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Facing the Crisis: Towards a New Humanistic Synthesis

Quantum Humanism as a framework for Humanistic Management

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ABSTRACT

Nowadays, linear-rational thinking is privileged in mainstream corporations. This article shows the risk of disregarding systemic thinking at management. Thus, traditional western thought is deconstructed. However, holistic thinking is not enough, as Asian culture and firms has shown. Humanism ought to be part of the picture. At this juncture, quantum humanism is briefly presented as a valid alternative to build humanistic management organizations. Quantum mechanics and alterity—otherness philosophies—are melt to generate quantum humanism. Some examples are shown that correlates quantum thinking with management in order to interiorize these novel topics. At the end, research done in three Latin American companies that practice participatory-democratic management is presented, showing real humanistic management practices.

Related words: systemic thinking, quantum mechanics, deconstructing modernity, Latin America, humanness.

INTRODUCTION

Because of the industrial revolution and the migration to the cities, societies had to specialize. Obviously, the solution was marked by the mindset of this epoch, which was, is, and hopefully won't be for too long, Modernity[1]—or traditional western thought. The Newtonian idea of having an expert of knowledge in each part of the big watch of the universe is part of the linear, rational and scientific mainstream paradigm (Kuhn, 1996).

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[1] It is an abstraction to talk about an epoch, and more so to link it to a specific mindset (see Dussel, 2001). Later are shown more details/foundations about the epistemology—or theory of knowledge—of the former five centuries (Modernity) that help understand the link between this particular mainstream mindset and the type of traditional management we have today—used by the majority. We still have a lot of Theory X (Taylor) and few Theory Y (McGregor).

Specialization is an outcome of this thinking. The antonym is holism. Thus, the families, organizations, and social groups' post-industrial revolution made clear limits between them creating the so-called social institutions. Each one was born with a specific role. The sum of all their roles, it was believed—and continues to be today—would produce a sound and balanced society.

All these social groups where institutionalized and objectified (Berger & Luckmann, 1966) having an ideological reality—a *metareality*. This imagery is so powerful that these social institutions have had several superficial changes but few deep ones. Ironically, research done in Education, for example, shows that giving a lecture is a very weak tool for learning[2], however the majority of universities in the world continues with lecturing[3], or what Paulo Freire defined as the *banking education*. The Family, the School, the Business, the Religious institutions, then, shows ill signs of inertia—understood as very slowly deep social change.

The focused and specialized role given by society to business was: to produce goods and services for the inhabitants, and to generate profits so people will have a reward of their efforts and will be able to accumulate[4]. No more. And the same happened with other institutions. The synergy of all social institutions has not and is not happening. However, and here lies the challenge of the 21st Century, having a holistic approach towards society is easy to say but confronts us with several challenges that have to be truly and deeply addressed if a sound change is wanted. Management, following this line, also must adapt to a holistic society and a transversal business role[5].

Part of the crisis lies in this idolization of specialization. Albeit it is not working; people will not see alternatives. Alternatives like humanistic management are in place,

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[2] "Learning Methods Effectiveness Indicators", National Training Laboratories, Bethel Maine. http://www.ntl.org/

[3] In terms of technology, the superficial changes, in the last 50 years society has experienced several changes. A clear example of technology vis-à-vis human freedom (see Caritas in veritas, 21-23).

[4] Interestingly, economics as a social science was known in the 19th Century as the study of social cohesion through exchange but is was until mathematics, or Modernity, *touches* it that change to purely mathematical economics and focused almost primarily in the market and the *homus-economicus* (see Heilbroner, 1998; Caritas, 21; Silva, 2009:16).

[5] Management by Processes is in vogue among managers. Ironically, again, can't be fully operationalized in businesses since it demands a holistic, transversal view of corporations which is not the used paradigm. When workers are confronted with "what is now then my role, what is MY job position", they are really frightened.

proven, but exist outside the *modernitous*[6] limits, outside the Western traditional paradigm[7]. Thus, people can't see them (Kuhn, 1996; Semler, 2003). So if society really wants a deep and structural change, it must work on a *paradigm shift* and a *deconstruction of anthropological-historical ideologies*—like power, control and/or authority. If we want organizations that strive transversally for an integral human development, then we need to open managers' paradigms. Specially, top management and stock holders. That is to say, decision makers in corporations. Because if we want to develop humanistic-holistic organizational cultures we must deconstruct modernity (Largacha-Martínez, 2006).

There is a pattern that can be found in companies like Google, Cisco, W.L. Gore (USA), Irizar (Spain), Semco (Brazil) and Acción Fiduciaria & Area Loft (Colombia), just to mention a few. They all practice and embrace *some form* of humanistic management practices—although without mentioning them with this particular name. They all have been able—top management—to transcend the rational-linear thinking that created Modernity. They have transcended the Western paradigm. And they are profitable. In a way, they deconstructed modernity.

The purpose of this paper is to develop the ideas aforementioned in theory as well as in practice, in order to highlight that these companies have been able to "deprogramme adults"[8] (Semler, 2003) little-by-little, re-socializing them into a more holistic-humanistic

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[6] From Modernity. This term is preferred to modern, since it has a reduced interpretation and it is linked to technological advancement.

[7] It has to be used the word *traditional* in order to focus to the more rational-logical way of thinking within the myriad of Western mindsets. This is what the Frankfurt School and several scholars have been criticizing about modernity and the western mainstream paradigm. Marcuse (1991) refers to this as the "one-dimensional man".

[8] This is the way Ricardo Semler sees one of the biggest challenges that Semco is facing when dealing of how to "incorporate" workers into their non-traditional management practices, how to change their mental models, mindsets or *cosmovisions*. Synonyms of this could be: resocialization, retraining, deculturation, re-enculturation, or anticipatory socialization. At Wikipedia appears: "Resocialization is a sociological concept dealing with the process of mentally and emotionally "re-training" a person so that he or she can operate in an environment other than that which he or she is accustomed to." http://en.wikipedia.org/wiki/Resocialization, surfed at March 10th 2010. Another approach that is getting more attention is brain plasticity. Dr. Ramachandran goes as far as to say that "Your own body is a phantom … one that your brain has constructed purely for convenience" (as cited in Doidge, 2007:188). Thus, it is possible with *'mind/brain therapy'* to change structured linear mental models that are less prone to humanistic management (see Doidge, 2007). Dr. Pascual-Leone has a metaphor for mind/brain structural changes, "the plastic brain is like a snowy hill in winter", that after several downhill develops mental "tracks". To the question that if these tracks can be altered he answer yes, "but it is difficult because, once we have created these tracks, they become "really speedy" and very efficient at guiding the sled down the

beings. If we would be able to generate a change, little-by-little, where more and more companies and top-managers around the globe embrace some of these practices, I am confident that there is less likelihood that a financial-ethical crisis like the one we are living right now would happen again.

