

THINKING OF A SUB-FIELD OF STRATEGIC THINKING FROM A PLURALISTIC APPROACH TO KNOWLEDGE-INVENTION

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Abstract

This article elaborates on the need for a sub-field of 'Strategic Thinking' as the science exploring the hidden side of strategy emergence. The site of our exploration is the discourse. We will investigate the intersystemic link between self-reflection and communication embedded in discourses among strategists for paradigm deconstruction and reconstruction.

The rationale for a sub-field of Strategic Thinking is related to applying new research 'technologies'. By engaging in action-research, researchers can observe self-reflection as embedded participants and super-observers. A pluralist perspective on self-reflection, as well as transformative competencies and attitudes will allow intentionality to regain a foundational role in knowledge-invention.

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1. Introduction

Research on strategy emergence has been growing exponentially in the last decade. A fair amount of it has explored this complex issue by keeping a tight link with organizational processes from the standpoint of people, action and interaction (Pettigrew, 1990; McKee, 1992; Czarniawska, 1991; Langlely, 1999). More recently, further understanding is coming from a focus on the hidden side of strategizing, which appears to bring the field of strategy at a bifurcation point (Von Krogg, 1998; Chia, 2001; Pettigrew, 2002; Huff, 1990, 2002; McGee, 2002; DeWitt, 2002; Whittngton, 2002). This bifurcation shows the need for a deeper engagement in a multidisciplinary approach. It also indicates that, in order to explore the emergence of strategy, the issue of methodology must be re-addressed (Chia, 2001).

We have explored the hidden dynamics of self-reflection and communication, as subsystems in interaction for the purpose of knowledge-invention¹. This research focus arose gradually out of a process of building a pluralist perspective. We first explored self-reflection from the transdisciplinary views of Meta opposition, semiotics, pedagogy and psychology. Later, the introduction of perspectives on communication also showed new rationales for the *intersystemic co-evolution of self-reflection and communication* in transformation.

Our research was embedded in the practice of the participatory action-research (PAR) (Lewin, 1948; Argyris and Putnam, McClain Smith, 1985; Greenwood and Levin, 1999; Kemmis and McTaggart, 2000). This is a methodology for qualitative research, which allowed us building experiences of transformation by taking both positions of embedded participants and super-observers. This methodology actually accounts for the situation of exploring change, while enacting it.

¹ We assume Lyotard distinction between knowledge-innovation and knowledge-invention to stress our focus on paradigm change. Lyotard, in fact, states that innovation is a synthesis coming from the same repertoire as both the thesis and the antithesis. He instead defines knowledge-invention as a move introducing different rules, turning paradox, and even paralogism, into the accepted (Lyotard, 1984).

The recorded transcripts of researchers-learners discourses during PAR also provided a basic narrative which we explored through the method of Constructivist Grounded Theory (CGT) (Karmaz, 2000). CGT has evolved from Grounded Theory, a method originally embedded in positivism (Glaser and Strauss, 1967, Strauss and Corbin, 1990; Seale, 1999). By encompassing the philosophy of constructivism, CGT instead has provided the bases for justifying a Meta narrative of how transformative perspectives, competencies and attitudes affect self-reflection and communication co-evolution.

However, by itself CGT does not ensure that both evolution and the subject-object interdependence be considered. By linking CGT to PAR these limits were overcome mainly because 'line by line' discourse analysis could always be brought back to the PAR narrative (Colombo-La Rocca, 2001).

Our PAR experience was specifically devoted to teaching the transformative mentality. However, at the end of our learning process we realized that this very experience could also provide a general perspective on how knowledge is invented also when the transformative mentality is diffused, as within a network of strategists creating new paradigms. Such epilogue emerged by considering that a deconstruction of ways of thinking is implied in learning the transformative capability as in creating paradigms. The situation of strategy building is also represented in the final phase of learning the transformative capability, when education has turned the heterogeneity in transformative mentality into a situation of homogeneity.

However, building new strategic paradigms has its very specificity. In the process of learning the transformative mentality the final phase was, in fact, seen as the consequence of relieving managers from barriers in 'learning how to learn'. In the process of paradigm changing those barriers, instead, were supposed non existent. When attitudes, perspectives and competencies are even, then, the central research issue of knowledge-invention became how individual '*gaming*' (Lyotard, 1984) within a social context brings old paradigms at bifurcation points.

To face this last research issue we engrafted the perspective of transformation into Luhmann's theory of social systems (Luhmann, 1985) as well as into the theory of communication (Shannon, 1948; Leydesdorff, 2000).

We integrated those perspectives within the strategy consolidation-transformation difference. Within them self-reflection and communication are conceived from the implicit

perspective of a given paradigm, which justifies a conceptual emphasis on how communication recursively connects communication through time. The perspective of a paradigm shift instead relies on interrupting any logic of communication by challenging the very bases of current paradigms (Vos, 2002, Thyssen, 2002).

