Systemics, connectivity and innovation: what role do we want them to play in a new perspective on strategy?

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Abstract

Purpose of the paper: *Since it was launched in 2002, the IberoAmerican Forum on Communication Strategies (FISEC) has been working on the development of a new (and general) theory of organization strategy, capable of dealing with the new challenges of the 21st century. This search for a new strategic approach is a multidisciplinary effort, and an attempt to go beyond the economics-and-business focus that has been dominant until now. In this approach, the paradigm of social relations originating from the discipline of communications is perhaps the most significant influence. The purpose of this conceptual paper is to contribute to this exciting academic project with some relevant ideas.*

Methodology: *From a methodological point of view, some recent literature in Strategic Management has underlined the importance of context and social structure, as well as the relevance of interactions and the complexity of human behaviors in organizations (personal relationships, cognitive biases, emotional and psychological issues).*

Originality: *With in this framework, as a novelty of this work, it is argued that networking, connectivity and innovation within the framework of new evolving systems can be seen as phenomena that will configure a new paradigm of corporate strategic behavior.*

Research and managerial implications: *In this paradigm, the recovery (rather than the discovery) of the human element is proposed as a central feature: humans are intrinsically social creatures, and the social dimension of strategy is brought to the center of that discourse, with significant managerial implications: for instance, the need to respond to and deal more effectively with diverse and serious world-wide challenges is making the redesign of organizations a highly relevant topic.*

Value of paper: *This final point can be considered as an extra added value of this paper.*

Key words: systemics; connectivity; innovation; strategic management; marketing; communication

1. Introduction

At the FISEC (IberoAmerican Forum on Strategies of Communication) Meeting, held in Mexico City in 2005, I had the opportunity to present the paper "Can a

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strategic theory capable of responding to the challenges of the 21st century be generated from Management?". On that occasion, considering Strategic Management as a sub-discipline within that of Management orientated to the study of strategy, I started with a review of the discipline from its origins up to the present. Identifying lines that could then be glimpsed as the determinants of its future development, I stressed the following points (Vargas, 2005):

- the relationship between this discipline and some of the great challenges or problems facing humanity, with particular reference to current topics such as Knowledge Management and Corporate Social Responsibility that demonstrate its capacity to evolve;
- the role of the individual human being in the current conception of strategic management;
- the possible role of the discipline of Strategic Management in the construction of a new and general theory of strategy, starting from the identification of its biases and limitations, and how they are being corrected and overcome[1].

Now I shall take the same point of departure, that of the great problems of our time, which I will use to fuel a debate capable of illuminating a new theory of organizational strategy. Being the result of a stronger interdisciplinary approach and cross-fertilization, this new theory may present an effective response to some of the massive challenges that are proving powerful enough to shake the foundations of contemporary society. For this reason, these challenges should not be viewed solely through the prism of economics and business studies, although the contributions already made and still to be made by these scientific fields, depositaries of much knowledge on these matters, should not be disparaged.

I will refer to the following main problems, indicating five of the chief concerns, but not attempting to cover them all:

- globalization and the international financial crisis, with the consequent intensification of competition, the massive dislocation of investments (capital movements), the pressure of the markets on some countries' sovereign debt, the instability of currencies, and similar manifestations, all of them presaging severe commercial disputes (exchange rate manipulations, protectionist measures, etc.);
- a new world geopolitical order in which effective multilateralism is in process but still not flourishing;
- poverty and the fight for access to natural resources and energy: the problem of sustainability;
- wars, terrorism, propagation of new diseases;
- corruption, corporate scandals, crisis of values (and the conspicuous absence of certain values). Are we living in the era of incredulity?

From the statistics of the International Monetary Fund, it is clear that the first

[1] The following biases were identified: the bias towards economics and statistics; the bias derived from a static and structural conception of strategy; the bias that is the consequence of the conception of strategy centred on conflict and zero-sum games; the bias towards all things technological and the consequent loss of sight of the human being.

decade of the 21st century has been a period in which the emerging and developing economies have grown much more than the advanced economies (by 82% as against 17%). The emerging countries of all the regions of the planet have grown at least twice as much as those of the "first world", and this is the first time that this phenomenon has occurred. In the 1990s the growth of the emerging economies (46%) was somewhat greater than that of the developed economies (32%), but this was driven almost exclusively by the countries of Asia (the growth of the other regions was similar to or less than that of the more advanced countries); in the 1980s the levels of growth were very similar. Therefore, it can be said that the world has experienced a decade in which a certain degree of macro-quantitative convergence has been achieved, when the enormous gulf of inequality has been narrowed and when the poverty in the "third world" has been reduced.

