

THE LONDON SCHOOL OF ECONOMICS AND POLITICAL SCIENCE

LSE Research Online

Osvaldo García De la Cerda, Patrick Humphreys, María Soledad Saavedra Ulloa

Enactive management: a nurturing technology enabling fresh decision making to cope with conflict situations

Article (Accepted version) (Refereed)

Original citation:

<u>García De la Cerda, Osvaldo and Humphreys, Patrick and Saavedra Ulloa, María</u> <u>Soledad (2018) Enactive management: a nurturing technology enabling fresh decision making to</u> <u>cope with conflict situations. Futures, 103. pp. 84-93. ISSN 0016-3287</u>

DOI: <u>10.1016/j.futures.2018.03.014</u>

© 2018 The Authors

This version available at: http://eprints.lse.ac.uk/90515/

Available in LSE Research Online: October 2018

LSE has developed LSE Research Online so that users may access research output of the School. Copyright © and Moral Rights for the papers on this site are retained by the individual authors and/or other copyright owners. Users may download and/or print one copy of any article(s) in LSE Research Online to facilitate their private study or for non-commercial research. You may not engage in further distribution of the material or use it for any profit-making activities or any commercial gain. You may freely distribute the URL (http://eprints.lse.ac.uk) of the LSE Research Online website.

This document is the author's final accepted version of the journal article. There may be differences between this version and the published version. You are advised to consult the publisher's version if you wish to cite from it.

http://eprints.lse.ac.uk

ENACTIVE MANAGEMENT: A NURTURING TECHNOLOGY ENABLING FRESH DECISION MAKING TO COPE WITH CONFLICT SITUATIONS

ABSTRACT

The focus of this paper is observation, self-observation, and enactive management of organizational conflict situations whereby a community, an organization, or a human being has the possibility of recognizing their resources and generating changes in their practices if they so desire, and making fresh decisions, in the sense that different ontological dimensions are involved. We show how considering Body¹- Language- Emotions- History-Eros- Silence can configure a nurturing technology call CLEHES. This tool has been applied for diverse people, groups, communities, and organizations that need and wish to develop their own skills to inquire conflict practice resolutions, in order to learn as a human decision support system. Conflict situations are understood as interactions, a breakdown in-between CLEHES from the individual or social standpoints.

This tool allows observing the boundaries of conflict situations and building an observer system with the ability to manage, solve, or attenuate the situation, enabling fresh decision-making attending to the context in which the organization moves. This learning process happens in a constructed place called an *Enactive Laboratory* where strategies are developed to cope with the domains and context in the perceived individual and human activities systems. We present a case study focusing on a Learning Family Mediators System.

Keywords: Enactive Management; Conflict Management; Bodyhood; Interactions; CLEHES ;Enactive Laboratory.

¹ The word Body is used instead of the Spanish "Cuerpo" in the English version, but we keep the Spanish initial letters.

INTRODUCTION

The context in which organizations and human beings decide and act is characterized by an increasing rate of change, complexity and uncertainty that calls into question the traditional design concepts of support instruments and practices for managing conflict situations.

This rupture has shaken the paradigmatic and epistemological backbone of the administration sciences. Traditional ways of understanding and operating organizations are being questioned and additional disciplines need to be included in the search for new management methodologies and tool design.

The result is a trans-ortho disciplinary perspective that enlarges the perspectives to observe and understand human activity systems enabling a space for design and innovation of fresh decision-making practices, instruments and tools to take care of organizational viability.

The dilemmas of taking the cognitive approach – regarding its representations, the treatment of data and information aimed at decision-making as a representational space – have generated uneasiness and dissatisfaction mainly among those who make decisions, because the human aspect is hidden. Also, that which is pre-defined, pre-assumed, and pre- given in Cartesian assumptions reduce the spaces for action in decision making and open up an emergent possibility of looking at enactivism (Varela, 1990; Garcia and Orellana, 1997; Froese and Di Paolo, 2012; Garcia and Saavedra, 2014, Zohar, 2016, Riegler and Vörös 2017)

Those in charge of managing organizations have a commitment with the difficult task of maintaining their viability in the settings in which they operate, i.e., allowing the organizations to last over time under highly complex conditions. This task is not easy, because the complexity that emerges from the activities typical of an organization is much greater than what the human being in charge of these activities can manage and take care of (Espejo and Harden, 1989; Espejo and Reyes, 2016).

The problem situations that arise for this commitment present the challenge and the need to link knowledge coming from various environments in order to understand not only the complex dynamics of the organizations, but also to take care of how the manager as a human being can operate in them and what distinctions are required to manage the conflicting situations that arise inherently from the structural dynamics of human activity systems.

This perspective enables the characterization of the manager as a *quantum* observer, (holistic and contextual, self organising, free, responsible, questioning, spiritual: Zohar, 2016). In practice, the quantum manager, as an enactor, identifies the distinctions on which his or her decision-making and action are configured. Guided interactions may transform the quantum observer allowing for a new set of dispositions for attenuate ruptures. This movement requires, in our understanding, the constitution of an enactor that embodies distinctions, with the ability to design conversations and generate self-learning, i.e., that embodies practices, distinctions, and abilities that circulate and are exchanged, allowing a new state of perceptions, meanings and interpretations within the organizations.