The background of the theory and practice of this paper is quantum humanism, which starts with alterity or who is the other, borrowing ideas from Argentinean philosopher Enrique Dussel. This alterity is expanded and integrated into a holistic whole with ideas from Abraham Maslow and Carl Jung. The holistic view is then strengthened with quantum mechanics and the writings of several scholars and researchers like: Danah Zohar, Roger Penrose, Fritjov Capra, David Bohm, Werner Heisengberg, among others. The result is a holistic alterity.

The case studies that are presented in this paper are one company from Brazil, Semco, which has been dealing—*struggling*?—for more than 25 years with participatory and democratic management practices. It is a multinational corporation with more than 5.000 employees, returns between 20-40% yearly, and a personnel rotation of less than 1% (Semler, 1994; Semler, 2003). The other two companies are from Colombia. One is Acción Fiducaria, from the financial sector, which 3 years ago changed stockholders. At that time, Acción Fiducaria was ranked 28th in terms of ROE. This year end up in the Top 5[9]—nationally (García & Largacha-Martínez, 2009). Acción Fiducaria doesn't have strategic planning, 9-to-5 schedules, job positions, nor "normal" behaviors. The other company is Area Loft, a design-furniture company. The general manager and owner states that "Area Loft is an excuse to give labor to some people."[10] She can't fire any employee since the decision is made by all of the 50 workers, as a group. Although a financial consultant told her that her business was bankrupt, they just opened a new store.

With all this information, the paper wants to shed significant information regarding the real possibilities and big impact that humanistic management has and could have for today's management practices.

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hill. To take a different path becomes increasingly difficult. A roadblock of some kind [like deprogramming adults] is necessary to help us change direction" (as cited in Doidge, 2007:210).

[9] Benchmark database.

[10] This is a quote from an ongoing research at Universidad EAN with Acción Fiduciaria and Area Loft. The interview stage already happened. Right now we are writing the first compilation of information. This research is funded by the Universidad EAN as part of the *Innovation in Management* research area—within the *Tendencias en Gestión e Innovación* research group.

The liberation from Medieval thought arrived with three important names, Newton—physics and the Great Machine, Galileo—experiments, measurements, and mathematics, and Descartes—*cogito ergo sum* (Capra, 2001:30; see Zukav, 1979). The mechanization of everyday life, the objectification of reality (see Berger and Luckmann, 1967), and the *independent nature* of reality were all a part of the classical way of thinking (see Capra, 2001). The result was the separation of human beings from their social constructions, or alienation, as Marx (1990: 203) would put it later. This separation is also known as dualism, and is considered another pillar of traditional western mental model. This dualism is analyzed by Pope Benedictus XVI (2009:[6]) when he argues that *caritas in veritate* demands a "convergence of these two cognitive fields" that are "at the same time the truth of faith and of reason". Reason and faith can't be divorced.

There are several examples of the non-holistic or specialized mental models that pervade western social institutions. One is medicine. If two people go to a western traditional medical doctor with a headache, it is highly likely that both will be given acetaminophen, ibuprofen or aspirin. If the same two people go to a holistic medical "doctor"[11] i.e. bioenergetics, homeopathic, kinesiology, acupuncturist, there is a high possibility that both will be given two different treatments, since doctors do not ask for symptoms based on a specialized cause-effect reductionistic analyses. Holistic doctors ask more questions to '*non related*' areas of the body that a traditional western linear-rational specialized doctor. An edition of *Fortune* magazine (2004: 77ff), for example, contends that we are losing the *War on Cancer* because the research methods that have been used are deterministic, reductionistic, and with cause-effect analysis, disregarding holistic approaches[12]. The fragmentation of knowledge and a non-systemic view is

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[11] For some people it is a esoteric human being, which explains the quotes.

[12] Clifton Leaf made a thorough review of the research on cancer. Accordingly, he (2004: 82) wrote that "According to PubMed, the NCI's online database, the cancer research community has published 1.56 million papers—that's right: 1.56 million!—largely on this circuitry and its related genes in hundreds of journals over the years. Many of the findings are shared at the 100-plus international congresses, symposiums, and conventions held each year. Yet somehow, along the way, something important has

preferred. Mainstream modernity is here, since for Clinton Leaf (Ibid.), the researcher for Fortune 500 magazine, "The narrower the research niche, it sometimes seems, the greater the rewards the researcher is likely to attain." Thus, researchers with holistic approaches "often can't get funding" (Ibid.).[13]

This specialization comes with objectivation, which means that social institutions and social experiences have a reality on their own—*sui generis*. Berger & Luckmann frame this process when society is seen as an "objective reality" (1967:47), explaining the origins of institutionalization[14] and objectivation (Ibid.:53ff). In a very creative manner, Berger & Luckmann use the analogy of two 'people', A and B, who come from different cultures and met in an uninhabited island. From that *quasi*-social interaction, patterns of conducts start to emerge, converting them into social roles and customs. As stated "the most important gain is that each will be able to predict the other's actions" (Ibid.:57). With prediction, a foundational pillar of modernity and the scientific method, a division of labor is possible, which evolves into the objectification of history. At the end, Berger and Luckmann (Ibid.:54) argue that "institutions further imply historicity and control". The historical inertia of this process leads to traditions that are embedded in the social institutions which have a coercive power linked to their social control and legitimacy given by this objectification.