There is no doubt that the financial crisis that erupted during the second half of the decade has weighed down the rich countries in particular; so we will have to wait and see if this process of convergence is consolidated or has, instead, merely been the result of errors committed by the bankers, businessmen and politicians of the rich countries. Without prejudice to that question, what is more significant from a strategic perspective is the rates of growth of the investments in human and technological capital that are taking place in those emerging and developing economies (one only has to see how their systems of further education are advancing); such growth constitutes the best bet for making progress in productivity, competitiveness and real convergence. In China and its area of influence, it is known that, in the long term, the competitiveness of these economies cannot be sustained exclusively by very low wage costs, and that these countries must progress towards a greater output of higher value-added products and services.

Overall, disequilibria represent a major latent threat. These are especially evident in the giant Chinese economy, characterized by tremendous inequalities between the expanding urban zones and the precarious rural zones vulnerable to forces similar to those of the previous centuries; more than a billion people are living through a savage capitalist boom and without democratic institutions. Some international political analysts argue that China, suffering from terrible dehumanization on a vast scale, is the most serious of all the problems that humanity is facing . All this is also taking place in a context of economic-financial globalization without global political and social institutions capable of exerting effective control over the excesses being committed:

- is there anyone who would now deny that the current model of the United Nations Organization, which we inherited from the Second World War, has outlived its useful life? But we have not been able to create anything better. There are, for example, the so-called BRIC countries (Brazil, Russia, India and China) that exemplify the great potential of the emerging economies and that are claiming their place in the various geopolitical arenas of the world (UN, G8, and others); in their advance towards "equality of status" with the USA, Japan, Germany and other western powers offer us a glimpse of a possible new multilateral order in the world;

- many people (but not all) are convinced that the European Union is a political actuality or entelechy with real capacity to play a unitary and effective role in the global arena.

In this global context, however, it is the differences between peoples that continue to determine events, and the disequilibria continue to be enormous - unsustainable yet unmanageable. Pankaj Ghemawat (2007) has called this situation "globaloney". In his book "Redefining Global Strategy" (subtitled "Crossing Borders in a World Where Differences Still Matter"), he states that "Globalisation's future is more fragile than you know", so that "Managers who believe the hype of 'flat world' do so at their own risk. National borders still matter a lot for business strategists".

However, these asymmetries represent opportunities for companies, in a vaguely similar way to what we have learned from the physicists, whereby the rupture of the symmetry between matter and antimatter gave rise to the creation of something impressive known as "the Universe".

Hence, these are some of the things that Strategic Management as a scientific discipline has demonstrated:

- the importance of context and of social structure (sector, networks, clusters, etc.);
- the importance of interactions;
- the complexity of behaviours in organizations (personal relationships, cognitive bias, emotional and affective matters).

In essence, the human element needs to be recovered, with the person seen as an essentially social being and depositary of values. One of the most striking dimensions of the current crisis is that of values: we are in the midst of a real crisis of values. The free market system needs to be subject to certain controls, and these are now being questioned. However, one part of that control, self-control, or self-discipline, is the kind of control that develops in relation to the values and principles of persons as individuals. It is essential to restore the sense of what is ethical; this includes the ethical aspects of work (let's call it deontology) and of the company (let's call it corporate social responsibility). What we are currently experiencing is, in reality, not an economic-financial crisis. That is only the tip of the iceberg: the mess we see is the rotten fruit of a tree that we have allowed to grow deformed and twisted. The fundamental problem lies in the roots of that tree - in our individual and collective values, and in the absence of certain very important values. What do the new generations believe in? What do they not believe in that previous generations did believe in? Why is there growing disaffection with politics and politicians in a democratic system, a system in which more people have more freedoms than in any other period in history? These last questions lead us to reflect on the paradigm of sustainability, which was considered in the cited paper presented to FISEC-2005 from the perspective of corporate social responsibility.