CONFLICT SITUATIONS AND ENACTIVISM

We postulate that the rupture, and conflict situations within the human activity system that configures an organization are unprecedented spaces that enable questioning and opening up the distinction schemes with which one decides and acts, challenging human and organizational cognitive blindness and silent spaces. In these terms, rupturing the interaction choreography offers a unique source to design, create and re-create afresh reality (Garcia and Saavedra, 2011). This leads to the discovery or emergence of new modes of interaction that can reconfigure the system's identity. Through this voyage between enactor and context, possibility states emerge, (Maturana, 1978; Maturana and Varela, 1980) and, more than being captured intellectually, they configure a creative emotional growth and learning experience of the system. In contrast with language of rationality, of scientific objectivity, which has hidden the human being in its existential and ontological condition and in its complex contradiction, our perspective proposes to recover and look through the human beings that we are, recognizing as a principle that *being* a manager *is a mode of being a human being with a quantum self* (Zohar,2016)

We understand by conflict a collision of perceptions and distinctions situated between two or more actors or systems of human activity, which as it takes place configures an open system that operates outside the equilibrium that is constructed and expressed in choreographies of interactions and in conversations in the social domain. Conflict situations are inherent to social life and to human interaction because of the structural dynamics that characterizes human beings; that is why the sense of alterity or strangeness that is experienced in a conflict situation with respect to *Others* is an inevitable consequence of social living together, but at the same time this frontier is an educational provocation that places us in the management setting to open the perceptual arches, move the distinction schemes, and transform the modes of operation.

In this sense, a conflict situation exposes and brings up all the ontic complexity that we observe in human beings: their contradictions and their limits. If we take the place of the manager, the question that arises is how to take actions in rupture or conflict situations that ensure the system's viability and our ability to learn from it.

We postulate that decision support systems are effective only if they are configured freshly *within* human activity systems, as knowledge that is embodied in the human beings that constitute the system, that arises from a recursive process of observation, reflection and self-observation, and that this self-reference process occurs when the distinctions horizon is expanded within those who are in charge and are ethically responsible for taking care of the organization.

This approach considers the organization as a dynamic set of human interactions where fresh action and decision-making practices are developed. This organizational capacity enable design, learning and reflexion; we call this Enactive Management, i.e., it is not merely a matter of putting in evidence the practices and the meanings inherited from habits and tradition, but also a matter of recognizing the re-creation and innovation potential that exists in the manager when he turns from being a passive observer to an enactor and the common sense that emerges from interactions. This qualitative leap places the manager as a *quantum* observer with the ability to listen, reflect and to embody the context in order to redesign it and refresh decision-making practice within it.

Enaction is not a mode of operating, but rather an embodied effective way of knowing that allows choreographed performance in the situation as a moment that

configures a *nano-identity*. From that perspective, we can understand organizational life as a plot of situations, each of which constitutes a nano-world with its networks of particular conversations and its own dynamics. The conflict situations are the hinges between one nano-world and another, and therefore each nano-world is a situation that emerges and offers us a micro-identity. The nano-identities correspond to the possibilities offered by the common sense that characterizes the human activity system. This nano-identity is the arrangement that we get to embrace by means of an effective answer to each nano-world, i.e., how we feel and act, or in other words, we perceive and at the same time we act. More than the universal view, it is an invitation to look at the contexts, the phenomenon that emerges, and to learn from it.

Enacted experience propels us into inter-subjectivity, because our body emerges in contact with another body. This emergence as a lived experience operates as an undertone of empathy and gives sense to ethics (Garcia and Saavedra, 2006; 2011).

We postulate that this enacted experience is where the re-vision of organizational and decision-making practices that bring pain, suffering or discomfort to the nano-worlds is possible, generating ruptures that enable other micro-identities to emerge. This inflection point calls for a methodological response that is capable of moving the quantum observer to an enacted experience of effectiveness and welfare. (Varela, 1988; Froese and Di Paolo, 2012; Colombetti 2009; Steward 2012; Garcia and Saavedra 2014, Zohar, 2016).

ENACTIVE MANAGEMENT

Through enactivism, human beings and their experience, conceived as the source of all possible courses of action, are highlighted, not as static elements, but emerging from one situation to another, making possible its use and its adjustment for the creation of value in organizations (Garcia and Mendoza, 2010). Hence the focus of attention is no longer placed, as has been done traditionally, on objects, processes, and activities, but on the human beings that configure them and implement them.

Enactive Management appears then as the action of managing and administering from *enactivity*, where the interpretation and reinterpretation of the events emerges as a space for strategic design of conversations in the organizations; where the decisions and forms of action come from the observer's quantum self-knowing and conceiving the world from his or her individual and relational perspective. Enactive management is the full awareness of the potential in anticipation and innovation, born from the intermingling of bodies in the midst of conflict and complexity. The practices of Enactive Management are designed considering that there are certain domains in which the human being has no capacity for observation (Maturana 1988), as a blind cognitive observer.

When we look at the manager as a choreographer of organizational viability, a spectrum of concepts appears that was overlooked under the previous paradigm, which was preoccupied with the need to manage the "human factor" in organizational operations: i.e., we no longer have a set of tasks to be directed, now human beings and their interactions appear, giving rise to increased complexity. In this sense the manager not only has to deal with his own emotions and expectations, but he must also do so with those of the other members of the organization, and from there generate the conditions that will allow the creation of commitments that urge the other persons in the organization to effective action.