Those theories are also built around the self-referentiality of self-reflection as 'physically' separated from that of communication. This approach justifies the choice to develop theories that actually leave self-reflection unexplored. It also deals with systems' differentiation and integration on the basis of some kind of 'double structure', according to a logic of linearity (Luhmann, 1985; Leydesdorff, 2000; Viskovatoff, 1999).

We will argue instead that under the logic of transformation self-referentiality must be attributed first of all to the overarching self-reflection-communication co-evolution. Within it self-reflection appears crucial to communication and both are always strictly intertwined, as being 'physically' one inside the other (Derrida, Derrida, 1973, 1978, 1981, 1982). Sub-system self-referentiality can instead be re-admitted in relation to the different role that self-reflection and communication can play in determining their contextual co-evolution for the purpose of transformation. We will argue that, while communication is central to the process of paradigm consolidation, knowledge-invention relies primarily on the autopoiesis of self-reflection.

Self-reflection for transformation is actually the privileged standpoint from which to explore the invisible part of strategizing. Embedded participants, capable of taking the external view of super-observers, can do such exploration only within PAR because of their transformative attitudes, perspectives and competencies. Self-reflection is, in fact, unknowable by mere observation. Even communicated self-reflection cannot be taken as truth but must be relativized to perspectives, communicative competencies and attitudes of both senders and receivers of sense.

The hidden side of self-reflection is implied in latencies of sense as in unconscious cognition. Receivers can explore latencies as meaning embedded in sense. Unconscious sensemaking instead underlies the hidden side of active learning, made of the capability to grasp sense by glance. Besides, our position within the PAR, together with our pluralist perspective, has shown that transcendence can be readmitted as a standpoint for a deep understanding of self-reflection. In the attempt to avoid transcendence, researchers have

not realized that the actors' perspectives can provide foundationalist clues, other than absolute truth (Luhmann, 1967; Leydesdorff, 1999; Viskovatoff, 1999).

We believe that today self-reflection and communication have been limned up to a point that allows making the hidden side of knowledge-invention the subject of the field of 'Strategic thinking'.

2. Are we in need of the sub-field of Strategic Thinking?

We do not intend to challenge the unity of strategy. However, we believe that dropping into the paradox of maintaining that unity while separating the visible from the hidden side of strategy, can further raise innovation in the whole field.

Let us for a moment explore the common metaphor of the iceberg as representing the field of strategy. The visible part of it may be thought of in terms of companies' activities and interactions, both internal and external, including the work of strategists. This part of strategy can be represented in a traditional value chain (Porter, 1980) and partially observed by competitors from an external point of view.

The submerged part of the iceberg may be thought of as what frogmen can explore by diving into the ocean. Engaging in this exploration is not natural: it must be decided. Most importantly, it requires new 'technologies'. Frogmen need special diving suits, breathing apparatus, lights, and many other instruments; they also need specific attitudes and knowledge to accomplish their task for the sake of both understanding and survival. The advantage of this effort, however, is clear. Frogmen would know what an iceberg is from its peak down. The quality and methods of exploration would provide them with a fresh look on how the iceberg might float down the waters in which is immersed.

This metaphor suggests that there might be important reasons for establishing a sub-field of 'Strategic thinking' within strategy: a decision to dive into its complexity must first be taken. Even before the 'dive', new instruments, attitudes, perspectives and competencies must be acquired.

We agree that the hidden side of strategy has been explored since the dawn of the strategy field, showing the great variety of its facets. Indeed, anytime that has occurred the

field has advanced non-linearly (Whyte, 1943; Simon, 1945; Barnard, 1938; Chandler, 1962; Sloan, 1964; Crozier, 1967; Bower, 1970; Allison, 1971; Andrews, 1971; Normann, 1975; Porter, 1980, Mintzberg, 1983; Coda, 1991). More recently, the need to integrate the visible and invisible sides of strategy is taking more of a dynamic, evolutive and pluralist approach (Chia, 1996, 1999, 2001; de Witt and Meyer, 1998; Normann, 2001, Fonseca, 2002; Stacey, 2001; Griffin, 2002; Stacey, Griffin and Shaw, 2000).

However, we claim that, diving into the hidden part of strategy must be done more systematically and in isolation (Stacey 2001).

Looking at the visible part of strategy from its submerged vantage has provided only partial results. It has opened up new research foci, which, however, have remained unexplored, because researchers were not equipped with suitable 'technologies' for exploring the submerged.

Before re-establishing the unity of the field strategists, academics and consultants should become familiar with these 'technologies'. The unity of the field then would be explored with a great awareness of the difference between the visible and invisible processes of strategizing.

According to this difference, research on 'Strategic thinking' should not start by asking what strategists do, or by focusing on action-reflection, since those questions presuppose that the visible and the invisible sides of strategy are still kept indistinct.

Strategic thinking, as a discipline of the submerged, should rather focus on what happens underneath the invention of a strategic paradigm. What strategists do may not always relate to the emergence of a new paradigm. In fact, strategists are also involved in maintaining, defending and consolidating current strategies, which implies ordinary strategic management (Stacey, 1996). Unfortunately, the distinction between ordinary and extraordinary management is not always so clear (Stacey, 1996). Researchers may, in fact, drop into the paradox of defining strategy as a non-linear process, while recommending a strenuous defense of organizational synergies, which in the end may attain innovation while working against invention.