The vicious circle is completed. Ideologies and structures emerged. This helps to explain why it is hard to change them. However, if these ideologies, historicities, and structures are not deconstructed, humanistic management will be less likely to emerge because questioning is constrained and curtailed. That is why a *non-ideological stance* is one pillar of a humanistic corporation, since in Berger & Luckmann's island example the "There I go again", converts into "There we go again", ending into "This is how these

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gotten lost. The search for knowledge has become an end unto itself rather than the means to an end. And the research has become increasingly narrow, so much so that physician-scientists who want to think systemically about cancer or the organism as a whole--or who might have completely new approaches-- often can't get funding." Fortune Magazine, Vol. 149, No. 6, March 22, 2004.

[13] As stated, if society really wants a deep and structural change, it must work on a *paradigm shift* and a *deconstruction of anthropological-historical ideologies*—like power, control and/or authority. The deconstruction of anthropological ideologies is a key element, because if not taken into account on cannot explain why Asian corporations, which have holistic mental models (see Nonaka & Takeuchi, 1995), they are highly authoritarian (see Creffield, 2007). Thus, both structures, the paradigm/mental model and the historical ideologies must be deconstructed.

[14] "Institutionalization occurs whenever there is a reciprocal typification of habitualized actions by types of actors" (Berger & Luckmann, 1989 [1967]: 54).

things are done". Hence, for Ricardo Semler (2003:5) asking why, or the *whyway,* is an "absolute necessity". Letting workers ask why is about sharing control, being democratic, and being participative. Semco is against the "blind, irrational authoritarianism" (1994:4) that permeates the majority of organizations.

Specialization and objectivation comes paired with imitation or the result of social pressure—comparison, which can be called *ideological normalization*[15]. Among all the possible patterns of social interaction, competition and coercion are nowadays the paramount ways of constructing reality (see Berger and Luckmann, 1967). In fact, they override cooperation and non-exploitative exchange. Accordingly, Carl Jung (1976: 103) argues that "Human beings have one faculty which, though it is of the greatest utility for collective purposes, is most pernicious for individuation, and that is the faculty of imitation. … Society is organized, indeed, less by law than by the propensity to imitation, implying equally suggestibility, suggestion, and mental contagion". Cooperation, in this sense, is only considered from a cost-benefit viewpoint. In order to support this style of competition, hierarchical worldviews are assumed to be 'natural' rather than as a byproduct of competitive interaction. Therefore, hierarchies become ideological and global. Imitation, comparison and social pressure are against alterity, which explains the reason to have an organizational milieu where intrinsic motivators can flourish. This type of organizational environment is key to humanistic management.

With these aforementioned elements—among a longer list[16], western traditional mental models are built, socialized, and structured. Thus, people can't see alternatives, can´t interiorize or comprehend new possible routes. Their paradigm does not allow them to see it (Kuhn, 1996), although there are plenty of examples that confirm their proven existence—i.e. Athens, as a highly developed and civilized democracy (see Manville & Ober, 2003), Robert Owen in the 18th Century in England and his writings of the 'new men' (see Owen, 1948 [1826]), and the Brazilian company Semco (see Semler 1994; 2003), among several others. However, the question that ought to be made is why don't people follow or imitate these alternative paradigms, these proven participatory-

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[15] Normalization makes reference to the normal curve in statistics.
[16] To sum up: mechanism, neutrality, dualism, materialism, objectivity, rational-logical linearity, ideologies, comparison and imitation. For a more detailed analysis of the outcomes of modernity and its deconstruction, see Largacha-Martínez, 2006.

humanistic examples? Annette Craven has a possible answer: fear[17]. Their mental model, a *modernitous* one for several of top managers, constrain their vision. When their try to follow, the development of their selves has been an outcome of a socialization that privileges all the traditional facets of modernity, thus their identity is not able to manage participatory approaches. Fear and rejection are their feelings and attitudes. Fear of looking 'outside of the box', outside of the mainstream paradigm. Fear of placing themselves outside their *safe* identities. Fear of not knowing how to act in a different setting, which demands sharing power, in contrast of *command & control*.

Thomas S. Kuhn (1996:x,4) wrote a challenging book for the scientific community, since he found that "An apparently arbitrary element, compounded of personal and historical accident, is always a formative ingredient of the beliefs espoused by a given scientific community at a given time". This statement erodes neutrality, objectivity, dualism, mechanism, to say, it deconstructs the scientific method[18]. For Kuhn (Ibid.) paradigms are "universally recognized scientific achievements that for a time provide model problems and solutions to a community of practitioners". Only within these boxes or paradigms the solutions are found. Some decades earlier, Kurt Gödel, an Austrian-American logician and mathematician was challenging even further the shortcomings of the scientific method *demonstrating mathematically* that a set of axioms cannot, *in principle*, explains the theory embedded in these set of axioms. You need always to use other out-of-the-box axioms—*meta-axioms*—to have a sound theory[19].

From the management arena, Peter Senge researched the latest discoveries around learning organizations—and the sociology of knowledge. Two elements of his fifth

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[17] From the conference "State of the art in human resources management", April 2010, Universidad EAN, Bogotá, Colombia. Dr. Annette Craven is professor from the University of the Incarnate Word (US). She suggests that fear can come of losing power with their subordinates; or fear because I could look foolish to his/her subordinates; fear by not projecting an image of the "boss", who in traditional terms, should know all the answers, if not, 'why is he the boss?'; and finally, fear because if s(he) lets their subordinates to have "too much" voice, s(he) can took me out and take my position.

[18] A parallel critique, in a different time, was given by Fritjov Capra in his "Tao of Physics" (2000), when he stated that there are several correspondences between modern physics (quantum and complex) and Eastern mysticism. Both Kuhn and Capra, at their times, where ostracized for some years, until the scientific paradigm started to accept the relativity of knowledge.