Grounded in the science and technology of cognition, cognitivism tries to offer assistance through configuration of tools wherein the measurement and control of management are established as representations of organizational behaviour with the aim to measure and evaluate organizational performance.

Enactive Management acknowledges the need to have representational tools, originating in cognitivism, that allow measurements and indicators that reveal or help one to see the behaviour of the system that those in charge of the management have under their responsibility, but it also acknowledges that those measurements do not have intrinsic meaning because the measurement structure represents a common sense, located in time ,enabling some conversations while closing down others. Neither do such representations lead to action by themselves: their significance is given by the persons who interpret them through the language affected by all their history, their emotions, and their continuous life experience, giving rise to new opportunities for action,

This interaction is not trivial, because it involves a paradigmatic change with respect to traditional management control. So, for the tool to be effective, decision makers must be educated in its use and must generate distinctions that allow them to embrace Enactive Management in fresh decision-making. To that end the CLEHES technology is proposed (Garcia and Saavedra, 2006), based on self-observation, on the observation of orthogonal interactions, and on the observation of the CLEHES networks, which are explained below.

THE NURTURING TECHNOLOGY

We conceive CLEHES as a nurturing technology in terms of the recursive and recurrent learning that this tool generates in the diverse experiences and contexts where it has been applied. Unveiling human beings ontologically, affective structural drift emerges as the greatest complexity to be observed and managed: a matter that amazes, moves and challenges our own learning. This technology treats human beings and organizations as activity systems where six ontological dimensions:

- □ Body (C): Body learns in the situated situation; learnings are installed, live and are triggered from it. Body gives presence and moves in a specific way in the interactions. From that is so relevant to move and become aware of the body when organizational transformation process occurs.
- □ Language (L): It is possible to open or close conversations in language, but also we can have missing conversations (opportunities) in the drift of experience. Each human being has its own learning about that, but every organization has it too, and dance internal and externally according to this.
- □ Emotions (E): is intertwined with Language to configure conversations (Maturana and Bloch, 1996). Emotions inhabit the body and give direction, intention, and strength to conversations. Because of this, emotions bring the rhythm to the interactions. It is not the same conversation if human being is feeling fear or joy even though.
- □ History (H): has a very strong importance as it fit identity which is expressed in conversations. Experiences, knowhow, practices, learning, set the history; in this field human beings can recognize the sources of trust and distrust, historical pains and missing conversations but more, identity is the consequence of the observer that closures his world
- □ Eros (E): the disposition to build and design with others. Eros is the potentiality to create new routes, (re) design interactions and conversations; ergo it's a certain possibility of enacting and moves the situations. Opens and promotes eros in conversations means that new opportunities appear to be considered.

□ Silence (S): To discover missing conversations and look at them allows observing human being practices and habits but also permits to observe how silence operates as a critical factor in structural dynamic of the organization and its environment.

The systematic intertwining of the six ontological dimensions of CLEHES, in every interaction and relationship, reveals the individual and relational self of the quantum observer that has been constituted along with the historical learning process and experiences. This technology allows *moving* the observer, generating different tools for self-observation and for the observation of others. In this sense has the character of an enactive technology: it places human beings as constructors/authors of experiences and practices that may have power over them, a power that is expressed in the ability to observe, conserve, or transform. This ability results from an educational and learning process which embraces the complexity and uncertainty of situations where presence and dance is crucial to absorb the variety of the situation (Garcia and Saavedra, 2014).

More distinctions are incorporated in the six dimensions of CLEHES, offering more capability to cope with complexity dancing with the skills to design conversations and absorb the other's. In this sense the acquisition of distinctions that is brought into the various elements of CLEHES is what configures the reality that results and is assumed as *the* reality.

The quantum observer is the one who, through a declaration in language, configures the system's operational closure, i.e., configures its field of action and establishes the limits within which he or she is responsible for the viability. So it is essential to build cognitive references that inform the performance of the system under consideration and help the quantum observer establish a comparison that allows stability or instability values to be associated with these reference values

The use of the CLEHES technology can be conceived as the ability to trigger different emotional states and set off distinctions in language that allow new possibilities of action. In that sense it can be said that technology may be conceived in the perspective of touching and altering the emotions that drive people to action, and by means of language and in association with their experience (history) they embrace enaction through fresh decision-making. It is based on the understanding of the human being as a unit and as a system with the ability to learn about itself, about others, and about the interaction networks in which it participates under the concern for organizational performance².

THE CLEHES LABORATORY: LUDIC AND CREATIVE SPACE FOR LEARNING TO MOVE IN CLEHES

We have given the name *Enactive Laboratory* to the *movement that takes place in CLEHES*, because it proposes a situation and action space where observation and selfobservation of the routines take place to imagine what is possible and what is desired as a recursive and recurrent process of re-interpretation of the practices that arises from the commitments of reliability, honesty, and respect for others by exposing the participants to different exercises and experiences. We understand our intervention as a process of capture and creation of meanings that involves actions that perturb a web of distinctions, meanings,

² For an extended discussion of CLEHES dimensions see Garcia and Saavedra 2006, 2014; Garcia 2009.

and human interactions that sustain organizational practice. In this sense rupture and confusion play a central role as provocation of self-observation of the psychic states associated with the questioned practices.

