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Accounting for Stakeholders and Being Governed by Numbers.
Figuring Out Tension Management in a Multistakeholder Organization

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Author:

Valérie Michaud
PhD candidate, École des sciences de la gestion
Doctoral researcher, Canada Research Chair on the Social Economy
Université du Québec à Montréal (UQAM)
Tel.: 1 (514) 987-3000, ext. 6705
michaud.valerie@courrier.uqam.ca

Abstract

This paper proposes a new perspective to look at organizational tensions: numbers. Using a conceptual approach inspired from Actor-Network Theory (Callon, Latour and colleagues) and the “conventionalist” Economies of Worth (Boltanski and Thévenot 2006), it shows the evolving actions numbers and number-related tools perform in the governance of a multistakeholder co-operative, demonstrating how numbers have been enacted and empowered up to becoming “obligatory points of passage” at the co-operative’s board of directors.

Results from an in-depth, multi-method qualitative study indicate that from being overlooked at in the foundation period of the organization (1999-2000), numbers then exacerbated the tensions in the build-up of a governance crisis (2004-05), a time when they played a substantial role in the justification to dismiss the general manager.

They later played another important role in reinstating him and bringing peace back at the board (2005-06). A closer look at their action in board meetings, from 2006 to 2009, leads to the identification of paradoxical actions performed by numbers, as they both allow board members to “act at a distance” and to be “kept at a distance” from the actual management of the Co-op through three micro-practices: personalizing/depersonalizing debate; managing/being managed by numbers, and creating new calculable spaces.

In addition to infusing the literature on organizational tensions with practice, and the practice literature with sociomaterial tools, this paper contributes to the “paradoxes of governance” literature (Cornforth 2002; Sundaramurthy and Lewis 2003; Cornforth 2004), showing how, in practice and over time, different governance models may both succede to each other and co-exist, with the help of number-related tools.

Accounting for Stakeholders and Being Governed by Numbers. Figuring Out Tension Management in a Multistakeholder Organization

Valérie Michaud¹

1. INTRODUCTION

- *Woooohooo!*

The Co-op's general manager just clapped his hands and expressed a loud, vocal sound of satisfaction when he realized that actual sales were only a few thousand dollars away from his projections. Within just a few seconds, this open pride turns into apparent shame, as he uncomfortably confesses to me that he'd never thought he would ever be preoccupied by numbers, pointing to the poster lying with pride of place, right in front of his face. As I follow his finger to see what he's pointing at, I capture the uneasiness of the situation and really get a sense of the tension this ex-community organizer must be experimenting. « Resistance of the Mind against the Supremacy of Money » claims the mocking poster on the wall, right in front of his working desk.
(Excerpt from observation notes, GMC, June 25, 2008)

This paper is about the power of numbers in unexpected places. It is the story of numbers inviting themselves to the board of administration of the EcoloWorld Co-op², an environmental multistakeholder co-op. It is also the story of numbers playing an important role in dealing with tensions.

The EcoloWorld Co-op is not an ordinary “green living” Canadian product retailer and café. Founded in 1999 by a group interested in “developing more self-sufficient, sustainable lifestyles in their neighbourhood” (Co-op's History document), it is a community space hosting events organized by some of its thousands of members, or by fellow grassroots organizations. From an analytical perspective, the EcoloWorld Co-op is also a highly pluralist organization that combines ambiguous and multiple goals, diffuse power and knowledge-based work processes (Denis, Langley et al. 2007). “Pluralistic organizations are typically shaped by the divergent goals and interests of different groups, each of which have sufficient power bases to ensure that their goals are legitimate to the strategy of the organization.” (Jarzabkowski and Fenton 2006: 631) This description could not better describe the EcoloWorld Co-op. Indeed, the Co-op presents a complex, innovative organizational governance structure that formally integrates representatives of three categories of stakeholders/members: worker members, user members, and support members. With equal representation at the Board of directors, these elected members have potential different interests, with equal rights (due to the “one person-one vote” rule of co-operative governance). As if this was not complex enough, the EcoloWorld Co-op's mission encompasses the three pillars of sustainable development (namely the economic, social and environmental). Thus, not only must the Co-op's three

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² Fictitious name

types of members reach agreements at the Board level and make sound decisions with regards to both the economic viability and social vitality of the co-op, these decisions and activities must be “carried out with a sense of respect for the Earth and all life that shares it.” (EcoloWorld Co-op Mission) In short: although it has been said that tensions are inherent to organizing (for instance, Bouchikhi 1998; Eisenhardt 2000; Lewis 2000; Cunha, Clegg et al. 2002; Smith 2009), the EcoloWorld Co-op clearly is an interesting setting for the study of organizational tensions.

Given such a context, I started my research with a relatively straightforward set of questions: how were decisions taken, and how were compromises constructed in the decision-making processes of the EcoloWorld Co-op's board of directors? Although this research was conceived as an exploratory, inductive process, I cannot hide the fact that I secretly, intuitively expected the Earth, the community or some other “general interest” entity to be rallying the multiple interests and goals. Instead of these, I found plain sales figures, statistics, inventory counts, accounting software and other number-related tools to act as salient mediators of tensions. “Agency is a product or an effect. Thus, since agents are not given by nature, we should be investigating how they got to be the way they are” (Law 1994: 11). “Agency is not a “capacity to act” to be defined *a priori*. On the contrary, it is “the capacity to act” that is discovered when studying how worlds become constructed in a certain way.” (Cooren, Taylor et al. 2006: 11) This perfectly sums up the way I realized I could not avoid numbers in my analysis – they were actors in the situations studied, and I needed to see how this had become so. Through a multi-method, in-depth case study covering a 10-year period from the Co-op's foundation, this article recounts, from a strategy-as-practice perspective (Whittington 2006; Johnson, Langley et al. 2007; Whittington 2007; Jarzabkowski and Spee 2009), the discovery of the evolving roles played by numbers in the management of some of the tensions experienced in the governance processes of the EcoloWorld Co-op.

After having positioned my study in the extant literature, I will present the conceptual and methodological approaches used for the empirical research. Findings will be presented in two sections: first, the temporal bracketing results will allow for a longitudinal look at the roles (and evolution of the roles) played by numbers from different worlds; second, focusing on ethnographic data collected through the observation of board meetings, I will take a closer look at the actions performed by numbers, in practice, with regards to governance tensions. A “second-order” discussion of the results in the light of the paradoxes of governance will follow, and a conclusion.

2. LINKING TENSIONS WITH PRACTICE AND (NUMBER-RELATED) TOOLS

What actions were numbers performing in managing the tensions at the multistakeholder board of the EcoloWorld Co-op? How had these evolved through the history of this organization? By addressing these questions, this paper pursues a twin ambition. First, to study organizational tensions through a new light: that of a “practice” perspective (Whittington 2006; Johnson, Langley et al. 2007; Whittington 2007; Jarzabkowski and Spee 2009) that takes seriously the role of sociomateriality in the study of practices (Orlikowski, 2007). Indeed, on the one hand,

calls have been formulated to further study how people experience organizational tensions in practice (Trethewey and Ashcraft 2004; Ospina and Saz-Carranza 2005; Smith and Tushman 2005; Mickel and Dallimore 2009; Reay and Hinings 2009). On the other hand, calls have also been addressed for the practice perspective to further consider the sociomateriality of the practices studied (Orlikowski 2007; Spee and Jarzabkowski 2009). According to Jarzabkowski and Spee (2009: 83), "with some exceptions (e.g. Molloy and Whittington 2005), scant attention has been paid to material practices. There are few published works on the role of material artefacts and technologies, such as PowerPoint or number systems (e.g. Denis *et al.* 2006), or of the spatial arrangements of practitioners within a meeting or workshop."

By looking, concretely, at the role played by specific tools in the way a board of directors deals with tensions, this paper thus contributes to energize both the tension literature with practice, and the practice literature with sociomateriality. Second, it should also enrich our understanding of the paradoxical roles different numbers can come to play in tension-filled organizational settings, over time.

2.1 Number-related tools in the literature

What does the literature tell us about the role of numbers and number-related tools or systems?³ More precisely, what do we know about their role in organizational tensions? Before a selective review of the literature is presented, a few precisions must be made. First, the previous questions quite naturally lead us to the organizational decision-making literature, since numbers - and more generally, quantitative analytical data - are often deemed necessary to make "sound", informed decisions (Lowe and Jones 2004; Denis, Langley *et al.* 2006), but also to simplify reality by offering quick shortcuts to save decision time (Berry 1983)⁴. Tensions of many sorts are found in decisions, depending on the decision-making "model" adopted (Eisenhardt and Zbaracki 1992; Maitlis and Ozcelik 2004). In the bounded-rationality perspective, we find rational, logic decisions to be opposed to irrational, intuitive ones; bureaucratic procedures are opposed to organistic improvisation in the rule-driven perspective; control is opposed to luck in the garbage-can model, and tensions occur between the actors' interests and strategies in the political model. Indeed, tensions are omnipresent in decision-making (Amason 1996), at least when, as hereafter, issues are being defined as tensions between (minimally) two developments (Nutt and Backoff 1993), and when decision-making processes are treated as "issue streams" (Langley, Mintzberg *et al.* 1995). Thus, although the review aims to address the role of numbers in settings and situations marked by tensions, this will often equate addressing the role of numbers in tensions associated to decision-making.

³ In order to simplify the text, unless a clear mention indicates otherwise, "numbers" also refer to number-related tools or systems.

⁴⁴ Although this assumption was challenged by Eisenhardt who found that fast decision makers use more information than do slow decision makers (Eisenhardt, K. (1989). "Making Fast Strategic Decisions In High-Velocity Environments." Academy of Management Journal **32**(3): 543-576.)

Numbers are the common means to express many ratios and other performance indicators, whether financial or not. They are used to represent and simplify a complex reality – which they also constitute (Vaivio 2004) -, and they do not stand on their own. Restricting the literature review to pure numbers could have proven very lean. In the following paragraphs, numbers will thus frequently be related to strategy tools. According to Kaplan and Jarzabkowski (2006: 6) and based on their review of other definitions of the term, “tools are artifacts around which activity and organizing takes place (Bechky, 2003; Beunza & Stark, 2004; Orlikowski, 1992; Vaughan, 1999).” More precisely, Kaplan and Jarzabkowski conceptualize tools “as boundary objects that mediate the initiation and implementation of strategic initiatives across boundaries within organizations.” Similarly, I conceive tools as artifacts (material or not) that mediate the tensions experienced in organizations and *organizing*. And more specifically, the tools I am interested in rely on some numbers or number-related representations or calculations (whether potential or enacted).

