Creating Self-Organizing Groups

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INTRODUCTION

In its many years as a form of learning, the T-Group (Training Group) has provided opportunities to observe group and individual behavior to better understand how we each influence what is going on in the group. The quest has always been for a deeper understanding of group dynamics and the "parts" that make up the whole – you, the other participants, group theories, methods, processes, tools, as well as the facilitators. As a participant in a T-group, the learning is multi-dimensional which ensures transferability into "real life" work situations. This article links the dynamics of work-place teams with the concepts of self-organizing systems as found in the complexity sciences and then takes a new look at what happens in a T-Group for greater learning with this experiential learning model.

We know that in work-place settings, if a team had a task such as assembling a table purchased at IKEA with a clear goal and outcome, specific tools, and a step by step plan, the team would always be viewed as high-performing. The methods would be logical and linear. Members would know what to do to move from their current situation to a known future. However, for many groups, problems remain unsolved; parts come unraveled as one part is solved; or new problems and dilemmas emerge that never existed before. The desired future remains elusive and unrealistic. These are indicators that the group is in an unpredictable environment.

In such environments, cause and effect analysis and rational solutions will not work. In unpredictable environments, groups, like bacteria, ant colonies, and other living entities, must adapt to survive, guided only by a few simple rules or principles. This is the opposite of what we have been taught -- that prediction and control is. In unpredictable environments, unintended consequences are the norm. Pascale (2004) says:

> Stated plainly, when societies, communities and organizations encounter the need for adaptive change (that is, change that departs from the trajectory of "business as usual"), social engineering doesn't work. And it never has. (p. 3)

In unpredictable environments, groups must focus on the micro-level where the most powerful processes of change occur and where relationships, interactions, small experiments, and simple rules shape emerging patterns. When a group is ready for change, small beginnings can morph into large-scale change, much like an avalanche where small beginnings escalate into dramatic and powerful forces. Change occurs as small changes are integrated in the group. Members face the challenge of identifying small successes and replicating them.

COMPLEXITY SCIENCE AND GROUPS

Complexity science challenges our expectations about how the world works and how individuals and groups respond to their environments. Pascale, Millemann and Gioja (2000) describe complexity science this way:

> We are entering another scientific renaissance … Also known as "complexity science," this work grapples with the mysteries of life itself, and is propelled forward by the confluence of three streams of inquiry: (1) breakthrough discoveries in the life sciences (e.g. biology, medicine, and ecology); (2) insights of the social sciences (e.g. sociology, psychology, and economics); and (3) new developments in the hard sciences (e.g. physics, mathematics, and information technology). The resulting work has revealed exciting insights into life and has opened up new avenues for management. (pp. 1-2)

Complexity science helps us make sense of what happens in groups. Group members can use the perspectives of complexity science to assess the environments inside and outside of the group and then choose appropriate concepts, tools, and techniques to intervene. (See Eoyang, 1999; Goldstein, 1994; Kelly & Allison, 1998; Olson & Eoyang, 2001; Petzinger, 1999; Stacey, Griffin & Shaw, 2000; Zimmerman, Lindberg, & Plsek, 1998). These authors use concepts and methods from theories of chaos, complex adaptive systems, nonlinear dynamics, and quantum theory to develop innovative models for change. The complexity science model that is applied in this paper is taken from Olson & Eoyang (2001).

GROUP PROCESSES

It is useful to think of a group as a system of processes that evolve and adapt. Order emerges according to the interactions and relationships within the group, rather than developing according to a predetermined structure. The basic building blocks of these processes are semi-autonomous individuals that follow simple rules to maximize some measure of performance as they self-organize over time. Individuals interact with each other, with the task at hand, with ideas and concepts, and with their environment as they respond and adapt, seeking to fit within the milieu of the system itself. Each is striving to make meaning within the system.

The interactions in these processes are very rich, a combination of non-linear, competitive, collaborative, and power-oriented interactions where even a small interaction can have multiplying effects, depending on the initial conditions within the system. Feedback loops in the group processes are many and varied, bringing both positive and negative feedback that is essential for adapting to changes. The changes push the group into periods of instability. Transactions with the group's external environment also provide energy and resources to keep the group's processes going. As the group members continually respond to the information that is available to them, the patterns that emerge are highly complex. Yet they are understandable to the members of the group who helped form them.