The issue of knowledge-invention must also deal with transformation. Crucial questions then become: "How to observe change? How to change the not evident? How to observe the not evident while changing?" The need for new methodological approaches has been acknowledged. In some cases, action-research is recognized as a relevant approach for

exploring change. Yet, this approach appears to be the attainment of a few. Right now, it seems that most research ignores the methodological implications of assuming an internal viewpoint of change, as well as that the interaction between researchers and the researched object is foundational. The choice for objectivity prevails, thus keeping research in the trap of observing the surface of either contents or processes of strategy making only as correlated 'whats' (Chia, 2001).

We will provide the narrative of our research experience as a unique story of gradually building a pluralist approach of knowledge-invention from the very embedded practice of self-reflection and communication. By doing that we only intend to participate in the effort to keep the conversation on strategic thinking alive.

3. Diving into the sea of knowledge-invention through the practice of epistemological opposition and participatory action research

In 1998 we decided to make our undergraduate class on strategic management a research site. Beyond field contents, students were asked to engage in mentality change in order to learn how to create discourses from criticality and creativity.

This focus has been the very inspiration of the possibility for a field of 'Strategic thinking' as the science of the submerged. It has, in fact, provided researchers with the very opportunity to learn how to explore what stands beneath any transformative process. What we learned later appeared relevant to speculate on strategic paradigm change as emerging from a mentality change (Stacey, 1996).

In practicing mentality transformation we were driven by pedagogical arrangements that put the responsibility of learning in the hands of both students and teachers. Since the beginning, these arrangements implied that students learned the emancipatory attitude. Recursive learning would also bring the participatory attitude, as long as students learned the perspectives and competencies of a professional researcher. These attitudes, in the end, would drive to a *symposium approach* (Kemmis and McTaggart, 2001), as stemming among a group of people evenly endowed with the transformative mentality.

To foster this transformation we advanced the perspective of epistemological opposition (La Rocca, 1996, 1999; Colombo, 1991, 1994). Above all we brought in the class the

cognitive and emotional experience of deconstructing our positivist perspective in face of constructivism.

The epistemological opposition provided researchers with the ultimate causation from which to manage the learning process as embedded participants. It allowed them exploring self-reflection beyond communicated sense as well as, from this view of self-reflection, enacting communication for 'paradoxization' and 'deparadoxization'. In the end, we could realize that the hidden side of knowledge-invention can deal with mental model transformation just through a foundationalist view of self-reflection (Viskovatoff, 1999).

The practice of mentality change through epistemological opposition and PAR has provided our research with unique features and opportunities for dealing with change. It has allowed referring to epistemology only indirectly by the way researchers opposed the constructivist mentality to the diffused positivist one. As a consequence, learning advanced from recursive successes and failures in opposing the positivist perspective by assuming the constructivist perspectives provided by researchers during social interaction.

The practice of change has provided the basic narrative to which we could apply the CGT method in order to explore the hidden side of self-reflection and communication. By this analysis we found that in few cases students used the positivist perspective as a mask, because they felt the need to adapt to institutional cultural dictates. In these cases learning was mainly a matter of recognizing that constructivism fitted personal ways of thinking, being and acting.

In most cases, however, learning took the form of painfully deconstructing a positivist mentality. These cases were crucial in exploring the traps of deconstruction. CGT analysis helped us recognize an evolutionary pattern of learning at both macro and micro levels. At a macro-level we found that Meta opposition at first only scratched ways of thinking. In such circumstances people escaped deconstruction by reconciling opposites, according to the law of the excluded middle (Letiche, 1996). In other words, learning occurred in this phase within the horizon of cognition by resisting the emotional involvement implied by paradox². Even such learning, however, progressively opened up the way for later deconstruction.

² The power of paradox instead is rooted on the principle of contradiction between opposite elements, which states that "the single element is both in a relationship of inclusion and of exclusion with each other element. The double relationship occurs because the element is in relation to a third term that is on a different level of reality. If one stays on one level of reality it appears that a fight is occurring between two opposing principles. But if [each element refers to

A second phase was played around a bifurcation point, which arose when the need to deal with paradoxes called for a strong emotional commitment. While paradoxes were the core of the entire learning process, at the bifurcation point they took the depth of existential problems, a pressing drive for a vital choice between progress and mediocrity.

Analysis on students' learning experience could only deal with bifurcation at personal level, since data collected related to individual student-teachers interaction. In the management site, instead, we managed to produce the recorded transcripts of social interactions. Then the basic narrative allowed us exploring the *self-reflection- communication co-evolution* for paradigm-invention. The bifurcation point then could also be explored from a multidisciplinary perspective of both sides of this co-evolution, as well as from the Meta perspective of constructivism.

