the flow of knowledge sharing:

1. You begin to explain an experience and are interrupted. This is a common problem in listening. We interrupt someone because we do not understand. But we cannot understand someone unless we give the person a chance to finish his or her explanation! This sort of interruption confuses and frustrates the storyteller. These emotions arise because in the process of interrupting, we *restructure* the storyteller's story, replacing the emotion intertwined in the story with the frustration of trying to tell the story while being interrupted. The explanation no longer follows the path of the storyteller, but the structure we create through our interruptions. This also occurs when we prepare for listening by over-structuring our questions. It seems logical to organize a set of categorized questions, but adhering to the predetermined questions once again interrupts the flow of the storyteller's explanation and his or her sharing of knowledge and experiences. Of course, true questions for clarity add value to a conversation, but many times prepared questions fired at the speaker serve only to dissect the story and obscure the knowledge being shared.

Adhering to predetermined questions interrupts the flow of the storyteller's explantion and his or her sharing of knowledge and experience.

2. Colleagues feel as though they have little or no time to listen to you. This emotion results in our wanting to speed up the listening. We want to move the storyteller along quickly so we can get to the "bottom line." This form of "speed listening" generates inaccurate assumptions. We leap to conclusions and fundamentally misunderstand the experience of the storyteller. The irony here is that in our attempts to "manage" our listening productively, we have actually wasted our time and the time of the storyteller.

3. Others act as if they already know what the your story is. Moments into the explanation, before the storyteller has finished, we begin to nod our heads up and down, interrupt the storyteller, and finish the explanation for him or her! We do this because we believe that we already know what the story is. In this case, it is obvious that we do not really want to listen, and have quickly done a match between what was heard and our own past experience.

All of these attributes of pseudo-listening not only slow the flow of knowledge and performance improvement, but also create misunderstanding and misalignment in action. As we often see, misunderstanding erodes relationships and leads to social separation, greatly reducing the effectiveness of any team.

Understanding understanding

A consequence of listening to learn from others is that the others come to understand that *you* understand *them*. This is not a trivial outcome, but one that conserves *openness* in social systems. Without openness, knowledge, innovation, and collaboration cannot occur as quickly and effectively as they naturally would. Response time to business demands plummets.

In today's turbulent corporate world we are constantly finding ourselves in newly forming teams – whether due to reorganization, customer responsiveness, new opportunities, or new hiring. As you join a new group it sometimes feels as though you are lost. You begin by asking exploratory questions, such as, "What's happening?" or perhaps, "What do you do? How does this work?" Soon you are so absorbed in what is being explained to you that you forget about everything except what you are hearing. As your interest in what is being said becomes self-evident, the explanation broadens. Your trainer may say, "Oh, if you are inter-

ested in this you should meet Maria." So off you go to listen to Maria's explanation about what you just heard. Maybe Maria invites you to join her as she does what has been explained to you. Soon Maria passes you to another and by the end of the day you realize just how much you have learned, and have a growing appreciation that the group, individually and collectively, would be so willing to share their knowledge with you.

The consequence of listening to learn and learning to listen to others in a social network is that at some point in time the group understands that you understand them. There is an expansion in the knowledge shared as the group realizes that this is not superficial knowledge for you, but meaningful understanding. Your listening has created a space of collective reflection, fluency, and learning.

Once you've accepted the invitation to listen, learn, and understand how people collaborate, you might do so routinely with more than one group. With multiple experiences of shared understanding we begin to see the flow of knowledge and performance in social systems – much like one begins to see the flow in a successful musical, theatrical, or sports performance.

Shared meaning is a matter of understanding (i.e. listening, reflecting, and dialogue) and greatly improves our productivity.

Shared meaning is critical to collaboration and the flow of knowledge. It is easy to agree on words. However, the difficulty is in developing a shared meaning for our words. This shared meaning is a matter of understanding (i.e., listening, reflecting, and dialogue) and greatly improves our productivity. When meaning is shared among the work-team members, no one is outside the social system. Everyone becomes an accepted or legitimate member. When high-performing teams describe the magic of their experience ("flawless execution doing the impossible," "reading each others' minds," etc.), they are reflecting on the power of their common understanding and flow of knowledge, which resulted in exceptional accomplishments.

Trusting

Trust is the silent connector in social networks. We take it for granted but it is actually quite fascinating. Think about the person you trust most in your life. Perhaps it is a spouse, parent, sibling, teacher, or friend. Trust is an emotional attitude that grows with the realization that someone understands you, because you come to see yourself, as in a reflective pool, through their observations and experiences in listening to you.

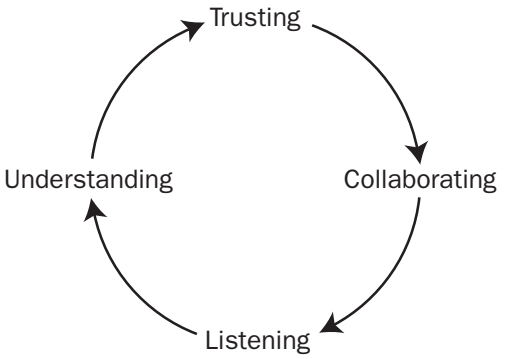
Carried to the social level, once the group realizes that you understand them, the relational ties between yourself and everyone else in the social system strengthen. You have become a legitimate member of the group and are now included in their network of conversations. Building trust in this way brings one from outside to inside the network. Conversations become deeper and reveal and generate more and more knowledge. Everyone in the group is accepted as a member of the social system and all are trusted to act in a manner that is aligned with their shared purpose. As trust grows, the focus shifts from *me* to *we*. I become more interested in learning from others than I am in their learning from me. Although I contribute whenever I can, I serve the purpose of the whole team or system.

Creating new knowledge is very different from creating products. This is one of the reasons organizations find themselves in a state of transformation today. We do not have license to learn from others – one cannot force another to share knowledge. Learning from others is a privilege and trust conserves this privilege. When an organization loses trust it also loses the privilege to learn and the capacity to generate new knowledge in a productive manner.

Collaborating

As we said earlier, collaboration is the social coordination of action, and occurs in a social system of relations wherein everyone in the network is accepted by everyone else in the network as a contributor toward a shared purpose. The flow of reflective relations resulting in collaboration allows any individual within the network to access the knowledge of the whole. In a high-trust environment, this is a continuous, generative process that is repeated as those in the network continue to reflect on how they perform together and take action based on that evolving knowledge, as depicted in Figure 5.

Figure 5: Reinforcing Trust



Social capital is improved by collaboration. The converse is also true. Social capital diminishes as collaboration diminishes. We know this because in the absence of collaboration, there is social separation, which can result in redundant costs, misalignment, and often, mistrust and fear. This deterioration of relations reinforces internal competition and diminishes social capital. In short, without collaboration we are headed down the road of resource depletion (see Figure 6).

Social-network pattern of collaboration

If we take the time to use social-network mapping to study the pattern of relations in a collaborative work group, as in our earlier examples, we will discover a social system structure wherein everyone is connected to everyone else in reciprocal relations. This is simple to measure. If you ask a group about value they have created, and Zhao tells you that Marcie has helped and Marcie tells you that Zhao has helped, you have revealed reciprocal social relations.

