

LEADERSHIP: THE FORCE FOR SOCIAL SELF – ORGANIZATION

Rodolfo Loyola

Centro de Investigación en Gestión y Economía de las Organizaciones
Tecnológico de Monterrey
Epigmenio González 500
San Pablo
Querétaro, Qro.
76130 México
rloyola@itesm.mx

ABSTRACT

In this paper social systems are seen as conversational structures; additionally, leadership is conceptualized as a force that moves the systems far from equilibrium conditions in order to generate dissipative structures that would be the source of social self – organization.

Communities within social systems move toward structural coupling; that is, tend to adaptation. In that conditions, leaderships is a necessary condition to generate new conversational patterns to change the dynamics of the whole system, creating then the conditions for the emergence of hyper cycles or networks of communities. These self – organized networks would be identified as social capital.

INTRODUCTION

The focus in this paper is leadership in social systems independently if we are talking about government, NGO's, private enterprises, university or any other. The approach we use is conversational, based on recursive coordination of distinctions, actions, and emotions.

This approach, based mainly on the work of Humberto Maturana (11-15), give origin to the conversational structure approach developed by the author (2001) which is analyzed under the light of the characteristics of complex adaptive systems.

With this framework, we present leadership as a source of energy that moves the system far from equilibrium building dissipative structures that give origin to self – organization and some desired emergent properties.

Finally, we address the concept of social capital and the role of the leader in building it.

Leadership

SOCIAL SYSTEM

In any social system, people play an essential role. In the conversational structure approach, both people and the system structure are the central elements of system evolution. People create the conditions for change, lead it, implement it, manage it, and maintain it; on the other hand, the system structure determine what is possible to do and what is not in such a system. From this perspective, leadership is a key element as a source of energy to modify the structure of a system in order to achieve the purpose assigned to the system he or she leads. In the following sections a more detailed explanation will be given.

OBSERVERS, DISTINCTIONS AND UNITIES

- ◆ An *observer* is a human being operating in language. In language, the observers make distinctions and, by them, constitute what a social system is. For specific subjects, a social system is what they, as observers, observe it is.
- ◆ A *standard observer* is an observer of a particular group or set of observers adhering to or espousing the criterion of acceptability which circumscribes a given such community of observers. When an observer shares his/her view, in terms of criterion of acceptability, with other observers, all of them are standard observers and, for the same token, they constitute a group or community.
- ◆ A *community of observers*, consequently, is a group of standard observers participating in a common view about something. One can consider government as a community of standard observers in that they may share the same view about living in the system.
- ◆ The fundamental operation in observing is that of *distinction*. Distinction is the pointing to a unity by performing an operation that defines the boundaries of this unity and separates this unity from a background or medium. It consists in the specification of an entity by cleaving or splitting it from that background or medium. Distinction, then, is the process through which a unity becomes asserted or defined. When observers declare that this is their unity, they separate this unity from any other. They are making a distinction between their unity and other parts of a system, and by making this distinction, they establish their unity as a unity separated from other unities.
- ◆ The *criterion of acceptability* is the *standard* by which an observer assesses an explanation as either viable or not. Adequate behavior or adequate action in any domain specified by a question is the phenomenon to be explained.
- ◆ A social system emerges from observers in two basic operations. First, observers, by means of an operation of distinction, declare a unity; this unity is distinct from other unities. Secondly, observers, by means of the criterion of acceptability, declare the nature, in terms of viability, of that unity; this unity behaves and acts the way they expect to behave and act. If these observers share the same view, then they are standard observers and they constitute a community of observers.

Leadership

- ◆ Observers, by means of an operation of distinction, separate a social system as a unity from other unities. This unity is a *simple unity*. They simply declare that this unity is not other social systems or unities.
- ◆ Observers, by further operations of distinction, decompose a social system into components that constitute that unity and into the ways in which these components relate. From this point of view, observers declare that this is a unity composed by elements and its relations. This unity is a *composite unity*.
- ◆ As composite unity, a social system has two dimensions. First, it has an *invariant* dimension that makes that system be what it is. Second, it has a *variant* dimension that makes the invariant dimension real and actual. The first dimension is called *organization* and the second one *structure*.