At a micro-level deconstruction was made of the patient work of driving students into paradoxical discourses, which showed personal cognitive and emotional contradictions. Thus researchers helped students to engage in deparadoxization by relating contradictions embedded in personal discourses to epistemological perspectives. From this analysis we realized that transformative attitudes were learned when students could recognize how personal conceptualization was linked to Meta-perspectives.

There were cases in which the bifurcation point was not reached. This pushed us to conceptualize from grounded analysis that within the space of a course a 'persistent narcissistic obstacle' could block transformative learning. In other words, at that time we were pushed into intra-psycho issues just unconsciously.

The class research site showed that the hidden side of transformation has to deal with personal biases towards change. However, within this site the need for perspectives to deal with them was not compelling. We faced this need within the management site. Meanwhile our commitment to methodology had deepened, following our attendance at the international conference on Logic and Methodology on May 2000. Then, we could fully recognize the implications of PAR methodology in our experience (Lewin, 1943, 1945,1948; Levin and Greenwood, 1999; Denzin and Lincoln, 2000, Kemmis McTaggart, 2000;Karmaz, 2000). As a consequence, since the beginning, we could communicate managers PAR rationale as embedded in self-responsibility, constructivism and democratization, thus providing a pluralist perspective on personal and social hidden dimensions of transformation.

the higher level of reality then the conflict is resolved] ... [the] various levels of reality are not reducible to any single

4. Building perspectives of self-reflection within the management research site

Educating top managers was a bifurcation point in our research journey because it forced us to deal with resistance to deconstruction.

In classrooms resistance is usually low because of a general consensus on the objective of learning. Even when the emotion of deconstruction is high students usually keep referring to teachers in order to learn ways out.

A network of top and middle managers, instead, conveys expectations competing with the learning objective. Within the educational context they bring personal histories, company's culture, status and expectations as well as structured relationships. Managers often feel well educated from theoretical as well as from professional points of view. Usually, they are committed to education for the purpose of updating theoretical knowledge in management. In any case, they associate learning with rational cognition, thus underscoring the essential role of emotion in deep understanding. As a consequence, their attitude for challenging personal ways of thinking and working is low.

In our company site managers resisted the bifurcation point even when perspectives of transformation provided an overwhelming evidence of the opportunity for enlarging personal worldview when reconstructing ways of thinking from diversity.

This pressing need to deal with resistance forced us into creating the opportunity to engage in the new practice of *self-reflection on self-reflection*. This practice fostered a kind of awareness, which usually allowed managers progressing in learning the transformative mentality. Whatever was either not learned or just caught could be re-considered, because self-reflection embodied the recursive process of enhancing cognition by the very practice of cognition.

However, in relation to *persistent narcissistic disequilibrium*, it brought some managers to amplify resistances to deconstruction.

In order to face this problem the need for a self-reflection on the very emotional side of transformation also emerged.

Within PAR the practice of *self-reflection on self-reflection* on both cognition and emotion was a very powerful catalyst that forced managers to justify the cognitive and emotional processes beneath their ways of building discourses. This practice accelerated managers' learning of perspectives, attitudes and communicative competencies through awareness. It

principle or law (Nicolescu, 1998 in Letiche, 1998)".

later provided researchers with a suitable database for exploring both what is made of a transformative capability and how it works in both self-reflection and communication. *Self-reflection on self-reflection* fostered the practice of linking theory to practice (Kemmis and McTaggart, 2000), by conceptualizing on personal ways of building discourses. As a consequence, managers became aware of their persistent attitude to speculate. By relying on the epistemological catalyst their attention could instead be directed to the practice of linking conceptualization to Meta perspectives. Managers then could realize that transformative thinking can be effective only if embedded at the same time on all orders of learning: phenomenal, conceptual and Meta conceptual (Eco, 1973). Communication of these roots then became the very rationale for deparadoxization by relativization (Czarniawska, 2002). Relating knowledge to orders of learning, in fact, made personal viewpoints transparent, thus enhancing the opportunities for creativity, while reducing the possibility of misunderstanding.

The potential of *self-reflection on self-reflection* could not be fully exploited within the very PAR process because researchers' perspectives on self-reflection were limited. In some measure, we, as managers, were caught in the situation of learning from what we were practicing. In the end, we ought to recognize that an opportunity to speed up further transformative learning had got lost because managers could not practice self-reflection on attitudes for change as well as on the narcissistic equilibrium of the Self.

We introduced those perspectives within the processes of data analysis and theorization. These competencies allowed us further penetrating the hidden side of resistance in deconstruction.

Attitudes for transformation, such as the emancipatory and critical, social and collaborative ones were explored within the transformative learning view (Merizow, 1990, 1991a, 1994b, 1998; Taylor, 1998; Boyd, 1991; Freire, 1970; Freire and Macedo, 1995). Participatory, emancipatory, recursive attitudes and that of linking theory to practice were specifically considered within the theory on PAR methodology. Though both perspectives deal with the same argument their methodological approach to explore those attitudes deeply differ. The perspective of transformative learning is rooted in a positivist Meta perspective, while the theory of PAR is rooted on constructivism, even though it does not deal with radical change (Kemmis and McTaggart, 2000).