Since meaning is derived from the relationships in the processes, and complex outcomes emerge from fairly small unstructured beginnings, members can glean the maximum benefit by mainly focusing on the relationships and small events. Orchestrating elaborate events, such as strategic planning, is likely to have only a small effect on what actually happens.

SELF-ORGANIZING

Self-organizing is the term used to describe the tendency of group processes to generate new patterns spontaneously. For example, a work team will generate norms, structures and procedures based on the interaction of its members and outside stakeholders--even evolving its mission and leadership structures. Any member of the group's self-organizing process is an agent of change who influences what emerges from individual interactions.

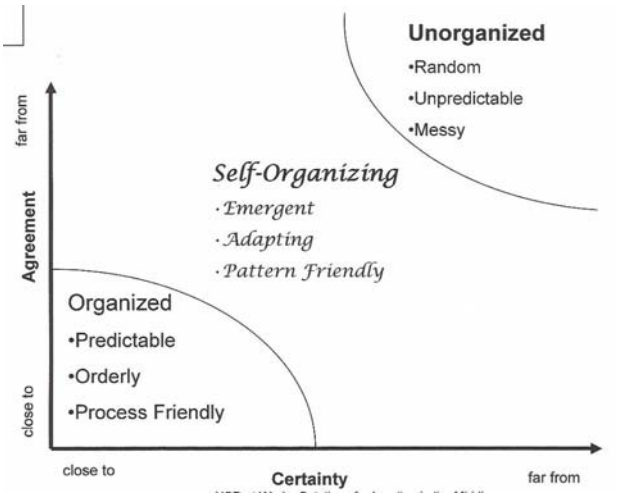
Team leaders with detailed plans and expectations of predictable behavior and outcomes will usually be disappointed—or at the very least surprised—by what happens in the self-organizing process. Rather than conform to a preconceived plan, members interact in ways that often change the plan, sometimes intentionally and sometimes by accident. The outcomes of self-organizing, besides being unpredictable, are not necessarily good or bad. They are outcomes that the team and its would-be leader must deal with, whatever they are.

FOSTERING SELF-ORGANIZING PROCESSES

Ralph Stacy developed the Landscape Diagram to make sense of the interplay of boundaries between order and chaos. His two axes were "Agreement" and "Certainty." Agreement refers to the degree to which members of the group are able to agree on what is to happen. Certainty refers to the degree to which members of the group are able to know what is to happen in the future. He found that individuals, groups and organizations that operate with high levels of Agreement and Certainty are more likely to be able to organize their work, increasing their sense of control. In an organization, one would hope to find the accounting, payroll, quality, and core HR functions operating as "organized".

When a system moves far from Agreement and Certainty, it experiences randomness and seemingly unconnected activities or thoughts and are "unorganized", where surprise and unpredictable events create a messy, random environment.

It is the land in the middle that Stacy has called "self-organizing". This is where emergence occurs, patterns take on form, and connections are made. It is the place where relationships form, learning occurs, and the system adapts in its environment.



The self-organizing space is always in flux. There is a great deal of sensing, adapting, and adjusting within this space, and for some people it may seem a crazy place. Because of the emergent, adapting nature of this space, neither control nor prediction is possible.

One tool for coping with the self-organizing space is the Eoyang CDE Model. This model describes the conditions that influence the speed, path, and direction of self-organization. By understanding and shifting these conditions, an individual is able to take intentional steps to influence the self-organizing processes in a system. By applying the model to the activity in the self-organizing middle of the Landscape Diagram, individuals and group are able to determine how to influence the balance between order and disorder—between being too constrained and too unconstrained.

In either extreme, self-organization is thwarted. Pascale, Millemann and Gioja (2000) talk about the Goldilocks Principle:

> Neither too many rules nor too few rules. The key to self-organizing resides in a field of tension between discipline and freedom. Nature achieves this tension through selection pressures (which impose discipline) and by upending occurrences (such as chance mutations and environmental disruptions). In organization, rules provide discipline. (p. 6)

The challenge for any group is to identify aspects that are too ordered and aspects that are too disordered. A group is most creative and adaptable to environmental changes—self-organization occurs most productively—when there is a balance between order and disorder. When a member (or leader) understands that self-organization is inhibited because of over-controlled or under-control, steps can be taken to influence the conditions of self-organization.