ORGANIZATION

- ◆ *Organization* is the configuration relations among its components that specifies its class identity as a composite unity that can be distinguished as a simple unity of a particular kind. What make a social system be this specific class of social system is its organization, that is, the components and their relations among them. What makes a triangle be a triangle, and not, say, a pentagon, is the position (relations) of three sides (components). What makes a nation be a republic and not a monarchy, among other things, is where sovereignty resides.
- ◆ The organization of a social system is necessarily *invariant* because if you change it, you create something else.

STRUCTURE

- ◆ The *structure* of a given social system is the way by which their components interconnect and work together with no changes in their organization. Structure refers to the *actual* components and the *actual* relations that realize a particular composite unity. The structure, therefore, realizes *in it* the organization of a composite unity.
- ◆ The structure of a social system is necessarily a *variant* dimension. A social system changes all the time; it is continuously adapting itself to the equally continuous environmental changes. Since the organization of a composite unity is invariant, then any change in a composite unity is a structural change.

ORGANIZATION AND STRUCTURE

- ◆ The organization is always realized through the structure. The importance of this idea is that the organization of a social system can be realized through many different evolving structures.
- ◆ Structure entails many more components and more relations than organization. In fact, one can map organization in the structure.

Leadership

- ◆ The moment in which a system loses its organization corresponds to the limit of its tolerance to structural changes. In a composite unity, the loss of the organization would result, eventually, in the loss of the class identity of the social system. A *coup d'état* will change the organization from, let say, a republic to a dictatorship.
- ◆ Every thing that happens in a composite unity is a structural change, but this change is *structure determined*. Changes take place in the interplay or interactions of the properties of the components of the structure. Any external agent that interacts with a composite unity only triggers in it a structural change, but it does not determine it. Consequently, every thing that happens in a composite unity is determined by its structure, that is, by the *interactions* of the components.
- ◆ The relation or interaction of the structure with its medium in which a unity conserves its class identity (organization) is called *adaptation* or *structural coupling*. Structural change, therefore, is the result of adaptation, that is, the result of the interactions with its medium or with other social systems. A social system survives –exists– only if it conserves its class identity (organization) and its ability to respond to its medium (adaptation). Consequently, the conservation of organization and the conservation of adaptation are constitutive conditions for the existence of a social system.
- ◆ Interactions with its medium or other social systems are called *perturbations* in the sense that the source only triggers, induces the structural changes, but it does not determine them. Changes are determined by the structure of the social system: what happens to the social system in a given moment depends on its structure in this very moment. Global competition, outsourcing, demanding customers or technology innovations can only perturb the system and trigger a structural response, but the nature of this response will depend on the system structure.
- ◆ A dynamic composite unity is in continuous structural change with conservation of its organization; that is, *evolves*. The ongoing determination of a dynamic social system's course of change and transformations is often described and explained as purposeful. However, the *purpose* ascribed to a unity is not a feature of the unity itself; it is an explanation devised by observers. What is important is that the notion of purpose induces an economy in addressing social systems. It reduces the task of conveying to a listener the organization of a particular social system. When people say this country purports to be a democratic one, it is equivalent to explain that its *constitutive components relate* as a democratic nation.
- ◆ Every social system exists in a *medium*. This dynamic relation between social system and medium, that is called adaptation; it is a condition of existence for every system.
- ◆ The dimension or part of the medium in which a system is distinguished and which is operationally complementary to it is the *niche*. Structure relates directly to the niche. Interactions take place between the structure and the niche. One could say that the niche is the interactive extension of the social system. Consequently, the niche is always specific to a social system. Because of our common border, Mexico and the US are both a niche of each other.
- ◆ *Environment* is the dimension or part of the medium that an observer sees surrounding the social system and the niche. In this sense, environment is larger than the niche.

Leadership

CONVERSATIONAL STRUCTURE

Both organization and structure of a social system are configured by components that relate. Components are either constituents or coadjutants, according to whether they constitute or help the social system to accomplish its goal, i.e., to realize in the structure its organization. These components relate. However, what is the essential character of this relation? I now focus on this social system dimension or element.

We human beings are linguistic beings. Language takes place in the praxis of living of the observer, and it generates the praxis of living of the observer. From this perspective, language is central to the conversational structural approach; for this reason, I present with certain detail this concept.

