The Multifield Structure of Organizational Knowledge

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Abstract The purpose of this chapter is to present a coherent analysis of the multifield structure of organizational knowledge. This new analysis goes beyond the metaphor of knowledge as stuff, or knowledge as stocks and flows, to the metaphor of knowledge as energy. The organizational knowledge is considered as a dynamic integration of the cognitive knowledge field, emotional knowledge field, and spiritual knowledge field. The chapter evidences the main characteristics of these fields and then describes the multiple forms of knowledge. Cognitive knowledge, emotional knowledge, and spiritual knowledge constitute the fundamental triple helix of the organizational knowledge field. The chapter advances the hypothesis of knowledge transformation from one form into another one, especially cognitive knowledge transformation into emotional knowledge, and of the emotional knowledge into the cognitive knowledge.

1 Understanding Knowledge

Understanding knowledge has been always a challenge for people since the beginnings of the humankind. Philosophers were among the first to ask themselves about what knowledge is and how can it be properly used. Knowledge is a fuzzy concept and sometimes an elusive object. "What is positively known by some is denied by others; knowledge is alternatively discovered and invented, forgotten, rediscovered, and invented anew; it is highly theoretical yet intensely practical; it is at once a combination of magical delight and cold logical form, subjective and

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objective, the source of human dignity, and possibly a cause of man's destruction." (Capaldi 1969: vii).

Even during ancient times, there were many disputes about the nature and meaning of knowledge. While for some philosophers knowledge was a result of both perception and thinking, for some others knowledge was a result only of the mind work. For instance, Socrates promoted the thesis that man is the measure of all things, and that knowledge is a result of perception: "Perception, then, is always something that is, and, as being knowledge, it is infallible." (Russel 1972: 149). On the other hand, Plato considered that knowledge cannot be derived from perception, and that the only worthy way of talking about knowledge is to consider only concepts and ideas. Perceptions may be confusing and misleading, but mind is the only one to guide us for reaching the truth. "We perceive hard and soft through touch, but it is the mind that judges that they exist and that they are contraries. Only the mind can reach existence, and we cannot reach truth if we do not reach existence." (Russel 1972: 152).

After some centuries of debates on the nature and meaning of knowledge, a new branch of philosophy developed, epistemology, as a discipline dedicated to the theory of knowledge. Epistemology is also concerned with norms and guidelines for acquiring and using knowledge effectively. Our purpose is not to deal with epistemology and its debates, but to construct for the organizational knowledge a sense-making framework, and to provide a new perspective of interpreting organizational knowledge as a field, like energy field in science. Going beyond the metaphors of "knowledge as stuff" or "knowledge as stocks and flows," we aim at opening new directions of research for understanding the organizational knowledge dynamics. The structure of this chapter is the following: discussing the two main paradigms of interpreting knowledge, that is, the Western and Eastern paradigms; presenting the most important metaphors used in knowledge management, and advancing the multifield theory of organizational knowledge.

2 The Western Paradigm

According to Kuhn (1970: 23), "a paradigm is an accepted model or pattern" of understanding and explaining phenomena from the real life through theoretical lenses. The Western paradigm conceives knowledge as a result of the rational mental processes. Knowledge means processing data using rational methods and not the impression we may have from looking at a certain object. Following the direction of Plato, Descartes contributed decisively to the success of the rational knowledge paradigm. His conclusion, *Cogito, ergo sum!*, made history and created the Cartesian dualism of the body and mind. That means that the mind is more important than the body, and that my mind is more important than others. I do exist because I think. If I stop thinking, there would be no evidence of my existence. "Knowledge by the senses is confused, and shared with animals; but now I have stripped the wax of its clothes, and mentally perceive it naked. From my sensibly

seeing the wax, my own existence follows with certainty, but not that of the wax. Knowledge of external things must be by the mind, not by the senses." (Russel 1972: 565).