Figure 6: Resource Depletion

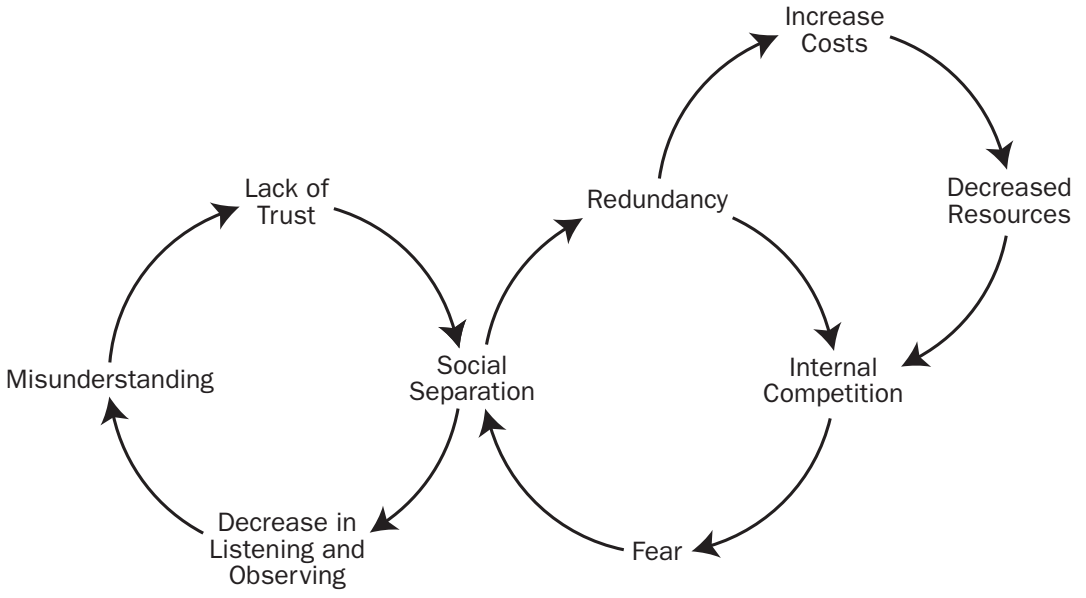
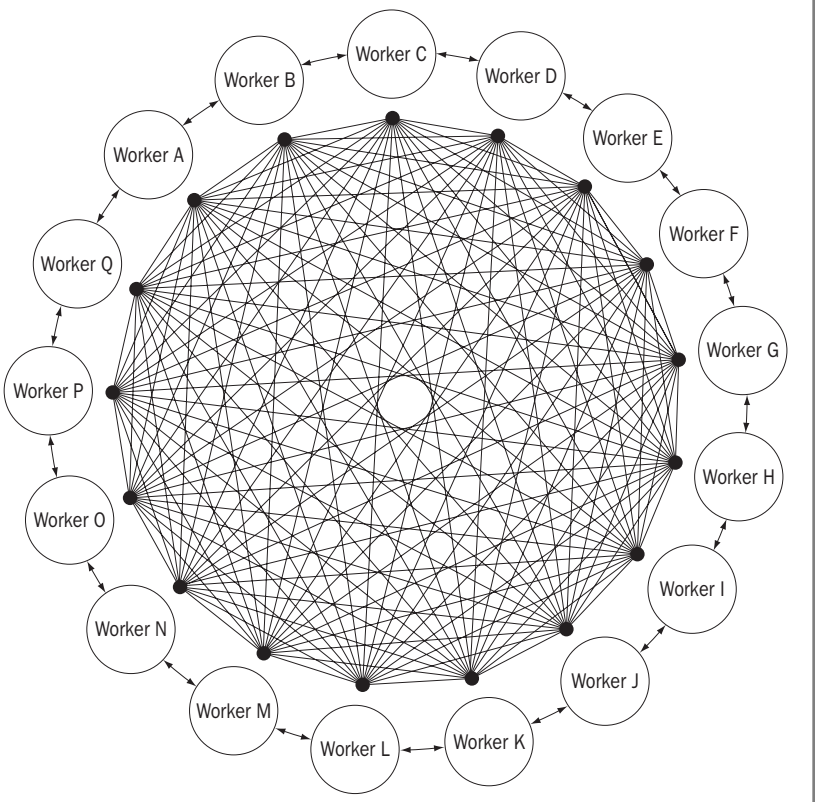


Figure 7: The Cohesion of Collaborative Social Systems



We have learned through years of doing this research that this reciprocal pattern is the most cohesive social structure and the source of invention, continuous performance improvement, knowledge creation, and social well-being.

The Bottom Line

Our experience, from years of studying collaborative social systems, has proven to us that they are not only the source of significant value creation but also the source of acceleration in value creation. We also believe that collaborative social systems are our natural social order. This becomes obvious to us when we consider our relations away from work, with our friends and families. So this begs the question: if this is our natural social structure that generates significant value and well-being, why do we spend so little time nurturing or understanding it?

Now we come back to a point raised at the beginning: we are in a transformational period in the history of our perception. The mechanistic view taught us to see the organization as static when actually, like life itself, it is constantly changing. We have believed organizational performance is a function of individual contribution when actually, real contribution is a social phenomenon. And finally, we have seen that historically, management has focused almost exclusively on what to *change* in the organization rather than what to *conserve* in the organization.

Our own perceptual transformation is a matter of ongoing personal development. Though the following recommendations may not represent all the actions one can take, we believe that they are worthy of time and attention from those who are not only genuinely interested in people and their innate capability to collaborate and accomplish extraordinary things, but also interested in increasing value in their own organizations and communities.

Practice the power of reflection and "listening to learn" in your own organization to understand knowledge-based performance.

HP founders Bill Hewlett and Dave Packard were masters at managing by walking around. They shared a genuine interest in learning from employees. This both broadened their understanding of how productive HP's workforce was and inspired the workforce, thereby improving productivity. We invite you to identify new value that has resulted in shareholder, employee, or customer well-being either recently or currently in your own world. Find

someone responsible for the value creation and ask him or her to explain it to you. Was this accomplished by one person or by collaboration with others? If collaboration is the answer, ask that individual to list those involved, and then go to those people and ask them to describe their collaboration. In doing so you will reveal the nature of performance and learn how to improve social capital in your organization. This new insight will expand your perception of how work really gets done and will help you improve the organization's productivity by putting your new awareness into action.

Do no harm.

Due to our lack of understanding of the nature of collaborative social systems we can unintentionally diminish social capital. For example, we have studied how reorganization can sometimes disrupt or destroy value creation by disconnecting employees who were collaborating. When done effectively, reorganization follows the social structure of the work itself. To make reorganizations productive, managers must notice the emergent social structure around the work and support it appropriately. Oftentimes, social structure emerges around core processes of an organization. At the top of this support list is creating a knowledge and information management strategy that is aligned with the social nature of knowledge creation. We have observed shared data as a form of language that coordinates effective actions within a team. Once shared data are in place, new knowledge is built upon those data as the group works together. When reference data are standardized in a social system, the level of action and contribution rises dramatically. This is because data-based decision making is far more effective than decisions made on the basis of opinions, judgments, or a power position in the organization.

When reference data are standardized in a social system, the level of action and contribution rises dramatically.

"The main thing is to keep the main thing the main thing."

The Knowledge Age is a new economic age we live in, and it coincides with a proliferation of concepts and models. One need look no further than the Organizational Development field to understand that some concepts are helpful guides to action while others are so complex that they actually create confusion and contempt in the organization. During times of radical change simplicity has value. Employees organize themselves to improve performance; they seldom organize themselves around organizational concepts such as "high-performance work teams," etc. By keeping a focus on value creation (i.e., what we want to accomplish together), we can create a simple understanding that both honors and credits employees for their contributions. This will improve both decision making and social capital.

Develop competence in, and capacity for, reflection. It is the "secret sauce" in creating sustaining business value.

When Dr. Deming and Walter Shewhart created the continuous quality improvement cycle of Plan, Do, Study, Act (PDSA), they introduced learning or reflection as a "scientific process for acquiring dynamic knowledge." Without reflection built into our work processes, we risk creating "busy-ness" that has no real value. Rushing through tasks to check them off our lists does not increase our knowledge and understanding of what is important or how we can improve our performance and business value. As a social system, organizations must institutionalize learning. Learning can occur only through group reflection on what we do, how we do it, what we value about our practices, and how we can improve them.

There is often a perception that "reflection" takes too long and requires endless consensus-building conversations to gain buy-in to a plan or decision. We offer a different view. Reflection is a foundational ingredient to effective value creation since it is how we collectively learn and improve. We have found that endless conversations for buy-in are usually the result of a lack of shared purpose, common data, and true listening. When these are lacking, there is no compelling work around which to organize.

Watch your language. It shapes your perception and affects your capacity to contribute. In shifting from mechanistic mental models, we must recognize that language plays a key role. We should listen to the words we choose to describe change, management, and the future. For example, language such as "driving change," "re-engineering the organization," and similar phrases all connote an intention to do something *to* people rather than *with* people. Language that treats the organization as a machine to be driven and people as cogs in the machine will not result in networks of collaboration, but in networks of contempt and ambition. If we hear ourselves talking as if we have the answer and must push or sell others to adopt it, we are probably acting from the old paradigm. These kinds of words shape the perceptions of others with respect to your intentions, and reinforce the mechanistic view of organizations.

Leading with "what to change" rather than with "what to conserve" always creates resistance and leads an organization to overlook, unwittingly, what is already working. Change initiatives that lack this important first step – appreciating what is precious to keep and build upon – can result in losing the formula for what makes value-creating networks thrive in their

Ideas for Transforming Your Own Perceptions and Actions to Maximize Value-Creating Social Networks in Your Workplace

When . . .	**Instead (or consider first) . . .**
you think you need to reorganize	ask, "Where are the value-creating social networks where the work is actually getting done? How can I contribute to their success?"
you want to drive or lead change from a particular place in the organization	ask, "What is it we need to create or accomplish together? What is important to conserve or expand?"
you think there is no time to reflect on past actions as a team	dedicate a specific amount of time to reflection and dialogue on what the team is learning and how to build that into next actions.
you are feeling discounted	listen to learn; explore the networks most essential to your responsibilities to understand more fully how work is really getting done.
you want to learn more about social systems but the literature makes it seem complex and irrelevant	begin with a valued accomplishment and ask, "How was this created? Who contributed? How do they describe their experiences?"
someone claims all the credit for getting a tough problem solved	ask, "How was the work accomplished? Who else was involved?" Reward the larger network for its contribution.

organizations. As our friend, former executive for both Volvo and IKEA Göran Carstedt, points out, "What if people don't mind change, but mind being changed?"

Look in the mirror. Are you legitimizing networks of collaboration or networks of ambition?