LANGUAGING

- ◆ In strict sense, component of a system can be anything, organism, resource or person in operation within the system. Since we are dealing with social systems, the most relevant components are observers. However, immediately it should be noted that an observer is also a unity and, by the same token, a system but, in this case, a living system. The components of social systems are persons who, in turn, are systems and, therefore, simple and composite unities. The first thing that needs to be established is that language occurs among persons.
- ◆ As unities, living systems come together and, through their structure, they influence one another. When two or more unities, through the interplay of their structure, modify their behavior, there is interaction. However, interaction is only a process or dynamic in which each unity triggers a response in the other. In interaction, there is not yet communication, just perturbation. When you see an individual coming toward you in the sidewalk, you may move aside or continue your path; you are interacting, but you are not communicating. Simple interactions are not yet language, but language takes place in the interaction of structures of the living systems.
- ◆ Living systems interact structurally and, in this interaction, they *orient* each other's behavior to the point at which each of the interacting systems obtain and accomplish a *similar* or comparable stance. In this condition, people –as observers– can say that there is “communicative” interaction. *Communication*, then, is the degree of consonance or congruence of mutually oriented behaviors observed among participant living systems. Note that communication is defined in terms of behavioral consonance or congruence, not in terms of transmitted information as if observers were dealing a commodity termed data.
- ◆ Communication, as the *appearance* or manifestation of behavioral congruence *observed* among living systems, is not the most relevant issue. What is important is the reciprocal or mutual orientation that occurs among adapting living systems and that is observed by the participant systems themselves. In this sense, the mutual orientation or congruence of behavior among systems is termed *coordination* of behaviors. The behavior that is coordinated can be either an action or a distinction. Thus, there is a coordination of actions and a coordination of distinctions.

Leadership

- ◆ *Coordination of actions* emphasizes what takes place when an observer interacts as living system with one or other observers as living systems. Coordination of action, then, focus on the living system as a composite unity in terms of the structural changes that it undergoes through the operation of its components. Consequently, coordination of action implies consonance and congruence in performing, functioning, executing, accomplishing and, in general, acting by two or more observers as living systems, which mutually and reciprocally orient their operations. In short, coordination of action means that a consistent and congruent action is generated among observers.
- ◆ *Coordination of distinction* emphasizes what takes places when an observer interacts as living system with its medium or, mores precisely, with its environment. Coordination of distinction, then, focuses on the living system as a simple unity that can be distinguished in a medium. Consequently, coordination of distinction implies consonance and congruence –agreement–in bringing forth, describing, asserting, defining or explaining a unity, entity, thing or object. In short, coordination of distinction means that a consistent and congruent definition or explanation has been generated among observers.
- ◆ Actions (and distinctions) can occur repeatedly. If these actions are realized independently and they do not have any effect on the consequences of the previous action, it is simply a *repetition*. If these actions are realized dependently and they do have some effect on the consequences of the previous action, it is a *recursion*.
- ◆ When two or more systems interact recurrently and the structure of each follows a course of change dependent on their history of these interactions, they create a set or domain of *consensual* interactions. Every consensual action serves a referent for further action; in this recurrent process, a consensual domain of interactions is established. As we can see, feedback is present which means that we are dealing with non-linear systems.
- ◆ When living systems continue recursively interacting in a consensual domain, it is possible for a recursion to take place within consensual behaviors and the result will be the production of a *consensual coordination* of consensual coordinations of actions. If observers are already in a consensual domain (set of consensual interactions and transformations), any further operation will be a consensual coordination of consensual coordination of actions. In this recursive process, the first consensual coordination of action becomes token or sign for another coordination of action which, in turn, becomes a coordination of distinction that becomes a token for a coordination of action. This is precisely *linguaging*: an ongoing process of recursive consensual coordination of consensual coordination of actions or distinctions in any domain.

Language goes beyond interaction and communication. Language results from coordination. If an observer interact with other observer, then language is coordination of coordination of actions. It implies consonance and congruence in performing, functioning, executing, accomplishing and, in general, acting by two or more observers as living systems which mutually and reciprocally influence. If observers interact with its environment, then language is coordination of coordination of distinctions. It implies consonance and congruence –agreement– in bringing forth, describing, asserting,

Leadership

defining or explaining a unity, entity, thing or object. From this perspective, language – languaging– is acting, doing, consenting, and transforming.