Illusions could be arguments in favor of these above remarks. Also, from the medical practice, we learn about a strange phenomenon called "phantoms in the brain." An individual who has an amputated arm may experience a phantom arm. That person can feel that arm in a particular position in space, and even he can try to move it. However, the person can see very clearly that there is no arm anymore (Frith 2007).

The Western paradigm imposed a clear distinction between "subjective" and "objective" knowledge, and it promoted the scientific thinking. In management, this paradigm contributed to the development of the rational decision-making process, and bounded rationality. "Rational choice processes are the fundamentals of microeconomic models of resource allocation, political theories of coalition formation, statistical decision theories, and many other theories and models throughout the social sciences." (March 1994: 3). The Western paradigm contributed to the development of the cognitive organizational knowledge (Baskerville and Dulipovici 2006; Nonaka 1994; Nonaka and Toyama 2003; Schiuma 2009; Styhre 2004).

3 The Eastern Paradigm

This paradigm reflects mostly the traditional thinking of India, China, and Japan based on the Budhism and Confucianism teachings. The most important contributions have been made by the Japanese authors. According to Nonaka and Takeuchi (1995), the Japanese intellectual tradition is structured around the following three main ideas: (1) there is an integrative perspective between people and nature; (2) there is unity between mind and body; and (3) there is unity between any single individual and others from the same community. In the Japanese culture, people integrate within the natural environment and they feel like being a part of the flow of time and space. There is no fixed time and space reference system, and their language contains many concrete images from the direct environment. Most Japanese names reflect beautiful places and phenomena from their natural landscape.

The same integral perspective has been used for understanding knowledge. According to Nonaka and Takeuchi (1995: 29), "For the Japanese, knowledge means wisdom that is acquired from the perspective of the entire personality. This orientation has provided a basis for valuing personal and physical experience over indirect, intellectual capital." This conception can be found in the *samurai* education and training. Its aim is to reach wisdom through physical instruction and training. "Allow your wisdom to develop by constantly striving to perfect yourself in your own art and by understanding the arts of others. When you understand yourself and you understand the enemy you cannot be defeated." (Kaufman 1994: 27). The most important consequence of this Eastern perspective is the fact that

knowledge is not restricted to the filtered rational thinking. Knowledge includes all aspects of the human experience, regardless of their subjective or objective nature. Knowledge includes emotions, images, symbols, insights, intuitions, hunches, ideals, values, and the like (Nonaka 1994; Nonaka and Konno 1998; Nonaka and Takeuchi 1995; Nonaka and Toyama 2003). Thus, knowledge has got a very large spectrum of meanings able to reflect all aspects of the human life. The Eastern paradigm contributed to the development of the emotional and spiritual organizational knowledge.

4 Knowledge Metaphors

Understanding knowledge is a rather difficult process since knowledge is an abstract concept. There is no material object for which knowledge to be a reflection in our mind. "We use metaphor to map elements of things we are familiar with in the real world (organisms, resources, products) onto the concept of knowledge to make it compressible. Knowledge is not a concept that has a clearly delineated structure. Whatever structure it has it gets through metaphor." (Andriessen 2006: 96). Metaphors are part of our thinking process. We think through metaphors even if we are not always aware of this complex process.

Metaphors go beyond the language structures deep into our mind and action. Recent data coming from linguistic research demonstrate that our conceptual framework has a metaphorical nature. Knowing is a metaphorical process that develops from known experience and mental structures to unknown domains. We use known concepts, things, and facts to describe and explain new and unknown ones. Using metaphors, we map a new experience or a semantic domain of a new concept in terms of a known experience or known concept trying to extend the known field over the unknown one (Andriessen 2006, 2008; Cornelissen et al. 2008; Fleming 2005; Lakoff and Johnson 1999, 2003; Pinker 1994, 2007).