If we reflect for a moment on the networks that surround us and in which we participate, we should be able to recognize whether they are collaborative networks or networks of ambition. As described in this article, the former are social systems that create new knowledge, generate possibilities, and build trust and excitement. When we participate in a social network that is highly collaborative, it feels generative and positive for all those who are part of it. Often it is described as special or magic. No one wants to leave and extraordinary results occur, often repeatedly. In contrast, networks of ambition are not open and do not build trust. They are about power and competition within the network. Some members will serve as gatekeepers to information and to limit access to others. This type of social structure limits possibilities and social capital. Members are usually fearful that they will "look bad" or fail to please their boss by collaborating and sharing. People are happy and often relieved to leave these networks when the opportunity presents itself. These networks are easy to shift when we ask to know more about how value was created, who was involved, and what new knowledge was generated.

Often it is described as special or magic. This limits possibilities and social capital.

In Conclusion

In the Industrial Age value was created by managing resources. In the Knowledge Age value is created through collaborative relationships. Understanding the social principles governing collaborative networks and the intellectual and social capital they create will be necessary and new skills for managers who have always been responsible for managing the productivity and performance of an organization. Collaborative action and learning through collective reflection will be the source for understanding new practices that improve the creation of new value for customers, employees, and other stakeholders. While teaching social systems theory may be difficult, we have found that learning about social systems is simple and easy when groups have the time to reflect on their performance. Perception about the nature of social systems will continue to be shaped through our collective reflection – the site where Dr. Deming's mentor, C. I. Lewis, claimed our "social truth" resides.

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ABOUT THE AUTHORS

Since 1987 **Dennis Sandow** has been developing social action research as a process to promote social, biological and financial well-being, and to study Dr. Humberto Maturana's biology of cognition and biology of love. Dennis is a research member of SoL and has been conducting social action research in China.
dennis.sandow@hp.com

Anne Murray Allen is currently HP's director for Knowledge and Intranet Management. She has been with HP for over 15 years and has been in roles and positions that include organization development, manufacturing management, worldwide IT manager, strategic planning manager, and implementation of strategic change initiatives across the corporation.
annemurray.allen@hp.com

Commentary

By George Greenfield

George Greenfield

Working in the Hewlett-Packard (HP) InkJet Cartridge business has sometimes been like living in the eye of a tornado. Hyper-growth, and the intersection of science, technology, manufacturing, and vendor capability all play into maintaining a healthy balance among cost, quality, and availability. Decisions concerning the release of new products often had to be made months – and sometimes years – before enough data was available to know that our product quality and reliability would be good enough to meet our customers' expectations and our company's commitments.

To be sure, our quality system was always good enough to protect our customers. Almost without exception, quality issues were spotted and corrected before product reached the market, but at a price. Many times quality problems were detected with only enough time to "catch" the product in distribution. Then we would have to pull it back and rebalance inventories so we had the availability needed to feed the channel and meet our customers' needs. This could be very costly and frustrating for everyone involved.

About four years ago, a group of us started working with Dennis Sandow and began "experimenting" with the social theories he was testing. We did social action research, mapping our networks in a number of areas in the business, and always found that the network was much larger than expected and much more complex than we were capable of managing with conventional techniques. We also noticed that when information flowed effectively through the network, business moved very fast and effectively.

A few years ago we were getting ready to launch a new line of printers and cartridges. It was to be the biggest launch in our printer history, and it also needed to be accomplished more quickly than any previous launch. We knew that even a small mistake could cost millions of dollars, not to mention impact customer satisfaction and the HP brand. A lot was at stake.

At the time we were experiencing a rash of pesky quality problems that diverted our precious resources. We had two choices: assign a team of specialists to solve the problems, as we had in the past, or employ the methods and techniques espoused by Sandow. We chose the latter, and as they say, "The rest is history!" Sandow and Allen's article talks about the power of real listening to influence learning. During this time we made the choice to listen to the advice of our own leaders and experts throughout the business about what HP needed. We had not realized how much knowledge was embedded in our own internal networks. By listening, we learned what we needed to do together to improve the overall quality of our products in a way we would not have if we had continued to operate in our old ways.

The leaders in our collaborative social network focused on pertinent information, like metrics displaying the quality issues, with the result that problems were spotted faster and resolved more quickly and completely than ever before. The business has now gone more than three years without a serious quality issue and we have

virtually eliminated the "distribution thrash" common in earlier periods.

The business results were stunning. Equally important, however, was the way employees and vendors felt about their role in the work. A feeling of well-being and accomplishment permeated the organization. Being at work was a joy. We were happy with each other.

And best of all, we knew we had made – and could continue to make – a difference to the business through a new way of getting our work done.

George Greenfield
Program Manager, Imaging and Printing Business, Hewlett-Packard Company
george.greenfield@hp.com

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Commentary

By Peter Senge

Peter Senge

Anyone who has ever worked in an organization recognizes the distinction between how things are supposed to work and how things actually do. The former encompasses the guidance of explicit roles, written rules, publicly expressed management strategies and values, and organization charts. The latter includes all the unwritten norms that govern action and behavior: knowing what is actually expected of you; knowing who is good at doing what, who is helpful or difficult to get along with, who has real influence, and how management decisions really get made. While people tend to think that the formal management hierarchy is "where the action is" (it is certainly where the money is), this is an oversimplification, and a potentially dangerous one if we care about performance and innovation.

Imagine what might happen if every person in your organization were replaced overnight with another person with a comparable education, cultural background, and intellectual ability. How would they do? Members of this new group would start to work with all the artifacts of the formal organization: the written rules, job descriptions, procedures, online manuals, sales records, customer contact information, and personnel files. They would not *know* any customers or suppliers – their problems, needs, or accomplishments. They would not have learned each other's interests, capabilities, or idiosyncrasies. They would have no past experience working with any of the organization's processes. Without a history of collaboration, the replacement workers might have a fresh perspective, but they would lack the knowledge necessary to enable the organization to function, let alone innovate. That is because the organization's actual knowledge is embodied in the shared history of its living members. This is why Dennis Sandow and Anne Murray Allen open their article by declaring that their primary aim in utilizing social action research is to understand *how work gets done*, and how to appreciate and grow the knowledge that enables this.

In my judgment, the research on social collaboration that Sandow and Allen, along with many colleagues at Hewlett-Packard (HP), have done represents a landmark accomplishment in the emerging philosophy and practice of knowledge-based management. I first learned about this work when I attended a two-day workshop that HP hosted for Humberto Maturana, the Chilean biologist cited in the article. The fact that a company would get together almost one hundred engineers and managers, including Anne's boss, the "Ink Supply" division general manager, for two days with an eminent scientist of living systems was itself surprising. But what was even more surprising was that the participants were there to learn how to deepen work many were already doing. For some years, Dennis had been listening and learning from several engineering teams in his division, seeing first hand how they did their work and who they depended upon to do it. As he introduced initially skeptical engineers to social network mapping, they found that it gave them a tool to legitimate and explain to their managers how and why their personal networks mattered. Managers started to pay attention as the evidence linking particular social networks and the results they achieved

became compelling. For the first time, the engineers had a language to reinforce their claims that reorganizations and other management actions taken without an understanding of these networks often had negative side effects that outweighed the intended benefits. This is why the interest in the Maturana workshop extended well beyond the intellectual – which made the juxtaposition of this pragmatic motivation with its content even more striking.

In those two days, Maturana shared with the eager HP engineers his fifty-year journey of understanding "the biology of love." Starting as an MIT post-doctoral experimental biologist trying to understand how "the frog sees a fly," he had gradually established a radical new foundation for understanding perception in living systems. Perception, Maturana explained, is not ultimately about what we *see* but what we can *do*. From an evolutionary perspective, "catching flies" matters a good deal more than "seeing flies." In human systems, the quality of perception is inseparable from the quality of collaboration; it is about the coordination of action that arises in networks of social interactions. Effectiveness depends on the qualities of the social relationships. When we are distant from one another, when we distrust or feel at risk, our relationships and consequently our awareness suffers. Conversely, when we build trusting relationships that allow us to be open, honest and vulnerable with one another, our ability to sense and respond to complex and changing environments grows. "Love, allowing the other to be a legitimate other, is the only emotion that expands intelligence," Maturana declared to the HP engineers and managers. And they understood what he meant.

A few weeks ago, Anne Murray Allen and I spent a weekend with a small group of executives from SoL member organizations to reflect together on deep trends that are shaping the business environment. The first meeting of this group produced a statement we call the "Marblehead Letter." It identified six "issues shaping the future, especially for corporations with global scope," which started with the growing "social divide" and the need to "redefine economic growth" so that economic progress can be "consistent with a finite planet."[1] In our recent meeting, everyone agreed that these global imbalances persisted and, if anything, were growing worse. Not surprisingly, the conversation turned to the features of our system of management that seem to drive these imbalances, making them so intractable. At one point, after sharing many of the ideas and experiences presented in this article, Anne asked a simple question that resonated deeply in the group, "Why is it so much easier for us to manage by fear than to manage by love?"

While it has become acceptable in recent years to talk about "the formal system" and "the informal system," to laud the importance of "communities of practice" and social networks in knowledge creation and innovation, the matter of how we are with one another – and the consequences for how our businesses operate and the results they produce in the world – remains largely undiscussable. Increasingly, fear dominates our societies and most of our organizations. But you cannot fight fear directly. "Driving out fear" will only make people more fearful. It is only possible to gradually supplant fear as the dominant emotion in our system of management by building respect, appreciation and legitimacy – that is love.