From the intra-psychoic view we learned that creativity through paradox implies a state of insecurity, which may bring to either regression or defensive maneuvers. If insecurity persists, renunciation, or passive behavior may further separate action from learning. This same uneasiness may also bring people to over-invest on the rational-normative mental functioning, in the attempt to reach an omnipotent control over the reality (Pelanda, 1999). In this case a “persistent narcissistic obstacle” makes transformation out of reach. Successful experiences instead allow adaptation in the representation of the Self when narcissistic bases are already solid. In this case vicious cycles of defeat and surrender can be avoided because one is able to appreciate that transformation brings new potentialities, which allow for a more articulated knowledge of both, a the external reality and the inner representation of the Self (Sandler, 1980; Pelanda, 1993, 1999; Senise, 1990). This perspective appears particularly useful to super-observers to deal with the strain of deconstructing ways of thinking.

Such multidisciplinary view of self-reflection was the very dam, which avoided us to spouse a perspective of communication disentangled from self-reflection. It actually was the way to maintain the possibility to explore the hidden side of transformation as embedded in self-reflection.

Our PAR narrative provided the opportunity to understand that this link is made by communicated sense, which encompasses the very process of self-reflection.

5. Transformative sensemaking at the crossroad of self-reflection and communication

In the remainder of this article we will refer to our engagement in the analysis of PAR narrative and in substantive theorization.

Even within the company experience, for a good while, we remained mainly focused on individual journeys in transforming ways of thinking. However, from the grounded perspective of CGT we could partially observe communication by exploring how researchers enacted transformation and learners reacted to that. Sense became very soon a central theme of such investigation, being the visible catalyst of researchers-learners interaction.

However, at that time, from our perspectives, we were not able to reflect on the foundational role organization and social theory assign to sense in order to avoid dealing

with transcendence. Our theoretical reference at that time was Weick's theory of sensemaking as a paradigm for deconstructing attitudes to speculation. By embedding discourses in raw data, scansion, connection and information (Weick, 1977), students and managers could learn the basic competence of communicating selected meaning, while justifying the very bases of this selection.

In the process of building the Meta story of our experience, we soon realized that, by being embedded in the practice of both PAR and *self-reflection on self-reflection* as well as in epistemological opposition and orders of learning, sensemaking becomes transformative. We also realized that only researchers were able to enact *transformative sensemaking* as emerging from the very attitudes, competencies and perspectives for transformation. To their transformative enactment we could then refer in order to explore how discourses among strategists can give raise to non-linear paradigms. Researchers' *transformative sensemaking* appeared also relevant to explore knowledge-invention since at the core of social transformation always stands some form of education. For the purpose of deconstructing old paradigms and legitimize new ones, in fact, innovators, as educators, must always engage in the process of legitimizing a change in perspective through some form of education.

In other words, sensemaking becomes transformative around a bifurcation point by virtue of intentionality. In this circumstance a social paradigm emerges beyond present equilibrium because actors provide both new perspectives and the rationales for a radical change. Far from bifurcation points, instead, when paradigm survival is not at stake, intentionality is submitted to self-referential communication.

At bifurcation points, the practice of *self-reflection on self-reflection* provides the very attitudes of rooting sensemaking on self-reflection. It also allows embedding sensemaking into deep awareness of perspectives, competencies and attitudes that justify a radical paradigm change from both internal and external viewpoints. In other words, *transformative sensemaking* is built from the intertwined perspectives of both super-observers and embedded participants by which the proximate causation of communication is linked to the ultimate causation of transformation.

A sub-field of 'Strategic Thinking' now emerges as a result of a mentality change enacted by communicating and justifying through *transformative sensemaking* the opportunities stemming from a non-linear strategic perspective. This sub-field should also embody the exploration of the emergence of a strategic paradigm as a result of dealing with paradox by deploying transformative competencies and attitudes. All such activities show how that the destiny of a sub-field of 'Strategy Thinking' is rooted in the possibility to deal with intentionality embedded in self-reflection.

In the process of creating a strategic paradigm, under the hypothesis that the transformative mentality is diffused, any participants is a super-observer, capable of intentionally communicating self-reflection by a self-attribution of sense justified in relation to the ultimate causation provided by some kind of Meta perspective. Transformation then appears to rest on actors' willingness to engage in transformation as well as in their capability to provide and justify new perspectives for deconstruction and reconstruction. Sense, instead, will be the proximate causation, which enacts communication for transformation just because consciously embedded in the ultimate causation provided by epistemology, orders of learning, perspectives on both self-reflection and communication. It will also be transformative by providing Meta perspectives for re-addressing the bases of their co-evolution at a bifurcation point. In such case knowledge is invented by introducing not-yet-explored Meta perspectives. In other words, change in perspectives makes transcendence flexible in nature. It can result from of a creative process, rooted in disciplines, such as epistemology, humanism, biology, physics, and so on (Letiche, 1996). No one is objectively prevalent, except for the constructivist epistemology, which provides the very theoretical bases on which the mentality of building paradigms from a transdisciplinary perspective rests.