Denis et al. (2006: 354) have grouped the roles played by accounting numbers in organizations into the following three categories: controlling, legitimating and sense-making. Since my interest lies in the role numbers play with regard to tensions, I will rather organize the following review in two opposite “tension-related” actions that will encompass some of Denis et al.’s roles: tension preventing or pacifying, and tension triggering. In other words, tension “turn-offs” and “turn-ons”. Then, some gaps in the literature will be identified and a single conceptual approach inspired by Actor-Network Theory (Callon and Law 1989; Latour 1992; Latour 1994; Law 1994; Czarniawska and Hernes 2005; Latour 2005; Callon and Ferrary 2006 and other) and the “Economies of worth” (Boltanski and Thévenot 1991; 2006) will be proposed to capture the two seemingly opposite roles, amongst other things.

2.1.1 Numbers as tension “turn-offs”

Numbers have often been shown to soothe, pacify or even prevent tensions, thanks to their “objective” nature. While tensions are inherent to organizations and *organizing* (for instance, Bouchikhi 1998; Eisenhardt 2000; Lewis 2000; Cunha, Clegg et al. 2002; Smith 2009), numbers actually allow *organizing* (Fauré 2007; Fauré and Rouleau 2008). Rational, formal decision-making (often associated with quantitative data) has been presented as a way to reduce uncertainty (Porter 1995), and to “fill the strategic void” in pluralist organizations (Denis, Langley et al. 2006). Strategy tools have been said to play a “boundary object” role (Kaplan and Jarzabkowski 2006; Spee and Jarzabkowski 2009), or that of a convention (similar role to that of the strategic plan in Abdallah 2007; Daigle and Rouleau 2009). “The common language of numbers produces a standardized and compressed form of reality that forces groups to make their assumptions explicit and expose their arguments to wider scrutiny (Lindblom and Cohen, 1979).” (Denis et al., 2006: 352) Calculation appears as a rhetorical form which conveys an image of neutrality, objectivity and independence, whereas “non-quantitative argument is more easily dismissed as being “subjective” , “mere opinion” or “metaphysical speculation”.” (Chua 1996: 140) As clearly summarized by Kaplan et Jarzabkowski (Kaplan and Jarzabkowski 2006: 9-10),

[t]he use of formal analysis is conceptualized as a search by actors for rationality in a culture [...] that values rationality as the basis of thought and action, conduct formal analysis (Feldman & March, 1981). From this perspective, rationality is contrasted with politics, the former being a positive and useful feature of decision-making and the latter being seen as counter-productive (Dean & Sharfman, 1993; Dean & Sharfman, 1996; Eisenhardt, 1989). Objectivity is seen as a way to take politics out of decisions; the decision-maker can distance herself from the decision by attributing it to the tool (Power, 2004; Power, 2003).

Dispositifs (which, for lack of better translation, I will call devices) have been depicted as “hybrid forms” allowing to treat many tensions and to reconcile antagonisms (Fusulier and Lannoy 1999), or to create a particular space allowing for mediation as such to occur (Hert 1999: 93). The latter is in line with Mouritsen et al.’s (2001, *in* Mouritsen and Thrane 2006: 243) further suggestion “that the calculations performed by open book arrangements and functional analysis not only organized a space between firms, but also redefined the participating firms themselves.”

Accounting systems appear as a tool for transparency and for trust (Porter 1995), notably in inter-organizational networks, where they create predictability and durability (Mouritsen and Thrane 2006). In addition to their own empirical results showing how accounting systems create trust, Mouritsen and Thrane (2006:243) add that “Tomkins (2001) cogently points out that some types of accounting help foster trust when they open a firm’s costing systems to its collaborators, and Seal et al. (2004) illustrate that the systemness of accounting itself creates trust through its character as an abstract system.” The presence of accounts can act as a facilitator for action (Gray, 1992:42 *in* Catusus, 2007) and legitimacy (Gray, 2002: 699 *in* Catusus 2007). According to Kaplan and Norton (1996: 10), the “Balanced Scorecard” management system they propose accomplishes the four following critical management processes: it helps 1) clarify and translate vision and strategy; 2) communicate and link strategic objectives and measures; 3) plan, set targets and align strategic initiatives, and 4) enhance strategic feedback and learning. While these processes do not explicitly address tension management, they seemingly contribute to the reduction of potential tensions by the alignment and communication of objectives through the use of a common, shared tool. While that number-related tool may be complex, a much simpler one, the timesheet, has also been said to allow collaboration (Brown 2001).

The “power of numbers” has been discussed with relation to numbers’ role in “hard to make” decisions like the closing of a hospital (Denis et al., 2006) or other cost-cutting measures in the health sector (Chua, 1995). Quantitative data, and more precisely accounting numbers “persuade and command consent”, allowing for new organizational conceptualizations to spread; for instance, that of hospitals as factories, patients as cost products and doctors as product-line managers (Chua 1995: 138 and 141), or for that of the new order of the “quantified customer” (Vaivio 1999). Indeed, in our own lives, how often do we stop insisting when opposed the “we do not have a choice, we do not have the money to do that” argument? Money (or lack of) appears as one justification that shuts up many others, while illustrating the actual power some numbers may have on decision-makers.

Management control systems have also been shown to conflict resolution through a prerequisite facilitation of dialogue AND debate (Mundy 2008). This leads us to the following section, a selective review of papers that treat numbers as tension triggering factors.

2.1.2 Numbers as tension “turn-ons”

If, as seen in the previous paragraphs, numbers may prevent fierce debates by imposing their power over other types of justifications, they may also appear as a triggering factor of tensions. Even before numbers are actually mobilized, their choice may itself lead to heated discussions and tensions. As shown by Lowe and Jones (2004) in their study of a fishing company, the formulation and selection of (quantitative) performance indicators may create disagreements between the different organizational actors. Lowe and Jones’ description of the disagreements illustrates how the discussion of indicators actually points out to the different and sometimes opposed priorities of staff, based on the department they belong to. Further, it indicates that the communication – or, rather, the lack of communication - of these actual indicators may also lead to tensions, as decision makers lack information.

The tension triggering action of numbers was also demonstrated in Golden-Biddle and Rao’s (1997) study of a serious identity crisis, a “breach in the boardroom” provoked by board members’ questioning of the budget submitted by managers of a nonprofit organization. In a similar vein, Hänninen’s account of how the poor quality of accounts first caused distrust and then the closing of an incinerator in Norway (Hänninen 1995) also illustrates the center stage role numbers may play either in creating or fuelling tensions. In other words, as powerful as they may be, numbers can also be problematic and messy (Andon, Baxter et al. 2007), debated and challenged (Ezzamel 1994; Vaivio 1999; Ezzamel, Willmott et al. 2004). After two years of organizational discourse domination, the powerful “quantified customer” described by Vaivio (1999) came under assault:

“Instead of being welcomed as “objective” pieces of knowledge, the numbers that represented The Customer became dubious proxies for something more subtle that could not meaningfully be quantified. And furthermore, The Quantified Customer’s knowledge could be attacked by the Sales Managers as being too monolithic. The CSS [Customer Service Summary, a set of statistical indicators] measures, it was claimed, were too aggregated. The “new” measurements were devoid of critical detail. At their worst, they overshadowed the relevant “specifics” behind summarized calculus.” (Vaivio, 1999: 705)

This points out to the (active) resistance numbers may stimulate. Focusing on non-financial (yet quantitative) measures, Vaivio’s (1999; 2004) work shows how numbers (of non-financial nature) can be controversial and provocative, and how “they are not passively received by passive actors” (Vaivio, 2004: 40). Instead, “organizational actors react strongly to this kind of non-financial management accounting measurement.” (*ibid.*) Similar to Lowe and Jones (2004), Vaivio (2004) shows how, due to their overlapping, grounded and interlocking nature, non-financial measurements provoke horizontal debates as they pool together actors from different functional units to interact on their matter. Ezzamel (1994) and Ezzamel et al. (2004) put on critical, foucauldian, power-focused lenses (combined to Actor-Network Theory concepts) to look at resistance. Ezzamel (1994: 213)

demonstrates “how accounting knowledge can enable the mobilization of successful resistance by organizational members opposed to change.” Although they have come to symbolize technical expertise, rationality, clarity and authority, Ezzamel (1994: 233-234) demonstrates how accounting calculations put forward to justify major cuts in a University budget, instead of facilitating the disciplined acceptance of cuts and rendering the University actors docile, engendered a strong spirit of resistance, marked notably by refutation and discreditation of the University figures and by the proposition, by disadvantaged actors, of an alternative set of numbers. In their study of a different, shopfloor context, Ezzamel et al. (2004: 297) demonstrate how new accounting techniques associated with the introduction of lean production “were resisted by a workforce that interpreted them as measures designed to weaken, manipulate, or restrict their exercise of discretion in the context of an established and entrenched pattern of management–labour relations.” Amongst other things, the promise of skill development and polyvalence supposed to be brought about by lean production is thus contrasted with the workers’ discretion over their work.

This is in line with the dynamic tensions described by Mundy (*in press*) between the controlling and enabling/empowering uses of management control systems, and more generally, to the unstable, changing roles numbers may play over time. Through the analysis of the introduction of performance measurement in the Government of Alberta (Canada), Townley et al.’s (2003) article shows how the initial enthusiasm and support managers demonstrated towards performance measurement turned into skepticism, cynicism and frustration. While the “meaningful numbers” were expected to provide reasoned justifications and to foster communicative action, instrumental rationalization and standard templates is what they really turned out to offer to the disillusioned managers. Whereas Lowe and Jones’ (2004) account of the introduction of performance indicators does not provide us with information related to the subsequent mobilization of the measures, Townley et al.’s (2003) case study allows us to follow the actors after the formulation stage, and to see how the initial perception of numbers’ role evolved. This leads us to the next section, in which the limitations of some of the reviewed literature will be addressed together with the presentation of the conceptual approach adopted in my study.