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I will never forget that group of HP engineers and mangers talking in the most matter of fact way about love – not as a romantic sentiment but as the utmost practical truth about what they knew to work in their work – by the end of the two days with Humberto Maturana. Making it easier to manage by love than by fear will undoubtedly be a long-term, ongoing journey for us all – I suspect a defining journey of our times.

Peter Senge
Founding Chairperson, SoL
reflections@solonline.org

Endnote

1 For the full text of the "Marblehead Letter," see SoL's online Knowledge Repository, *www.solonline.org*

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Group Magic:

An Inquiry into Experiences of Collective Resonance

By Renee A. Levi

"The human spirit is not measured by the size of the act but by the size of the heart."

— BILLBOARD SIGN PRESIDING OVER
GROUND ZERO COMMEMORATION CEREMONY,
NEW YORK CITY. SEPTEMBER 11, 2002

Renee A. Levi

We are at a crossroads in human evolution. We have arrived on the doorstep of the 21st century in great global disarray. Anxiety, hate, terrorism, and war are the pervasive themes of our time. We live in fear, and our relationships with one another reflect this undercurrent. We mistrust others in personal dealings and group dialogues on important issues affecting our collective future are marked by skepticism and competition for perceived scarce resources. Our media captures and magnifies it all – every unsettling detail – live and 24/7. This is dissonance: collective dissonance.

Even so, occurrences of resonance between individuals and within groups happen every day in situations in which people come together and experience intimacy and bonding, a felt sense of being in the flow or transcending, personal transformation, and sometimes the satisfaction of accomplishing extraordinary things.

This is group magic and these are the experiences that inform a phenomenological study I recently completed as part of my doctoral work in organizational systems. They are extraordinary but they are also ordinary because they happen every day in all kinds of contexts to ordinary people. They are difficult to describe, but we know when they have occurred. It is in the space between us, beyond the level of intellectual exchange, and felt in a different way than as a meeting of the minds. It *is* a meeting, but one of a different sort: it is a meeting of hearts, of souls, of energies, and memories, and although it exists in the realm of physical space and time, it may reflect a dimension beyond the immediate interaction.

Collective resonance experiences occur more frequently than we may know. They do not sell newspapers and therefore may go unnoticed in the course of a busy life, but they need to be brought to light, to be better understood because they serve as guideposts pointing to ways of working and living together that sustain human life and spirit rather than destroy it. They are points of light that illuminate the way to a better world than the one with which we entered this century and they need to be told in the voices of the individuals who experienced them.

Group Magic: An Inquiry Into Experiences of Collective Resonance gathers and interprets such experiences. In it I explore the broad range of contexts in which people report experiencing this phenomenon and the many levels of connection associated with it: energetic, physical, emotional, and spiritual as well as intellectual. I discovered, talking with athletes, soldiers, dancers, educators and students, construction workers, singers, police officers, corporate

executives, weekend fishermen, and many others what the experience of collective resonance feels like, what they believe shifted their group into resonance, how significant the experience was for their life or work, and whether a similar sense recurred during the remembering and retelling of their stories.

Bringing this information to light is important, I believe, for two main reasons. First, by having access to examples of collective resonance, readers of the study may be able to recall similar encounters in their own lives, raising awareness that it is available to us all and that its effects can be transformative. I also believe that increasing conscious recognition of felt experience actually amplifies the positive energy field around and between human beings and can affect decisions leading to right action in the world.

Second, by understanding the components of such experiences, tools and methods can be created to help design and facilitate groups in ways that enhance the possibility of the emergence of resonance, again in service of decision-making that moves our societies forward, but also for the intrinsic satisfaction and joy that can heal the wounds already inflicted by a dissonant age.

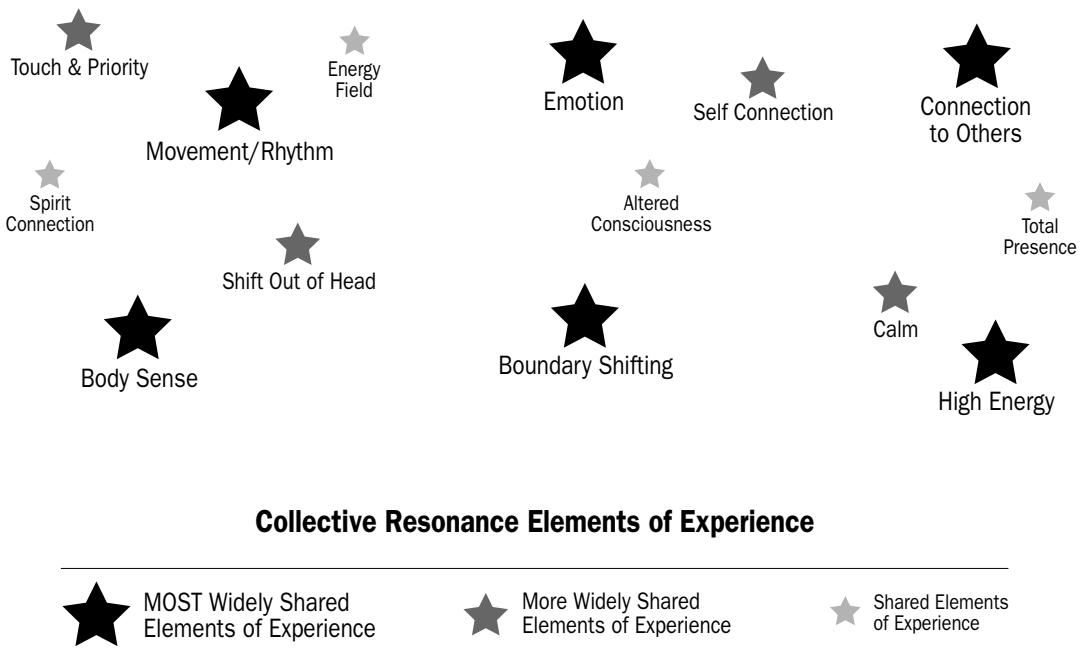
Collective resonance is, by my definition, *a felt sense of energy, rhythm, or intuitive knowing that occurs in a group of human beings and positively affects the way they interact toward a common purpose*. The word resonance means "re-sound," indicating a flow of vibration between two things, in this case two or more people. In psychology the word *resonance* has been used to describe empathy between human beings. In the spiritual realm, particularly in the Eastern traditions, it refers to the sense of oneness with the universe that is the goal of meditative practices. In this study, however, the physical level of connection through vibrational interchange was the focus and suggested the use of the word *resonance* in the descriptor, *collective resonance*. It is a level that operates constantly when human beings interact in the same space, whether or not they are communicating verbally. It is based on the laws of physics, that vibrating bodies – in this case, human beings – transmit and receive sound waves that impact one another. When waves of similar enough frequency interact, they can entrain or become one wave with greater amplitude.

Informed by these concepts, I interviewed 34 people from 32 group situations identified as resonant. I wanted to include the broadest possible range of experience and participant characteristics to determine what commonalities existed in the elements of experience, that is, how, precisely, it was felt, what shifted groups into resonance, how significant it was deemed to be, and whether a similar sense recurred during the interview itself. The hour-long interviews were conducted using five core questions and were audiotaped, transcribed, and analyzed using phenomenological and participant observation methodologies common in human science research. The study was partially funded by the Collective Wisdom Initiative of the Fetzer Institute.

Despite the diversity of participants and their group contexts, surprisingly common threads of experience were discovered (Figure 1). Asked to remember and recount the situation and how it felt to them, more than two-thirds of the people interviewed mentioned six things:

- a very definite felt sensation in the body, primarily in the upper torso or heart area and secondarily in the eyes, often associated with recognition of greater clarity or comprehension;
- a dynamic aspect to the experience characterized by movement, rhythm, or a sense of flow;
- the involvement of emotion, primarily joy, appreciation, compassion, and love;
- a strong sense of connection to others in the group through discovery of commonalities and to the group through a feeling of belonging;
- an experience of shift in personal or collective boundaries that affected perception of self, of the group, or self within the group; and
- a feeling of high energy in the room described in various ways including aliveness, excitement, heightened senses, and surges of personal power or strength.

Figure 1: Visual Map of Elements of Experience



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Another four elements that characterized the experience of collective resonance for one-third to two-thirds of the interviewees were

- an awareness that physical touching or close physical proximity of the people (spontaneously or deliberately created) was present during the experience;
- a shift from intellectual, cognitive, and brain-centered thinking to reliance on physical, intuitive, or spiritual sources of information to experience collective resonance;
- a profound connection with self occurred and was mentioned in many ways such as realization of personal gifts or talents, important insights, and healing;
- a feeling of calm, groundedness, or relaxation was reported, sometimes in the midst of highly charged or dangerous situations.