In our experience PAR narrative actually has emphasized the role of transcendence in knowledge-invention. However, we became deeply aware of the rationale of this link only after embodying the sociological perspective. Then, emphasis on objectified sense disentangled from self-reflection forced us to further explore how sense and transcendence determine knowledge-invention within the *intersystemic interaction of self-reflection and communication*.

6. Approaching the perspective of socialization

A view on socialization was always felt necessary. We were aware that failures and resistances could not always be justified in terms of either researcher's idiosyncrasies or setting shortcomings and lack of perspectives. It appeared instead that communication 'self'-organized the roles of actors when the architecture of interactions remained latent for both researchers and managers. We could explore this situation from both Luhmann's theory of social systems and the theory of communication. These theories, in fact, share the view that communication and self-reflection co-evolve without losing their self-referentiality. However, approaching socialization provoked a real bifurcation point in the research for two main reasons. First of all, these theories addressed general issues, such as how social systems work or how discourses are socially built. While providing a perspective on communication they did not address the issue of education. As a consequence we were driven to reflect about the general issue of paradigm creation, beyond that of the transformative mentality.

Besides, we could re-address the issue of how self-reflection and communication differentiate and integrate within both PAR methodology and the pluralist perspective of self-reflection in view of transformation.

From Luhmann's theory of social systems we could approach discourse building as resulting from a double differentiation (double contingency) between *alter* and *ego*. According to it, self-reflection and communication are conceived as interdependent: *alter* acts on the basis of what in his view *ego* thinks of him and viceversa. Nonetheless, Luhmann's theory is built on the impossibility of such link, under the implicit hypothesis that it is not the task of social theory to explore self-reflection (conscience in Luhmann's terms). Actually, following Luhmann, *alter*, as a closed self-referential system, can only relate to *alter-ego*, that is to a personal projection of what *ego* thinks of him. Similarly, *ego* can only relate to *ego-alter*. Both self-reflection and communication act individually as a substrate for the autopoiesis of the other system (Luhmann, 1967). Sense, as strictly disentangled from transcendence, is the objectified medium they use for the connection, which, by no mean, influences the autonomy of system' self-referentially (Luhmann, 1967). Holding a strong focus on communication through both sense and latencies within communicated sense Luhmann' theory of social systems does not account for the hidden side of the self-reflection. In other words, it neutralizes intentionality. Luhmann views self-reflection as a selection occurred in 'conscience', which through sense shows visible structural expectations. According to the double contingency, through sense people carry

expectations of expectation at the crossroad of communication. Receivers then select by mean of attribution those structures of expectations, which allow the autopoiesis of communication. No interaction between conscience and communication occurs because the power of mind is the medium of conscience, while communication entirely depends on sense.

Despite self-reflection is disentangled for communication, Luhmann's theory is in our view key to the development of 'Strategic thinking' as a science of the invisible once we re-introduce a pluralist view of self-reflection. In view of transformation, however, the bases of the entire construct must be reviewed. Luhmann's theory remains relevant for two main reasons. The first relates to the fact that the theory of social systems is built around dimensions, such as double contingency, structures of expectations and interpenetration, which actually can account for the hidden the self-reflection-communication interaction. Actually, what makes this theory a science of the visible is the very reference to sense that is the only visible aspect of the interaction. Once exploring self-reflection becomes possible, through transformative attitudes, perspectives and competencies, within PAR, by relating to the ultimate causation of transcendence, the dynamics of double contingency can allow the emergence of the invisible. *Transformative sensemaking* then will account for transformation. If this adjustments are introduced, Luhmann' theory becomes a rich source of arguments to be challenged.

First of all we can argue that emphasis on objectified sense is the very reason why Luhmann' theory deals with change within a given unchallenged paradigm. Sense, in fact, is related to what has been communicated and to latencies within communicated sense, waiting to be exploited. No reference to not-yet-communicated sense is possible without some form of transcendence. Latent sense may only adjust temporary misfits between events and interactions. Those adjustments do not imply paradigm deconstruction and paradigm change. They can produce innovation, never invention. Within Luhmann's theory the possibility for non-linear change is provided by morphogenesis, a process linking changes of structural expectations directly to changes in structural expectations, which occur when the system inhibits sense references from latencies. These linkage underlines that morphogenesis is also disentangled from the variations and selections occurring in the system of self-reflection.

When paradigm change is not at stake intentionality may be underscored and the possibility to explore self-reflection becomes irrelevant. Observation in research is a further obstacle to deal with intentionality, since it does not provide ways to 'meet' self-reflection. Rationales for interpenetration within the logic of double contingency are then given without challenging the implicit assumption that, being closed, systems cannot be explored from within.

Those rationales can be re-considered because transcendence within PAR allows for a view of self-reflection from an ultimate causation.