The laboratory is constructed as a playful and creative space in which the play makes transparent the CLEHES of the participants, their paralysis and their ability to move, and invites them to design new conversations that provoke searches in the interactions and conversations between the actors: that is, different choreographies.

The educational configuration of this space is based on the people declaring their dissatisfactions, pains, or discomforts as a consequence of previously unquestioned organizational practices, and allowing them to open up fresh decision-making on alternative actions that arise from the desires of the administrators as interest in transformation or innovation. The inclusion of CLEHES as a technology, that is *inserted* in the laboratory, enriches the quantum observer by irritating, provoking, exciting, and moving the schemes of subjacent distinctions (the background, figure, and content) and the contradictions that are the result of the life-trajectory of the situation that is under observation.

Reinterpreting the social practices means observing them and inquiring into the cognitions (ways of observing and organizing the surroundings) and into the knowledge (way in which the experience has been acquired) underlying them, i.e., into the ways in which a scheme of distinctions has been configured.

The workshops that take place in the laboratory constitute spaces of intimacy; open conversation spaces where *living experience* and *daily experience* are the basic units of the work of self-observation. In this sense Freire, P. (1970,1993,1997) and Boal, A. (2001) have been significance educational referents not only for their theoretical ideas but also for the social and individual performance they incite to do.

In this work we highlight the second order learning that takes place when, in addition to acting, the beliefs and the mental models of participants are modified, so they *learn* from experience for later occasions. In this sense, we state that human beings are constituted as quantum 01 in their relations (Zohar, 2016) and explain themselves as human beings through them, although by contributing their own individuality, they re- create them and contribute to the establishment of new patterns of relations. This process only occurs during the course of the interaction.

The laboratory is essentially the space that makes variety emerge, enlarges it and reduces it by inviting us to look at everything from a place that is not predefined. In other words, it is an invitation to observe everything from the largest possible number of possible places and to decide responsibly on the new configurations of doing so. The lever for this is confusion: in a world assumed to be full of certainty, underpinned by a science that tries to account objectively for reality, confusion arises as a principle for personal and organizational change, i.e., the perceptual arcs are enlarged (Bateson, 1972; Humphreys and Jones, 2006; Schamer, 2009; Argyris, 2012)

Developing the capacity for self-observation, that is the observation from CLEHES, and the capacity to observe the interactions with others; observation with CLEHES generates a second order learning situation regarding the capacity to enact in organizations: in this way a quantum system of observers is constituted as a community of inquiry in the context in which it is desired to operate. The transformation of socio-cultural practices is possible when a community of quantum observers is open to new distinctions within a specific context, configuring new possibilities and conversations within the reality that it observes from them, and embodies them in a social domain. The ability to enact a world

that is different from the one in which one lives goes through beginning to understand, to see oneself in another way, to *dare to learn* in different contexts. It is precisely this *movement* that is encouraged in the CLEHES laboratory.

The CLEHES space is constructed as a function of reflexive experiences that push us to construct a new narrative script and to enact it from CLEHES. The laboratory operates on the basis of the clarity of judgments with respect to what happens to the other and to oneself, opening up empathy and ethics as central experience, caring not only for the survival of the organization, but of the person *with* the organization.

CLEHES is immersed in a world vision that needs to be approached as a living archaeology that rebuilds knowledge through the experience of human beings; from there it participates in the phenomena in the existential context where human situations occur.

The fundamental thesis is that the world that we experience arises from ourselves, and therefore all understanding is always construction and interpretation of the living subject. These movements require a change in the ways of observing (incorporating new distinctions) that are promoted in the educational space or laboratory in which the participants learn about themselves by interacting with others. They only require awareness of their bodies and accepting themselves as human beings that observe and act.

The design of the educational interactions involved is done according to the following strategies:

- 1. Self-observation in CLEHES: involving what to keep and what to transform in our CLEHES.
- 2. Observation of orthogonal interactions: the intersections (and breakdowns) of the behaviour in the CLEHES system and their psyche states as a consequence that configure the relations and conversations unfolding and autonomy in the personal and organizational domains of the situation.
- 3. Observation of CLEHES networks: in order to understand and transform the structure of our conversational networks, and the resulting commitment networks in which we operate.

We use a circular, interactive and dynamic technology in the Enactive Laboratory for conflict situation dissolution, allowing better body understanding and better participations in organizations as shown in figure 1.

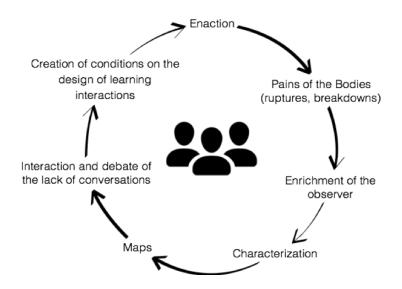


Figure 1. Circular structure of a dynamic technology for Enaction: O *Technology* (Garcia O, 2017)

The main thrust of this technology is to support managers throughout a process of acquisition of a new set of distinctions, abilities, and practices that constitute an organizational quantum observer and actor. Their embodiment results as a redesign of the network of relations in which the manager participates and as an adjustment in managers' learning to enable the design of new relations as an organizational adjustment.