4.1 Knowledge as Stuff Metaphor

In the economic thought, knowledge is considered as a resource. Thus, the extension from tangible assets to the intangible ones means just a simple metaphor with a source domain reflecting a physical object. As Andriessen remarks (2008: 8), "We act as if knowledge is a thing. This has many advantages because things can be counted, controlled, and managed. However, things are also objective and neural, so the metaphor assumes that knowledge is objective; that it can be stored and retrieved without any distortion; that it can be transferred from one human being to another without interpretation." Knowledge as stuff metaphor is more frequently used by the Western authors since the metaphor integrates in the rational paradigm. It is a very appealing metaphor since we may use concepts like for the other material resources

in order to deal with the organization resources. Thus, we can create, store, retrieve, transfer, accumulate, pack, take, and give knowledge. However, the metaphor extends the linear thinking that is characteristic for tangible assets into the domain of knowledge that is intangible, and that means to introduce errors in understanding knowledge evaluation and knowledge management. For instance, according to the linear thinking, we may consider that the organizational knowledge is an aggregate result obtained by summing up all employees' individual knowledge. In other words, organizational knowledge is proportional with the number of employees. The more employees the organization has, the larger the organizational knowledge would be (Bratianu and Vasilache 2010). But this would be a wrong result since knowledge does not add up like physical objects. Another shortcoming of this metaphor is the fact that knowledge is interpreted as a static object. The operational management of any enterprise demonstrates the fact that organizational knowledge is dynamic and evolves in time as a function of the knowledge strategies developed by the top management. Organizational knowledge develops in time as a result of organizational learning (Baskerville and Dulipovici 2006; De Toni et al. 2011; Schiuma 2009; Sveiby 2001).

4.2 Knowledge as Stocks and Flows Metaphor

This is a complex metaphor since it contains actually two basic metaphors. The first one is knowledge as a stock, which means knowledge as stuff, and the second one is knowledge as a fluid flow. The metaphor incorporates time and allows for knowledge variation within the organization. As Nissen remarks (2006: XX), "To the extent that organizational knowledge does not exist in the form needed for application or at the place and time required to enable work performance, then it must flow from how it exists and where it is located to how and where it is needed. This is the concept of knowledge flows." Expanding the metaphor to the whole organization, we may imagine knowledge as being a water flow system composed of reservoirs and pipelines connecting them. However, in nature or in engineering systems, fluids flow as a result of differences in the pressure fields or in the gravity field. In the literature concerning organizational knowledge, there is no such explanation. That means that knowledge as stocks and flows is an elliptical metaphor. Although the metaphor offers new opportunities for research and a larger spectrum of meanings for managers, it remains in the realm of tangible assets.

4.3 Knowledge as Energy Field

We know from physics that energy exists in nature and technology as a field, which is a nonsubstantial existential entity. Energy is related to mass through the Einstein's famous formula $E = mc^2$. There are different forms of energy, and thus

different energy fields. They may exist as independent fields or as integrated multifields. For instance, the gravity field, the thermal field of a heated body, and the magnetic field of a magnetic object are independent fields. An electrical coil may generate both an electrical field and a magnetic field that are in a dynamic interaction. Also, in a flow of fluids, we can identify a field of velocities and a field of pressures that are in a dynamic interaction. We may consider even a thermal field being overlapping on the velocity and pressure fields. To analyze such a multifield problem, engineers use complex partial differential equations and the laws of conservation of mass, momentum, and energy.

The metaphor "knowledge as energy" has been introduced by Bratianu and Andriessen (2008). The semantic source domain is *energy* and the target domain is *knowledge*. This metaphor is very close to the Japanese way of conceiving knowledge as "ideals, values and emotions" (Nonaka and Takeuchi 1995: 9). Also, in his seminal paper about how metaphors contribute in understanding and using knowledge in organizations, Andriessen (2008) introduces the metaphor "knowledge as love." If *love* is an insightful analogy for individual knowledge, *field* analogy is much more adequate for organizational knowledge. The *knowledge field* of a generic organization integrates all the knowledge contributions from the employees and displays all the features of an energy field.