CONDITIONS OF SELF-ORGANIZING

Research has shown that three conditions influence self-organization: (1) containing, (2) differentiating, and (3) using transforming exchanges. By understanding these three

conditions, a group member can support self-organizing by intervening to tighten or loosen the degree of control and order (see Olson and Eoyang, 2001)

Containing--defines what is "in" and what is "outside" the group. The container establishes the semi-permeable boundary within which change occurs. When the container shifts—making it larger or smaller or changing it altogether—new relationships and structures form over time. Many different aspect of a group can serve the "containing" purpose.

- Magnet -- where one strong force pulls parts of the process (system) together. Strong leaders or a mission statement pull towards the magnet.
- Fence -- where an external boundary holds things together. Departmental loyalties facilitate teamwork within a department but also may foster suspicion and rivalry between departments.
- Affinities -- where connections between and among individuals hold them together. Professional, personal, psychological, social, and cultural affinities shape the behavior of people in the group.

Differentiating -- Differences work as the engine for change, providing potential for individual and group evolution. Significant differences establish the shape of the emergent patterns.

- A mixture of individual with varying backgrounds and work histories will result in a richer self-organizing process.
- The existence of contradictions and conflicts suggest the possibilities of a new emerging pattern.
- What is deemed a significant difference depends on what the group or individuals identify as important. If, for example, a team places a high value on expertise, the patterns that emerge will feature the areas of knowledge and experience of the most powerful team members.

Transforming Exchange – How connections across significant differences transforms team members by connecting members with each other and with other stakeholders. More transforming exchanges will speed up the process of self-organization. Fewer, less rich exchanges will slow it down.

- Any transfer of information, energy, or material can be part of a connecting process.
- Not all connections are transforming. When contact is superficial or insufficient, people work as disjointed and independent parts and coherent group patterns fail to emerge. Individuals experience a sense of isolation and confusion. When contacts are too strong or too numerous, people have few degrees of freedom and their behaviors are limited.
- The more nodes and connections in a team, the more likely individual members will be able to contribute to self-organizing.

MAKING CHANGES IN GROUP PROCESSES

Making changes in a group process is experimental and iterative. Action is needed to create a balance in between things being too constrained and too unconstrained to foster self-organizing. To influence the pattern, paths, and products of the self-organizing process, members can take a number of actions.

- Continuously evaluate the conditions of self-organizing -- containing, differentiating, transforming exchange.
- Notice if one or more of the conditions are too controlled or too uncontrolled.
- If so, identify the condition where change is likely to have the greatest impact
- Identify which condition is also easiest to affect.
- Make the intervention and evaluate the impact, including the impact on the other two conditions.
- Repeat the process until the group reaches a self-organizing state that is most effective and efficient for the group..
- If the group wishes to maintain optimal self-organization toward its goals, the conditions need to be continuously monitored.

TEAM DEVELOPMENT

In the process of team development all three of the conditions for self-organizing are linked together. A change in one of the conditions will shift the behavior of the team, which results in changes in the other two conditions. An intervention in one condition will likely generate new learning and productive patterns in the other two conditions. To determine which condition of self-organizing may provide the most leverage for change, a member can diagnose the level of constraint in the three conditions. An intervention in one condition will also affect the other two.

Observations about how newly formed conditions affect the new patterns that emerge will inform the next iteration of action. By entering the cycle repeatedly, an individual can assess, intervene, and observe patterns of self-organization that result from the continual interaction of the team members and its internal and external customers. At each iteration, the impact of the interventions can be evaluated and adapted to increase opportunities for adaptive self-organization. This model of self-organizing is a tool that can provide insights and options for action in the day-to-day work of a team.

CONNECTING T-GROUPS WITH REAL LIFE!

Applying the theory of self-organizing systems to T-Groups now opens a new understanding of the experience. At first, the participants in a T-Group will experience an unpredictable environment where there is a profound lack of agreement and certainty about how to function. Using linear, rational, or social engineering approaches is not likely to be successful. From the beginning, the conditions are established to allow and encourage the members of the T-Group to self-organize through their experience together. The entry container is empty. There is no agenda, no leader and the facilitators'

role is one of distance. The participants must begin to organize their extensive time or about 40 hours so that there is meaning to individual learning.