EMOTIONS

- ◆ Language does not exhaust human beings. In daily life, one distinguishes in people different *emotions* when one looks at their actions, corporal posture or behavior. Moreover, one also knows that in daily life every emotion implies that only certain actions are possible to the person that exhibits them. For these reasons, we address emotions as inner body or corporal dispositions for action that specify at every moment the domain of actions that a living system can operate at that specific moment.
- ◆ Emotions, as patterns biologically determined , establish what living systems can do or not do, in what interactions they can enter or not enter, at any moment. Consequently, emotions define the space in which actions can take place; they are *relational behaviors* or, more precisely, dynamic body dispositions for relational behaviors, but they are neither actions nor interactions; they are complex collection of neural and chemical responses to stimuli a living being is subject to (Damasio, 1989).

CONVERSATIONS

In this section, we will go to the next level of detail analyzing conversations.

- ◆ Languaging is essentially action. When one operates in language, emotioning (the flow of one emotion to another) changes his/her domain of actions and, therefore, the path of his/her languaging changes. Emotions, consequently, determine the concrete and specific languaging in a given moment. From this perspective, language to materialize has to take into account emotions and viceversa.
- ◆ A *Conversation* takes place when the flow of coordination of actions and the flow of emotions come together.
- ◆ The organization of a conversation is constituted by a set of observers that converse in a specific context, producing specific results. These results, in a conversation, are in terms of coordination of coordination of distinctions, actions, emotions, and emergent properties. It is important to note that actual results could be intended or not.
- ◆ Those observers that are part of the organization are called constituents; on the other hand, those observers that are part of the structure but not of the organization are called coadjutants.

The *structure* of the conversation has the following elements:

- ◆ A set of constituents and coadjutants, and
- ◆ A configuration of relations among the constituents and coadjutants.

In order to analyze the configuration of relations, we introduce the following distinctions:

- ◆ *Basic concern*: An issue that is important to address for some reason.

Leadership

- ◆ *Purpose*: Intended results that explain why a new specific conversation is needed. It expresses the realization of the system identity in a given structure.
- ◆ *Theme*: Specific issue that has to be approached to reach the purpose established. It takes the form of a recurring and unifying subject or topic.
- ◆ *Function*: Set of related actions or conversations contributing to reach the purpose sought. Function is the mechanism through which the recursive property of language operates.
- ◆ *Mode*: Essential character or constitution of the conversation (we adopt the Kenny's approach (...)).
- ◆ *Characteristics*: Qualities or attributes that may be predicated of this conversation. Some characteristics could be, among others: hierarchical asymmetry, multicultural, geographically distributed, based on electronic media, etc.
- ◆ *Links to other conversations*: Relations established when the organization of the current conversation is determined and when its structure operates. We cannot assume that a conversation exist with no links to other conversations. Through these links conversations affects each other producing structural changes in both conversations.
- ◆ *Conversational pattern*. It is a recurrent network of conversations within a specifically compatible structure. Individuals or groups can structurally operate in a congruent and consistent set of conversations.
- ◆ *Conversational structure*. It is the structure of a system as a net of conversations. The actual structure that makes a system be what it is and develop to reach its purposes. The conversational structure is itself a conversation.
- ◆ *Relations*. They are continuous emerging phenomena within a conversational structure, particularly in terms of interactions among observers. Relations give origin to new conversations.
- ◆ We label *conversational structure* the approach we are proposing as a paradigm to make a system reach its purpose or desired future.

CONVERSATIONAL STRUCTURE

Conversations are the most basic element in the development of a social system. In conversations, language as a recursive consensual coordination of actions takes place. In them, as structure in action, a social system realizes its organization, that is, accomplishes its purposes. In conversations, observers or communities of them as components of the organization (constituents) and component of the structure (coadjutants) interact and relate. On the other hand, conversations are the departure point to relations and to culture as a way of living. From this broad perspective, what is the role of conversation in the being and development of a social system?

- ◆ A social system is and develops itself in and through conversations. The identity of a social system resides in its organization. The actual realization of the same system dwells in its structure. They are components that relate in the organization of the social system. However, the components that relate to make a social system be what it really is are in the structure. These components are observers that operate in languaging and emotioning or, for short, they are human beings that converse, they

Leadership

are conversers. From this perspective, we conclude that the actual structure that makes a social system be what it is and develop to reach its purposes is the *conversational structure*, that is, the structure as a network of conversations.