The knowledge field is conceived as an entity able to integrate all individual knowledge contributions from a certain organization and to map the whole organizational knowledge as a continuum in time and space. It is a nonuniform and nonlinear field of forces that is changing continuously in time. The field nonuniformity generates forces that stimulate the knowledge flows throughout the organization. These fluxes of knowledge are oriented against the field gradient, that is, from the higher level of knowledge toward the lower level of knowledge. This is an important metaphorical result since it explains the knowledge flows in concordance with the entropy law (Bratianu 2010). In thermodynamics, we learn that heat is flowing naturally from a body with a higher temperature toward a body with a lower temperature. The reverse heat transfer can be accomplished only by consuming a mechanical work. Projecting this aspect into the knowledge field is extremely important for understanding knowledge-sharing and knowledge-transfer processes in conjunction to the knowledge distribution within the organization, and to the motivational system. Also, there are some specific knowledge-related factors that may stimulate or slow down the action of knowledge fluxes, like knowledge stickiness and knowledge absorptive capacity (Szulansky 1996, 2000; Szulansky and Jensen 2004).

5 Nonlinearity of the Knowledge Field

The metaphors based on tangible objects, like stuff, stock, and fluid flow project onto the target domain the linear thinking and linear accounting methods. This linearity property constitutes a tough barrier to be overcome in the decision-

making process if there is not a deep understanding of the knowledge intangible nature and nonlinear behavior. The *field* metaphor eliminates this limitation, and knowledge can be considered nonlinear (Bratianu 2008). In order to illustrate this idea, we shall use as a reference the mathematical concept of a linear space and its main properties. We shall demonstrate that the linearity properties cannot be applied within the knowledge field. For our demonstration, we shall consider S as a linear space from mathematical point of view, and K the organizational knowledge field. We shall consider each property that is valid for the linear space S, and then we shall see whether we can extend this property to the knowledge space K.

- *The addition property*. If a and b are scalars representing simple numbers in S, then the result of the addition operation $a + b$ is also in S. Let us consider now the K space and two elements belonging to this space: *computer* and *carrot*. The addition of these two elements *computer* + *carrot* is meaningless, and thus, it does not satisfy the linearity requirement. We may consider some other example: *powerful* and *computer*. This time, *powerful* + *computer* = *powerful computer* makes sense, but the linearity property remains unsatisfied for all elements belonging to the space K.
- *The multiplication property*. If a and c are elements in the space S, then the result of the multiplication ac belongs to S. If we consider now two elements of the K space, *7* and *love*, the result of the multiplication *7love* is meaningless, and thus, it does not belong to K. The linear property is invalidated for the space K.
- *The commutative property*. If *a, b,* and *c* belong to S, then we have $a + b + c = c + b + a$. Let consider three elements in the K space: *Mike*, *eats*, and *cheese*. Then, we should have *Mike* + *eats* + *cheese* = *cheese* + *eats* + *Mike*. Here, the summation symbol is used to illustrate the aggregation of meanings. However, changing the order of elements in a sentence may yield strange results which cannot be accepted from the semantic point of view.
- *The associative property*. If *a*, *b,* and *c* belong to S, then we have $(a + b) + c = a + (b + c)$. Let consider three elements in the K space: *tall, Mike,* and *short*. Then, we should have *(tall* + *Mike)* + *short* = *tall* + (*Mike* + *short*). If we consider addition as a semantic aggregation, then the first association could be interpreted as "Mike is tall." However, the second association would be interpreted as "Mike is short," which means that through association, the meaning is not preserved. That means that the associative property does not apply to the knowledge field, that is, the K space.
- *The identity element*. In the linear space S, there is an element defined as zero (0) such that we may write $a + 0 = a$. That means that this zero element does not change the addition result. In the knowledge space K, we cannot find such a neutral element, since even *zero* means something. The knowledge field does not have the identity element.
- *The inverse element*. In the linear space S, we can define an inverse element for any component of this space such that $a + (-a) = 0$. In this example, $(-a)$ is the inverse element of a. The equivalent operation for the knowledge field would be (Mike is tall) + (Mike is not tall) = ? Actually, such kind of

situations may happen especially due to gossip and informal communication networks in organizations, but from the meaning point of view, the result yields ambiguity. Thus, we may conclude that there is no equivalent rule of the inverse element in the knowledge field K.