2.2 Numbers as unpredictable actors: the contributions of ANT and EW

This article will show how numbers can alternate between tension “turn-offs” and “turn-ons” over time. It will also allow for the consideration of more than one type of numbers, in contrast with most of the reviewed literature in which the focus is on one specific type of numbers or on a single number-related tool. Finally, the actual case in which the fieldwork took place, an environmental, solidarity (*i.e.* multistakeholder) co-operative, will offer a new setting, different from the typical for-profit business contexts studied in most of the reviewed studies. But before the originality of the research is discussed, some important precisions must be made with regards to my conceptualization of the “action” of numbers. In this paper, numbers (and other objects, whether material or immaterial/virtual) are seen as potential actors. This is consistent with Actor-Network Theory (ANT) (amongst others, Callon and Law 1989; Law 1994; Latour 2005; Akrich, Callon et al. 2006), an approach that has growingly

been used in the “management accounting as practice” research stream (Baxter and Chua 2003; Ahrens and Chapman 2007; Whittle and Mueller 2008) and that will be used in this paper, in combination with the “Economies of Worth” (EW) approach (Boltanski and Thévenot 1991; 2006)⁵. To my knowledge, this study represents the first one to look at numbers with such a combination of approaches.

An important dimension worth emphasis here is how ANT allows for an “agency turn” (Cooren 2006), *i.e.* a reconceptualization of agency, of what it is to be an actor. “To act is not necessarily to form intentions and to follow them; to act is to create unexpected differences” (Callon and Ferrary 2006: 40, my translation); “to do is to cause to do” (Latour, 1996 quoted by Cooren, 2006: 82). When agency is defined that way, humans can no longer be considered the only actors; anybody or anything can be an actor, as long as it is the source of some action (Latour 1999). To act is to do things, to contribute to the emergence of organizational and social processes (Cooren, Thompson et al. 2006). Such a reconceptualization of agency allows for the consideration of non-humans artifacts such as numbers and number-related tools of all kinds in so-called “social” dynamics.

Considering numbers as potential actors allows to avoid treating them as docile, faithful instruments that obey human power, similar to a plane conducted and controlled by a powerful pilot; rather, it means recognizing that they may lead the organization in unexpected directions (Berry 1983). Even researchers who point to extra-instrumental purposes (Spee and Jarzabkowski 2009) tend to employ the term of “use” of tools and of human instrument. Indeed, the change of status of the artifacts observed by Strati (2006: 23) - “from that of a tool to an actor in organizational dynamics by the analyses conducted within “workplace studies” [...], as well as those on “cooperative learning” and “participatory design” applied to information systems [...]” – still has to be fulfilled in the literature on tensions. As proposed by Orlikowski and Scott (2008) for technology, I submit that numbers “are not so much tools to be used to accomplish some tasks, but they are constitutive of both activities and identities.”

⁵ While ANT is relatively well known, the EW has been less discussed in the Anglo-Saxon literature, possibly because of the long time (15 years) it took for the central work, *De la justification. Les économies de la grandeur* to be translated. The EW approach belongs to the (French) conventionalist school of socio-economics and appears as the most sociological stream of it. It results from Boltanski and Thévenot’s efforts to develop a theory of coordination capable of reconciling their respective disciplines (namely, sociology and economics) while overcoming their weaknesses. It aims to understand how actors can coordinate themselves, given the wide range of possible agreements and disagreements between the different “worlds” mobilized in justificative operations. Boltanski and Thévenot’s central argument and contribution is the identification of six worlds (*i.e.* the civic, domestic, opinion, industrial, inspirational and market worlds) in classics of the occidental political philosophy, worlds which still underlie all justifications nowadays. Each of these consists of a certain system of justification actors draw upon when a critical moment happens, and contains “systematic expressions of common good” and characteristics of what is to be considered as “great” or “little” (Boltanski and Thévenot, 1991: 87). The worlds (summarized in Appendix A) can be sought in actors’ justification discourse, situated in action - thus opposing themselves to predetermined logics and social habitus of traditional critical sociology (to which, together with ANT proponents, they oppose with their “sociology of critique”). Worlds are nothing but permanent and stable, and they cannot be *a priori* assigned to actors. Disagreements, tensions result from the encounter of justifications based on different worlds, and they can notably be solved through compromises between worlds. For more detail on the EW, see Denis et al., 2007 (who also present ANT), and Rousselière, D. and M. Vézina (2009). “Constructing the legitimacy of a financial cooperative in the cultural sector: a case study using textual analysis.” *International Review of Sociology: Revue Internationale de Sociologie* 19(2): 241 - 261.

Coming back to the literature reviewed in the previous sections, I will now connect the identified gaps with the contributions offered by the chosen conceptual framework to conduct my study. In particular, advocating for the indeterminacy of actors, Boltanski and Thévenot (1991; 1999; 2006) argue that the “worlds” or “polities”, unpredictable and subject to change, cannot be cast upon the actors neither *a priori*, nor in any definite fashion. Given this strong postulate towards the indeterminacy of (heterogeneous) actors (Bénatouïl 1999; Wagner 1999; Lemieux 2004), the ANT and EW approaches shall allow both 1) for the capture of different roles, over time, and 2) for the emergence of many numbers to be considered. Let me explain these claims.

First, the role and action of numbers may evolve over time, and shift from a regulating to a conflicting role, and vice-versa. According to Berry (1983: 23), when a management tool does not play its regulating role anymore, situations become contentious as people try to develop their own analyses and justifications based on partial logics suiting their peculiar interests and priorities. The accounts described by Vaivio (1999) and Townley et al. (2003) demonstrate that any initial “power” of numbers is not to be taken for granted, and that it may well be challenged over time. These studies appear as particularly interesting for they consider the evolution of the action of certain numbers over time. Although longitudinal studies of numbers are not scarce in the literature, there is a general tendency to focus on a single role played by numbers.

Second, the indeterminacy of actors, when combined to the previously discussed reconceptualization of agency, renders possible the emergence of unpredictable actions by multiple, emergent actors. Once numbers are admitted in the repertoire of actors, one must resist treating them as a monolithic entity. Most studies have centered on one specific type or set of numbers (for instance, the budget, performance indicators, the timesheet, the “quantified customer”, etc.), and generally speaking, management accounting numbers have received considerable, yet focused attention. In EW terms, numbers, although they could logically be associated to either the market or industrial worlds, can belong to any of the six worlds (as the EcoloWorld Co-op case study will show). The civic world has its own numbers (quorum in general assemblies, voting results and power, etc.); so do the opinion (media coverage, number of website visits, etc.), the inspirational (linked to mission and social change objectives) and the domestic (years of experience, number of members living in the neighbourhood, distance between the Co-op and place of production, etc.). My analysis covers many different types of “calculable entities” or “calculable spaces” (I shall elaborate later on this notion; Miller, 1994; Vaivio, 2004), and their interplay over time. This is in line with Ezzamel’s (1994) study, which provides us with an interesting, exemplary situation in which the same kind of numbers (accounting) were initially opposed to each other (accounting revaluations of the University’s reserves were presented by disadvantaged opponents to discredit the ones presented in the University budget), then boosted with extra-accounting critiques. Although Ezzamel too uses ANT to explore the University budgeting system in context, our approaches differ as mine, sticking more strictly to ANT, does not look at the effects of power (in addition to ANT, Ezzamel heavily draws from Foucauld’s critical approach), but rather considers power as an effect of successful translations and enrolments permitted by numbers’ actions (Latour

1992; Latour 2005). Critical studies typically associate management devices to worker domination by managers or shareholders (Berrebi-Hoffmann and Boussard 2005; Maugeri 2008). However, the specific context of my study – a multistakeholder co-op - is marked by empowered worker members using numbers to influence board decisions.

This last remark leads to the third contribution of this research. Indeed, fieldwork has generally been conducted in large, traditional, capitalist enterprises. When an enterprise is profit-driven, financial numbers can logically be expected to play a role in decision-making and, in consequence, in tension management. Apart from a few notable exceptions (Denis et al., 2006; Chua, 1995; Golden-Biddle and Rao, 1994; Ezzamel, 1994) of fieldwork respectively conducted in hospitals, a nonprofit or a university, numbers have received little attention in alternative, not-for-profit or “more than profit” social enterprises. As argued in the introduction of this paper, the EcoloWorld Co-op is a very particular, pluralistic organization. In the following part of this paper, I will describe the methodological approach that guided the case study.

3. METHODOLOGICAL APPROACH

The ethnographic case research was chosen, since it appeared to be the best method to develop a rich understanding of the organization and of the issues related to the management of tensions (Lowe and Jones 2004). What started as an exploratory study of decision-making in a multistakeholder governance context was gradually refined to more precise units of analysis. As some findings emerged from the iterative process of circling back and forth from data to concepts (Golden-Biddle and Rao 1997: 597) - *i.e.* the importance of numbers - I started looking for narrower phenomena surrounding the critical moments identified.

I officially accessed the EcoloWorld Co-op for study purposes back in 2006, and the fieldwork ended in 2009⁶. Over the 3-year period covered in real-time, I could observe and audiotape board meetings and general assemblies. Interviews were also made possible upon my requests. I offered the general and the store managers to volunteer in order to get an insider’s view of the Co-op. As a result, I found myself doing many tasks and collaborating with worker members for both office-related jobs (translations, research, filing documents) and shop-floor jobs (shelving, coffee canister filling and serving customers). Together, the data collecting techniques used allowed me “to examine both the formal and informal arrangements that characterized decision-making [...]” at the Co-op, and the extended period spent on site provided me with “a sense of the democratic processes over time, rather than at

⁶ Two important precisions must be made here: I “officially” started my research in August 2006, but I have been a user member (although not a “regular”) of the Co-op since early 2005. I had formally requested access to board meetings for observation in the summer of 2005. At that time, a negative answer had been formulated to me, along with a “bad timing” justification and a kind offer to resubmit my request at a later, unspecified moment. I learnt later that the summer of 2005 was actually the peak time of a deep governance crisis. In 2006, I was informed that the “bad timing” –*i.e.* the governance crisis - was over, and that a new request would probably receive a positive answer from the board. Indeed, the attitude from the board was entirely different: “the secrecy culture is over”, was I told by a board worker member. I was granted full access to all documents, whether hard copies or electronic ones, from the foundation on (1999-2009). This meant, among other things, that I could go back to board meeting minutes to trace back the finely detailed governance crisis.

a given moment in time” (Hunt 1992: 13-14). All in all, I have accumulated over 170 hours of observation⁷, whether participant or not depending on the context (on a spectrum ranging from the completely non participant observation of board meetings, to a very active participation while volunteering). During and/or following all observation sessions, I took extensive notes. I also transcribed verbatim exchanges that occurred in board meetings and general assemblies when these were relevant to my research questions.