2. Placing innovation at the heart of our discourse on strategy

It is widely assumed that our competitiveness, our survival in a global economy, and the maintenance of the levels of well-being we have reached depend, fundamentally, on our capacity as a country to drive innovation and, through this, to stimulate change in diverse fields. These goals further depend on our capacity to develop, to the greatest possible extent, an economy based on knowledge and move from an economy based on labour (that generates unaffordable costs) to a new economy based on brain-work (that generates high-value-added products and services). Therefore, we have to place innovation at the centre of our social structure and dynamics: in companies, of course, but also in education, as a social value of prime importance. There must be transversal discourse.

Innovation in organizations is not usually spontaneous; rather it tends to be the result of a complex process that needs to be managed; it is based on systems thinking (the focus or approach adopted), on connectivity (networks, alliances, open communications), and on the techniques of knowledge management (with the appropriate inducers of knowledge).

The aim of systems methodology (to which Strategic Management corresponds) is to propitiate new ways of finding solutions, transcending the habitual analytical methodologies by which reality is often artificially compartmentalized. Through a holistic grasp of the complexity of that reality (the big system and all its sub-systems), including its elements and the interactions among them and with the environment, we will be better orientated towards systematic innovation, which takes into account not only the elements in play (internal and external) but also the interrelationships between them. It is relatively rare for innovation to arise from one burst of spontaneous inspiration; in fact, the evidence points to the opposite.

Drucker (1993) convinced us that innovation requires many diverse factors to come together in a systematic way; this is what we now understand, by its very nature, as systemic. Only through this approach it will be possible to organize focused creativity, i.e. the search to discover novelties and changes with a pre-determined objective, and to analyze the opportunities that these “discoveries” may offer for innovating.

The old analytical method is directed towards describing a particular aspect of reality. The method is reductionist: its aim is to find causes that are independent and sufficient to explain such reality. In the systemic method, however, we take as given the reality with all its complexities, in which all the elements affect the whole, and the whole, in turn, influences each element: we seek to explain why the phenomenon under study functions in a particular way. Coronado Velasco (2002) expresses it as follows: “(the systemic method) generates understanding as well as knowledge”.

To summarize, it is not a question of renouncing the analytical method but rather of understanding that, as Ramos Hernández (2006) puts it, “the phenomenon will be better understood if we alternate between the close-up “zoom” of analysis and the “landscape” view of synthesis”. Both perspectives are needed.

In addition to the scientific method, I want to dedicate a few lines to two concepts intimately linked to innovation which we cannot fail to mention: creativity and knowledge management.

Creativity here means the mental process that helps to generate ideas, identifying and refining those that are truly novel; it is the forerunner process to that of innovation (which is largely built on R&D), and a lot has been written about what conditions creativity and how it can be stimulated and channelled. The science-based approach, guided by conventional logical-thought processes, usually brings us to one dominant line of thinking (a paradigm): this approach needs to be questioned. To this end, De Bono (1967) referred to lateral thinking as a route to finding new responses, a process that can help to overcome the limitations of approaching a problem in only one way.

In a recent document from the AECA (2010) titled "Managing by means of induction", innovative actions such as developing intuition and cultivating positive emotions are proposed. In this document, it is stated that creativity is the consequence of cognitive and reflective mental processes based on observation and experience; it requires knowledge, motivation and action and it is manifested through intuition, improvisation, invention and talent. The authors add: "An essential pre-requisite for any of these manifestations is a prior phase of preparatory work - rational, intense and conscious work - that is nourished by rational thinking. Next a phase of incubation takes place in which the mind wanders freely around the topic, to allow the subconscious to resolve the central problem so that solutions can finally emerge…."

The ability of any particular mind to perform these thought processes depends on genetics and, above all, on what that mind has learned through education and experience, and on the ambience within which these thought processes are conducted. Such ability is an innate gift that corresponds to certain properties of the mind, but it can also be taught, learned and enhanced.

Knowledge (both internal, within the individual, the group and the organization, and external) and its management are the foundations of innovation, arising from the generation of new knowledge. In the paper I presented at the 2005 Meeting in Mexico City, the management of knowledge was given specific treatment, so I will not dwell too much on that particular topic here. However, it may be recalled that the three complementary perspectives from which the phenomenon of learning can be observed and managed (technological, structural and human) enable us to identify the inductors or facilitators of learning. I proposed the acronym THALEC to group them together: information and communication Technologies; Human resources management; working climate or Ambience; Leadership; structure and design of the organization (E); organization Culture.