[19] Gödel's theorem showed that "Any such precise ('formal') mathematical system of axioms and rules of procedure whatever, provided that it is broad enough to contain descriptions of simple arithmetical propositions … and provided that it is free from contradiction, must contain some statements which are neither provable nor disprovable by the means allowed within the system. The truth of such statements is thus 'undecidable' by the approved procedures" (as stated by Penrose, 1999: 133).

discipline are akin of what has been described here, which are: systemic thinking and mental models. Senge (2005:17) defines mental models as "deeply ingrained assumptions, generalizations, and images that influence our way of understanding the world and act". Systemic thinking deals with finding and "seeing" patterns instead of causal-deterministic 'x-rays' of events (Ibid:91). Developing a systemic thinking in a organization demands to re-socialize workers' linear thinking, since they will have to see the structures/patterns that fall behind complex situations (Ibid:92). Senge summarizes at the beginning of his book "The Fifth Discipline", what I have been addressing in this section, the need to deconstruct linear-rational mental models, since for Senge (Ibid:11)

> *From a very early age, we are taught to break apart problems, to fragment the world. This apparently makes complex tasks and subjects more manageable, but we pay a hidden, enormous price. We can no longer see the consequences of our actions; we lose our intrinsic sense of connection to a larger whole. When we then try to "see the big picture", we try to reassemble the fragments in our minds, to list and organize all the pieces. But, as physicist David Bohm says, the task is futile—similar to trying to reassemble the fragments of a broken mirror to see a true reflection. Thus, after a while we give up trying to see the whole altogether.*

And "giving up" seeing the whole has other problems. One, our deepest problems are never solved (Ibid.:15) and, second, the failure of the best ideas within an organization (Ibid.:222). Also, and linked with what was written before, giving up to have a holistic vision creates a manager fearful of sharing the power with his/her subordinates, and fearful of allowing a new labor environment in the company which makes life-fulfillment possible, hence, a humanistic environment does not emerge. Peter Senge links systemic thinking with the importance of acting towards the emergence of the organizational mental models, and once understood, have a clear understanding between what is said vis-à-vis what is thought, since sometimes we believe that "learning" something is having a new language with novel concepts, but behavior does not change (Ibid.:222ff, 256). The impact of mental models is really high, since mental models are active, shaping our acts and affecting what we see—selective perception (Ibid.: 223). One of the challenges with mental models, argue Senge (225), is that normally they are tacit, so bringing them to the

"surface" requires an open, non-hierarchical, respectful communication. However, facing mental models produces even more fear.

QUANTUM-HUMANISTIC MANAGEMENT: FIRST WORDS.

In order for humanistic management approaches to flourish in an organization, one pillar of the *modernitous* mental model has to be seriously taken into account. This pillar, linking to the former section of this paper, is fundamental when dealing with linear-rational thinking, authoritarian mental models, and non-wholistic thinking. Here I am referring to control, with its twin brother, power. If I can control, therefore I have power. As stated at the introduction, control is at the core of Modernity and also to tradition, or anthropological-historical ideologies. Thus, if control—among other elements—is deconstructed, its relation to the *modernitous* mental model made explicit, its foundation understood as generator of specialization—linear thinking, and its correlation with being a roadblock to participation unravel, a better milieu for humanistic management emerges. Furthermore, using quantum mechanics in deconstructing control and *modernitous* mental models strengthens this exercise. The next lines expand these aforementioned ideas.

For example, Abraham Maslow in his Towards a Psychology of Being (1968:36) highlights the idea of renunciation. The point is that what Maslow—and Dussel—are proposing with their ideas about alterity, correlates well with renunciation, which is at the core of the Christian teachings. Unneeding love is a renunciation of control. Serving the other is a renunciation of power.

> *To see people primarily as need-gratifiers or as sources of supply is an abstractive act. They are seen not as wholes, as complicated, unique individuals, but rather from the point of view of usefulness. ... Fully disinterested, desireless, objective and holistic perception of another human being becomes possible only when nothing is needed from him, only when he is not needed. Idiographic, aesthetic perception of the whole person is far more possible for self-actualizing people (or in moments of self-actualization), and furthermore approval, admiration, and love are based less upon gratitude for usefulness and more upon the objective, intrinsic qualities of the perceived person. He is admired for objectively admirable*

qualities rather than because he flatters or praises. He is loved because he is love-worthy rather than because he gives out love. This is what will be discussed below as unneeding love.

Pope Benedictus XVI argues that "to love someone is to desire that person's good and to take effective steps to secure it" (2009:[7]), thus humanism deals with the common good. This is how alterity is made explicit. The Pope reaffirms that "to desire the *common good* and strive toward it *is a requirement of justice and charity"* (Ibid.). Ideas like solidarity, the Other, the Thou that is part of my-self, generates humanness when charity and "authentic human development" are concerned with "the whole of the person in every single dimension", as Pope VI declared (as cited by Pope Benedictus XVI, 2009:[11]). At the end, in order to develop a new vision for the future, we need to develop "a holistic understanding and a *new humanistic synthesis"* (Ibid.:[21]), for human development or life-fulfillment as the goal. Renunciation appears again, linked to solidarity, charity and the common good.

How do quantum mechanics help the discourse of humanistic management? Following from what has been said, subatomic physics deals with elements that are salient to the *modernitous* view of life, like: prediction, neutrality, objectivity, truth, independence, chance, since all these aspects are deeply challenged from a quantum perspective. In the following paragraphs there is an analysis of some constituencies of quantum mechanics and how they are linked to humanistic management.

Using quantum mechanics for understanding/defining human nature is a risky project, since as Werner Heisenberg (1999:177) puts it "The most difficult problem, however, concerning the use of the language arises in quantum theory. Here we have at first no simple guide for correlating the mathematical symbols with concepts of ordinary language". Bohm (2002:34) uses the rheomode as an example of how language adopted from Modernity is reductionistic—fragmentation of thought as its outcome—and does not incorporate the fullness of quantum reality, or human potentialities. This could explain why, for some people, Danah Zohar's (1990: 50) ideas about human nature and consciousness defined by the new physics sound "arcane", as when she raises the question, "Are electrons conscious?" Heisenberg (1999:202) summarizes all these arguments when he states "It may be easier to adapt oneself to the quantum-theoretical

concept of reality when one has not gone through the naïve materialistic way of thinking that still prevailed in Europe in the first decades of this [20th] century." Be aware that Heisenberg wrote this almost a century ago!