O Technology has a series of steps that are related to each other and that will finally allow to mitigate or eliminate the problem situation observed. Although these stages are presented in sequence, O Technology is characterized by being flexible, recursive and recurrent, that is, it offers the possibility of using different paths to resolve encountered problems, as well as giving bidirectional relationships between the stages, this means that can be in a stage and return to the previous stages if necessary, to have a greater clarity of the situation and its context, continue in this way until finding enaction and if necessary to return to traversing the circular structure

This process may have different forms according to the context of the intervention. The main issue is the design of a configuration of bodily, linguistic, and emotional experiences associated with the understanding and competencies to take care of the organization' viability under the participants' responsibilities, i.e., to be capable of adapting to the internal changes and their interactions, where the system action facilitates the continuous integrity of the system (Varela et al., 1992). The methodology attempts to create dramatic instances in which the participants go through a cycle of encounters, disjunctions, accidents, and surprises, not only with others but also with their self-observation in the context of organizational care.

The various episodes of the quantum observer transformation process occur in different educational forms such as workshops, creative writing, the writing of poems and songs, coaching sessions, project review meetings, presentations, modelling, theatre composition and acting, scene design and choreographic arrangements, report analysis, linguistic exercises, analytic and self-observation homework, body observation, and dance.

The apparent anarchy of the interactions is a result of our concern to expose people to situations that are novel to them, in which they have scarce competence and in which their functional expertise is not useful. It is a result of the acceptance that what occurs does so in the bodies of people through linguistic and emotional coupling, and therefore it does not seem wise to restrict the interactions to the professional, analytic type of languages that dominate conventional organizational conversations.

THE CLEHES TECHNOLOGY AND DECISION MAKING

The purpose of the CLEHES technology is to create design conditions in autonomous identities, i.e., participants engage in a continuous learning process: gaining ability for self-regulation and organization when faced with situations that generate unease in the human activity systems in which they are responsible or participate. Here a community, an organization or a human being has the possibility of recognizing their resources and generating changes in their practices if they so desire, making fresh decisions. The key question in such decision-making is what we want to preserve and what we want to change. The answer arises from a process of observation, self-observation,

design, action, and learning from ourselves and from the relations and networks in which we participate, which is not exhausted in the laboratory space, but is rather the initial stage of a process that gets installed in the bodies of the participants.

CASE STUDY: LEARNING FAMILY MEDIATORS SYSTEM

The case study *Learning Family Mediators System* is a result of an ethnographic research developed for four years (2007-2011) of the educational program called *Mediators to Chile*, carried out in the country at the time mediation became a matter of public interest. A new Civil Marriage Law entered into force in Chile in 2004 which integrated family courts as part of the State's juridical structure. Mediators became a State need and different institutions offers education programs that qualified for being a family mediator enable to work at family courts.

The education programs attracted thousands of professionals from the human and social sciences whose main interested was to get a specialization that opened up new employment possibilities.

The research process was developed in an institution that designed a programme taking a systemic approach to developing mediator skills through CLEHES technology.

Besides providing knowledge about family law, mediation skills, family dynamics and family courts, the core of the program was the CLEHES Laboratory. The purpose was for the participants to become aware of their learning and their conflict resolution practices in accord with what family mediation proposes.

The initial impact of this technology was to open the opportunity for professionals to observe CLEHES in *situ* through a research that we carried out for three years, beginning 2007 ending 2011. The settings selected were 40 laboratories as interaction spaces where participants made their distinctions schemes transparent, declared their intention of making transformations and made reports of their exercise in interactions in their daily lives. Depth interviews, observations and self-observations were the main techniques used to capture narrative and interactions while videos, writing reports, audio recorders and logbooks were the means of documentation.

We consider this case study pertinent in that it allows the detailed investigation of events as a way of explaining and understanding social and organizational phenomena of complex causality (Gobo, 2008; Savin-Baden and Howell, 2013). In this case, we aim to explain and understand the encounter of CLEHES technology with conflict practices dissolution as a unit of knowledge. The subject of study becomes the observer observing his own observation and its consequences for enacting conflict situations.

The ethnographic work focused on observe the Learning Family Mediators as a human activity system that a) embodies the cultural values and social practices related with the experiences of conflicts and the forms the system operates into them, and b) has enacting capacity through self-reflection and building alternative practices, conserving and changing according their observations and self-observations.

The main questions which we raised were the following: What are the design opportunities that opens CLEHES technology to configure the conflict dissolution practices self-observed by the participants of the program? What conversational fields are triggered when incorporated CLEHES as self-observation and observation technology? At the end, how does a second order learning process enhance a human activity system, such as Learning Family Mediators System, through employing CLEHES as self-observation and observation technology?

Self-observation means a global observation with wide degree of certainty through three operational principles: 1) Incorporation of the actor's experience, whose testimony guarantees individuals actions sense, that being all part of him, cancel the uncertainty 2) It is constituted in the research of the searches because it is sustained in the observation of the observer, and 3) It combines the previous two, always remaining as an unfinished process.

The laboratory consisted in setting up a system of quantum observers (mediators in learning) with the ability to meta-observe the distinction schemes underlying conflict-resolving practice embodied as a consequence of the process of cultural assimilation> its aim was to move the mediation toward dialogic ethical generative practices, paradigmatically a constituent of mediation, and to address the expectations and demands of participants' future roles. By accepting the invitation to interact as human beings and not as specialists, the participants legitimate the learning space and "dare not to know", turning it into the more exciting space of individual and collective self-learning inquiry and personal decision-making.