Finally, four additional aspects of collective resonance experiences were mentioned by one-third of the study's participants. These were

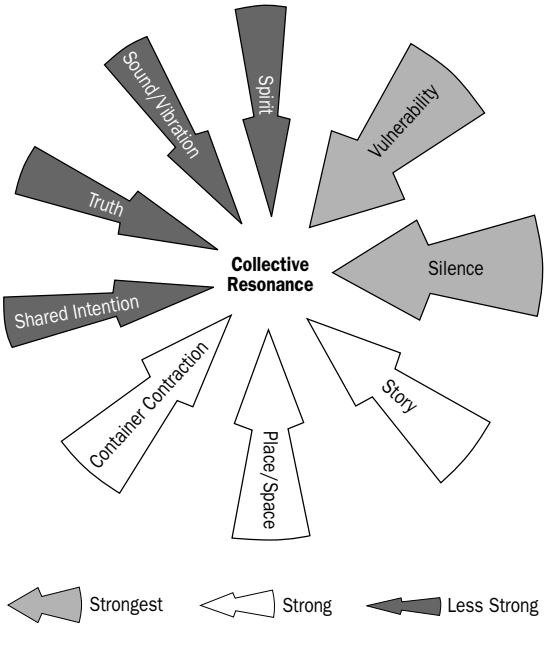
- a distinct sense that they had experienced an altered state of consciousness, often described as a lost awareness of time passing but also creatively expressed as being "in a bubble," surreal, an immersion, a spell, or being "in the zone";
- acknowledgment of an energy field around or weaving through the group that held it together and required, for some, either letting go of control to relax into the experience, a conscious intention to hold the space, a willingness to suspend judgment of what is or is not reality, or a shift from outer to inner orientation;
- recognition of a spiritual force or source, described in various ways such as nature, God, or Other, even though the vast majority of group contexts were not traditionally religious in nature; and
- an awareness that they were fully and totally present, engaged, and in the moment during the experience, unaware of distractions of any kind.

Having gained an understanding of what collective resonance feels like, I wanted to know what

things shifted groups into resonance; in other words, what were the behaviors, events, or other occurrences people remembered as having changed the character of the group? This is important to know when considering the applicability of these factors to group situations in which collective resonance is desired (Figure 2).

Nine factors were widely identified from this inquiry. Two, vulnerability and silence, were shared by considerably more than two-thirds of all interviewees despite their very different situations. A sense of being vulnerable, either personally or as a group, was the most widely shared shifting factor. Many ways of feeling vulnerable were expressed. Personal vulnerability in the form of self-revelation, an approach of openness in new situations, not having an answer, not knowing what to do, or fatigue or illness were mentioned frequently. Feeling vulnerable as a group due to difficult times or conditions or disaster situations was also mentioned as influential in shifting groups into resonance. All shared the theme of feeling that they had less control of the situation than usual.

Figure 2: Visual Map of Shifting Factors



Silence, the second most widely mentioned shifting factor, was described as a pause in the action, a time that allowed individuals to connect with one another and with themselves, a space to "hear" other sources of information, and as a collectively felt necessary next step in the group's process.

Half of the participants in this study identified the use of story or storytelling in the group as influencing emerging collective resonance. The stories were of a personal nature and revealed aspects of the individual. This was reported as significant in establishing the close bonds that were created. Another shifting factor that half of the interviewees mentioned was the importance of the physical place or energetic space that held the group during resonance. Aspects of the physical space that were identified were its historical significance, its layout, its aesthetic beauty, or its location in natural settings. Ritual or intention were also mentioned as conscious activities that altered the energetic space resonance emerged in.

An observation by more than one-third of the study participants was a sense of the collective "boundary" contracting, either literally or metaphorically, enough to provide a kind of container that held the experience. Some collective boundaries that were mentioned were walls of fog, walls of a room, or a circle made by people standing close together with their arms around each other.

More obviously, perhaps, was the role of a shared group purpose, goal, or intention to a group's shift into resonance. In some groups there was a specific task to accomplish that served as its goal; in others, a shared desire such as wanting to know one another better, learning something together, or a commitment to having fun were the common threads.

Telling the truth, to oneself and to the group, was identified as a significant source of group shift. The content of the truth was less important than the perception that group members were being honest with themselves and courageous enough to voice their truth in the group. A sense that the group was safe enough to allow for this was a prerequisite in these situations. One person's example of truth-telling in a

group was sometimes enough to give others permission to follow suit and this in itself was identified as a shifting factor.

In a third of the group contexts, sound and vibration were recognized as shifting factors. These appeared in the form of music, singing, physical movement causing vibrations in the surrounding air, and the subtle gradations of the human voice in speech. One woman used the sonic abilities of dolphins to enhance emotional healing in groups in the water.

Finally, although a felt sense of connection to spirit was identified as an element of the experience of collective resonance, spirit was also acknowledged as a shifting factor. In other words, an outside force or higher being was reported to have entered the group and affected it, according to one-third of the study's participants. Again, only three of the group situations were religious in the traditional sense.

After learning about what collective resonance feels like and what causes it to emerge, I was curious to know what impact it had on the individual. This, for me, was an important indicator of the usefulness of further research and application in this arena. A large majority of my interviewees indicated that their experience of collective resonance was highly significant in changing their lives, their work, their relationships, and themselves. Some described it as transformational overall.

Finally, and of great interest to me, was the discovery that in 30 of the 32 interviews, participants reported that they felt the same physical, emotional, psychological, and energetic feelings return during the interview as they had originally experienced. This was confirmed by the changes that I observed in their physical selves, such as tears, animation, gestures, and silences. Many realized and revealed that they were saddened by the lack of such experiences in their current lives or were missing the people with whom they had become so connected. I think this finding has significant potential for further exploration.

Having collected and assembled the many themes that illuminate the experience of collective resonance, I sat, for a time, with them like puzzle pieces wanting to be made whole. Although the goal of a phenomenological study is to map the constructs of experience, there were lingering questions for me, mainly about how the reported felt sense of resonance related to the physical laws of rhythm entrainment. Was it possible that sound waves emanating from human beings in close proximity and in certain situations rhythmically entrain and amplify, creating a physical field between them that feels satisfactory and allows them to move together toward achieving goals? Might these fields be interacting with other, larger fields in the universe? To my knowledge, this has not been proposed before in the context of groups, although brain-heart entrainment in the same individual has been documented, as have the effects of one person's heartbeat on another's brain waves (Childre & Martin, 1999; Lynch, 2000). Nearly all of my interviewees felt physical body sensation and more than two-thirds of them felt it in the heart or upper torso area, the location of the largest vibrating organ in the body. What were the participants in my study saying about the kinds of situations in which resonance can occur and what, specifically, were the conditions likely causing it?

The themes from this study offer clues. In addition to physical sensation, many people mentioned a profound connection with themselves and with others stemming from vulnerability of some kind. They reported that they felt a sense of individual and collective boundary movement. They also agreed that truth and honesty in an atmosphere of safety, often communicated in story form, were conditions of resonance. Silence, as a space in which a different kind of knowing can occur, was a pervasive theme. Taken together, I think these themes point to a very real getting in touch with what is true for the individual, an experience of authenticity simultaneous with a sense of connecting with others through reflection of themselves in their stories. Perhaps these are important clues to discovering how human wavelengths become "similar" enough in frequency to entrain.

It may be that as human beings become more authentic, more deeply in touch with themselves and what they believe, and display behaviors that express this, that their energy fields change. In physics, fundamental frequency – the frequency at which an object most naturally vibrates – allows for the most efficient use of energy. Human beings, too, as vibrating bodies, have fundamental frequencies. In meditation, for example, it is thought to be the entraining of the mind and heart to the natural rhythm of the person's breathing that helps reduce stress and anxiety and leads to cardiac and overall physical health (Childre & Martin, 1999). Perhaps getting in touch with and articulating one's own truth through participation with others in various ways can also affect the waves emanating from a person and alter their electromagnetic field. As one participant, a massage therapist, told me,

> It's about speaking the truth. And when you hear the truth, you relax. And if somebody says something to you and it doesn't feel like the truth to you, whether it's conscious or unconscious, you say, "We're not on the same playing field here."

If several people undergo this shift simultaneously, such as in occurrences of collective resonance, how might the wavelengths affect one another? In rhythm entrainment, wavelengths of similar frequency merge into a single wave and amplify. Could this be the felt sense of an energy field, an altered consciousness, palpable high energy, or the distinct sense of rhythm and movement reported by many of my study's participants? In the emotional realm, could the widely shared reports of connection to others in the group in the form of feelings of belonging, common humanity, and even love be another manifestation of

the entrained energy waves? Is it possible, further, that mention of spirituality, especially in the secular realm in which most of the experiences described in this study occurred, or a sense of connection to outside forces, nature, or the universe may also be a form of entrainment of the group with larger collectives?

How is collective resonance different from groupthink, a phenomenon in which the buzz in a group can lead to acts of violence and war? What prevents the tilting of the balance toward evil? There is one major difference that I believe is perhaps the essential element of collective resonance experiences, and this is the deep, self-connection that occurs alongside the bonding with others, grounded in personal truth and authentic expression. In examples of groupthink – that is, cults, gangs, terrorist organizations, and nationalistic movements that profess superiority of themselves over others – the bond between people usually involves what I would call a "third party" to the experience: an ideology, a perceived enemy, a common cause, an idealized leader. As individuals connect around this third party, potential for evil emerges.