One word is common when one begins to read about matrix mechanics: paradox. For a good review of all the paradoxes[20], or "bombs" to Modernity, as Gregorio Morales calls them, see The World of Quantum Culture (2002), edited by Caro and Murphy. In the first chapter, Morales (2002: 4-8) mentions thirteen (13) impossibilities: principle of complementarity—"a corpuscle can behave as a wave or a particle"; principle of uncertainty—"breaking from the sort of certainties proposed by Isaac Newton"; anthropic principle—"the observer modifies the experiment with his/her observations"; Nonseparability—"pristine and autonomous laws, in short, do not exist"; Acausality— "atoms appear and disappear through a process that is spontaneous and not casual"; complexity—entropy leads to higher orderly complexity; ubiquity—"particles behave in such a way that they can be found in many places at once"; Morphogenetic fields— represent "modalities of structures, rules, behaviors ideas and tendencies, each one informing particular aspects of reality"; the existence of "A" and "Not-A" at the same time, or fuzzy math; beauty as the corroboration of the relevance of a theory, or Brian Greene's "elegant universe"; the universe as a hologram, "that is, each part contains the whole"; manifest and implicate order, from Bohm's theories; no distinction between matter and energy, mind and body.

But most striking is that quantum mechanics, more from an heterodox than from an orthodox perspective, challenges deeply Modernity and specifically reason and traditional mainstream scientific theory and methods. Quantum physics thus goes to the heart of the western mindset and challenges traditional beliefs about identity and social

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[20] Another paradoxes are: Things/Facts: "The elementary particles themselves are not as real; they form a world of potentialities or possibilities rather than one of things or facts" (Heisenberg, 1999:186). Wave/particle ambivalence: "Each individual photon behaves like a wave entirely on its own! In some sense, each particle travels through both slits at once and it interferes with itself!" (Penrose, 1999:304). Particle's identity: "for identical particles the rules are different. … All electrons are identical with one another in a different way from the way in which all photons are identical!" (Penrose, 1999: 358). Schrödinger cat. The state of a cat, dead or alive, can happen at the same time, and thus "the cat is in a linear superposition of being dead and being alive!" (Penrose, 1999: 377). Observer-created events: do persons create reality? "Quantum theory is intrinsically connected with thermodynamics in so far as every act of observation is by its very nature an irreversible process"; and "the fact that the wave function or, more generally, the probability function changes discontinuously when the observer takes cognizance of a result of measurement" (Heisenberg, 1999:138, 141).

cohesion. Acknowledging such changes is difficult for a society so accustomed to control and determinism. That is why some scholars, such as Einstein, for example, have had such a harsh reaction to the indeterminism of quantum theory. That could explain why there has been little research that links quantum mechanics with management and the social sciences[21].

What is being proposed is a new epistemology, not *just* a different way of looking at things. In other words, quantum humanism is not merely an alternative and novel way of understanding society, but another epistemological social construction of reality, where humanness is more likely to emerge, and the 'rate of emergence of human actualizations' is much higher than with Modernity. Zukav illustrates the different perceptions that a quantum being would have about the world compared to the classical position. Summarizing them, he (ibid.: 41) provides a table that tries to explain this new epistemology.

DANCING LESSON FOR NEWTONIAN PHYSICS	DANCING LESSON FOR QUANTUM MECHANICS
Can picture it.	Cannot picture it.
Based on ordinary sense perceptions.	Based on behavior of subatomic particles and systems not directly observable.
Describes *things*; individual objects in space and their changes in time.	Describes statistical behavior of *systems*.
Predicts events.	Predicts probabilities.
Assumes an objective reality "out there".	Does not assume an objective reality apart from our experience.
We can observe something without changing it.	We cannot observe something without changing it.
Claims to be based on "absolute truth"; the way that nature really is "behind the scenes".	Claims only to correlate experience correctly.

Source: The Dancing Wu-Li Masters, Gary Zukav (1979:41)

[21] In management, consult "Leadership and the New Science" by Margaret Wheatley (1992); "Birth of the Chaordic Age" by Dee Hock (2000); "The Fifth Discipline", by Peter Senge (2005); "The Web of Life" by Fritjov Capra (2000), among others. Regarding other areas of the social sciences, there are several books on quantum mechanics and philosophy. The same cannot be said about management, psychology, sociology, and anthropology. However, this approach is gaining momentum. In philosophy, for a neo-realist book see Roland Omnés (2002). For non-traditional philosophy, see the classic of Werner Heisenberg (1999), the inspiring work of Patrick A. Heelan, S.J. (1965), and the challenging critique of Basarab Nicolescu (2002). In non-traditional psychology, see Stephen T. DeBerry (1993). For neo-positivistic psychology— neurobiology—see John C. Eccles (1994). In sociology see Danah Zohar and Ian Marshall (1994), and in criminology Manuel Caro (2002). For sociology, anthropology and cultural studies see Manolo Caro and John W. Murphy (2002) and Gregorio Morales (1998). With regard to quantum mechanics and religion, consult Fritjof Capra (2001), David O'Murchu (2002), and for spiritualism Leonardo Boff (2000) and Ken Wilber (1982).

As Zukav (1979:16) states, *"The study of relativity theory, for example, can produce the remarkable experience that space and time are only mental constructions!".* In a way, "Humans also exist as the interaction of their rhythms", argues Vernandsky (1985:1). Having a paradigm, a mental model that can intuitively comprehend that events occur at the same *chronological* time but at different apprehensions of time[22], is key for a manager that want to see patterns. As Peter Senge (2005: 259) argues that improving our mental models using systemic thinking will end up in changing the way we think, where humans will change their "mental models dominated by facts towards mental models that can recognize long-term patterns of change, as well as the underlying structures that generates those patterns".

Ir-reducibility, *non*-locality, *time*-reversibility, *in*-determinism. All of these are words or concepts that counter Modernity. They are all negating what Modernity states is the true version of knowledge. All of these concepts are constitutive elements of holism, or a holistic vision of society and nature. Humans, therefore, in the best sense, are *ir*reducible, *non*local, *time*-reversible, and *in*deterministic. As Henry Miller, the writer, argued, "I obey only my own instincts and intuition. I know nothing in advance"[23]. Intuition, as argued before, is clearly *ir*reducible, *non*local, *time*-reversible, and *in*deterministic.