- *The superposition principle*. The superposition principle is a logical outcome of all properties of the linear spaces, and it is successfully applied in science where dealing with linear spaces. This principle is actually an extension of the addition property, since we aggregate events, activities, or tangible actions, and the outcome is meaningful. Also, the principle can be applied in the reverse way, from the whole body to its component elements. In management, this principle is recommended whenever there is a complex problem that can be broken down into smaller problems, which can be easily solved. Then, the individual solutions obtained for these simple problems can be aggregated into the general solution of the initial complex problem.

A classical illustration of how this principle works in management is given by Smith (1998: 12), considering the work of a pin-maker:

> One man draws out the wire, another straights it, a third cuts it, a fourth points it, a fifth grinds it at the top for receiving the head; to make the head requires two or three distinct operations; to put it on, is a peculiar business, to whiten the pins is another; it is even a trade by itself to put them into the paper; and the important business of making a pin is, in this manner, divided into about eighteen distinct operations, which, in some manufactories, are all performed by distinct hands, though in others the same man will sometimes perform two or three of them.

In the knowledge field, the superposition principle does not apply since meanings, emotions, intuitions, and values cannot be aggregated by applying linear methods.

They can be only integrated using the work of organizational integrators (Bratianu 2008; Bratianu et al. 2011). These integrators are conceived as powerful fields of forces able to integrate different elements into a whole structure, producing synergy. While *aggregation* is specific to a linear operation, without any synergy output, *integration* is specific to nonlinear operations with synergy output. The most important integrators for the organizational knowledge field we may consider are leadership, management, and organizational culture.

As a conclusion of all these testing rules of linearity, we consider that they have been invalided for the knowledge space K, which means that the organizational knowledge field is nonlinear. For it, researchers must discover new rules and methods to deal with nonlinearity. It is a challenging task for the immediate future of the knowledge management theory.

6 The Multifield Organizational Knowledge

We would like to introduce this concept using a metaphor from physics. Let us consider a pot with water at the room temperature. The water is motionless. The only field of forces acting upon the water inside the pot is the gravity field. We put

the pot on a gas flame to heat the water. The heat source generates a thermal field that is induced into the water. Due to the nonuniformity of the thermal field within the water, there are nonuniform changes in the water density field. These nonuniformities generate motion under the action of the gravity field, such that water particles having a lower density are pushed upward by the Archimedean forces. That means that within the water body, there are now acting simultaneously the following fields: gravity field, thermal field, density field, velocity field, and the pressure field. All of these fields of forces exist and operate within the same body of the heated water, and they interact dynamically. In order to study such a complex process, researchers use the *multifield* concept. By analogy, we may consider that within a given organization, there are several knowledge fields which operate simultaneously as the generic organizational knowledge field. These fields interact dynamically and we can be aware of them only through the integral result of people attitude and behavior. Basically, for each form of knowledge, we may consider an organizational field, but things may become too complex to be analyzed. Thus, we shall consider that the fundamental components of any organizational knowledge multifield are the following: cognitive knowledge field, emotional knowledge field, and spiritual knowledge field.

6.1 The Cognitive Knowledge Field

The term *cognitive* has two different meanings. The first meaning is specific to the rational mental processes. The second meaning refers to an extended spectrum of all mental processes, of any type and any structure (Lakoff and Johnson 1999). We shall use in this chapter the specific meaning of the term. The cognitive knowledge field is considered in the Western paradigm the only organizational field, since knowledge is thought as an output of rational mental processes. Decision-making process is also framed on rationality or bounded rationality, which means rational knowledge. The cognitive knowledge is processed by the cognitive intelligence, mostly the mathematical and logical intelligences from the Gardner's framework of multiple intelligences. "I define an *intelligence* as a biopsychological potential to process specific forms of information in certain kinds of ways. Human beings have evolved diverse information-processing capacities—I term 'intelligences'—that allow them to solve problems or to fashion products." (Gardner 2006: 29).