- ◆ A conversational structure can be considered as a whole, as a complex of all the conversations in the social or organizational systems. That is not precisely the way conversations take place. Individuals or groups can structurally operate in a congruent and consistent set of conversations. When this occurs, a *conversational pattern* emerges. A conversational pattern is a set of conversations where specific individual or groups learn as they solved their problems of adaptation and integration. In this set of conversations, individuals promote their own security and their continuity within the social life and in realizing the organization of the social system.
- ◆ Within a social system, there is not a unique conversational pattern, but a set of them. These conversational patterns have worked well enough to be considered valid and, therefore, are learned by new members as the correct way to act, converse, and interpret the organization as a whole¹. It is in the conversational patterns where operationally a conversational structure takes place; it is in them where the social system realizes its organization.
- ◆ Conversational patterns, thus, are basic *unities* that need to be observed, analyzed and, given the case, intervened to reach the purposes of the system.

The conversational structure approach can be seen as an evolutionary model. Evolution can be defined as any change carried out into an intended direction. In the conversational structure approach, evolution is a positive assessment made by one or more of the constituents regarding the current state of the system compared with the perceived past. From this point of view, evolution is the same as development, transformation or any other action that involves infusion of energy in the system. In a more general way, evolution or change refers to moving the system from a current state to a desired future. The basic assumption underlying the conversational structure approach is that conversational patterns and conversations can be developed, that is, designed, implemented and evaluated. The axle on which change and evolution of a system can take place is the development of conversational patterns.

SYSTEM EVOLUTION

System *evolution* is taken in its most common and accepted sense: any transformation, improvement, development, revitalization or any other concept that deals with the infusion of new energy, vitality or strength into the organizational system.² From this point of view, in the conversational structure approach, evolution is defined as any movement of the system from a current state to a desired future. In this view, the crucial question is how an system changes and what makes it happen.

¹ Compare with the definition of culture developed by Schein (1992).

² See, for example, Griffin, R. W. (1990). *Management*. Boston: Houghton Mifflin Company. pp. 389-431.

Leadership

There are six major interconnected nodes or elements in the conversational structure approach from the perspective of evolution.

- ◆ An organizational system is set up by two categories of active observers: *constituents* and *coadjutants*. These constituents and coadjutants are observers that converse, and their conversations have a purpose.
- ◆ Constituents and coadjutants, as conversing with a purpose, make different conversational patterns emerge, which as a whole determine the *conversational structure*, that is, the structure of the organization as conversations. Through the conversation patterns, the system is configured, shaped and attains a given situation in time.
- ◆ This *actual situation* of the system is its structure and is defined in terms of its effectiveness in reaching its goals (realizing its organization) which, in turn, are set by the constituents.
- ◆ The actual situation can be an evolutionary one. Evolution refers to a direction, to a goal. Consequently, evolution to happen entails a *desired future*; without this vision, systems will move toward equilibrium; they may wander astray, decay or even die. Specifically, the desired future of the system is not but the expression of the organization of that system.
- ◆ The desired future or purpose is related with a driving force. It should be remembered that systems are not “purposeful.” Observers attribute purpose to the system. Purpose refers to the organization of the system. When one says that the purpose—mission or vision—of this country is international competitiveness, one means that the organization of that country is international competitiveness and the structure has to realize that international competitiveness.
- ◆ From the desired future of the system, a set or *new conversational map* is developed to change the old ones. In any system evolutionary process, a new conversational map is developed willingly or not, implicit or explicit, intended or not. Conversations before the change are different from conversations during change. In the conversational structure view, the map of new conversations is purposefully designed in terms of a new vision.
- ◆ Finally, the new map of conversational patterns may require a definition of the organizational system that includes *new coadjutants* to carry out the map of new conversation patterns. Here the cycle starts again, the process will repeat itself, and it will be recurrent. From this stand, change can be a continuous process.

To some extent, we are also dealing with cultural change. We understand culture as a net of conversations that define a way of living and a way of being oriented in existence in the human domain. It also involves a manner of acting, a manner of emotioning, and a manner of growing in acting and emotioning.³ Consequently, if conversational patterns change, the culture of the system also changes.