In collective resonance there is no third party, necessarily, around which the bonding occurs. The connection, instead, is through the self, through internal authenticity and truth-telling, which influences physiological and energetic processes and ultimately entrainment with others who are doing the same. Although there may be a specific collective purpose, it is the inner component in collective resonance, indeed the key component, that shifts the individual and the group into resonance and possibly affects the group's connection with still larger forces. This connection, then, can propel the group toward its goals, sometimes enabling them to achieve extraordinary things.

In closing, I would like to comment on why this study is important and what some avenues for further exploration might be. I believe that knowledge of the physical ways human beings are fundamentally connected can accelerate progress toward collaborations toward common human goals, complementing the many intellectual efforts to the same end. I believe that collective resonance is healthy for individuals, organizations, and whole societal systems on a physical level as well as a behavioral one. I also believe that the integration of many kinds of knowing fuses perceived opposites – East and West, male and female, mind and heart, science and spirituality, contemporary and indigenous cultures, and others. Balance and wholeness are fundamentals of all healthy systems and essential to successful functioning in all spheres.

Finally, where might we go from here? Physiological validation of the theory of rhythm entrainment between people in groups seems important for those inclined toward scientific proof. Monitoring heart activity during group work designed with collective resonance principles is being explored at this time. Also, it seems important to know if collective resonance can occur at a distance, especially as we move toward ways of interacting, enabled by technology, that take human beings further and further apart physically.

The conscious convening of groups using practices that enable resonance to emerge is another important application of the information uncovered in this study. Using storytelling formats, incorporating questions that invite honesty and self connection, providing opportunities for relationship-building through seeing oneself mirrored in others, attending to the place or space in which groups convene, taking time for silence as well as dialogue or action, being clear about collective expectations or group purpose, incorporating sound and vibration into the gathering, and attempting to create emotional safety in the group are some ways to craft environments that cultivate collective resonance.

Have we been focused for too long on "figuring out" fundamental problems that plague our world and on analyzing how we might live together in peace and prosperity? Maybe the direct, aggressive, laser-like approach can be complemented by "relaxing into" the intricate web of physical connection that surrounds and enfolds us, a level of connection that only needs to be sensed, intuited, felt, and

accepted instead of actively produced by discussion, negotiation, compromise, and agreement.

Can we feel it? Our challenge is to let go and receive, to be as well as do. For all the good things our doing has provided, the mystery and the magic that are life need to be remembered. I believe that awareness is always the first step toward change. The voices from this study help to make us aware of the physical web of connection that can inform our evolution toward the future we desire.

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ABOUT THE AUTHOR

Renee A. Levi is director of The Resonance Project, a not-for-profit organization created to further research into and application of Collective Resonance. She is also principal of Resonance Consulting, an organization development practice dedicated to individual and organizational transformation. Renee is a research member of SoL and is working on a book called *Group Magic*.

rlevi@resonanceproject.org

www.resonanceproject.org

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Who Really Matters: The Core Group Theory of Power, Privilege and Success

Art Kleiner
Doubleday, 2003

The Shadow Core Group

Art Kleiner

Margaret Mead's famous quote ("Never forget that a small group of committed people can change the world. In fact, it's the only thing that ever has.") resonates with us because we want to believe it's true. In fact, it's a partial truth. Small groups of committed people are (probably) the only thing that has changed the world for the better.

But how do you organize such a small group? I came up against that question several times during the past decade. Once when putting together the fieldbook *The Dance of Change* (with Peter Senge, Charlotte Roberts, Rick Ross, George Roth, and Bryan Smith); once when working with Dialogos; and once when preparing my own book *Who Really Matters.* In all three circumstances, it was clear that long-lasting organic change could only take place when it was championed by a small "pilot group" that gradually got bigger, a kind of "macrocosmic 'we'" that took on the challenge of making the organization around itself better.

Here is the chapter from *Who Really Matters* in which I laid out a rationale for starting and maintaining such a group. To understand it, you need a quick introduction to my definition of Core Group: the people whose perceived needs and priorities drive the decisions made by everyone in an organization, at least in aggregate. The Core Group is not necessarily the people at the top of the hierarchy (though it often includes some of them). It's the people who are regarded as important, either because they control key resources, they make key decisions, they oversee some critical bottleneck or gate, or they have the kind of integrity that makes everyone want to follow them.

I still believe that small groups of people can effectively change organizations. ("In fact, it's the only thing that ever has.") But the small groups have to know what they're doing. This chapter provides a start.

— Art Kleiner

Are you aware how dangerous it is to talk about this?" The speaker was a Dutch corporate executive, a member of an audience at a talk I gave in Maastricht. He had put his finger on the heart of the Core Group dilemma. In most organizations, open conversation about the Core Group is taboo, and for good reason. It triggers deeply emotional feelings about privilege, power, and rank.

And yet, having become aware of the Core Group's impact, how can you ignore it? People seriously trying to influence an organization can only be effective if they understand how the Core Group's priorities are perceived, and how those perceptions differ from the Core Group's actual intentions. That means

raising awareness of "who really matters" dispassionately, without triggering a backlash of resentment, mistrust, vulnerability or fear, either from Core Group members or from others on their behalf. How on Earth are we supposed to accomplish *that?*

There *are* ways to do it, even when you're not in the Core Group yourself. It takes a certain finesse, a fair amount of relationship and reputation equity, a willingness to experiment, and an awareness of the limits of appropriate experimentation. Most of all, it takes the kind of time and commitment that people generally do not invest in organizations unless they see their future bound up with them. That combination – dispassion plus time plus commitment – is so counterintuitive that those who intervene to change organizations, whether from the inside or outside, have to learn to create it practically from scratch.

Here, then, before anything else,

is a list of what *not* to do, based on the unfortunate experiences of those who have followed their intuition as a guide:

• ***Do not try to bully the organization's Core Group into improvement.*** For example, do not loudly and angrily go to your bosses and say: "Aren't you ashamed of the way this organization excludes some people? Why haven't you done anything about this?" They would probably just look at you, shake their heads in disbelief, and make a note never to let you into their offices again.

• ***Do not adopt a passive-aggressive campaign.*** Do not talk behind the Core Group's back about the abuses they engender, or try to "punish" them in subtle or indirect ways. For instance, don't say anything about the Core Group to others unless you would also say it to them directly. Some people do this kind of thing, almost despite themselves, as a passive-aggressive way of maintaining their self-respect. But it has the effect of not just insulting the Core Group, but yourself and everyone else in the organization as well.

• ***Do not put yourself down as a way to curry favor or influence with the Core Group – or with the rest of the organization.*** At best, this turns you into a Core Group Enabler, and sets you up to be exploited by the organization. At worst, it marks you as a mediocre courtier in a democratic civilization. Flattery and sycophancy are games that have been honed through centuries of play in monarchies and empires; playing them well requires a level of skill and experience that (with any luck) is beyond the typical 21st-Century individual except, perhaps, Stanley Bing.

• ***Do not put your hopes on a "Skunk Works" or other innovative operation buried within the organization and shielded from above.*** Conventional wisdom says that if you want to innovate from within, "don't ask permission – ask forgiveness." But Core Groups don't work that way. Every organization has its share of wonderfully innovative projects that achieved remarkable results, and in some cases saved the company, but failed to influence the rest of the company *or* to provide sufficient recognition or reward for the people involved (at least by their standards). Three prominent examples: the Ford Taurus, whose launch leader, Lew Veraldi, was repudiated by his bosses at Ford; the innovative Topeka dog food factory, whose organizers Lyman Ketchum and Ed Dulworth were pushed out of the parent company General Foods; and the Apple Macintosh, whose creator, Steve Jobs, was forced out of the company he had founded in the 1980s. Only Jobs recouped, and that was after watching Apple fail without him and creating dramatic success elsewhere (with Pixar).

There is a usually an unspoken understanding that the strange, heretical practices of the Skunk Works won't leak out to contaminate the rest of the organization. Trouble ensues when the countercultural leaders of the Skunk Works start to believe the stories of their own success. They convince themselves that their terrific results and innovative methods will allow them to transcend the agreement they made; and if not, then the rest of the organization obviously just doesn't "get it." When the Skunk Works leaders find themselves frozen without support by Core Group members, or locked out of advancement or promotion elsewhere, their frustration takes on a life of its own. It can poison the rest of their careers – and the Skunk Works' future as well.

• ***Don't start a revolution.*** You may be wondering, why not just replace the Core Group wholesale? That's what incoming CEOs sometimes do. I suppose it's possible that another group could do it as well, perhaps through a stock repurchase. But a revolution, besides being immeasurably disruptive to ongoing business, merely substitutes one Core Group for another. It wouldn't change the structure of the organization, and maybe not even the Core Group dynamics, unless it also seriously changes the thinking of the Core Group members and the people around them.

What then *do* you do? In answering that question, I'm influenced by the ongoing experimentation and thinking of a group of people associated with the Dialogos organization in Cambridge, MA, who have studied and developed the art of intervention in living systems: William Isaacs, Peter Garrett, Robert Hanig, Kelvy Bird, Skip Griffin, Glennifer Gillespie, Ian Yolles, the Reverend Jeffrey Brown, David Kantor, and others. I've learned that intervention in a complex system is a kind of art form in itself: the art of crafting legitimacy for a set of new ideas.