In their study of the determinants of success in innovation, Jiménez Jiménez and Sanz Valle (2004) identify a series of internal factors that correspond fairly closely to the triple perspective: in addition to an adequate strategy, the innovative organization needs a particular structure, together with other factors (among which technology is included), and a series of human conditioners (that translate as effective leadership and management, and enlightened management of human resources).

In the business fabric typical of Spain (and of most countries) today, predominantly constituted by micro, small and medium-size companies, the human factor acquires special significance, because an organizational unit of modest size facilitates desirable operating characteristics such as fluidity in internal communication, group coordination and cohesion, and speed of response. For this kind of business reality, the articulation of mechanisms of cooperation is the key for the competitiveness and survival of companies. The challenge facing our companies is to foster cooperation so that they can take advantage of synergies with customers, suppliers, competitors and other organisations in order to create alliances and networks that strengthen innovation. This is the only way these smaller companies (and especially the many micro-companies) can hope to maintain and consolidate their businesses.

Of course, a successful cooperation requires the cooperators to define clear working rules, clear and significant common objectives, and the tasks and contributions each party will undertake. In addition, it must be recognized that, even though the independence of the parties may be formally preserved in the working agreements, the downside of cooperation is a certain loss of autonomy. Lastly, some of the pre-requisites for the success of cooperation are worth considering: mutual knowledge, a climate of trust, transparency and complementarity between the agents involved, that would allow a win-win strategy to be developed. In this respect, the importance of communication is evident, since mutual knowledge, trust and transparency can only come from effective communication.

It is important to state, finally, that this kind of collaborative work among persons who bring diverse kinds of baggage with them can generate a rich "culture broth" suitable for generating innovations in a systematic way, through processes of hybridization and creative interconnections between minds that operate differently. Following the terminology of Christensen (1997), the more diverse these backgrounds are, the greater the possibilities for generating a kind of innovation that is disruptive of existing patterns (i.e. radical and potentially highly rewarding) in place of evolutionary adaptation.

3. From conventional marketing to conversation

"Insanity is doing the same thing over and over again, and expecting different results". This quotation attributed to Albert Einstein alerts us, in effect, about the need to change, and hence the need to manage change. Great innovations arise from dialogue, from conversation with customers, actual and potential; it is thus important to maintain a permanent and fluid relationship with them. This necessary effort to communicate well and widely leads us to reflect on the nature of marketing as the management discipline on which this task has pivoted. It is a discipline that must also evolve.

The marketing mix encompasses several kinds of variables (the well-known 4 Ps) on which the managers in this area have traditionally taken decisions, and will continue to do so: Product, Price, Place and Promotion. The difference in today's world is that the context in which those decisions have to be taken is characterized by certain singular features that are the result, particularly, of recent technological developments.

The features of this new context can be grouped or delineated as the 4 Cs.

3.1 The first C is Community

Companies and their products are now part of "Socialnomics" (Qualman, 2009), in which brands are socialized. Whether they like it or not, they find themselves participating in communities (usually on-line); the other members are individuals who may be actual or potential employees, customers, suppliers or other stakeholders; sometimes they are friends, sometimes enemies, or more likely both, in different ways.

Enabled by our fascinating and clever new technologies, these communities have become much more powerful and global than the traditional sort. The effect of the social media and networks is enormous, and this effect is growing exponentially. But regardless of that, companies and their products have no choice but to be there: if not, it is as if they do not exist.

However, they cannot be just a passive presence: they need to be in constant interaction with the members of that community. Among other issues, their corporate reputation is on the line: at risk of damage or with a good chance of enhancement - but it must be managed actively and skilfully.

Space and time have been compressed, and this is made very evident, among others, by the famous model of the "six degrees of separation" of Stanley Milgram with his 1960s experiments for demonstrating how small the world really is by showing its interconnections. This social phenomenon is now even more reinforced by our communities which are more and more interconnected thanks to the Internet and other networks. More evidence exists in "the law of the few" as expounded by Gladwell (2000) in his book "The Tipping Point: How little things can make a big difference", where the key roles of connectors, information specialists and persuaders are explained.