The observation and self-observation units for the laboratory were the narrative or account of oneself as reference outlines from which one speaks; the reflexive or limiting experiences (different from anecdotic ones) as situations that incite an internal reformulation and put in evidence the permanent configuration of distinctions: the body and gestures affirming presence and identity.

Listening to the narratives referring to the conflictive situations and the practices recognized by the Learning Family Mediators System at a given time allowed us to distinguish three different types of observers according to the subsystem they were prone to employ:

Observer subsystem 1: An experience that must be overcome or repressed rapidly. Discrepancy has no place, so the practices are oriented at homogenizing or silencing the ideas. Observer subsystem 2: A very positive experience from a dualistic approach, whether it is competency, control, power, or profit. The practices are oriented to the design of rational strategies that search for the domain of Others.

Observer subsystem 3: An ethical dialogical experience based on confidence and self-confidence where one's own responsibilities are recognized.

Our role as laboratory facilitator is to be a quantum meta-observer opening questions and conversations, confronting, touching and disturb the distinctions patterns that hold the conflict practices resolutions. In this sense rupture, breakdown, and confusion play a central role as provoke self-observation of psychic states associated to a questioned practice.

Thus the mediators in learning move, speak, listen, occupy the silence, generate trust, provoke, suspend judgments, and operate in self-objectivity, embodying new learning in observation skills and in conversational design.

The self-observation of these practices through written narrative and oral testimony revealed the configuration of distinctions that operates when one acts. It also allowed a personal and collective reformulation when considering the expectations and demands of the role of the mediator. The self-observation changes the position of the observer and enriches him in the distinctions that it captures of its own practice and that of Others. A learning mediator enters a system (mediation) where the actor must absorb the complexity of the psychic states that constitute the CLEHES in interaction.

This project worked on knowledge, learning, and the connections between the human

beings that produce knowledge in their context, favouring the construction of systems that learn. Learning in the laboratory does not mean getting more information, but rather learning about the diversity of knowledge with which one counts, about the experiences in which one may become involved, and about the learning possibility that they generate, thus expanding one's own quantum limits (Zohar, 2016). In this sense the interactions and the conversations as orthogonal spaces inside and outside the laboratory reconfigure the place of each participant, who becomes part of a system that learns from its own processes and from what it observes, with the ability to inquire in both the convergences and the discrepancies, to use enactively the diversity and the conflict situations as opportunities to create and find possibilities. The Learning Family Mediators System is self-organized as we show in the next diagram:

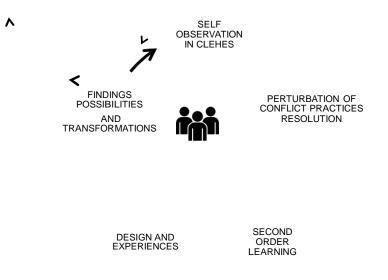


Figure 2. Dynamic Spiral of Decision Making and Learning

The conversational movement that arises from the laboratory experience as an expression of the re-designing of conflict dissolving practices and innovation in decisionmaking is seen as a second order learning of the system, oriented at opening its possibilities and declaring its limits and resistances. This reconfiguration emerges from the perturbation generated by the CLEHES tool in the ways of distinguishing the conflict situations and the associated meanings (individually and collectively), and by daring to enact emergent situations and come to fresh decisions by moving the distinctions schemes.

The three identified observer types went through a learning process using the CLEHES distinctions and moved/enlarged their initial behavioural schemes to enact in conflict situations. The new distinctions created possibilities for the re-design of interactions and conversations considering the principles and purposes stated by the mediation.

Some testimonies written by the participants revels their meta-observations and its enactive consequences:

"The strongest learning I got, are the benefits of the self-observation to discover the dynamics and interactions which we can be involved; I must work in some kind of blindness that cannot allow me to leave the sensation of being led by the facts and empowered of my role and be responsible for it" (social worker, women).

"Definitely, and from my CLEHES, what emerges is to follow a change in how I am constructing my relationships with the Others. Awareness my CLEHES, in other words, being conscious about what I am saying, what I am expressing, making decisions that bring wellness" (lawyer, man).

"At the moment I was interacting, I observed that I was led the conversation for a deviation and I could draw a line and look at the situation in a wide perspective. I recognize that my blind points are linked with my history, ignoring theirs. (lawyer, women).

"The most important thing that I learnt, was how to intend effective conversation....our CLEHES is always there and if I use as an observation tool, the way of bring them are easily with others, through the dialogue" (psychologist, man).

"The actions that I will take, go in two directions: first to continue re- structuring my way of using language, oriented to "no aggression and irony"; and second to expose strong needs and emotions" (sociologist, women).

DISCUSSION

This ethnographic research project has revealed significant transformations in the conflict practices dissolution as a second order learning process using CLEHES technology. These transformations are expressed by the narratives and the content of discourses of the mediators in learning. We observed the new configuration of these dimensions in the participants: for example, in the aesthetic conversation expressing a moment in this recursive process. In this sense, the movement in the aesthetic conversation of the participants does not mean they cannot come back to their origins, rather, they now have the technology to open a new learning loop. From the enactive perspective, we understand that the main contribution to the professional mediators is the possibility to observe and learn and to transform unsatisfactory practices.

A limitation of this research is that no follow-up investigation has been conducted to study the drift and sustainability of these learning but this remains on the our future horizon. We are now working on that.