The study of the dynamics of governance paradoxes and tensions is best served by longitudinal studies (Sundaramurthy and Lewis 2003: 411). The case study relies on a combination of extensive observation (2006-2009) with document analysis, adding a retrospective dimension to complete the real-time data (Leonard-Barton 1990). In addition to be added to the board’s electronic list of the Co-op, I was allowed to copy all paper documents, as well as the different file directories of the general manager’s computer. This amounted thousands of pages of diverse types of texts covering 10 years (1999-2009), including minutes, business plans, annual and strategic planning reports, newsletters, policies, e-mail exchanges, etc. For the purpose of this article, my analysis focuses mainly on governance, board-related materials found in this corpus of documents (minutes, observation notes from board meetings and general assemblies); other documents are used as support. All were entered and codified with the help of the NVivo qualitative analysis software.

My approach is similar to that of Samra-Fredericks (2003), for I am combining an ethnographic report to a closer analysis of some conversations or “vignettes” (Kaplan and Jarzabkowski 2006) to illustrate the paradoxical actions of numbers (although I do not carry out formal conversational analysis). The central issue stream, a governance crisis, as I shall soon explain, was identified in an emergent manner via its mention in documents, discussions and observations related to the governance context. Issue streams were put forward by Langley et al. (1995) as an alternative to the idea of “decision processes”. Langley et al. (1995: 270) proposed a move away from the study of decision processes towards an “issue stream” view. Following Nutt and Backoff’s (1993: 31) definition, an issue can be defined as a tension between two developments. The tension identifies contradictions within the organization or between the organization and its environment. The tension identifies competing interests and values. The notion of a tension is used to highlight the conflict inherent in all strategic issues and provides a means to describe and articulate issues.

The “issue” part refers to the notion of tension, and brings us close to Boltanski and Thévenot’s notion of critical moment. According to Boltanski and Thévenot (1999: 360), a critical moment

[...] make[s] reference, at the same time, to the critical activity of the persons and to the unusualness of a moment of crisis. What is pertinent for the argument is the reflexivity of this critical moment. The starting situation is something like the following: People, involved in ordinary relationships, who are doing things together – let us say, in politics, work, unionism – and who have to coordinate their actions, realize that something is going wrong; that they cannot get along any more; that something has to change.

⁷ A table that summarizes the observation part of the real-time data collection, from 2006 to 2009, is presented in Appendix B.

It is in these critical moments that “worlds” or “orders of worth” become salient and can be identified (Boltanski and Thévenot 1991). The “stream” part of the “issue stream” unit of analysis conveys an idea of movement that brings us close to the idea of trajectories found in ANT analyses. As Gherardi and Masiero (1987: 338), I believe that decisions – issue streams, in this case – “lay the foundations for the structures of the organization which, in turn, influence future decision-making”. Without falling into deterministic traps, the influence of past decisions and patterns on current and future issue streams cannot be ignored, and “following the actors” (Latour 1992; Latour 2005) allows for this consideration.

Concretely, the governance crisis issue stream (and the “community vs. business” tension it reveals, as will be shown) was the most “compelling” and “dramatic” (Golden-Biddle and Rao, 1997) issue stream found at the EcoloWorld Co-op. Like Golden-Biddle and Rao (1997: 598), I identified “compelling” and relatively “dramatic” moments of the complexity observed at the EcoloWorld Co-op, *i.e.* moments that were “highly significant events” for the Co-op members and that “rendered manifest the latent contradictions that board members experienced” (Golden-Biddle and Rao, 1997: 598), while illustrating the importance of numbers in explicit or implicit terms. The governance crisis, an episode filled with multiple tensions, also clearly appears as a turning point in the history of the Co-op, at least following Buzzanell et al. (1998)⁸. The careful reading of the material clearly conveys the idea that there is a crisis, and that what precedes and follows it differs. And what surprised me were the different roles of many distinct numbers through the moments of the pre-crisis, its actual peak and the post-crisis. Similar to Kaplan and Jarzabkowski (2006:17) who did not identify the use of strategy tools prior to their research as a focal area of inquiry, I did not initially intend to study numbers. Rather, as for Kaplan and Jarzabkowski, it is “the obvious interaction and struggles participants had over tools in their daily strategy-making efforts [that] made it an important subject for analysis.”

4. THE ECOLOWORLD CASE STUDY

Before presenting the findings, a few additional words must be said to enhance readers’ understanding of the peculiar context of the case. The EcoloWorld Co-op is a “solidarity co-operative”⁹ based in Quebec (Canada), selling a wide range of eco-friendly products (office supplies, house cleaning products, personal care products, organic/fair-trade food and clothing apparel, alternative press, etc.). A “grassroots sustainability enterprise” (Ray

⁸ According to them, criteria for identifying a turning point consist of the “frequency with which an event (milestone) is mentioned; degree of emotion attached to an event; and similarity in research participants’ language used to describe the event or belief.”

⁹ In 1997, a new type of co-op was created in Quebec: the “coopérative de solidarité” (solidarity co-operative). Contrarily to the co-operative tradition of “unistakeholderism” and mutual interest-seeking, this new type of organization not only permitted but forced co-ops to have at least two different types of members both in the membership and at their board of directors. The three possible types of members are the following: worker members, user members and support members. Institutionally, the solidarity co-op appears as a hybrid between the “general interest” promoted by many nonprofits, and the mutualist tradition of most co-operatives. Although they differ on certain aspects, similar multistakeholder co-ops can be found in Europe (the French *société coopérative d’intérêt collectif* (“scic”), the Portuguese and Italian social co-operatives, and the Belgian *société à finalité sociale*).

Davies 2009), the EcoloWorld Co-op was founded in 1999 by a little group of friends and neighbors, many of whom were community organizers and progressive-thinkers. Although they did not initially have a clear idea of what their project would turn out to be, they knew from the start that they wanted to create a social gathering space for their neighborhood, and they wanted it to be a community economic development initiative. Numerous brainstorm and business plan development sessions later, a store (comprising a café) opened at the end of 2000.

Three types of memberships are available: worker, user and support members. A social share is \$10 for users and workers alike, and \$100 for support members. All members have equal rights at general assemblies (one member, one vote) and also at the board of directors, comprised of 3 elected representatives from each of the categories. The thousands of members are unequally split in the three categories, with an overwhelming majority of user members.

I will first sketch the temporal bracketing results, then present a more detailed analysis of the paradoxical actions of numbers in situations of tensions, in practice.

4.1 Temporal Bracketing Results: The Emergence and Ubiquity of Numbers

A first narrative strategy yielded to a temporal bracketing one (Langley, 1999), allowing for the identification of five different phases over the first 10 years of the Co-op with regards to numbers. In this “general” bracketing, the governance crisis (phase 3) appears as an extreme issue stream that clearly strikes the analysis and leads to the subsequent increased importance of numbers at the Co-op’s board of directors. In the following paragraphs, I will describe the five phases with a special emphasis on the crisis period, on numbers (types, roles, worlds) and on the “community vs. business” underlying tension.

4.1.1 Emergence: Numbers as a “necessary evil” (1999-2000)

This period ranges from the foundation of the Co-op, in 1999, to the opening of the store in November 2000. It is marked by a triple search for money, support and suppliers, and numbers are clearly involved in the money and support quest.

The first numbers, mainly start-up funds in the form of loans, grants and social shares, were a means to start the project and, from then, to start changing the community...or so did the founding members hope. Selling social shares had a double function: the money collected was bringing them closer to the launch of their project; additionally, its success (\$20,000 raised in the community before the store opening) was an indicator of legitimacy and support for the founders in their fundraising efforts with social economy support organizations.

But mainly, the start-up money was instrumental in getting the store to open, and the store itself was seen as a means to educate and engage community. As one of the founding members puts it:

“It was a community economic development project, and it was a co-op, and it was about getting people involved. It was about education too. It wasn’t about selling things...Well, it was about selling things to the point where we’d keep the door open.” (Int GM1).

This uneasiness with the sales dimension of retail, clearly seen as instrumental, was to be exacerbated in the following phase, once the store opened.

4.1.2 *First years of operation: Numbers as a grass snake (2001-2004)*

Some of the money and support gained in the last period came with prescribed advice from funding agencies: the Co-op needed to invest in a point-of-sale accounting and inventory system, namely Acomba. Although it aimed to facilitate the work of the Co-op workers by easing the production of sales and inventory reports, Acomba entailed a steep learning curve and a large investment in time. Every product had to be entered in the system on a file containing 10-12 fields to be completed. And there were 800 products to enter, with more coming every week. Trying to get acquainted with Acomba was a challenge for the workers; not only was it very time consuming in this crucial moment of the Co-op start-up, it also implied some concrete work with numbers. On the operational side, when not busy with shop floor tasks like serving customers, recruiting them as members or putting products on the shelves, the few workers were thus spending most of their time entering product information, endlessly, and constantly postponing the finalization of the point-of-sale system throughout the 2001-2004 period.

At the same time, on the governance side, (user and support) board members were gradually, though not insistently, starting to ask for figures: cash flow and financial reports requests are formulated as far back as January 2001 in the board meeting minutes. Problems with Acomba and with the bookkeepers were frequently mentioned to justify the absence of financial reports from the general manager to the board, and further by the treasurer to all members at the 2001 General assembly. Speaking of these problems, the general manager recalls:

“You know the movie Spinal Tap? It’s about a rock band, a fictitious rock band where the drummer is always dying. You know, he blows up, or in any crazy way. And the joke was that being the bookkeeper for the coop was like being the drummer in Spinal Tap! Because, first I had a nervous breakdown. The second guy, sort of the same thing, just never kind of understood. We did...we weren’t speaking the same language. All the bookkeeping staff they were all completely negating the fact that we were a co-op. You know, they wouldn’t account for the social shares, you know it was just... [...] And we would have, I would think – well, all of us were confident – we would have good books that would accurately reflect the reality of the place. But they were always late, you know.” (IntGM 1)

After being criticized by fellow board members at the end of 2003 for financial reports that were “too infrequent to properly analyze and act upon the situation”, the general manager asked for proper training on accounting issues at the beginning of 2004. Requests for timely reports kept being formulated by some board members, and the justifications from the general manager – namely the lack of time and human resources - ended up in the hiring of a store manager to allow him to free some of his time. This was apparently done too late, as the general manager asked for a sick leave in December 2004. The marketing manager replaced him as interim general manager, ending another year marked by deficit.