3.2 The second C is Co-creation

Companies cannot generate superior added value by acting on their own: they need the collaboration of their customers. Wikipedia is an extraordinary example of co-creation; Linux is another. Only the voluntary collaboration of a countless number of "co-authors" has allowed Wikipedia to construct that immense and always up-to-date "free encyclopedia" - and all in a very short time (Wiki means rapid in Hawaiian). One further point: a recent study in the USA (titled "How America Searches: Online Retail", released by iCrossing http://www.icrossing.com/

articles/How%20America%20Searches%20-%20Online%20Retail.pdf) reveals that four out of ten consumers consider Wikipedia to be very influential when taking their online shopping decisions.

In short, rather than creating a standard product that the supplier offers to the potential customer, who then decides whether to buy it or not, companies can now configure the most suitable product with (and not only for) that customer.

3.3 The third C is Conversation

The era in which information and connections were tightly controlled by companies is fading away. The practice of marketing must change and be rooted in dialogue, collaboration and co-creation with the customer. This no longer operates according to the “us and them” pattern (the company and the customers), but it is now “us and us”: we are partners with our customers, and what we do (our products, their design, etc.) we must do not only for them but with them. Now it is not a question of reporting but of dialoguing, and in this the relational paradigm of communication is essential. Consumers have changed: companies have to change with them and learn the art of conversation, which will generate a multitude of ideas that, in turn, can become opportunities and innovations.

3.4 The fourth C is Customization

The mass market is evolving towards a market of niches; there may even be as many niches as there are individuals, since the various technologies have made possible the full personalization of the product (a good or a service) in many cases. The markets known as “long tail”, as popularized by Chris Anderson (2006), are good proof of this.

These 4Cs determine the new context in which decisions on the 4 Ps are taken, because each of the Cs is fundamentally concerned with people; this is very much in line with our proposal on the centrality of the human element, recognizing that individual people are essentially social beings.

An organization such as a company is not like a machine, made up of component pieces that can be simply replaced when problems arise or needs change: it is much more like a living organism that learns and changes through the interacting, interrelating people who are its members and other stakeholders, who really constitute the organization as a physical entity (the attribute of autopoiesis, neologism created in 1971 by the Chilean biologists Maturana and Varela). Similarly, the role of leaders and managers is no longer like that of a mechanic who replaces faulty or obsolete parts: their role is more like that of the gardener who facilitates growth, enabling the individual, the work team and the organization as a whole to flourish.

4. Conclusions

To summarize: How significant are all these elements - systemics, innovation, connectivity and strategy - in this new appraisal of organization theory, design and practice?

We could say that their role is to configure a paradigm of strategic behaviour that, from a systemic view of the reality being studied, promotes innovation on the basis of a greater connectivity among the components of the system and among systems (networks/alliances) by facilitating the more efficacious management of shared knowledge. All of this is combined with ways of understanding the strategic process and how it operates that are closer to reality, with models that reflect more accurately the processes that we really use when we conceive and formulate strategies for our organizations.

This attempt to develop more realistic and, therefore, more complex models means abandoning the simplifications and artificialities built into the models predominant until now. For example, most models take as given the rationality of the “economic man”, whereas this fictitious being has been clearly shown to be incapable of responding adequately to current challenges (divided simplistically into “opportunities and threats”). Such models suffer the limitations of their basic assumptions, and consequently show a serious theoretical weakness.

As Pérez and Massoni state (2009, p. 196): “Working with human beings (and, as such, with relationships) and not with (rational) actors leads to a more consensual and cultural orientation of strategy. If reality is a complex of correlations, and each individual is one of the nodes, strategy changes from being a way to weave or unravel that net, searching for another configuration more propitious for our future as human beings and for our goals and ambitions. Improving our pattern of connectivity thus becomes the principal task of all strategy”.

In effect, that pattern of connectivity is what we have identified as the key for stimulating innovation and for constructing a new kind of marketing based on conversation and dialogue.