The fundamental characteristic of this cognitive knowledge is the fact that it can be expressed, using the language, and becoming *explicit* knowledge. Explicit knowledge can be shared to other people, transformed through codification into documents or data bases, stored and retrieved, and transferred to other people or organizations. Codification means to transform knowledge into some specific formats and then made them available to the whole organization. For each organization, managers can decide the types of knowledge codification, and then how to map, model, or simulate the organizational knowledge field (Becerra-Fernandez and Sabherwal 2010; Davenport and Prusak 2000; Geisler and Wickramasinghe

2009; Jashapara 2011; Nonaka and Takeuchi 1995). A map of organizational knowledge is a graphical or structural representation of the cognitive knowledge within the organization. It describes the types of knowledge structures and the locations where it can be found and used. In order to develop such knowledge maps, it is necessary to design a questionnaire and to distribute it to all employees. The questions should identify all general and specific knowledge, skills, and experiences one may have in direct relation with his job. For example, each job in Microsoft should be described in terms of 40–60 knowledge competences necessary to perform it. All answers obtained from such questionnaires are processed and integrated into the organizational knowledge map (Davenport and Prusak 2000).

Managerial experience and cognitive science results demonstrate that we know much more than we can express using language. That means that much of the knowledge we acquired somehow through direct experience or as a result of learning and internalization could be found in our cognitive unconscious. Polanyi called this unconscious capacity the *tacit dimension* of knowing (Polanyi 1983). In their comparative analysis between the Western and the Eastern knowledge paradigms, Nonaka and Takeuchi underlined the importance of this tacit dimension for the Japanese companies: "They recognize that the knowledge expressed in words and numbers represents only the tip of the iceberg. They view knowledge as being primarily 'tacit'—something not easily visible and expressible. Tacit knowledge is highly personal and hard to formalize, making it difficult to communicate or share with others." (Nonaka and Takeuchi 1995: 8).

6.2 The Emotional Knowledge Field

The Eastern paradigm introduces emotional knowledge as an important part of the individual knowledge spectrum. The emotional knowledge field contains processed results of the sensory system, feelings, and emotions. Not everybody agrees with this oneness perspective, but it becomes more and more attractive due to its managerial applications. According to Nonaka and Takeuchi (1995: 9), "Highly subjective insights, intuitions, and hunches are an integral part of knowledge. Knowledge also embraces ideals, values, and emotions as well as images and symbols." Emotional knowledge represents a key factor in a successful motivation process, and in stimulating innovations in organizations. Emotional knowledge contributes significantly to the decision-making process both in management and marketing, since people are primarily emotional decision makers (Fauconnier and Turner 2002; Gladwell 2005, 2010; Goleman 1995; Hill 2008; LeDoux 1998).

Recognizing that emotional knowledge was neglected from the realm of research and practice, Le Doux demonstrates that human brain is both cognitive and emotional: "But now it is time to put cognition back into its mental context—to reunite cognition and emotion in the mind. Minds have thoughts as well as emotions and the study of either without the other will never be fully satisfying."

(Le Doux 1998: 39). Like tacit knowledge, emotional knowledge is very difficult to be expressed in words. It has to be understood in a different way and used according to this specific. Emotional knowledge is highly nonlinear by comparison with the cognitive knowledge.

Also, if cognitive knowledge can be described by only one extensive dimension, emotional knowledge can be described by two dimensions. One is the extensive dimension which contributes in evaluating the quantity of emotional knowledge. The other is the intensive dimension which contributes in evaluating the level of intensity. Since there is no such measuring system created, we may consider that emotional knowledge can be evaluated, at least in comparative terms, by using the concept of *emotion temperature* (Bratianu and Andriessen 2008). That means that for the same event, several persons may experience emotions of different intensity, that is, different temperature levels. Emotional knowledge is processed by the *emotional intelligence* (Goleman 1995). Leadership as an organizational integrator acts especially on the emotional knowledge determining a high level of employees' motivation.