4.1.3 *Crisis: Numbers as a double-edge sword (2005)*

When the marketing manager took over the general director as interim, with the help of the treasurer of the Co-op and the store manager, he also found himself taking over a disarrayed financial and accounting situation. In February of 2005, he reported to the board that the treasurer and himself had discovered an accounting mess, with late bills, angry suppliers, penalties, etc. A month later, the board questioned the general manager – who was still sitting at the board, although on sick leave from work -, and more precisely the fact that he had recommended the hiring of a store manager without having provided the board with the proper data to make well-informed decisions. The general manager replied that the November and December sales of the past year had not reached their objectives, but that if they had done so, the Co-op would not have lived such hard financial times.

From then on, numbers, after having tried to enter the board at many occasions, rapidly became VIP members that could no longer be left knocking at the door. In the following months, accusations and justifications based on numbers became the new language of the Co-op's governing body, and of the general manager's trial. Numbers appeared as an "objective" way to accuse; they were backed by "softer" issues of bad human resources management. A special committee was formed to look into the situation and report on the general manager's case. The report concluded that there had been mismanagement by the general manager, and that he should not be allowed to return to his position once his sick leave was over. All throughout the spring and summer of 2005, the general manager retorted that there was too much to do, that there were cash problems and that he was sick in order to justify himself for the neglect of the administrative side of the Co-op. But this mostly personal, subjective line of argument was not sufficient to fight the powerful numbers that had triggered the tension, and as a result, the general manager was finally fired retroactively (in July), by means of a letter sent in September. Basically, and as Catusus (2007) puts it: "Absence of accounting [was] seen as the neglect of attention. To endorse absence of an account [was] considered counterintuitive and [...] against the dominating transparency discourse", especially in a pluralist, democratic organization.

Clearly, the general manager could not fight back with the same numbers, *i.e.* the financial ones. He had not proved himself to manage, or in ANT words, to "enrol" them properly in the past, and was not able to use them to convince the board that he was competent in that matter. To the board's financial numbers of the industrial and market worlds he could not grasp, the ex-community organizer thus opposed the numbers he mastered: the democratic numbers of the civic world, first by mobilizing fellow worker members in a workers' special assembly, then ("his") support members for the general assembly to be held in October. The assembly got two motions adopted, asking for his reinstatement and for the development of a human resources policy (including evaluation process) to be applied retroactively to him. Out of the 4 board seats open for elections, 3 of the newly elected board members were in clear support of the general manager. In the general manager's words:

“Well, in fact there were 4 seats available, but one was a worker member and we couldn’t count on that vote, so we elected three people. So we mobilized, we had 30 support members there out of about 100, so we knew that we had that covered. The thing is that it was so crazy, the support members were the people who had given \$100 at the beginning, they were all people whom I knew. [...] It was a crazy thing. [...] There were 113 people at the meeting. I would say 100 were there to support me. [...] And we were very strategic: we presented a resolution that the board adopt a human resources policy that include proper evaluations, and that it’d be applied to me retroactively. And that I’d be re-instated, and that I’d be entitled to [compensation] retroactively. Then we elected the board members. It was a 4-hour meeting, it was very difficult, but we won the day.”

Although it can be read all throughout the story of the Co-op, the 2005 general assembly was marked by the explicit statement of the tension between community engagement and business. While both dimensions of the Co-op had co-existed in the past, as things had evolved, the business dimension had been neglected, and the financial situation did not allow for this neglect to go on any further – so did the board think. With deficits every single year since it was founded, the Co-op could not expect to survive much longer without embarking on some new strategic orientations. As explained by the treasurer to the assembly:

“This year we can expect the deficit to grow about \$40,000 because there’s no grant money left. The \$61,000 accumulated deficit will probably grow by another \$50,000. The big question is what do we do about it? We’ll have to close doors if we don’t have fundamental shift. Big questions have to be asked. Can we recover, how long will it take? This is for the new board to take on. Numerous ideas floating around that have serious potential, not all doom and gloom that include you the membership, financial loans, grants... Is the Co-op a retail store that supports the community, or a community that supports a store? If members support this could mean making membership fees annual, fundraising drives etc. If the business is to be self-sustaining this would mean making the store profitable, rebuilding store, and getting right people in right positions. We have neglected that running the store is complex task, and we had serious decisions to make. We’re not a malicious Board, we’re just looking at the numbers and the financials have been mismanaged. [The interim general manager] and [the store manager] spent better part of 6 months fixing things. For 6 months we didn’t know what the financial status was in 2004. Most of our energies this year were spent dealing with this. It was handed over in disarray, which makes it hard for a store to maintain profitability.”

Again, we find numbers to exacerbate tensions, in this case between the social and the economic dimensions of the Co-op. In November of 2005, an economic recovery plan is put forward by a board member, including the scission of the economic and social roles of the Co-op and proposing the creation of a non-profit organization to fulfill the social, educational action. This separation was never made, but still, the proposition generated important discussions. Amidst the other main fights was the one opposing the “old” members of the board to the newly elected members, who were overtly in favour of reinstating the fired general manager (and had been elected with a mandate to do so). Until January of 2006, when one of the last “old” members resigned, allowing for new members to take control of the board, board meetings were a field of power games marked by divided views with regards to this potential reinstatement. The civic world of majority voting numbers, again, had won; community was more powerful than business, at least for this round.

4.1.4 *Repair: Numbers as a candy* (end 2005-2006)

With the newly elected board members taking over the board majority in January 2006, negotiations were quickly undertaken and the general manager was reinstated one month later. While numbers had been used to accuse, create panic and to mobilize in the previous period, they played a pacifying, smoothing role in the 2005-2006 timeframe, in which a repair was needed of both the board toward the general manager, and for the general manager's credibility. The first repair implied compensating the general manager for the financial losses he had lived through due to his dismissal and discussing wage increases for the both him and the store manager, as well as for the other workers. The second repair meant, for the general manager, to provide the board with the numbers they asked for, once board members stated what exact performance indicators they deemed necessary. It also meant, moreover, that the general manager had to make every possible effort to ensure the Co-op would generate its first ever surplus.

General manager: Well, right now, really...The whole place has been so consumed with the issue of me last year [2005] that right now, the discussion is about "what is the bottom line?" and how to...You know, we're...A lot of people supported me, but at the end of the day, when I came back, you know, there was a lot of...

VM: Suspicion?

GM: Well, no, I think it's too hard of a word, suspicion...But you know, people thought "what if we were wrong? What if they were right?" [laughter] So you know, I really worked hard to prove these people wrong and show that we could make a surplus, and we can have the books, and we can have all the reports done on time, and we can do that, you know...Yeah. So that's...The discussion has focused mostly on that, it hasn't gone beyond that, now, you know. (IntGM1)

The board explicitly stated the set of selected indicators (financial statements, sales reports, budget, unpaid bills, activities held). Then, board meetings somewhat became reporting moments in which the general manager presented, with much detail, (overloads of) spreadsheets and numbers. And the positive financial situation that resulted from cuts in the payroll (in terms of hours worked), combined with increased sales, translated in a first surplus, and to new discussions as to where it should be invested.

4.1.5 *Numbers rule: Numbers as obligatory "points of passage"* (2007-2009)

The reporting dynamics that were established in 2006 have been institutionalized; not only do they dictate the format of board meeting (standard) agendas, they now orient the way projects are proposed and defended, and the way tensions are being addressed and dealt with (I shall detail some of the specific paradoxical actions performed by numbers in the next section).

Indeed, most of the board meeting content is comprised of reports presented by the general manager: these reports are mainly of financial nature, with a secondary focus on activities and outreach. From being dismissed of his job by previous board members who had judged that he could not manage the Co-op's numbers, the general manager turned himself into a skilful user of the numbers to orient board and general assembly meetings, to justify his propositions; in other words, to influence and convince. The following extract, taken from the 2007

annual report (written by the general manager), gives a good idea of the kind of number rhetoric that contaminated the Co-op organizational governance:

« 2007 was a pivotal year for the Co-op [...]. Coming off of our first surplus in 2006, the Board, the Worker members and Staff worked hard in 2007 consolidating increases in staffing, gains in sales and improvements in administrative structure. We ended the year posting our 2nd consecutive surplus. All of this happened while we ran a store 7 days a week (354 days last year!!) serving an average of 127 customers per day (more than 45,000 different transactions!!), a number that does not include all of the passersby, members or not, who drop by during the day to say hello. Add to this the more than 60 events held in 2007 and, all of the people who attended those events, and it is easy to see that the Co-op is fulfilling its mission as an important community source for environmental products and information. The launch of a new website in 2007 helped to greatly increase the visibility of the Co-op. Unique visitors, page views and hits have more than doubled since the establishment of the new site and have continued to grow into 2008. »

Apart from exemplifying the pervasiveness and ubiquity of numbers of all kinds in the Co-op's discourse, this quote further illustrates the new approach with regards to the "community vs. business" tension. Indeed, sales revenues are a means to sustain community engagement, and community engagement entails more than workshops and education; it includes paying workers fair wages when compared to other retail stores, as explicitly stated below. Community engagement, loosely defined, thus appears as a way to legitimize making money, and surpluses as a way to ensure long-term survival and development of the project; it is a virtuous circle. The general manager, an ex-community organizer, did not initially feel at ease with the business component of the Co-op. He admits that he is now "smarter with money", and that he never thought he would ever be preoccupied by numbers.

"And I think...you know, our idea's always been that we make that money, and part of it gets put in the community, and it gets, you know, it goes to the worker members, and it's reward for the community, and I think that's what we need to do. But, you know, we can only do that if we do development." (GM, BM 2)

For the Co-op to keep investing in its community, development is required; for development projects to occur, the Co-op has thus recently started asking the community to invest back in the Co-op. Indeed, two major development projects have been put forward for the Co-op, mainly driven by the general manager: the launch of a new website with online sales, and the purchase of the building it is renting a space in. To justify them and problematize the situation, new numbers, mainly of statistical nature, have made their way to the board: website visits, bestselling products, percentage of members living outside of the neighborhood, etc. And to make these projects come true and enroll Co-op members, other numbers, obligatory "*points of passage*", have also been mobilized, namely loans, an increased inventory to answer the expected web orders coming in, and the investment of the community through privileged shares.