This also brings us to the need to redesign organizations, so that they can evolve towards:

- an emphasis on coordination, more than on control;
- objectives of multiple pay-offs, linked to the organization’s relationship with its multiple stakeholders;
- decentralized decision-taking, located where people have the most relevant knowledge and interest;
- authority diffused throughout the organization, but with clear responsibilities;
- forms of self-organization or informal organizations.

These changes leads to evolutionary paths that enhance the internal complexity of the organization and that, when put in the context of the complexity of its environment (of its markets, its technology and that of society in general), present new challenges for those who must steer and govern our companies.

More than a decade ago, I described these as the challenges inherent in the management of paradox and diversity, inevitable in a world that is increasingly paradoxical and diverse (Vargas Sánchez, 2000).

Cultural diversity remains important, and it is becoming more and more accentuated because of globalization and of the consequent mobility of ideas and people; technological diversity is increasingly a source of extraordinary opportunities for business, for those capable of integrating technologies not initially or obviously related.

In short, the management of diversity in general has become one of the most burning topics of contemporary management, with concepts as potent as that of hybridization, extraordinarily useful in the management of innovation.

And significant paradoxes also remain, which have to be managed taken into account their potential to provoke confusion and disagreement:

- global versus local,
- competition versus cooperation,
- economic growth versus conservation of the natural environment,
- order versus disorder (critical when seeking creativity and innovation);
- and many more - concepts apparently contradictory or incompatible but that coexist in the same reality, making it more complex.

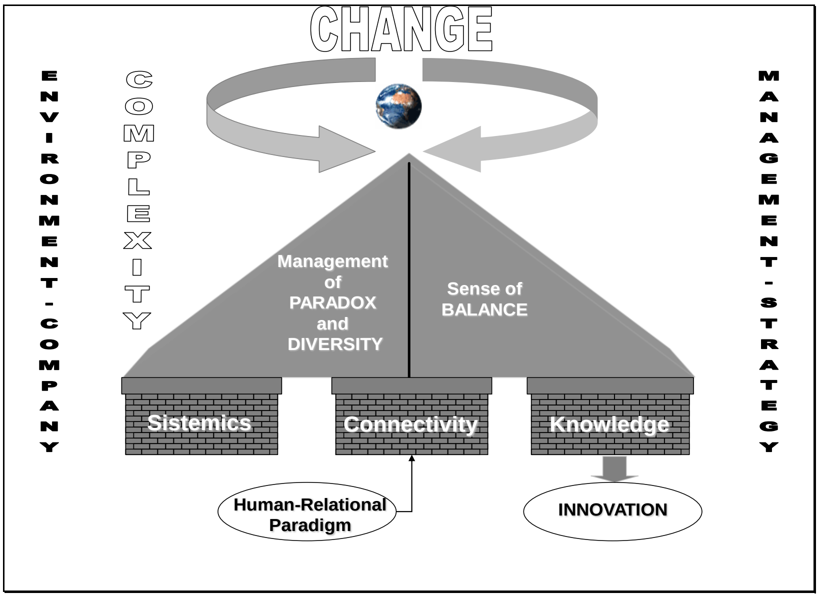
Given this scenario, a sense of equilibrium, systems thinking, and the handling of the strategic resources necessary for confronting such challenges (in particular the intangible resources such as knowledge) become essential pillars for the proper governance of organizations:

- sensitivity to the importance of balance is a necessary characteristic for all good leaders and managers. Equilibrium is increasingly relevant for decisions taken in a context of accelerating change. Rapid change generates greater uncertainty at all levels and, therefore, yesterday's equilibrium is increasingly short-lived, leading to increased instability. I have described the person required for this tricky role as the "tightrope-walking director";
- systems- or holistic thinking is the analytical approach that helps us to understand complexity in its most authentic dimension; and, based on this understanding, we can design strategies for confronting complexity. For example, with reference to the strategic process, there is consensus in existing studies that the principal problems arise in the phase of the implementation of the strategy, more than in its formulation; in the light of this, it is clear that good communication (with its relational paradigm) becomes the indispensable element for ensuring that the strategy is known and understood; without this, the strategy "adopted" is unlikely to be well implemented by the organization's members;
- it is in the last-mentioned (but no less important) pillar that we come up again to the key resource of knowledge and how to acquire, exploit and manage it. Here again the theories of communication are of inestimable value and should be integrated: communication plays an essential role in the management of knowledge, with its human-relational model.