³ Maturana, H. (1988). *Ontology of observing: the biological foundations of self-consciousness and the physical domain of existence*. *Conference Workbook: Texts in Cybernetics, American Society for Cybernetics Conference*. Felton, CA; 18-23. <http://www.inteco.cl/biology/ontology/index.htm>. (10-09-99).

Leadership

MOTIVATION

A system can be viewed as a set of observers that behave differently from three points of view.

- ◆ First, they act as constituents or coadjutants, and they exert different functions within the system. In other words, they form part of the structure of the system and some of them form part of its organization.
- ◆ Secondly, observers, both constituents and coadjutants, play a role in relation to the system. From this view, observers are not only constituents or coadjutants; besides that also play different specific roles in the structure of the system.
- ◆ Finally, observers –exerting different functions and playing different roles– interact, have conversations and relate. The network of relations among observers is the core dimension of the conversational structure approach.

The three central dimensions are observers, conversations and relations. At a first glance, it seems that motivation, the driving force for action, is missing. It is not. Motivation is essential conversations.

Emotions are neither actions nor interactions. They are dynamic dispositions to action and interaction. They determine what an observer can do or can not do. They define in what interaction observers can enter or not enter and how that interaction could take place. Emotions, in a word, define the space in which actions can take place. From this perspective, emotioning and motivation relate. Motivation is the emerging force for a specific action congruent with a specific emotion. In other words, when people are emotioning, they do so because they react to the social structure they are part of, then emerge a reason, a *motive*, a force that moves them to behave in a specific way.

From the conversational structure view, motivation is always present in conversations and in relations. Motivation, then, is the driving force behind evolution. I could say that motivation is not actual until it emerge in emotioning, together with languaging, in conversing and in relating with others.

CONVERSATIONAL COMPLEXITY

According to what we have discussed in the previous paragraphs, and following Anderson (1999) and Morel and Ramanujan (1999), it is possible to conclude that we are dealing with complex adaptive systems (CAS). In a synthetic way, the systems we are dealing with present the following characteristics:

- ◆ Openness and non-linearity.
- ◆ Large number of interacting elements, in this case observers.
- ◆ Observers with schemata.
- ◆ Emergent properties.
- ◆ Self-organization.
- ◆ Recombination and evolution processes.
- ◆ Co evolution to the edge of chaos.

Leadership

In some way, we addressed the first four elements before; for this reason, we will concentrate in the last three characteristics.

SELF ORGANIZATION

Observers interact recurrently, this recurrence is recursive and then non-linear.

This recurrence occurs in a structure that determines what is possible and what is not.

Then, patterns appear, order emerge without any explicit purpose of observers to seek it. We do not know the specific results of these recurrent interactions; however, self-organization occurs.

Let us imagine people in an airport; normally, they do not interact unless a problem arise, let say a delayed flight without clear information from the airline representatives. Could happen that those people began to interact, recurrently, looking for information here and there. Recurrence with feedback would generate group cohesion to face the problem. The niche change and those affected react to self-organize. If that problem is recurrent, people learn to live in that niche and adapt to live in that condition, recurrent interaction cease and self – organization disappears.

RECOMBINATION AND EVOLUTION

- ◆ Communities of observers in a social system have a specific conversational structure; when they begin to interact in a recurrent way, the structures of both react to adapt. However, as the community only can act in the domain their structures allow, each community changes its structure to reach a new adaptation level. Note that we are talking about structural changes and not about changes in the organization of the interacting unities.
- ◆ Members can enter or leave the communities changing the interaction patterns, and consequently the structure; in our analysis, conversational structure. There is a recombination of the members and evolution of interacting structures in order to reach a new structural coupling. We say the each community *adapts* to the other.
- ◆ We call a niche the set of communities interacting with a particular one. As we said before, the niche is the interactive extension of a community, or in general, of the social system.
- ◆ Then, a community coevolves with its niche. To where?

Leadership

COEVOLUTION TO THE EDGE OF CHAOS

- ◆ Every community or social system interacting with others will look for a payoff, which will depend also of the response of its niche; we observe that many interaction originate small structural changes and only a few will provoke large ones.
- ◆ As an example, there are millions of interaction between Mexico and the US at the government level, company level, consumer level, etc.; however, the signature of the NAFTA triggered, at least in Mexico, an enormous structural change that modified substantially our way of living. Both nations are looking for better opportunities; however, in the process of implementing, no one knows if the next step would be insignificant or would generate a massive change. That means we, as neighbors, evolve to the edge of chaos, and maybe the phenomenon of self – organized critically would appear (Kauffman, 1995).