Some academics consider John S. Bell's theorem as one of the most challenging discoveries[24], compared with Galileo's and Einstein's. In their Preface, McMullin and Cushing[25] (1989: xi) claim "it was only with John Bell's formulation of his now celebrated theorem in 1964 that the full measure of the challenge came to be appreciated". Non-locality, or action-at-a-distance, or superluminal interaction is the challenging discovery. This is the butterfly effect but instantaneous, disregarding—or

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[22] Zukav thinks that time reversibility is possible by *expanding our awareness*, which implies the emergence (actualization) of more human potentialities, such as "the way yogis control their body temperature and pulse rate. … *If*, at the quantum level, the flow of time has no meaning, and *if* consciousness is fundamentally a similar process, and *if* we can become aware of these processes within ourselves, then it also is conceivable that we can experience timelessness" (1979: 222).

[23] As cited in Gary Zukav (1979: 119).

[24] In this paper the word universe is not used as some kind of ethno-universe-centrism, but rather the globe or earth is reserved for this use. Thus, universal ethics, as Dussel (2002), and others have claimed, is changed to earth or global ethics.

[25] Editors of the book Philosophical Consequences of Quantum Theory. Reflections on Bell's Theorem.

redefining—time and space[26]! In a extremely brief description, Bell's theorem states that two electrons that interact will be connected, or entangled, *forever*. In a word—legitimated by the "paramount" natural science, physics—holism has been mathematically demonstrated. First John Clause at Berkeley in 1972—albeit with some inconsistencies—and then Alain Aspect at the University of Paris in 1982 confirmed in a lab that Bell's theorem has passed the test (Herbert, 1989:226).

Team building or project management should be reframed on the workplace under these perspectives, since clear-cut pictures are not longer valid if deep understanding is wanted. Hence, Bell's theorem and Heisenberg's principle are saying—besides other things—is the impossibility of knowing all, *in principle*.[27] This indeterminacy was mathematically *demonstrated* (Penrose, 1999: xvi, 138ff). Herbert (1987:212) talks about Bell's theorem "The mechanism for this instant connectedness is not some invisible field that stretches from one part to the next, but the fact that a bit of each part's "being" is lodged in the other." What it is striking is that one of the most valuable skills of entrepreneur is intuition and seeing patterns (or holism) that others can't. Quantum humanism can be rephrased as intuitive empathy for the coworker. Penrose (1999:574) talking about memory, intelligence, and inspiration, argues that "another striking feature of inspirational thought, [is] … its *global* character". Pattern-seeking and globalism are similar[28]. Leaders should develop a global intelligence. The

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[26] What would have happened if Einstein would have been alive to make his famous statement "God does not plays with dice"? Would he have been *Time Magazine's* Person of the Century? David Mermin talks about "the ingenuity of Einstein", and he later argues that "Einstein's position now appears to be contradicted by nature itself" (1989: 57-58). Prigogine (1997: 16) highlights that "Einstein attempted to maintain the unity of nature, including mankind, at the cost of reducing us to mere automata". Einstein said once "The belief in an external world independent of the perceiving subject is the basis of all natural science." (as cited by Herbert, 1987). Just imagine, as a total hypothetical and academic example, the way Einstein could have written about Project Management for a corporation, since the belief in procedures independent of the perceiving subject is the basis of all management. Procedures, Einstein could have said, are clear-cut representations (SIPCO) of what must happen in an organization in order to have its planned outcomes or products. With this type of mental models is more difficult to see the patterns subjacent to the human structures, or culture, that runs a project or a process. Einstein, one of the most intelligent humans that ever lived, is used here just to emphasize the point.

[27] Which, as an aside but very important, supports the idea of a non-almighty God(s)—see Liberation Theology, or the Second Ecumenical Council of the Vatican for approximations to a *horizontal* God. Holistic intuition, or intuition *per se*, is what 'nature is whispering' to everyone.

[28] Penrose (Ibid.: 531) provides this list:

Consciousness needed	Consciousness not needed
'common sense'	'automatic'
'judgment of truth'	'following rules mindlessly'

point is that holism cannot be understood only by the standard IQ, but through the multiple intelligences that humans have, as Howard Gardner (2002) argues.

Just think about communication in the workplace from this perspective. Danah Zohar (1990: 34), for example, argues that "Perhaps more than anything else, quantum physics promises to transform our notion of relationship". As stated by quantum physicists Wheeler and Wigner, Zohar (1990: 43) reminds her readers that "human consciousness is the crucial missing link between the bizarre world of electrons and everyday reality." Communication and human consciousness thus are linked. A deterministic mind will have in mind that if I already say some words with clear meaning, everybody understood it—and obviously, followed it. However, Francisco Jaramillo (2008) argues that meanings that people give to facts depends on the attitude as well as on the mental models—or patterns of reference—by whom interprets and/or perceives.

Next time you will be talking to a subordinate, have all this in mind, and think what Penrose asks "How can one be 'wrong' about what one actually perceives?" (1999:575). You, as a manager, need to intuitively understand what he or she is perceiving, but don't try to "put in her shoes", since from a quantum perspective that is not possible. That is not a way to dignify the Other. Rather, try to intermingle with(in) her-self, try to be entangled, *just for a moment*, before saying something about what s(he) perceives. The more your really know that person, the moment can be longer, until you are totally entangled, or loyalty in-communion, in-love, an unneeding love happens.

CASE STUDIES Latin American Companies with humanistic approaches[29]

I have asked several times to some of my students *what percentage of the total employees of a company work at their full potential*. They suggest, on average, that no

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'understanding'	'programmed'
'artistic appraisal'	'algorithmic'

It seems, based on this table, that today's world does not need consciousness. See Marcuse's One Dimensional Man and Ritzer's McDonaldization of Society.