If we understand this complexity, our view of the world will change; and the "human-relational" paradigm changes the view of any possible strategy for an organization that aspires to intervene in that world and its dynamics. "Against a strategy that has excluded human beings and substituted some reductionist constructs, the New Theory proposes the reintegration of the human element, in a discipline from which it should never have been absent" (Pérez and Massoni, 2009, 114). These authors refer to moving from the rationality to the relationality of the human being (i.e. to our capacity to maintain relationships). They are thus proposing a change of scientific paradigm (from the dualism/fragmentation of René Descartes to the complex thinking of Edgar Morin). They also propose abandoning the specific disciplinary paradigm of the strategy, dominated until now by economic rationality - a teleological pragmatism of the functionalist type- in which the approach to the social relationships operating within the organization is based on competition and conflict; they want to replace it with a paradigm of humans as they really are with the relationships that humans typically have.

The following figure (1) attempts to present these ideas in schematic form, showing the connections among the variables discussed:

Fig. 1: Critical factors for a new strategic approach



Source: Own elaboration

So far, in this concluding section only two changes in the design of a new theory of strategy have been mentioned: from fragmentation to complexity and from the rational actor to the relational human being. We complete this consideration of the proposals made by Pérez and Massoni (2009) with an enumeration of other elements incorporated in their alternative, together with new tools and new models: changing our view of the company from a production unit to that of a network of innovation and of meaning[2], from the contingent to the immanent, from the science of conflict to the science of articulation[3], and from economics to communication[4].

As we know from Thomas Kuhn, a new theory emerges as a necessity because of: the appearance, as we have stated, of new problems and new priorities; a change in the cultural bases from which the problems (diversity, paradox, complexity, etc.) are confronted; the appearance of exceptions that cannot be explained by previous theories (as occurs with those based on economic concepts, because of the unreal stereotypes with which those theories work).

In the words of Pérez and Massoni (2009, p. 124-125): "In our understanding, there are three circumstances that apply in strategy: (a) we have completely new problems; (b) society today aspires to more negotiated solutions; and (c) each day the exceptions not covered by the theoretical assumptions that we have inherited become more frequent, … To all this it must be added that the scientific revolution of the 20th and early 21st centuries has already produced a similar shift of paradigms: the Cartesian-Newtonian paradigms inherited from the 17th century have been cast aside, replaced by the new paradigms of complexity, flow and chaos that have their origin in the new physics".

One further observation can be made about the recovery of the centrality of the human element, accepting man as a social being. Brought into the current context of profound crisis, this indicates the recovery of values that the economic paradigms dominant during recent decades had buried: organizations need people with excellent technical training coupled with a commitment to ethical behaviour. We need to rethink the right way to operate an entire economy and key sectors such as banking and the right way to lead a company and manage the people who work in it in order to come out of this crisis, strengthened and with responsible leaders we can trust.

2 "It is no longer valid to think of organizations as structures governed hierarchically where remote managers adopt centralized decisions following pre-established sequences. In contrast, it is worth thinking of a set of flows and elements that are self-generated and reconfigured, that co-evolve together with society as a whole, following processes not always linear, to achieve their sustainability and their competence. It is from this new vision that we will be able to design innovative and transformative strategies" (p. 116).

3 "Against a Strategy that is disorientated with respect to its object of study, the NST (New Strategic Theory) proposes a reformulation that would have the human processes of choice of strategy as its object of study. From this descriptive basic model we will be in a condition to propose more realistic and efficient normative models. And against a conflictive approach , another is proposed based on dialogue, by means of the clear articulation of the plural perceptions of the subjects involved" (p. 119).

4 "Communication offers us a unitary matrix from which to study human relationships, and is significant as the new locus from which to rethink and reformulate a General Theory of Strategy" (p. 120).

And one datum for a final note of self-criticism, quoting to Borja Durán, President of CFA (Chartered Financial Analysts) Spain[5]: "Scarcely 5% of the large business schools and universities teach ethics, whereas 100% of them teach marketing. In an environment like today's, where there is renewed concern about the need to achieve high ethical standards in business, this is a very serious problem. It should lead us to reflect on the contents, not only technical but also personal, of the courses that business schools should be providing".

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