Although Nonaka and Takeuchi (1995) recognize the importance of emotions in the Japanese management, they do not make a clear distinction between cognitive knowledge and emotional knowledge, and as a consequence, they do not show how emotional knowledge fits into their SECI model. It is an implicit understanding that emotional knowledge is a part of the tacit knowledge and it participate in this form to the socialization and externalization processes, but things are not clear enough (Bratianu 2010). The SECI model is based on the Newtonian dynamics and thus it can explain only the transformation of tacit knowledge into explicit knowledge through the process of *externalization*, and the transformation of explicit knowledge into tacit knowledge through the process of *internalization.* There is no room in their model for the transformation of the cognitive knowledge into emotional knowledge and the transformation of emotional knowledge into cognitive knowledge. In order to explain these complex processes, we need to change the paradigm, as we shall demonstrate further in this chapter.

6.3 The Spiritual Knowledge Field

The spiritual knowledge field contains deepest meanings, values, goals, and highest motivations at individual and organizational levels (Benefiel 2005; Reave 2005; Zohar and Marshall 2000, 2004). If cognitive knowledge is about what I think, and emotional knowledge is about what I feel, spiritual knowledge is about what I am. We need a sense of our life, and a vision to drive us toward the future. This assertion can be extended from the individual level up to the organizational level. Each organization integrates individual employee's values and beliefs creating this way the spiritual field. Although many people would say that organizations are neutral with respect to a value system since they have the job of producing products and services for the consumers, the truth is that each

organization contains a strong spiritual knowledge field. "Organizations are, after all, made up of people whose values and beliefs inescapably influence their thoughts and actions. The organizations themselves have histories, derived from people's actions and words, that also express corporate values and beliefs." (Davenport and Prusak 2000: 120).

Spiritual knowledge forces act upon all employees and generate necessary motivations for their efforts in achieving a sustainable competitive advantage. The vision and the mission of the company are deeply supported by the corporate values which are integrated into the spiritual knowledge field. In a living company, "The values of the company coexist with the values of individuals within the corporation—and every member is aware of this coexistence." (De Geus 2002: 127). The most important integrators acting on spiritual knowledge field are leadership and organizational culture. Leadership defines the vision and the mission of the organization, and then it makes all necessary efforts this vision to be shared by all employees. Leaders promote the value system that becomes the decision-making guideline. However, some people may ask how then it is possible for some organizations to fail if their leaders act in concordance with a set of values and principles. The answer is very simple: Not all the values belong to the business ethical code. There are positive values like quality, trust, honesty, transparency and negative values like their counterpart nonquality, nontrust, nonhonesty, nontransparency. When a leader chooses a set of positive values for his decision-making process, then the organization aims at excellence and competitive advantage. When a leader chooses a set of negative values, then he serves his own interests even if the organization is driven to nonperformance and failure. In this situation, we can talk about dishonesty and *antimanagement.* A well-known example in this case is the collapse of the Enron company (Benston and Hartgraves 2002; Chatterjee 2003; Lev 2002).

Reave analyzed over 150 studies dedicated to spiritual knowledge field and spiritual leadership and found that their correlation to the organization performance could be well demonstrated since "there is a clear consistency between the values (in the sense of established ideals) and practices emphasized in many different spiritual teachings, and the values and practices of leaders who are able to motivate followers, create a positive ethical climate, inspire trust, promote positive work relationships, and achieve organizational goals." (Reave 2005: 656).

6.4 The Law of Symmetry in Management

In science, we know that there are many laws that illustrate the asymmetry properties of different fields. For instance, the north pole of a given magnet attracts the south pole of another magnet and rejects the north pole of it. A small sphere that contains a positive electrical charge will attract another sphere with negative electrical charge and will reject a sphere with the same electrical charge.