Deconstructing through a paradox from a the transcendent view provided by Meta opposition implies that discourses be built intentionally and justified in order to legitimize both deconstruction and reconstruction. For this purpose *transformative sensemaking* appears the catalyst of an intimate inter-human interpenetration, very much rooted in *self-reflection on self-reflection*. Because of the enactment of transformation from a Meta perspective, the closure of both systems, *alter* and *ego*, can be violated. New Meta perspectives can also be communicated by *transformative sensemaking* raising opportunities for both paradoxical thinking and deparadoxization. The roots of self-reflection within PAR can anyway be explored, beyond sense, from the external standpoint of from super-observers acting also as embedded participants.

Interhuman interpenetration is very much linked to the transformative mentality, as made of transformative competencies, attitudes and perspectives. Luhmann, himself, asserts that intimacy asks for sophisticated knowledge of situations, environment (self-reflection) and culture. The need for such mentality is also a key issue in the theory of information. By conceiving sense a form of uncertainty this theory recognizes that communication is a failure-prone process in desperate need for communicative competencies and theoretical perspectives. From such competencies and perspectives senders would reduce the uncertainty of communicated sense, while receivers could re-interpret sense from a super-observer view. However, within the theory of communication the issue of competencies and perspectives remains abstract. Therefore, the possibility to assume both roles of embedded participants and super-observers of a social process appear to relate only to researchers. Besides, without perspectives on self-reflection, the theory of communication remains entrapped in the process of attribution, despite a minor role to intentionality is recognized.

Our transdisciplinary view of self-reflection, within the practice of both PAR and *self-reflection on self-reflection* has provided us with some of those perspectives, competencies and attitudes, which, in fact, may represent the armoire of ‘technologies’ needed to explore the submerged iceberg of strategy.

Our engagement on the issue of learning the transformative mentality has played a foundational role in our present attempt to speculate on the hidden side of knowledge-invention. It has, in fact, forced us to understand what capabilities and perspectives may be involved in deconstruction as well as why they become transformative.

7. Towards a comprehensive approach to ‘Strategic thinking’

Systems evolve continuously but not necessarily engage in transformation. Transformation occurs instead around bifurcation points when a single actor provides communication with a new Meta disciplinary perspective, which challenges old paradigms and provides rationales for new attractors of equilibrium. Such perspective brings actors’ variation and selection within communication through *transformative sensemaking*. By providing an opposite term to present paradigms, this Meta perspective becomes the very rationale of knowledge-invention from paradox. Deparadoxization follows in order to justify discourses from Meta perspectives, thus turning the disorder of deconstruction into the order of new paradigms.

The opposition, in other words, is not related to self-referential mind and self-referential communication. It is instead intrinsic to actors’ transformative mentality and perspectives, which legitimize that diversity undermines old paradigms (Morin, 1977).

The self-reflection- communication co-evolution instead represents the very unity in search of ways for self-referential reproduction under the stress of its disappearance.

By separating mind from communication self-reproduction both social theory and theory of communication fall into the paradox of explaining system self-reproduction as an evolutive dynamic and intersystemic integration as a linear dynamic.

In fact, within the theory of social systems no intersystemic co-evolution occurs, because actors put structures of expectations in order within variation and release them by mean of sense to the powerful dynamic of communication. Afterwards they disappear. From a biological point of view this dynamic is not only linear, but also one way.

The theory of communication instead relies on either ‘double structures’ or ‘double hermeneutics’ to explain that differentiation and integration occur at different dimensions.

One suggestion is, for instance, to differentiate both sides of this interaction from the dimension of information and to integrate them from that of meaning. By referring to different parameters the very need for co-evolution actually disappears.

Instead, by considering the self-reflection-communication co-evolution a Meta-structure, we can understand how both self-reflection and communication always stand one inside the other. Their co-evolution contributes to paradigm deconstruction and reconstruction by maintaining such unity together with their self-referentiality. In other words, the role of self-reflection and communication in transformation cannot be defined normatively. It is rather determined by the very dynamic of co-evolution. Then, either self-reflection takes over on communication to challenge old paradigms, or communication takes over on self-reflection allowing sense to command on communication self-reproduction within a given paradigm.

By exploring the nature of this co-evolution we can define 'Strategic Thinking' also as the field that explains how new paradigms emerge at bifurcation points because an asymmetry is produced in favor of self-reflection. In other words, the autopoiesis of co-evolution is over-imposed on the autopoiesis of each of its two components. Both are independent while contributing to the foundation of their interaction. *Transformative sensemaking* will deal with the paradox of components' self-referentiality together with the self-referentiality of their co-evolution by providing and justifying perspectives for change, which challenge the very basis of present co-evolution.

The idea of such co-evolution is evident in Derrida concepts of 'overturning' and 'metaphorization'. Overturning, in fact, shows that in the process of deconstruction is a 'gaming' process " ...structured around polar opposites in which one term dominates the other". 'A contextual process of metaphorization' is needed to maintain this 'gaming' active, "thus avoiding overturning from regressing into a simple structure of opposites" (Derrida, 1981, Cooper, 1989).