Through the life of the T-Group there will be interactions, small experiments, and identifiable small successes that help everyone make sense of what is trying to emerge as an adaptive response to the uncertainty the group is facing. Applying the Eoyang CDE model to influence this self-organizing process would require that members of the group look at both individual and group need to seek balance between order and disorder—between being too constrained and too unconstrained. As members interject their needs into the group, there will be reactions based on timing and where other individuals are in their entry process.

If members seek to keep the group **tightly controlled:**

- Members lack the flexibility they need.
- Individuals are less likely to engage in meaningful contacts or dialogue.
- The focus is more likely to be on matters that are not vital for the group.

If members seek to keep the group **loosely controlled**:

- The members generally engage in meaningless activities.
- Support structures are absent.
- The work is diffuse.

The challenge for any group is to identify aspects that balance individual needs with the group development and to stay in the "self-organizing" space in the middle of the Stacy Landscape diagram.

Interventions in the ongoing interactions and small events that occur during the life of the T-Group can aid self-organization. There is a tendency of system interaction to generate new patterns spontaneously by following simple rules that maximize some measure of performance over time.

The Container of the T-Group

The facility will set one container. Having the T-Group be residential where everyone stays in the same container for 40 hours creates a focus on the team and developing dynamics. Participants find themselves loosening their hold on work, family, the "things to do list" and enter a new container with different boundaries, center points, and avenues for connections. How a team begins to frames its purpose, culture, norms and processes provides multiple ways of containing its self-organizing activities. How the team begins to manage individual expectations helps to frame the container and bring more coherence. The team begins to attend to the reason for being together and relationships begin a cycle of being generative and/or competitive. How the members deal with declining energy in the group or how the group focus moves into alignment with individual needs open the door for establishing simple rules of engagement, opportunities for intervention, and the practice of facilitating shifts in the container make the T-Group a truly experiential process.

Significant Differences within the T-Group

Differences provide the juice for self-organizing during the T-Group. Individuals enter with different levels of work expertise or experience with self-organizing systems. There are cultural differences as well as expectations for the experience. The decision-making process of the group opens up opportunities for both leadership and power struggles. Each individual brings his or her own personality, expertise, and experiences into the shared space. How the team members accept these differences and use them to best advantage determines the quality of their interactions—their self-organizing behavior. If the team chooses to look for and operate on similarities, the work of the T-group will begin to stagnated. If the group chooses to explore differences and consciously look for the most significant differences the group will move to optimal self-organizing.

Transforming Exchange within the T-Group

At first, the exchanges within the T-group will be tentative as each member seeks to learn the rules for engagement. Members will seek to offer up an agenda, activity or a topic for conversation. Depending on the readiness of individuals, these offers will either move the group forward or not. At first only minimal information is exchanged. The group members seek discover the feedback mechanisms that will be appropriate for this mixture of individuals. Sub-groups form around topics or activities and then disband when the energy is dissipated. At times the group will be disjointed and at times interdependent. How the members choose to talk and listen provide opportunities to learn and grow. If there are contacts but are not transformative, the group will get stuck in misunderstandings and irreconcilable differences.

The T-Group is a unique opportunity to learn how to foster self-organization by creating a balance between order and disorder through the degree of control and agreement within the group. Being mindful of the three conditions that influence self-organizing—Containing, Differentiating, and Transforming Exchange—participants can help each other know what is going on with the group at all times.

Participants also have the opportunity to practice intervening at the CDE level. Interventions in “containing” help shift semi-permeable boundaries within which change can occur. Interventions in “differentiating” establish more appropriate areas of focus for the group. Intervening in “transforming exchanges” ensures that the interactions and relationships are meaningful and productive.

It is not often that practitioners of change will allow themselves the luxury of giving up a significant block of time in order to enter the unknown process of self-organizing. However, once in the “middle space”, practitioners learn from what they are experiencing personally, what they are observing in the group, and the results of their interventions into the pattern of the group. However, the most important learning is how to keep a group in the self-organized space use real-time feedback mechanisms to learn what works

and what does not. This multi-dimensional opportunity is one that is not offered often but stimulates learning beyond the time invested.

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