Following is a table encapsulating the temporal bracketing results:

	Emergence 1999-2000 (opening Nov. 2000)	First years of operation 2001-04	Crisis (End-2004-) 2005	Repair (End 2005-) 2006	Numbers rule 2007-2009
Metaphor: numbers as...	A necessary evil	A grass snake	A double-edge sword	A candy	<i>Points of passage</i>
“Worlds” of the numbers	Civic Industrial Domestic	Industrial Market Civic	Industrial Civic Domestic	Civic Industrial	Industrial Market Civic
Salient types of numbers	Membership and social shares, start-up money (loans and grants), delays, number of products	Acomba and accounting-related, budget and results, development grants, membership	Cash flow, accounting mess, end of grant, late bills and penalties, voting power, payroll	Voting power, monetary compensation, wages, results	Sales, statistics, inventory, salary increases, real-estate investment, capital campaign
Salient actions of the numbers	Facilitating, informing, mobilizing	Informing, lacking, mobilizing; (remarkable growth of) controlling	Accusing (remarkable increase), rushing, mobilizing	Gaining support and legitimacy, facilitating, informing. (remarkable decrease of) influencing.	Informing, justifying, influencing, facilitating

While the previous results led to a general understanding of numbers’ roles and of their evolution over time, in the next paragraphs, I will go in greater depth in the data obtained through real-time ethnographic observation of board meetings and general assemblies (2006-2009) to detail some specific paradoxical actions performed by numbers in tensed situations.

4.2 The paradoxical actions of numbers: Acting at a distance vs. Keeping at a distance

From the iteration between emergent and deductive coding and theorizing of my observations of the tension-related practices in board meetings and general assemblies, I have identified an interplay of paradoxical actions performed by the numbers: acting at a distance vs. keeping at a distance. In the following paragraphs and with the presentation of specific episodes or “vignettes” to represent a larger collection of findings” (Carlile 2002 in Kaplan and Jarzabkowski, 2006: 17-18), I will discuss these dynamics, and the three micro-practices associated with them: debate personalizing/depersonalizing, managing/being managed by numbers, and the creation of new calculable spaces.

Drawing from ANT, the notion of “acting at a distance” has been discussed in previous work on numbers, and more specifically on managerial accounting (Miller 1994; Preston 2006). Basically, and as summarized by Lowe (2001:

34), “[a]ccounting techniques give the principal the potential ability to control at a distance. Managers and owners make use of budgeting and reporting techniques to give an appearance, at least, of “remote” control.” And “whether it is a question of dominating a particular society or economy, or the earth or the sky, the mode of operation is similar: domination involves the exercise of a form of mastery made possible by those at the center having a particular type of information about events and persons distant from them.” (Miller 1994: 243)

As mentioned previously, after the crisis episode, board members have selected such a particular type of information, *i.e.* a set of performance indicators (mainly taken from the market and industrial worlds), and their meetings have gradually become reporting moments. For the elected representatives of the user and support members’ categories, the indicator-filled reports made by the newly reinstated general manager appear as a means through which some control could be exerted, at a distance, over the management of the Co-op (*i.e.* the general manager, mainly, and the store manager) to prevent the drifts of the past from re-occurring. By following the numbers, the board could keep an eye over the actual operations of the store, through new “calculable spaces”, “abstract spaces [that] are objects to be known and regulated in terms of their performance, and to be brought into relation with other abstract spaces.” (Miller, 1994: 253) Such report-focused dynamics were fed both by the general manager’s reliance on quantitative indicators to synthesize the situation of the Co-op, and by the other board members’ tendency to formulate quantitative-driven questions (often starting with “how much”, “how many” or “when”, rather than more open “why” or “how” questions) to the general manager. And even educational activities that could lead to more qualitative appreciation became calculable spaces, reported and assessed upon their quantified audience, without further questioning of the link between some workshops and the Co-op’s mission, amongst other things.

Paradoxically, the “acting at a distance” possibility offered by numbers to user and support members alike at the board was accompanied by a contrasting “keeping at a distance” action for worker members. Indeed, numbers keep user and support members at a distance, appearing as actors that allow the worker representatives to preserve discretion over their daily work. In the aftermath of the crisis, numbers were routinely presented by worker members (mainly by the general manager) without being called into question, mainly because they constituted good news. Indeed, as previously mentioned, 2006 was marked by the first surplus of the Co-op, and this positively reinforced the reporting system. Moreover, new projects, when being presented as business cases with much supportive quantitative data, are easily accepted by the board. Put simply, numbers had been lacking in the past and this had caused problems; now that they were being closely monitored, things had greatly improved and were running smoothly, which confirmed that the system in place was right, and that the Co-op was managed diligently. My observations from 2006 to the end of 2008 are indeed marked by the absence of apparent tensions at the board. But at the end of 2008, the cash situation became, yet again, problematic. As a result, issues and tensions reappeared, and the “acting/keeping at a distance” actions became associated with new micro-practices

linked to debate personalizing/depersonalizing, a tendency to manage numbers/being managed by numbers, and the creation of new calculable spaces.

4.2.1 *Debate personalizing/depersonalizing*

While the 2006 and 2007 financial years had been characterized by very little representation and advocacy, by the different types of members, of their own interests (in fact, at numerous occasions, user and support members even preceded workers' requests) and by a generous catching-up of employees' working conditions all board members agreed to, the coming back of harder economic times seems to have prompted user members to express some particular concerns. Given the reporting dynamics just described, when user members did put on their "user representative" hat to complain, they did so by mobilizing performance indicators related to their concerns, as customers. Not only could the managers (general and store) "talk numbers", some other board members¹⁰, too, could translate their concerns with "quantifiable" indicators, as the following excerpt from a board meeting (BM 12, 090211) shows:

User member (UM): well, if you wanted to make to increase the budget, you'd have to work like hell to make sure that your sales increase...

General manager (GM): yeah

UM: you know, there's a lot of products that we should be selling and that we don't have...there's, you know, customer service that I think sometimes is lacking, you know, sometimes, people are waiting a long time [...] If things are expensive, more than what they can get at [the supermarket close by], we have to go above and beyond in terms of service, you know

GM: huhummm

UM: Give people something! Like you're trying to sell, don't let people waiting at the cash when people at the cash are just talking there, at the coffee machine, just like that, when people are waiting and nobody notices that they're there.

Other UM: there's a culture of patience at the Co-op

[Laughter]

UM: Look, I have no problem with it, now, I'm just saying that when you're in a really bad economic time and you want to get people's business, eh, there should be an extra effort for customer service. [...]

With regards to the acting/keeping at a distance action, it can be seen that by mobilizing vague, non-quantified – yet "quantifiable" – indicators, a user member tries to shorten the distance, to get "closer" to the management of the Co-op. The following excerpt (immediately occurring after the user member's intervention) shows how this tentative incursion in the industrial world with the use of soft, domestic world-shaded and "quantifiable" arguments is being replied with market and industrial justifications (we will see in the third micro-practice how these relate to a new calculable space):

¹⁰ Note that the "keeping at a distance" action of exact numbers was also enacted by their quantity, with the general manager's tendency to overload fellow board members with financial reports, sometimes without having had time to send them out prior to the meeting, or else without providing members with hard copies, making it hard for some members to follow discussions that get down to much detail. Some basic questions asked by members (about mortgage rates, break-even point or amortization explanations) further seem to indicate that some members did not fully capture the language of numbers.

GM: there's no doubt that there's things that we can add. And you know, we talked about that, we bought things in. For me, right now, what needs to be done in terms of products is to get products on the website. Cause if we have more stuff, we're gonna sell more stuff there, and it's stuff we have. So we don't have to deal with new suppliers, we don't have to deal with the cashflow issues, it's marginally increasing what you already bought, so that you can be assured...and we're focusing on things that are close by, that are easy to get...[...] that if we put it online, and if they have enough when they buy it online we can have it in 2 days,[...] never more than 3 days.

These industrial indicators are directly being seized by the user member to further develop her point, followed by the general manager's repeated use of exact numbers to answer some of her critics and close the debate:

UM: but that's another thing, you know, not having something. You know, people are coming to the Co-op to buy a product that they can get at [the supermarket close by] for cheaper than they can get it at the Co-op, and they get there, and you're out of stock. That's...that's bad. They're not gonna... "Forget that", they'll say.

GM: we've invested \$14,000 to address that, it's the kind of inventory that we have. You know, 80% of the stuff, 80% of the sales comes from, you know, 30% of your stuff. And you need to have that stuff and you need to have all of the other stuff too, and that's what we struggle with. And one way to address that was to spend \$14,000 to bump up inventories, in things that we always have. So I would say that we've addressed that to a certain extent.

UM: yeah...

At that same meeting, the precision of numbers was reinforced and emphasized to support the general manager's knowledge and control over "his" numbers. Indeed, when a user member (the same as above) told him he could say "\$3,000" instead of the more precise "\$2,965" when talking about some costs, she was answered back, by the general manager, "well, that's \$2,965". This reinforced the importance of exactness, while re-settling the distance to be kept between the board and the management of the Co-op. Justifications based on the industrial world (and to a lesser extent, the market world) were used to depersonalize discussions, in order to stay away from potential conflicts of interests. They also allowed the avoidance of thorough discussions on strategies. In fact, discussing strategies to reach objectives, in practice, often meant managing numbers, or justifying how the Co-op was being managed by them.

4.2.2 *Managing/being managed by numbers*

To a certain extent, the "acting/keeping at a distance" action seems to have passed from the board-management relation to the way the general manager envisions his own role in managing the Co-op. Having progressively evolved in a "calculative self" (Miller, 1994), the general manager answers industrial and market problems with industrial and market solutions, detaching himself too from the actual operations of the store. This occurs through practices of micro-managing some flexible numbers in order to reach budget objectives, or, in contrast, explaining negative performance by outside, out-of-reach macro-economic indicators.