Derrida's post-modernism emphasizes the asymmetrical dialogic co-evolution of self-reflection and communication only to explain the need for paradoxization through 'overturning' and 'metaphorization'. He does not account for deparadoxization. Post-modernists, in fact, focus on 'the prevalence of creative confusion" (Gergen, 1989). However, deparadoxization is justified by the need for maintaining the order-disorder recursion alive.

This more comprehensive approach to paradigm building is taken in "Why coherence?" by Letiche. He emphasizes a pluralistic approach by contending that a 'transdisciplinary

paradigm, ... resolves the conflict arising from competing paradigms, such as the “physical [atomic], chemical [molecular], biological [macromolecular], physiological, mental [consciousness], social and cultural” ones (Letiche, 1996). Letiche’s arguments are also useful to underline that by crossing a paradox a non-linear domain emerges from a new disciplinary perspective. By referring to the principle of contradiction, he states that in paradoxical opposition “each element ... stands both in a relationship of inclusion and of exclusion with each other element...” at the same level of reality. His arguments relate to deparadoxization through relativization by stating that “each element relates to a third term that is on a different level of reality...” Thus conflicts and paradoxes are resolved by relativization at a higher domain (Letiche, 1996, Czarniawska, 2002)³.

The potentialities of a dialogic co-evolution for creating new paradigms through paradoxization and deparadoxization are still unexplored.

In this article we claim that super-observation of both self-reflection and communication results from the quality of transformative sensemaking, that is from pluralist Meta perspectives, attitudes and communicative competencies. In the peculiar condition in which strategists play both super-observer and embedded roles, self-reflection and communication co-evolve in view of knowledge-invention. A necessary precondition is to go beyond the pressure of communication connection. In transformation, actually, because of paradox, this connection is based on challenging the role of recursive self-referential sensemaking. Paradox instead requires that actors’ be willing to play the game of paradoxization and deparadoxization, beyond the cognitive and emotional fatigue it entails.

Conclusions

The focus of this article is embedded in grounded experiences that occurred throughout many years. Those experiences did not appear immediately relevant to the strategic field. Only when we could gather a variety of theoretical perspectives around data analysis we

³ “Conclusions are to be justified”, and “an account must be provided about how the conclusions are drawn...For statements to be justified, one has to know how one is differentiating between the one and the other statement”.

‘one needs competence –the ability to see, to recognize and think about the object of knowledge. And one needs acquaintance- a sense of what an organization is under study... Thus [transdisciplinary] coherence, without self-consciousness, is impossible; and coherence in an organizational setting is impossible without (mutual) access to consciousness”(Letiche, 1986).

could provide rationales for practicing and theorizing about the hidden side of strategy. On these bases we envisioned the idea of strategic thinking as a field of the hidden side of strategizing.

With the help of the iceberg metaphor, throughout this article we have shown that this field needs new methodologies of research and the many perspectives that can account for self-reflection, the very core of the hidden side of strategic thinking. We believe that our effort can open up new avenues of research, especially to explore the processes of emergence. A lot of work is today made on strategy emergence, but research 'technologies' remain those used for the visible part of strategy. Processes, as a consequence, are considered more as correlated variables.

Beneath the submerged world of the strategy iceberg, instead, we need to take the evolutionary, as well as pluralistic views of processes of knowledge emergence. We do not want to correlate variables but penetrate emotion, resistance, difficulties, capabilities, and so on, as a lively ferment within and around the submerged giant. We want to take the view that what appears uniform and monolithic is instead multiform and complex. From our experience we can also demonstrate that there are methodologies allowing research on the becoming.

We partially pursued such research perspective by engaging in participatory action research, which is based on researchers embedded participation from the theoretical perspectives, communicative competencies and attitudes, which make the transformative mentality. Throughout our learning journey we were forced to add new perspectives but epistemological opposition ensured that any new perspectives were reviewed to stick with transformation through paradoxical thinking.

As long as researchers' learning journey proceeded we could realize that any knowledge-invention is embedded in the individual self-reflection as well as in social interaction. The issue arose to understand how both elements of this interaction relate to each other and when this relation becomes the opportunity to explore the not evident.

To approach those issues we went back to the epistemological perspective to assess that modernist research does not think of this interaction as a co-evolution. Taking the epistemological constructivist perspective was of a paramount importance to discover that roles of individuation and socialization were flexible and dependent by a real 'gaming'. As long as actors put new Meta perspectives in place, old paradigms were challenged and new one emerged following the law of contradiction.

This game was commanded by self-reflection embedded in justification through communicative capabilities.

We consider this reflection a first attempt to share with academics, consultants and top managers the effort to delimit the field of strategic thinking. This sub-field of strategy creation is part of a transformative process, which asks for transformative capabilities. However, transformation, as any change, cannot be understood from its roots by observation. The appropriate methodology for a field of strategic thinking is a starting point for any such kind of exploration. We have given an example that it can be done from pluralism, perspectives and paradox.

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