[29] Some elements of the following section of this paper are part of an ongoing research on Humanistic Management practices in three companies in Colombia & Brasil (Semco, Area Loft & Acción Fiduciaria), as part of the Universidad EAN research groups. In the group, Germán García participates.

more than 15% of all the employees work at their best[30]. Ricardo Semler (1994) believes that "The conflict between advanced technology and archaic mentality is, I believe, a major reason why the modern workplace is characterized by dissatisfaction, frustration, inflexibility, and stress." That is one the goals of this paper. To show the traditional dehumanizing mental model, or archaic mentality, that is present in the modern workplace, which produces unhappiness. That explains, in part, why people don't work at their full potential. Semler (2003) frames the inquiry about why people at non-work related activities, like hobbies, work at their full potential, while at their workplace they have to be trained, retrained, and sent to motivating and couching programs? In the following paragraphs, some examples of non-archaic mentality are shown in three Latin American companies that combine the alternative mental model of the top management and examples of people highly motivated. These mental models are embedded with intuition, apprehension for the other as a truly Other, non-deterministic views, patterns seeking, among other things.

The main reason why the workers of these three companies are motivated is because they support the idea that the less control they exert, the better result will emerge and workers will use all their potential. For example, in these companies nobody is aware of the daily schedule, there is not an organization chart, no hierarchies, workers are part of the board of directors and as a group, they make the majority of strategic corporate decisions—even financial, marketing, investment and labor decisions. It is interesting to find that all these companies have a critical view of education, supporting alternative or non-formal schemes of education.

A Colombian company—*Acción Fiduciaria*—belongs to one of the most competitive and regulated sector: financial. This 120+ employees company was ranked based on income in 2008 19th out of 50 and ranked 11th in ROE (28%), above the biggest company in the sector; fourth in sales growth (36%) and fifth in equity growth (21%)[31]. These indicators are very relevant compared to 2004 when growth in assets, profits, and equity were all negative, as well as the return over sales, assets and equity. From 2005 when is bought by alternative mindset managers, they have not had a negative index.

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[30] This data is not statistically significant. The survey has been given to more than 200 high-school, undergraduate and graduate students. The mean is 15% with a standard deviation close to zero.
[31] Source: Benchmark database.

Another Colombian company—*Area Loft*—belongs to the design furniture economic sector, where low margins are the rule. However, they have grown in less than 5 years to have four stores in very exclusive malls or strategic locations. There are 50 employees, which by a proposal made by the CEO and owner, organized themselves as a cooperative. This form is done to improve their quality of life. It was striking to hear her CEO telling us that she can't fire anybody, since the power resides in this cooperative. Before they decide to open the fourth store, two financial advisors hired by a former partner told her that they were bankrupt. She fired the advisor, bought all the stocks to the partner, opened the store, and started to sell more than before.

The third company—*Semco*—is a Brazilian multinational with more than 25 years of alternative management, almost 5,000 employees with annual sales growth between 20%-40% in all their 10 business units. In 2004 had sales of more than U$300 millions. What is interesting is that during the years 2000-2001, and with 3000 employees at that time, they did not fire a single employee and only two retired. They have four strategic economic sectors: Industrial equipment, technology, services, and new ventures.

What do these three different companies have in common? Their management model has as its core the people. For them, workers are the end and not the mean of the company. We are not talking here about just giving good treatment, a fair salary, nice buildings and offices, or a flexible environment where each employee manages her/his own time. Their great strength resides that all the workers are taken into account to make decisions, to participate. Thus, these are democratic companies. These are best practices of humanistic management. These practices are not written in their mission of vision, nor in the procedures manual or in their website. Actually is not written in any document. The three companies reject the idea of having strategic planning, in strict sense, neither a mission of vision.

For example, in the design furniture company they have a weekly meeting, where almost all their personnel attend. The curious thing is that the meeting is voluntary, but they come sharp on time to each meeting. It is an event where all the workers want to be present. Why? Strategic decisions are taken there, and workers can participate. Their suggestions not only are taken into account, but they have a vote when needed. In these meetings ideas like expansion plans, internal forms to get organized, innovation, new

products and hiring new personnel, take place. Have a voice, but above all, have a vote is the key difference in these companies. As Semler (1994) says, participatory management is not new. However, all forms of so-called participatory management is a makeup, since strategic decisions are never taken in these approaches.

The CEOs in these three companies are also the mayor stock owners. They are all convinced about the positive outcomes of these type of managerial approaches. A new worker that arrives to these companies with their "traditional mindsets", their learned practices in former companies, or with the college structures, have difficulty adapting. A worker with a traditional mindset will have the expectation that somebody will tell him his job functions, schedule, know his boss and subordinates, somebody will tour him in the company, and for sure will talk to his boss with reverence and to his subordinates with authority. The above mentioned are not part of the living experiences of these three companies.

In the financial company, the first day on the job is frustrating. That day nobody take charge of him, nobody will show him the company, nobody will tell him his functions, not even will have lunch with him. The day goes on and nobody talks to him. Everything is done with a purpose: confront him with his own traditional paradigms. If he resists the test and doesn't run away, he will be part of a company where the self-centered employee is gone and start really working in and for a team. Now he is part not of a company, but of a matrix organization. Ironically as it sounds, this financial company does not have a budget, there are not job positions, and in the CEO's office the only sign is his name. The CEOs assistant started in this company as the maid, now she is earning her master degree. The meeting room looks more like a Soho bar.

At Semco, the Brazilian company, the only business management practice they have is not following any of the teachings of an MBA. As Ricardo Semler (2003:8) puts it,

> *'Semco has no official structure. It has no organizational chart. There's no business plan, no goal or mission statement, no long-term budget. The company often does not have a fixed CEO. There are no vice presidents or chief officers for information technology or operations. There are no standards or practices. There's no human resources department. There are no career plans, no job descriptions or employee contracts. No one approves reports or expense accounts. Supervision or monitoring of workers is rare*

indeed. Most important, [and this truly is the most important] success is not measured only in profit and growth.