The Laboratory experience with mediators in learning has set the basis for the implementation of a laboratory addressed to pedagogy students, who can learn there how to manage school and classroom life in their future role in schools across the country.

LEARNING AND FINAL REMARKS

This paper has presented a discussion about the way we can understand decision making support systems and how we take the Enactive perspective to propose a fresh kind of decision-making to cope with conflict situations. To work with this, we offer CLEHES technology as a tool that involves ontological dimensions that allow us to recreate human beings as the main source of complexity in interactions and in decision-making. Understanding that, the context emerges as a situation to observe (with limits and boundaries) and, where possible, to design conversations and enact. Learning emerges via an organizational process in which the embodied situation is explored using the CLEHES tool to provide structure to the conflict situation, to interact, to discuss, and to encourage the perception of fresh states among the participants.

Incorporating the CLEHES technology as a self-observation tool allows delving into the interactional and communicational systems in order to render them transparent regarding their complexity where human and social practices are discovered. We believe that it is in these moments of clashes of perceptions of inflection, difference, rupture, conflict and breakage that identity is manifested in the configuration a space-where senses embodied and durable provisions. It is precisely this space that opens the educational, reflexive and self-referential possibility of second order learning, as we have experienced it in the CLEHES laboratory.

The potential of this new perspective lies in re-discovering the human beings hidden in the interactions and inter- crossings that constitute the human activity systems where the distribution of the bodies, the language of common sense, the emotions, the historical trajectories, the affection, and "what is not shared" create the possibilities for resolving the conflicts that affect performance.

Conflicts occur among people: their repairing or their mitigation does not emerge from information that can show the effects of a conflict but does not address its root.

What is lost when "what is human" is hidden? The integral way of knowing, in which affections, emotions, historic experience, and the surprise of silence are mixed together to open up to the future. It is in our humanity that the ability to foresee in complex times resides.

In conventional practices that are founded in the science and technology of cognition, the required interpretive flexibility in the face of change is lost and the potential for fresh decisions is delayed in going into action, all on account of illusion of the representation.

The CLEHES technology configures a distinction from which we observe and metaobserve; it is a resonance or passkey that we inject into a system of human activity to move toward the utopias: their development becomes an aesthetics of the interaction in which human beings see themselves with the ability to question what they do, to re-write their discourses and their practices, to become responsible for their decisions, considering the social context in which they are situated. This proposal places us in the relevant reflective context of the social sciences, and of management, where we are transformed as researchers into actors that produce sense and that aim to know. We consider that we can gain access to the ways of observing, as quantum observers, by incorporating and embodying this technology.

We have characterized the CLEHES technology as an enactive tool that allows new structural couplings, breaking out of naturalized routines into to requisite worlds as desired. System acquires self-observation and self-learning competences that are expressed in the development of conversations that open up possibilities and prepare for action, turning around conventional management movements. In these terms, we consider that our proposal opens an interesting educational space when we understand that personal identity in the context of society is a complex issue: it is a matter of *being more* than *actually being*.

The human beings who participated in events in CLEHES laboratories achieved the following:

- □ They identified the contexts and the personal and collective cognitive domains to design effective conversations.
- □ They perceived themselves with greater listening and conversational effectiveness and autonomy.
- □ They declared their ability to open conflict situations and manage them enactively, daring to learn.
- □ They valued the process and their experience in handling conflictive situations and the consequent fresh decision-making and Enaction.

The CLEHES tool has been found helpful in a wide range of situations involving many different types of decision making, but we are just learning, through experiential study of the CLEHES processes involved in these situations, what it means to be helpful.

We have seen that the CLEHES technology generates a high reflexive impact by unveiling the subjectivity and inter-subjectivity of the actors that configure the human activity systems. This opens up the possibility of questioning the position from which each actor observes within, and according to,his or her own configuration of reality. This allows selflearning, self-performances and organizational learning, designing better bodyhoods and better participation in organizations; thus injecting new distinctions into the system, informing fresh decision-making.

This tool opens up learning possibilities in different contexts and domains of human activity systems where human coexistence is the main imperative to learn for this century.

ACKNOWLEDGEMENTS

The authors acknowledge the support of DICYT-USACH under project 061617GDLC, "Tecnologías y herramientas enactivas de apoyo al gobierno y la gestión organizacional" 2016-2018, in the systematization of their experiences. Special thanks are due to Renato Orellana for his invaluable comments, discussions and insightful ideas.

REFERENCES

- Argyris, C. (2012). Organizational Traps: Leadership, Culture, And Organizational Design, Oxford, England: Oxford University Press.
- Bateson, G. (1972). Steps to an Ecology Mind, Londres, Inglaterra: Ballantine Books.
- Bauman, Z. (2010). *El arte de la vida. De la vida como obra de arte*, Buenos Aires, Argentina: Paidós.
- Bauman, Z. (2013). *Sobre la educación en un mundo líquido*, Buenos Aires, Argentina: Paidós.
- Boal, A. (2001) Juegos para actores y no actores, Barcelona, España: Alba.
- Colombetti, G. (2009). Enaction: towards a new paradigm for cognitive science, In: *enaction, sense-making and emotion*, Cambridge, Mass: MIT Press.
- Espejo, R and Harden, R. (1989) The Viable System Model. Interpretations and

Applications of Stafford Beer's VSM. Great Britain: Wiley.