Indeed, while the economic crisis of 2008 (referred to as "the Economy", the "World Economic Collapse") was the most important out of control justification provided to explain the low sales at the end of 2008, some other indicators were actually more flexible, *i.e.* manageable. When faced with lower-than-budgeted incomes (because of the macro-economic context) and higher-than-budgeted expenses that resulted in a deficit for 2008 and to the

necessity to review the 2009 projections, some interesting reactions were observed that feed the “managing/being managed by numbers” practices. First, the deficit was mainly attributed to the impossibility to amortize certain unplanned expenses related to the project to buy the building. This focus on numbers’ impossible management distances the results from the operations. It is not because of managerial mistakes (more personal), but because of accounting (impersonal) rules that the deficit is higher than expected. Unamortized expenses, in this case, appear as out of control actors. But other numbers do allow for managerial intervention. Among the other expenses, payroll is the most flexible budget heading and gets frequently modulated (cutting hours or shifts, not replacing workers who leave the Co-op). Interest rates are also frequently mentioned by the general manager as one potential way to reduce the expenses and respect the budget, as he sees them as potentially negotiable.

However, the most interesting reactions are linked to the revenues. With a 24% decrease in sales when comparing the sales at the end of 2007 with those at the same period in 2008, and with the 2008 year ending with a deficit, strategic action and a “recovery plan” are requested by some board members (of the support and user categories). While this could have led to the development of strategies designed to increase sales, most discussions actually focus on ways to increase revenues through other tactics that revolve around the creative management of numbers. Amongst such “numbers’ management” propositions made by managers are the option to sell privileged shares to improve the cash situation, the enforcement of some rules (possibility to cash-in the shares of inactive members¹¹; asking non-members using their spouse’s card to benefit from members’ discounts to become members themselves), and coffee price increases questioned but unopposed by user members given the well problematized situation). Although not a “numbers’ management” proposition as such, the miracle solution of increasing online sales is a powerful example of another movement of distancing permitted by numbers, through the creation of new calculable spaces.

4.2.3 Creating new calculable spaces

At numerous occasions and with various supporting numbers (statistics that demonstrated the increasing popularity of the Co-op’s website, frequency of the requests received for online sales, percentage of members living out of town, sales *plateau* etc.), the development of online sales (and more specifically the new potential sales it holds out the prospect of) is presented as the solution to solve the Co-op’s domestic, industrial and market issues (namely the ones mentioned by the user member in the excerpt presented in 4.2.1, *i.e.* stock-outs, customer service in the store, plus the need to increase sales). The following excerpt is one of the many mentions of trust in the webstore to settle budget matters:

GM: Anyway, that’s an issue with the budget [sales down, cashflow issues]. I just wanted people to be aware about it, cause that’s a problem and I’m not sure how to fix it. Well, you know, you fix that problem by having 4 sales a day online, of \$50 each. Totally fixed, there’s no problem at all. (BM 12)

¹¹ According to the Co-op’s by-laws, the \$10 membership can be revoked should the member be inactive (*i.e.* buy nothing) for 2 years.

But more importantly, online sales development appears as a further manifestation of the “keeping at a distance” action of the numbers, this time between the general manager and the (physical) store through the creation of a new calculable space. In sharp contrast with the community, neighborhood, domestic/civic initial orientations of the Co-op’s space (let’s recall that the Co-op had been founded to offer a community space), the development of the webstore appears as a step to reach out to new, unknown, and very likely non-member customers. These potential customers, contrarily to the members who come visit the Co-op and live close by (the majority of the members reside in the immediate neighborhood), are known impersonally, through new indicators, based on their “IP address”, their demographics, and on their website browsing and ordering patterns, as these excerpts clearly show:

GM: And online, so far, 86% of the sales are to women. You know, 40% of the sales are menstrual products. All of the sales made online so far have personal care products in them. (BM 12)

Then, later in that same meeting:

GM: from January 7 to February 6, 2867 visits, that’s 2459 different people.

UM: how do you know?

GM: cause it tells you...

UM: oh, cause it’s a different URL...

GM: yeah, a different IP. 1800 page views, the average page views per visit are 6.29, 3 minutes and 15 seconds average on the site... that’s good. [...]

Indeed, with the launch of the webstore comes a whole new set of indicators, based on the average amount of online sales, the frequency and repetition of orders, the number of items purchased and the origins of the online customers - data that had never been compiled nor communicated to the board for in-store sales. An average “quantified (online) customer”, similar to the one described by Vaivio (1999), emerges, in practice, and displaces the tensions related to both domestic critics (members trying to get closer to the management and criticizing local store operations) and market limitations (sales *plateau*, and need to reach out to a larger pool of customers). These specific domestic and market issues are being escaped by the promise of the new, distant potential customers, inhabiting a newly created calculable space. And numbers here have allowed justifying this movement away from the core membership base, while also permitting, by means of the “quantified online customer”, the board to relate to the new customers through some new indicators.

The following table summarizes the three micro-practices with an emphasis on the tensions or issues being addressed, the distance to be shortened or increased, and the tension management strategy.

	Personalizing/ Depersonalizing	Managing/ being managed by numbers	Creating new calculable spaces
Main tension or issue	Users' vs. workers' concerns	Projections vs. reality (which links to the second- order "agency/structure" paradox)	Limitations and constraints of local, domestic operations AND need to increase sales
Nature of the tension/issue	Interests	Scope of control	Strategy (exploitation vs. exploration)
Related task of the board	Representing and balancing stakeholders' interests	Control	Strategy
Distance	Between different types of members, and between individual and general interest	Between micro and macro indicators	Between the physically marked Co-op and the larger potential market
Numbers' role in tension management	Distanciation from individual members' concerns through abstraction	Explaining the flexibility or inflexibility/defining possibilities	Justifying the creation of a new space (spatial separation and synthesis)

These three interrelated micro-practices all participate to larger, underlying acting at a distance/keeping at a distance movements, but another distance is also enlightened in each case. The personalizing/depersonalizing practice, linked to the board function of balancing stakeholders' interests, highlights the distance between different concerns and the distanciation through abstraction permitted by numbers. The second practice addresses the projections vs. reality tension, but also, directly, the classic agency/structure paradox, expressed through the identification of the "manageable" vs. non-manageable numbers, and the delimitation of the managerial scope of control and action over the results of the Co-op. The last practice is linked to the tension between the community-oriented, neighborhood rooting of the Co-op (and the associated local problems of the store) and the need to reach out to a larger market to sustain the organization; a revised exploitation/exploration strategic tension (Smith and Tushman 2005). Numbers, in this case, feed both the rationale to embark on the online sales project, and the new calculable space this development allows for. This particular strategy allows to displace the problems of the physical store (limited market, but also the issues mentioned by user members in the personalizing/depersonalizing vignette), while solving some of them (increasing sales and inventory).

Although the three practices are interrelated and participating to the paradoxical actions of acting or keeping at a distance, they also point out to different models of governance, and to the associated paradoxes of governance, as will be discussed in the next section.

5. DISCUSSING THE PARADOXES OF GOVERNANCE

Cornforth (2002; 2004) and Sundaramurthy and Lewis (2003) have proposed stimulating reflections on the paradoxes of governance which, I believe, are well worth the detour of a detailed discussion here, as they offer structure for the presentation of second-order findings, and for further connections with the paradox perspective, more generally speaking.

Basically, after a review of the main theories of corporate governance (*i.e.* agency theory, stewardship theory, resource dependency theory, stakeholder theory, and managerial hegemony theory) and of their respective limitations, Cornforth argues for the adoption of a paradox perspective, drawing upon multiple theoretical models to better represent the complexity of co-ops and mutual organizations. Yet, he leaves us with little practical instructions on the implementation and on the concrete experience of such a perspective. Adopting a paradox perspective as well – although focusing on two approaches and on governance structures and dynamics typical of capitalistic organizations - Sundaramurthy and Lewis propose that both control (agency theory) and collaboration (stewardship theory) be embraced and balanced. They posit that reinforcing cycles of collaboration or control may foster strategic persistence and organizational decline. To avoid such self-fulfilling prophecies and downward spirals, Sundaramurthy and Lewis discuss three approaches to managing both control and collaboration at the board, *i.e.* the two self-correcting cycles approaches of 1) embracing trust AND conflict and 2) of promoting diversity AND shared understandings, and 3) a last approach that relies on external interventions. With Cornforth (2002, 2004) and Sundaramurthy and Lewis' (2003) contributions in mind, I will now discuss the results of my observations at the EcoloWorld Co-op.

The 5-phase temporal bracketing results directly address Sundaramurthy and Lewis' propositions. Clearly, the first two phases (numbers as necessary evil and numbers as a grass snake) appear as marked by intense collaboration. The actual choice of forming a solidarity co-op, for it institutionalizes *multistakeholderism* (Michaud 2009), is a clear statement toward board diversity and toward a genuine consideration of the different stakeholders as partners and stewards. At the EcoloWorld Co-op, it was decided that the board seats would be equally occupied by the three types of members (user, support and worker members). The first board was, for the most part, formed by founding members who knew each other and were driven by a common desire to create a community space for their neighborhood. The 1999 to 2004 timeframe does correspond to Sundaramurthy and Lewis' description of the reinforcing cycle of collaboration in a low-performance - given performance is understood as being of financial nature, because other indicators would have led to a different analysis. But numbers were neither control, nor collaboration tools for the board, until they actually appeared as a real problem. The out of control, software issues and no time/no resources related explanations - offered by the general manager to escape reporting and postpone the meeting of the break-even point - were accepted until the intensified stress he experienced burnt him out. In the absence of the general manager, the board uncovered numerous number-related issues. This sparked the recognition of a needed turnaround at the board, which translated in a radical shift from collaboration to control.

Unsurprisingly, the following phase identified, *i.e.* the crisis period, is a direct consequence of this recognition. The friendly collaboration has been severely challenged, with trust being replaced with open conflict, with "[most] directors' distrust in [the general manager's] managerial abilities" (Sundaramurthy and Lewis, 2003: 406) and with

the attacked general manager trying to defend his prior actions. With the latter's "managerial stewardship suppression" (*ibid.*) forced by his sick leave, the board is no longer acting at a distance; indeed, it is directly involved in the hands-on examination of the management nuts and bolts of the Co-op, as it assembles numbers and other "inscriptions", in ANT words, to back-up the firing decision. As will be discussed in conclusion, had the EcoloWorld been another type of business, the story might have undergone a much different path. This mobilization of market and industrial numbers to justify the dismissal of the general manager were, as previously explained, met with democratic opposition at the general assembly. Still, the majority of members, whose propositions and voting expressed a desire for the general manager and for collaboration to be given a second chance, also advocated for the elaboration of formal control systems (through formal requests of staff performance evaluations, amongst other things). Although perfect "either/or" situations do not exist in real organization settings, this period highlights the capacity of numbers to move board dynamics from overall collaboration to control, and vice-versa.