Before you even begin: who is intervening with you, and for what purpose are you all taking this trouble? Why do you want to change the organization in the first place? If you succeed, what will that get you? What difference will it

make – to you, the organization, and the rest of the world? How will you know when you're getting close? And what will it look like, in your imagination, when you're done?

Without at least preliminary, heartfelt answers to those questions, it's hardly worth starting. For this is a significant undertaking. It involves a campaign on the organizational level, intensive mutual exploration on the team level, and courageous internal efforts to reach a level of maturity within yourself. It is intensely personal, but it cannot be done alone; ultimately, it will involve everyone in the organization. It will take time and concentration, but you will have to "do your job" at the same time, and you may never get rewarded or even recognized for this. The payoff is in the changes that it produces within yourself.

Furthermore, there's no recipe for conducting this kind of intervention. On one hand you'd probably want to build up some equity, in the quality of your reputation and relationships and skills, before embarking. On the other hand, conducting this kind of work, with as much presence of mind as you can muster, is as good a way as any to begin building equity. Your strategy depends on the quality of the organization, and the quality of your own persona and the team you are working with. It's not something to tackle lightly. And yet it should be tackled lightheartedly. Once you get started in something larger than yourself or your own career, your fear will be tempered by fascination.

Probably the best way to begin is to convene an informal team of compatriots who feel the same way you do – a shadow Core Group for the organization. I use the word "shadow" here not in the Jungian sense – to imply the repressed, subterranean impulses that are painful or discomfiting – but in the sense of an alternative group without real power, going everywhere that the real Core Group goes, one step behind. The name comes from politics, where people talk about "shadow governments": the apparatus set up by the party voted out of power in an election, in which they appoint people to "shadow" each of the key posts in the other party's government, and to be prepared with their own opinions and proposals. This keeps them, more or less, in practice as governing entities for the next time they are elected, and a shadow Core Group does the same thing for you and its other members. It helps prepare you all for the time when your ideas become more formally adopted (if they ever do), for the time when you enter the Core Group on a full-fledged basis, or for the dealings that you may ultimately have with the organization in a more authoritative role.

It involves a campaign on the organizational level, intensive mutual exploration on the team level, and courageous internal efforts to reach a level of maturity within yourself.

The members of this shadow Core Group may not even work within the company: you may be a small group of outsiders, trying to get (for example) an oil company to act with more environmental consideration. On the other hand, you may include some Core Group members with a vision for the organization that the rest of the Core Group doesn't see. Whoever you are, your success depends on your ability to maintain an authentic care and enthusiasm – an "ownership," if you will – for the unfolding potential of the organization, even though you may never benefit directly as individuals.

The purpose of your shadow Core Group is to raise consciousness – to build a new awareness of the purpose and potential of the organization among Core Group members, decision-makers throughout the organization, and (most importantly of all) yourselves. Because the purpose of the organization is intimately linked with the image that people have of the Core Group and its priorities, that image will have to change as well. Even if the membership of the Core Group remains the same group of people, the way they are perceived by the organization will have to change. That's a tall order, and it can't be done by command or fiat, not even by the command or fiat of the Core Group. It has to be approached from the inside out, with each individual who joins the cause choosing to see things in the new way, and to make decisions accordingly, until the whole organization "tips" over to a new way of doing things.

Since legitimacy is granted by the organization as a whole, at first your "shadow Core Group" will

only possess the legitimacy that other people grant them as individuals. If you and your fellow shadow Core Group members are not in the real Core Group, you may have very little legitimacy to start with in the eyes of the organization. You build that legitimacy by developing a consistent, credible story about the unfolding potential of the organization and what it is being called to do in the world at large; and then embodying the sorts of changes and awareness that would be needed by the organization as a whole.

I've seen shadow Core Groups as small as three people and as large as 100. People in the shadow Core Group meet, often informally, to talk about the measures they would take if they were leaders of the organization, and the ways in which they might intervene without provoking a backlash. They think about the issues of the moment, not in terms of their own bailiwick or part of the operation, but with an organizational leader's perspective of the whole system as important. They provide each other with the company, counterpoint, support, and encouragement that individuals cannot provide for themselves; indeed, the work of changing organizations should not be done by an individual, because it is too easy to lose perspective and to become vulnerable. Finally, the shadow Core Group brings its own sense of priorities and greatness – an awareness that the actual Core Group probably does not have. As individuals, you do not have to be in the Core Group yourselves, but you have to be willing to develop the same level of care and commitment for the organization as if you were in the Core Group.

If you start or join this kind of shadow Core Group, you will find (to your surprise, and possibly to your chagrin) that it takes on many of the characteristics of the organization's real Core Group. Your shadow Core Group is naturally empathetic because you, as its members, are paying attention to both the Core Group and the organization. If the real Core Group feuds, your shadow Core Group will find itself almost irresistibly tending toward fractiousness. If the real Core Group is lethargic and bureaucratic, then your shadow Core Group will seem like it can hardly get anything done. You can even "take the temperature" of the mood of the real organization by observing changes in your shadow Core Group – if there's a shift in openness or frustration, you can expect the same thing to happen accordingly in the larger world. This "microcosm effect" also works in the opposite direction. If you can heal some kind of breach or fracture in your shadow Core Group – for instance, a labor-management clash or an argument among regions – then, remarkably enough, you may observe that fracture healing a little bit in the organization at large.

At risk of oversimplifying the ineffably complex task of intervention, here are some ideas for what the shadow Core Group can do:

• ***Move deliberately to widen the shadow Core Group to embrace and include real Core Group members.*** "Conversations that don't include the Core Group are about change," says Peter Garrett of Dialogos. "Conversations that include the Core Group are change."

If you don't have Core Group members in your shadow Core Group, in other words, sooner or later you will need them – either as compatriots with you, or as supporters. Like everyone else, they can only join your cause through choice. If they see what you have discovered, in a form that they can recognize, then you won't have to recruit them; they will choose you.

Everything depends on the conversational stance you take: your willingness to maintain an open respect for all points of view and to consider the most fractious, difficult issues with patience and intense interest in the outcomes. Practice this kind of conversational stance enough (Isaacs and Garrett call it the practice of dialogue), and you don't need to convince or sway the Core Group, or anyone else. You merely draw them in, learn what they are looking for, and discover how their priorities intersect with the changes you perceive as worthwhile. This gives you a lot more influence and power over the situation than if you seek to argue them into submission. It turns out to be much easier to accomplish long-lasting change through trust (and being trustworthy) than through other types of intervention.

But it does take time. The most successful people I know who have changed organizations from within have been willing to devote their entire careers to the challenge. That doesn't mean you need to wait years for results. But it means that you follow the rhythm of equity, gradually building momentum until you cross first a threshold into confidence and then another threshold into sustained success.

• ***Understand how the Core Group defines success and frame your project as a method or mile-***

stone for accomplishing their success. You might approach a Core Group member in a one-on-one intensive meeting. Give them a short introduction, tailored to their interests, of your idea and the value you think it would have – and then say, "We're trying this on a small scale. Before we begin, in your view, what would constitute success?"

And then listen. If you engage them well, three things will happen. First, you will learn some things from what they say. Second, they will have a chance to become intrigued, which means they'll talk about it to others, which amplifies your ideas, which means you may end up with allies you don't expect right now. And third, when the time comes to move another step, you won't be introducing it to them cold. They will already have thought about your success. It will, in part, belong to them. And because they are in the Core Group, that means it will belong to everyone.

• ***Wait for the right moment before you ask for formal certification.*** There is a time at which you need a budget approved, a check written, a contract signed or an agreement made in writing. Don't rush that moment. Do as much as you can before that moment, primarily to demonstrate your own capability.

For example, before asking for a budget, demonstrate what you can accomplish without one. You may be able to hold the same kind of initial program, for instance, in a self-supporting way. You will learn a lot more this way. Then when you get the budget, apply the same resourcefulness.

• ***Learn how to hold high-quality conversations.*** The practice of dialogue, for example, involves careful attention to the "space" in which the conversation takes place: the amount of time, the rhythm of interaction, the quality of acoustics and atmosphere, the thoughtfulness of the invitation, the presence you bring to it, the context you have set. Conversations that touch on Core Group issues need the kind of "space" that reduces tension and accentuates aspiration. People need to feel relaxed enough to recognize how much they trust others, and to become more trustworthy themselves. Most of all, they need to meet in the kind of space that makes them more aware of their visibility (the ways in which others perceive them), the stands they want to take, and the ends to which they want to make a commitment.

In moving down this path, you'll be creating your own unprecedented story. If you truly want to make a better world, it may be the most highly effective way to proceed.

• ***Get the whole system in the room.*** The Core Group is probably larger than you think it is. And even if it isn't, have you consulted with the other key constituents? The Core Groups of critical subsystems? The symbolic people? All of these people have something to tell you that will be critically important – and if you overlook it, you will end up clashing with their worldviews later. Of course, before you get them all in *one* room, you'll probably need to approach each group separately – maybe more than once, until they're ready to meet together.