- Espejo, R. and Reyes, A. (2016). Sistemas Organizacionales. El Manejo de la Complejidad con el Modelo del Sistema Viable. Bogotá, Ibagué, Colombia: Uniandes.
- Freire, P. (1970) Pedagogía del oprimido. Coyoacán, México: Siglo XXI.
 (1993) Pedagogía de la esperanza. Madrid, España: SigloXXI.
 (1997) Pedagogía de la autonomía. Coyoacán, México: Siglo XXI.
- Froese, T. and Di Paolo, E. (2012). The enactive approach: Theoretical sketches from cell to society, *Pragmatics and Cognition* Vol.19, PP. 1-36.
- Garcia, O. (2009). Human Re-engineering for Action: An Enactive Educational Management Program, *Kybernetes, Vol.38*, N° 7/8 (pp. 1329-1340).
- Garcia, O. and Laulie, L. (2010). The CLEHES-MOOD: an enactive technology toward effective and collaborative action, *System Research and Behavioral Science*, Vol. 27, pp.319-335.
- Garcia, O and Orellana R. (1997). Decision Support Systems: Structural, conversational and emotional adjustments: Breaking and taking of organizational care. In Humphreys, P. and Ayestaran, S. (Eds), *Decision Support in Organizational Transformation*, London, England: Chapman & Hall.
- Garcia,O and Mendoza C. (2011). Enactive management: application of CLEHES and VIPLAN, *Kybernetes*, Vol.40, pp.439-453
- Garcia O. and Orellana R. (2008). Metasystemic reengineering: an organizational intervention, In F. Adam an P. C. Humphreys (eds.), *Encyclopedia of Decision Making and Decision Support Technologies, Vol.* 2, Hershey, Mass, IGI Global.
- Garcia, O. and Saavedra, M. (2006). Self Management: An Innovative Tool for Enactive Human Design. In F, Adam P, Brezillon S, Carlsson P Humphreys (eds.), *Creativity* and Innovation in Decision Making and Decision Support. London, England: Decision Support Press (pp.195-214).
- Garcia, O., and Saavedra, M. (2014). Enactive management: dancing with uncertainty and complexity. Advances in analysis and decision-making for complex and uncertain systems. Kybernetes: The International Journal of Systems & Cybernetics, 43(8), 1237-1247.
- Garcia, O. (2017) O Technology. Working Paper. Universidad de Santiago de Chile.
- Gobo, G. (2008) Doing Ethnography. Sage. London, UK.
- Humphreys, P and Jones, G (2006). "The Evolution of Group Decision Support Systems to Enable Collaborative Authoring of Outcomes. *World Futures: Journal of General Evolution* Vol. 62, pp. 193-222.
- Jones, A. and Issroff, K. (2005). Learning technologies: Affective and social issues in computer supported collaborative learning, Computer & Education 44, p395-408
- Le Breton,D. (2009). *El sabor del mundo. Una antropología de los sentidos,* Buenos Aires, Argentina: Nueva Visión.
- Maturana, H. (1983). Biología del Conocer. *Revista Tecnología Educativa. Vol.* 8. No. 34. Santiago.
- Maturana, H. (1988). Ontología del Conversar. Terapia Psicológica, 7(10), 15-22.
- Maturana, H (2006). Self-consciousness: How? When? Where? *Constructivist Foundations*, Vol. 1, pp. 91-102.
- Maturana, H. and Varela, F. (1984). *El árbol del conocimiento*, Santiago de Chile: Universitaria.
- Maturana, H. and Bernhard, P. (2004). From Being to Doing: The Origins of Biology of

Cognition, Carl Auer International.

Noe, A. (2004). Action in perception, Cambridge, Mass: MIT Press.

- Riegler, A.; Vörös, S (2017) Missing the Woods for the Trees: Neglected Aspects of Francisco Varela's Work. *Constructivist Foundations*, 13(1).
- Savin-Baden, M.; Howell, C. (2013) *Qualitative Research. The essential guide to theory and practice.* Routledge; London, UK.
- Scharmer, O. (2009). *Theory U: Leading from the Future as It Emerges*, San Francisco, USA: Berrett-Kochler Publisher, Inc.
- Schwager, V. (2010). The role of Play in Enhancing Decision-making in Innovation Creativity Environments. PhD Thesis, London, England: London School of Economics and Political Science.
- Senge, P.; Scharmer, O.; Jaworski, I.; Flowers, Bs (2005) *Presence: exploring profound* change in people, organizations and society, London, gland: Nicolas Brealy Publishing.
- Stewart, J.; Gapenne, O. and Di Paolo, E. (2010) *Enaction: toward a new paradigm for cognitive science*. 1° Ed. Cambridge, Mass: MIT Press, pp. 267-387.
- Varela, F. (1988). Connaître: Les Sciences Cognitives, tendences et perspectives. Paris, France: Editions du Seuil..
- Varela, F.; Thompson. E; Rosch, E. (1992). *The Embodied Mind: Cognitive Science and Human Experience*, Cambridge, Mass: MIT Press.
- Varela. F. (2000). El Fenómeno de la Vida, Santiago, Chile: Dolmen.
- Zohar, D. (2016). *The Quantum leader: A revolution in business thinking and practice,* Amhurst, New York: Prometheus Books.