These brief presentations of the companies show a non-logical approach. The basic idea is thinking 'outside-of-the-box'. This is the contrary of the *modernitous* mental model aforementioned. But they are not mavericks just for the sake of it. Being authentic emerges as an outcome of their behaviors, since they are not on ruled by being rational, rather by being intuitive. The way they make decisions is based more on feelings than on a rationalization of the independent facts they have 'in front' of them. Their feelings, their intuition, are the basis for looking for patterns. The result, as it sound obvious, is being highly creative since for them nothing is so-called normal, so they allow themselves to try new paths, new roads. These frameworks give the CEOs of these companies a mindset that looks everything with different lens. Remember Peter Senge's example of the shortcomings in the broken mirror that has been glued together. Thus, they on average see a human being when looking to a human being. They don't see a 'worker'. An object of production. The relationship with their workers are more transparent because of this. Their apprehension of the Other is based on diversity, not on a fixed identity, in a similar way of the apprehension of time already described by quantum mechanics. The result, the end result is: passion, callings, humbleness comes first than results, productivity or status. Of course, sure there are examples of subversive leaders that were/are highly authoritarian and dehumanizing. But these leaders should not have all the elements described in this paper.

For example, all the CEOs of these humanistic companies put being human first. Area Loft's CEO, Cristina, thinks that for her being millionaire or having a lot to accumulate is not the main goal. Actually, they don't have profits at the end of the year. They are sustainable, and for Cristina "the most joyful thing is the jobs she is generating, not only for their employees but also for the providers' employees as well. Each provider has a lot of families working for them, and all depend on our orders" (Largacha & García, 2010). For Cristina her work is his reason to be alive, it is her passion. And more importantly, she transmits that passion to her colleagues at Area Loft. And she practices alterity since she "always put in the place of the other" (Ibid.). They formed a cooperative, not in order to avoid paying benefits, but in order to have a more cohesive

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group and to give them power to make decisions as a group. Also, to develop an identity towards Cristina´s passion for design-furniture at low cost. As stated, Cristina can´t fire a worker, only the cooperative. If they try something and works, they keep it, even if it is not 'logical'. For example, the evaluation for a new worker is a spelling test. As Cristina argues, that will "show us if the person makes an effort to make things well done" (Ibid.). Finally, Cristina does not considers herself a capitalist, in the sense of making profits by taking advantage of employees and providers.

Ricardo Semler, *Semco's* CEO, thinks that what their company has to do is to go to the reservoir of talent of their employees. As he argues, "for a company to excel, employees must be reassured that self-interest, not the company, is their foremost priority" (Semler, 2003:39-64). Having motivated workers that tap on their callings, on their talents, that does not have to met a daily schedule, gives them the possibility of managing their personal time in a highly flexible way, giving space to human balance, a very important human need. For Semler (ibid.) "Stress levels are highest where balance is lowest. … Workplace stress reflects the difference between expectation and reality". Semco's workplace environment is high, which explains why "[Several workers] had offers to work elsewhere, but turned them down because Semco allows [them] to grow". (Ibid.). The last two paragraphs are examples of the basic need to develop humanistic management practices: the renunciation of control. In these companies, on the contrary, the more that I do not control, the more 'given' power that I have—instead of ascribed power. Respect and loyalty are the final outcome.

In the case of *Acción Fiduciaria*, the facts are even more challenging, since the logo of the company is a cheetah. It was chosen since the cheetah's skills are patience, tactics, and opportunity. The three are part of this company's strategies. However, how to reconcile this feline approach to the humbleness of humanistic management? In 2004 this trust company was part of the government. It was illiquid and loosing clients. Pablo Trujillo bought it with other partners and started making the change. He came from another trust company that was, and still is, number one in this sector. He is known in the sector as a "crazy" guy. Talking to him gives an idea of an astute capitalist. However, once he start talking of not having budgets, nor strategic planning, nor job positions, and his dreams of a matrix company where everybody has self-fulfillment, the first

impression changes dramatically. Pablo is a clever man that talks slowly and every phrase has a deep meaning. Interestingly, he read some years ago "Maverick", Ricardo Semler's book, and last year gave it to his top managers to read it, voluntarily.

Adriana, one of the top managers from *Acción Fiduciaria* argues that "if you want to work with Pablo, you need to have a non-linear mind, if not it would be very difficult". Also, continues Adriana, "Pablo has fuzzy thinking, so for a worker accustomed to clear-cut orders and linear strategies, working with him is hard since it is difficult to understand him, and for us, sometimes he changes his mind from one day to the other". However, these years have been difficult for the company, since former workers had governmental-bureaucratic mindsets, thus he had to fire a lot of them. They didn't like his non-linear approach to management. That created a vacuum of organizational culture, where he had to spend a lot of energy maintaining a steady growth. In a similar way to Steve Jobs, Pablo was fired from two trust companies before starting *Acción Fiduciaria*. He assures that those hard moments in life force him to create new visions. Like his *new* company.

FUTURE RESEARCH

A holistic-humanistic framework is one of the foundations of this paper (see Largacha-Martínez, 2006). Throughout the paper, without mentioning all of them, three elements are important for a humanistic management framework. This is part of an ongoing research at EAN University, in Colombia. As a brief summary, the three elements are described. The first, *alterity*, or Otherness, relates to the human behavior that asks "who is the Other" at every action or thought, searching always to dignify the Other—never denigrating the Other. The second, *non-ideological stances* mean that reality for a Corporation is something that it is always under scrutiny, which has always the space to be reinvented, reconstructed and deconstructed. Nothing is done '*the way that ought to be done'* which allows the stakeholders to ask why things are happening that way and to have the space to change it. Finally, *social obligations* for a corporation includes being socially and environmentally sustainable, but since I am adding the former two humanistic management foundations, the corporation must have an obligation

towards the Other, as Liberation Theologians affirmed. This is more than a compromise; this has to be an obligation, several social obligations.

The obligation for the Other is sine qua non of the human purpose. But this is not an obligation in the Western sense. This new relationship to the Other is a lovely-obligation, an unneeding-obligation, a humble and merciful obligation. The Merriam-Webster dictionary[32] define obligation as "something (as a promise or a contract) that binds one to a course of action". This version is similar to a duty. Additionally, to bind is defined as "to constrain with legal authority". Such a bond is a constraint. This is, clearly, not what is stated in an obligation towards the other.

Finally, as a conclusion, these companies do not want to be ranked number one in their financial indexes. Could or could not be. In general, what these companies want is to be sustainable. What I can say is that they are top players in term of sustainability, in a broader sense. They are environmentally, humanly and socially sustainable. They have higher standards of organizational citizenship.

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[32] Computer software version, 2001, v_2.6

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