• ***"Amplify positive deviance."*** Some people like to "speak truth to power" by telling the Core Group what they've done wrong; and they're startled when the Core Group doesn't want to hear it. "Don't they want to learn?" Barbara Waugh, in her book *Soul of the Computer,* describes a much more effective maneuver, which she calls "amplifying positive deviance." You find the people in the Core Group who "deviate from the norm" by doing the kinds of things you think are significant moves in the right direction. Then "shine the light on them, get articles about them published in the company newsletter, talk them up to everyone you meet, get them together for a conference, give them resources." And, oh yes, find something to appreciate in the individuals who are blocking you, and draw attention to *that.*

• ***Craft symbolic gestures of Core Group transition.*** When Mary Scheetz was the principal of Orange Grove Middle School in Tucson, Arizona, she started deliberately breaking down the barriers of exclusiveness. "One very talented teacher had a problem getting to school on time. But he was very talented. So I asked him to lead a discussion on a part of the curriculum. It was a great discussion, but the 'Chosen Ones' – the conventional Core Group members on the faculty – were furious. 'How dare she put him in front of us? He doesn't even get to school on time.'" Nevertheless a year later, this indi-

vidual was himself a member of the Core Group, which was no longer dominated by the "Chosen Ones."

• ***Articulate misperceptions:*** Show people the difference between what the Core Group truly wants and needs and what they think it wants and needs. Or help Core Group members articulate this better.

• ***Practice:*** Learning to do all this takes time and skill. Don't expect to master it at once. Set up places where you can try to intervene without tremendous risk, either to your career or to the organization. After every new intervention, reflect – What worked? What didn't? What problems did I bring with me? And how might I do it differently next time?

While there is more to read on the subject – much more – the writers on this subject have only scratched the surface of what there is to write. In moving down this path, you'll be creating your own unprecedented story. It's not for everyone. But if you truly want to make a better world, it may be the most highly effective way to proceed. If you make a better Core Group, you may engender a better organization: and that, in the end, may be the only way, these days, to make a better world.

ABOUT THE AUTHOR

Art Kleiner is the editor in chief of *strategy+business*, the quarterly management magazine published by Booz Allen Hamilton. Educator, consultant, and long-time member of SoL, he is also the author of *The Age of Heretics* (1996, Doubleday), and coauthor of both the learning history library series published by Oxford University Press, and of the best-selling Fifth Discipline Fieldbook series. *Who Really Matters: The Core Group Theory of Power, Privilege and Success* was published by Doubleday in 2003.

art@well.com

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Recent and Relevant Work

Several books with important connections to our feature article recently crossed my desk. Two were recommended by SoL members, and two are new books, one of which was authored by a SoL member. In addition, two SoL research members have had articles published recently that are relevant and easily accessible to *Reflections* readers. I hope you will find my brief notes useful, and I encourage you to share your own recommendations and summaries with us.

— C. Sherry Immediato

Six Degrees: The Science of a Connected Age
Duncan J. Watts

Who Shall Survive?: Foundations of Sociometry, Group Psychotherapy, and Sociodrama
J. L. Moreno

Field Notes on the Compassionate Life: A Search for the Soul of Kindness
Marc Ian Barasch

The World Café: Shaping Our Futures Through Conversations That Matter
Juanita Brown, with David Isaacs and the World Café Community

"Seven Transformations of Leadership"
David Rooke and William R. Torbert

"The Roots of Sustainability"
John R. Ehrenfeld

Six Degrees: The Science of a Connected Age

By Duncan J. Watts

W. W. Norton & Company, 2004
Recommended by SoL member Marv Adams of Ford Motor Company

Duncan Watts has produced a practical textbook for understanding the logic, functioning, and mystery of networks. The title is derived from the popular observation that everyone on the planet can be linked through six personal connections or fewer, and easily communicates the richness of that idea.

At a recent meeting with a number of SoL's corporate sponsors, participants began to explore the challenge of managing self-organizing systems. We all agreed that either too little or too much structure deadens the natural energy and initiative embedded in social systems. Learning to see the real patterns of connection that are operating in our organizations – from large multi-nationals to voluntary aggregations such as SoL – can help us develop structures that serve, rather than hinder, our purpose.

Students of systems thinking will not be surprised by some of the conclusions Watts draws, such as that cause and effect are often linked in strange, unexpected, and therefore unappreciated ways. But Watts makes a compelling case that we are in the midst of discovering a new science, and are well advised to learn more about the properties of different types of networks so that we can effectively participate and intervene in them. Anyone interested in complex systems and networked organizations will want to study Watts' carefully formulated, well-documented inquiry and follow the developing research in this area. Annotated references, ranked by "degree of difficulty," direct the reader to related material and further exploration.

Who Shall Survive?: Foundations of Sociometry, Group Psychotherapy, and Sociodrama

By J. L. Moreno

Beacon House, 1978
Recommended by SoL research member Dennis Sandow

In this basic text on social analysis, networks are described as nodes connected by arcs. In social networks, "nodes" are people. The people are not connected by arcs, but through an ever-changing pattern of relationships. Social networks should not be analyzed, but mapped by a compassionate practitioner of reflection in social systems. Anyone interested in social networks should begin at the beginning and read Moreno.

Field Notes on the Compassionate Life: A Search for the Soul of Kindness

By Marc Ian Barasch

Rodale Books, 2005

Chilean biologist Humberto Maturana – mentioned in our feature article – suggests that the most powerful human relationships are those based on love, which he defines as recognizing and accepting others as "legitimate" participants in the social system we share. Well aware of the many ways we can be dismissive of others, I gravitated to Marc Barasch's intriguing "journal" when it showed up on my desk. It is meant to be used to record how we open our hearts and minds to those we don't know at all,

or have reason to actively exclude.

Barasch set out to discover the science and facts of compassion. The record of his journey is both informative and transformative. He visits with live organ donors, perpetrators of crime and their victims, and survivors of terrorism and civil war – all of whom have experienced great gifts of generosity and forgiveness. In sharing his journey, I learned something about the physiology, psychology, and sociology of compassion that was intellectually interesting, restorative of my faith in others and myself, and surprisingly practical. It's a perfect book to read slowly, pausing between chapters to note thoughts and questions.

A special note to those who favor experiencing loving kindness in quiet contemplation in meditation halls and mountain tops: I found Barasch's story of participating in a Zen-inspired "street retreat" – living with only the clothes on his back for a week in downtown Denver – a challenge to all of us to make a stronger connection between spiritual practice and compassionate action.

The World Café: Shaping Our Futures Through Conversations That Matter

By Juanita Brown, with David Isaacs and the World Café Community

Berrett-Koehler Publishers, 2005

We've all been with groups of people whose knowledge, experience, and enthusiasm are astounding when looked at as a whole. Yet often the people in these groups are left to fend for themselves, making connections and forming smaller groups completely randomly, not unlike the guests mingling at a typical wedding reception – or those employed by our largest organizations.

The World Café makes one critical assumption that magically unleashes collective intelligence on a massive scale in as little as an hour and a half: each person in a group brings something uniquely valuable to the party. Like a puzzle, everyone's "piece" is necessary to form a complete picture. The World Café is a remarkable, efficient, and natural way for "the system to see (and hear) itself" – a critical capacity in our complex world. It has been an enormously helpful way for those in the SoL community to take advantage of our rare opportunities to meet face to face, work on important current issues, and build relationships that last for years. The World Café process is an important resource for initiating and reinforcing a variety of critical network connections.

SoL members Juanita Brown and David Isaacs have created a wonderful story and a great reference. The Foreword and Afterword by Margaret Wheatley and Peter Senge, respectively, articulate the World Café's unique contribution to the shaping of our future.

"Seven Transformations of Leadership"

By David Rooke and William R. Torbert

Harvard Business Review, Reprint R0504D, April 2005

Drawing from many years of research, SoL member Bill Torbert has published a compelling summary of the connection between personal maturity and effective leadership. While the conclusion may not be surprising, the clear distinctions drawn between seven stages of "action logic" allow mentors to better support the development of the next generation of leaders. In addition, Torbert's model gives individuals another way to assess their patterns of perception and response to threats to their safety or power. This awareness can allow them to interrupt habitual responses, develop new capacities, and dramatically increase the repertoires of the organizations of which they are a part.

"The Roots of Sustainability"

By John R. Ehrenfeld

Sloan Management Review, Reprint 46207, Winter 2005, Vol. 46, No. 2, pp. 23–25

We are delighted that SoL member John Ehrenfeld has published an abbreviated version of the case he advanced in "Searching for Sustainability: No Quick Fix" (*Reflections*, Vol. 5, No. 8). John continues to develop his perspective on the differences between reducing unsustainability (a quick fix) and increasing sustainability by addressing the root of the situation.

Reflections

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David Mahaffey
Publications Assistant
Reflections: The SoL Journal
25 First Street, Suite 414
Cambridge, MA 02141 USA

+1.617.300.9515 (phone)
+1.617.354.2093 (fax)
E-mail: reflections@solonline.org
reflections.solonline.org