In management, considering the spiritual knowledge field, practical evidence leads us to a law of symmetry. Thus, *value attracts value and rejects mediocrity. Mediocrity attracts mediocrity and rejects value*. That means that a manager who has high spiritual values and a very good professional background will attract similar people to work with him and will reject mediocrity. But a mediocre manager will choose around him only mediocre people and will reject real values. In conclusion, an organization can be destroyed from within by hiring a mediocre CEO. Although this law has never been discussed in the management books, it works in any organization. A demonstration can be made with almost all organizations from the former socialist countries in these last 20 years of economical transition. One of the explanations of this phenomenon is the lack of a solid and coherent spiritual knowledge field in organization, and a lack of understanding its importance in the organizational knowledge dynamics.

6.5 Organizational Knowledge Dynamics

The first consistent knowledge dynamics model has been developed by Nonaka and his coworkers (Nonaka 1994; Nonaka and Konno 1998; Nonaka and Takeuchi 1995; Nonaka and Toyama 2003). The SECI model contains two knowledge conversion processes and two knowledge-transfer processes. The conversion processes are internalization and externalization. Internalization refers to the conversion of explicit knowledge into tacit knowledge, and it is primarily an individual process. This conversion is a result of a learning process. The externalization process refers to the conversion of tacit knowledge into explicit knowledge. Using the metaphor *knowledge as energy* (Bratianu and Andriessen 2008), tacit knowledge can be considered as a knowledge potential being associated to the potential mechanical energy of a given body. The explicit knowledge can be associated with the kinetic energy. Thus, the knowledge dynamics matches the mechanical energy dynamics, but without the conservation energy requirement.

A new knowledge dynamics model has been promoted by Bratianu (2011) based on the thermodynamics paradigm. In this paradigm, the source domain contains mechanical energy and thermal energy, and the target domain contains cognitive knowledge and emotional knowledge. Although some people may be surprised by the novelty of this metaphor, it displays the possibility of transforming cognitive knowledge into emotional knowledge, and emotional knowledge into cognitive knowledge. For many authors, thoughts and emotions are two different psychological categories without any correlation or possible transformation. However, we consider that this dynamics is possible and actually it does happen in our brain through another unknown dynamics between the conscious and unconscious mind. “By treating emotions as unconscious processes that can sometimes give rise to conscious content, we lift the burden of the mind–body

problem from the shoulders of emotion researchers and allow them to get on with the problem of figuring out how the brain does its unconscious emotional business." (Le Doux 1998: 269).

7 Conclusions

The aim of this chapter is to present a new perspective of the organizational knowledge based on the multifield concept and on a metaphorical construct. Integrating all aspects of the knowledge paradigms and metaphors concerning its understanding and dynamics, the present chapter develops a theoretical framework able to encompass the complex structure and processes of the organizational knowledge. While the Western paradigm is based on the Cartesian dualism between mind and body, and stresses the rational nature of knowledge, the Eastern paradigm comes as an integrative approach to knowledge nature and considers that everything related to human activity may contribute to the knowledge spectrum from well-defined ideas to fuzzy experience, emotions, intuitions, values, and beliefs.

The metaphorical approach considers the classical knowledge as stuff metaphor, knowledge as stocks and flows metaphor, and the less known knowledge as energy metaphor. The last metaphor leads to the assumption that knowledge can be considered as a field, that is, a mass-free entity spread continuously within a given space and time. This field is nonuniform and nonlinear, and due to its nonuniformity, it generates knowledge fluxes throughout the organization.

The organizational knowledge is considered as a complex multifield structure that is composed of cognitive knowledge, emotional knowledge, and spiritual knowledge. Also, it is made the distinction between explicit knowledge and tacit knowledge. These three fields are in a continuous interaction which generates knowledge conversions. The first conversions have been presented by Nonaka in his SECI model, namely the conversion of tacit knowledge into explicit knowledge and vice versa. Changing the perspective from Newtonian dynamics to thermodynamics, a new conversion process can be revealed: the transformation of cognitive knowledge into emotional knowledge and vice versa. Although many authors consider thoughts and emotions as being totally different phenomena, a dynamic model based on the thermodynamic transformations could be extremely useful for understanding the complexity of organizational knowledge and especially for improving the leadership performances.

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