LEADERSHIP

Leadership is a phenomenon extensively studied; however the question on how this phenomenon could be analyzed from the point of view of complex adaptive systems and from the conversational structure approach.

- ◆ As we proposed before, social systems can be distinguished as conversational structures which have the characteristics of complex adaptive systems. From this point of view, the role of a leader can be conceived as the main source of energy that could change structurally the system to move it far from equilibrium conditions where self – organization emerges. Order emerges because the matter and energy flows from and to the niche are managed in such a way that become the driving force for order generation (Cf Kauffmann, 1995, p. 21). In other words, one of the main tasks of a leader is the construction of a dissipative structure capable of generating a specific kind of order.
- ◆ We have seen that in complex systems no one can predict the future; then, seems to be a contradiction. However, one issue that leaders have at hand is to declare a purpose; systems *per se* do not have one. Declaring a purpose is a way of direct energy and move the system far from equilibrium. In terms of the conversational structure model, we are talking about coordination of a specific distinction: What is the reason for the existence of this specific system; at the next level, the question to be answered for each member of the community or system is: what is the sense of my living in this particular system. The task is the coordination of coordinations. In any event, Kauffman (1995, p. 243) advises us: “We all do the best we can, only to bring forth the conditions of our ultimate extinction, making way for new forms of life and ways to be.”
- ◆ Purpose itself is a conversation, it is a necessary condition for a specific kind of order to emerge; let say for example competitiveness of a nation. Purpose is the driving force to move the system through a structural dynamics, coupled with its niche, that permits a better performance evaluated in terms of the purpose.
- ◆ A leader is part of the organization of a dissipative structure and besides the declaration of purpose, his/her task includes the both recursive coordination of actions

Leadership

and emotions; that is coordination of conversations which is the construction of hypercycles. These hypercycles are networks of conversational patterns that are coordinated or, metaphorically, crosscatalized recurrent conversations that are at the edge of chaos.

- ◆ Conversations among human beings that share a criterion of acceptability form a community of observers which may be operating as a part of a larger system; then, the coordination of conversation among a group of communities give origin to hypercycles of higher level. So that, the building block of social systems from the perspective of the conversational structure approach is the conversation.
- ◆ In summary, recurrent conversations form conversational patterns, recurrent interacting patterns of this kind form a conversational structure which determines the operational domain of the system. The leader then, is the source of energy that moves a system far from equilibrium building a dissipative conversational structure through recursive coordination of distinctions, actions, and emotions.
- ◆ Finally, we address some of the main tasks of a leader but, what leadership is? Leadership is an property that emerge from the relationship of a special constituent of a system with the a conversational structure he/she is constituent of. A leader is only indentified as such once leadership emerges. A person becomes a leader only when he/she is capable of change a system in the direction we described above. We identify leadership then, and only then, we can distinct a leader.

SOCIAL CAPITAL

- ◆ Adler (2002) makes an extensive analysis of different definitions of the concept of social capital before he built a working definition: “Social capital is the goodwill available to individuals or groups. Its source lies in the structure and content of the actor's social relations. Its effects flow from the information, influence, and solidarity it makes available to the actor.” (p. 25).
- ◆ On the other hand, The World Bank uses the following definition: “Social capital refers to the institutions, relationships, and norms that shape the quality and quantity of a society's social interactions. Increasing evidence shows that social cohesion is critical for societies to prosper economically and for development to be sustainable. Social capital is not just the sum of the institutions which underpin a society – it is the glue that holds them together.” (The World Bank, 2004)
- ◆ In spite of the different approach of both definitions, we can see that both have social relations or interactions as a central part; as we approach leadership, its main task is precisely based on relations among human being; Other key point in social capital is that “something” is available to people. One side, are norms and a clear structure (institutions); additionally, energy is also available (information, money); and finally, emergent properties (goodwill, solidarity, social cohesion, sustainability).
- ◆ Then, if we want to have specific emergent properties from social interaction, we need to work in the design, using conversations as a building block, of those interactions keeping in mind a purpose: Have a set of specific emergent properties. It is clear that we cannot be sure of what will be the result of this process. The leader, the constructor, is also a bridge that links the system with its niche. He/she

Leadership

recursively coordinates distinctions, action and emotions in a non – linear process creating such norms and institutions (also, conversational structures), managing the matter and energy flow, and monitoring the emergency of properties of that kind of interactions. This is the beginning of a process: evolution.

CONCLUSION

We have explored in a very general way a new idea of leadership in the context of the conversational structure approach. There are many opportunities for further research in different areas addressing different kind of systems.

Our world is plagued with conflicts, huge problems like poverty and corruptions that have to be addressed using innovative theoretical and empirical approaches and tools. We think leadership as an emergent property of a special relation between a person and his/her group. So that, a leader neither is born nor made he or she becomes in a relationship of a special class.

Despite this seems to be a minor change, it implies structural change at the person's level, which means learning. Learning about him/herself, learning about the system, learning about the niche, learning about relationships, learning to build for future generations.

REFERENCES

1. Adler, P. S. and Kwon S-W. "Social Capital: Prospects for a New Concept." *Academy of Management Review* 27, no. 1 (2002): 17-41.
2. Anderson, P. "Complexity Theory and Organization Science." *Organization Science* 10, no. 3 (1999): 216-32.
3. Beeson, I., and C. Davis. "Emergence and Accomplishment in Organizational Change." *Journal of Organizational Change Management* 13, no. 2 (2000): 178-89.
4. Chattoe, E. "Complexity Theory and the Social Sciences: an Introduction." *British Journal of Sociology* 51, no. 2 (2000): 387-88.
5. Damasio, A. R. *The Feeling of What Happens: Body and Emotion in the Making of Consciousness*. Harvest Books, 2000.
6. Jantsch, E. "The Unifying Paradigm Behind Autopoiesis, Dissipative Structures, Hyper- and Ultracycles." in *Autopoiesis, Dissipative Structures, and Spontaneous Social Orders*. Ed. M. Zeleny, 81-87. Boulder, CO: Westview Press, Inc., 1980.
7. Kauffman, S. *At Home in the Universe: The Search for the Laws of Self-Organization and Complexity*. New York: Oxford University Press, 1995.
8. Kauffman, S. *The Origins of Order*. New York: Oxford University Press, 1993.

Leadership

9. Loyola, R. "Implementation of Conversational Structure Model in Mexican Companies. Ph.D. Dissertation, Institute of Organization and Management in Industry." ORGMASZ, 2001.
10. Maturana, H. *Emociones y Lenguaje En Educación y Política*. Santiago de Chile: Dolmen, 1997.
11. Maturana, H. "The Nature of the Laws of Nature." *Systems Research and Behavioral Science* 17, no. 5 (2000): 459-68.
12. Maturana, H. *La Objetividad: Un Argumento Para Obligar*. Santiago de Chile: Dolmen, 1997.
13. Maturana, H. "Ontology of Observing: The Biological Foundations of Self Consciousness and the Physical Domain of Existence." in *Conference Workbook Texts in Cybernetics*. American Society for Cybernetics Conference, 1998.
14. Maturana, H. y S. Bloch. *Biología Del Emocionar y Alba Emoting*. Santiago de Chile: Dolmen, 1996.
15. OECD. *The Well-Being of Nations: The Role of Human and Social Capital*, OECD, Paris, 2001.
16. Schein, E. H. *Organizational Culture and Leadership*. San Francisco, CA: Jossey-Bass, 1992.
17. The World Bank. Web page, [accessed 12 April 2004]. Available at <http://www.worldbank.org/poverty/scapital/whatsc.htm>.
18. Withaker, R. , Editor. "Encyclopaedia autopoietica." Web page, 2001 [accessed 3 March 1901]. Available at <http://www.informatik.umu.se/~rwhit/EAIntro.html>.
19. Withaker, R. "Sel-organization, autopoiesis, and enterprises." Web page, 1995 [accessed 3 March 1901]. Available at <http://www.acm.org/siggroup/auto/Main.html#ATReview>.
20. Zeleny, M. *Autopoiesis, Dissipative Structures, and Spontaneous Social Orders*. Washington, D.C.: Westview Press, Inc., 1980.