In contrast, the phase 4 and phase 5 appear as periods where collaboration and control actually co-exist. But while Sundaramurthy and Lewis (2003) proposed this could be achieved 1) through the self-correcting cycle of embracing trust *and* conflict, 2) by another self-correcting cycle of promoting diversity *and* shared understanding, and/or 3) by the external interventions of blocks of institutional investors or shareholder activists, my observations have pointed to some specific actions of numbers. Through their "acting at a distance" and "keeping at a distance" actions, numbers do enact both control and collaboration, simultaneously, at the board. In that sense, numbers can thus be said to foster the paradox acceptance perspective described by Poole and Van de Ven (1989), and later promoted, in governance, through the writings of Sundaramurthy and Lewis (2003), and Cornforth (2002, 2004). In the following paragraphs, I will show how discussing the paradoxical actions of the numbers leads to discussing the different paradoxical approaches to governance.

First, the "acting at a distance" possibility is not unconnected with the classic principal-agent dynamics conceptualization of agency theory. This corporate governance theory "assumes that the owners of an enterprise and those that manage it (their agents) will have different interests. Hence the owners or shareholders of any enterprise face a problem that managers are likely to act in their own interests rather than to their benefit." (Cornforth 2002: 53). This is in line with the control governance approach (Sundaramurthy and Lewis, 2003), but also with the putting in place of calculable spaces, since "the creation of calculable spaces is the creation of manageable spaces." (Miller 1994: 255) A "compliance" model, the agency theory is far from being the only one from which to look at governance (as discussed by Cornforth), and taken alone, it certainly does not reflect the complexity of the governance structure in place at the EcoloWorld Co-op. Indeed, in the studied case, the notion of principal and agent is not a traditional, nor a clear-cut one, due to the multistakeholder ownership and governance structures. The collective ownership of the Co-op by its three constitutive types of members, each having equal voting rights, renders the principal-agent approach simplistic in the light of the complex structure and

multistakeholder dynamics in place. Indeed, from its inception, the Co-op is formally created as a collaborative space that challenges the often outsider-controlled agency approach by empowering some stakeholders.

The contrasting action played by numbers to keep (user and support members) at a distance from workers' management of the Co-op could thus appear as a natural move away from the "compliance model" of the agency theory, inducted by the reporting requests that followed the crisis. By allowing workers to "keep a distance" to preserve their discretion over the management of the Co-op, numbers counterbalance the compliance and controlling functions of the user and support board members. To a certain extent, numbers do allow user and support members to control workers (i.e. the actual managers). But workers, supported by 1) more precise, or 2) too many, complicated numbers, actually enroll other board members (users and support) in the opposite "rubber stamp model" or "managerial hegemony theory" of governance (Cornforth, 2002: 54). In terms of "paradox management" strategy (Poole and van de Ven 1989), the acting vs. keeping at a distance set of actions lie within a paradox acceptance strategy, with numbers performing both paradoxical actions at the same time, in the same space, and sustaining two contradictory visions of the board's role, namely the agency and the managerial hegemony theories.

In addition to these control-focused theories, putting on the "democratic" and "stakeholder" model lenses discussed by Cornforth (2002, 2004), the board can be seen as a space for multistakeholder debate and discussion of the Co-op's strategic orientations. According to the democratic perspective, "the job of board members is to represent the interests of members of the organisation [and] [...] to resolve or choose between the interests of different groups and set the overall policy of the organisation, which can then be implemented by staff." (Cornforth 2004: 14) With three categories of stakeholder members equally represented at its board, the EcoloWorld board sure does need to arbitrate between different interests, as previously mentioned. In such a context of potential conflicts of interests (often linked to justifications inspired from the domestic world), number-backed arguments appear as objective means to depersonalize the discussions (or rather, should I say, to "de-categorize" the members). In the "Economies of Worth" framework (Boltanski and Thévenot, 2006), this is referred to as the process of "shifting to a higher level of generality", which often translates in referring to the common good. While I expected the "natural environment" to be the general interest that would assemble the different stakeholders, the Co-op's long-term sustainability was made the common good. In order to continue to fulfill its mission, the Co-op had to be sustainable. However, the expected, environmental accepted meaning of sustainability was assimilated, to a large extent, to economic viability, hence the importance of justifications from the market and industrial worlds, and of numbers as crucial stakeholders.

6. CONCLUDING REMARKS

As stated from the start, the overall goal of this paper was to energize both the tension literature with practice, and the practice literature with sociomaterial tools, while showing the evolving and paradoxical actions different types of numbers can perform in a pluralistic, tension-filled organization. Drawing mainly from archival and interview data covering 10 years, I have first traced the evolution of different numbers' actions at the EcoloWorld Co-op, highlighting their tension turn-on or turn-off roles and situating them, in practice. Then, through a closer analysis of the data collected primarily via the observation of board and general assemblies meetings, I have described the acting at a distance/keeping at a distance permitted by numbers in the governance spaces of the Co-op. These paradoxical actions themselves, I posit, are being supported by three micro-practices of debate personalizing/depersonalizing, managing/being managed by numbers, and the creation of calculable spaces. These three micro-practices have allowed me to tie the results with the literature on the paradoxes of governance¹². Indeed, because of the focus on board-related tensions experienced at the EcoloWorld Co-op, the discussion of the findings naturally conducted me to the paradoxes of governance. Offering empirical, practice-based illustrations of the interplay of different governance models and, more importantly, putting forward the idea that numbers do participate in such dynamics and allow for different governance models to be enacted, simultaneously or not, I believe my article has contributed to "energize" the paradox perspective.

The EcoloWorld Co-op case also depicts a situation that goes against "received views" for a particular setting (Johnson et al., 2007: 72-73). Fully aware that this ambition may constitute, for certain readers, a limitation, as Beech et al. (2004: 1317), the aim of my research "was not to present a case study of the organization, or to provide proof of generalizable conclusions" but rather to "allow to extract lessons that reflect emergent theorizing (Eisenhardt 1989), and that may be applicable/adaptable by other researchers and practitioners." From both critical and practical points of view, the results further enhance our understanding of how numbers can powerfully act upon tension-filled organizational contexts, while engaging in a reflection on the relation that many members of "alternative" organizations foster with numbers of different types. Indeed, this case, unexpectedly, has demonstrated the importance of numbers taken from the market and industrial worlds. This points out to the challenges, in alternative organizations, to develop a minimum fluency in the language of such worlds (the "language of [mainly accounting] numbers" described by Chua 1996). But as important as these types of numbers may have appeared in the different vignettes, one must still recall how they did not resist the test (or *épreuve*, in the Economies of Worth's terms) of the opposition offered by those of the democratic, civic world. Nurtured by the institutionalized governance processes and spaces offered by the co-operative form of organization, these numbers actually changed the course of the history of the Co-op, or at least that of its board and general manager.

¹² In fact, my results also offer an unexpected contribution to the more general governance literature that could lead to the development of a "governance-as-practice" perspective to respond to Huse et al.'s call for a closer look at what boards do, and – may I add – at how they deal with tensions, whether these are linked to the application of contradictory models of governance, or to any concrete issue streams board members may face (Huse, M., R. Hoskisson, et al. (2009). "New perspectives on board research: changing the research agenda." Journal of Management and Governance (Online First).

The generic, underlying market-industrial vs. civic-domestic tension that emerge from the case is typical, and even constitutive, of many social economy organizations, *i.e.* for most cases, business enterprises governed by democratic associations (see Bouchard, Ferraton et al. 2008 for more on the characteristics of such organizations). This tension is further grounded in their dual mission that is to pursue social/environmental objectives through economic activities – described as two “competing rationalities” (Jäger and Beyes 2010). While objectives are generally oriented towards the general public and interest for the “nonprofit form” components of the social economy, for traditional, unistakeholder co-ops, a mutual interest is usually what holds members together (whether it is creating one’s job in workers’co-op, improving access to or decreasing the prices of products for customers’ co-ops, and the like) (Gui 1993). The multistakeholder, solidarity co-op model adopted by EcoloWorld appears as a hybrid form between the nonprofit and (traditional) co-op forms, for it combines different “stake holders”, and interests. Doing so in a “one member, one vote” context of democratic participation is, in itself, a stimulating governance experience that exacerbates tensions, as well as the need to deal and juggle with them.

I have argued that numbers have played a role, over time, in the way some tensions are dealt with at the EcoloWorld Co-op. With the multiple tensions of the past and the many latent tensions of the present and future, numbers have posited themselves as true, neutral and incontestable (or, at least, hard to contest) stakeholders (Ogien 1995, 2000 and 2007 in Ogien 2010: 22). Results indicate that they have successfully enrolled the majority of board members and maintained this majority despite changes of board members. However, this actor-network is not irreversible and could, again, be subject to further tests, given the dynamics and democratic processes of the Co-op. Denis et al. (2006: 374) have suggested that “on its own, a system of numbers is rarely sufficient to deal with the complexity of strategy making in pluralistic contexts. [...] Numbers can be powerful for a while, but pluralism strikes back.” In contrast, Berry (1983: 7, my translation) has emphasized how “management tools are kept in place by considerable forces, found here and there through four dimensions: their actual properties, institutional norms, cultural norms and individuals’ characteristics.” To paraphrase the EGOS overall conference theme, with the EcoloWorld’s current and future development projects, further investigation would be required to tell how the actions and micro-practices of numbers will “repeat” or “differ over time and space”.

Appendix A: Worlds of the Economies of Worth

Based on Boltanski and Thévenot (1991), summarized and translated by Cloutier and Langley (2006)

	Inspirational	Domestic	Opinion	Civic	Merchant	Industrial
Superior principle	Inspiration	Tradition, hierarchy	Public opinion	Civic duty	Competition	Efficiency, performance
Statement of "worth"	Bizarre, different, original, spontaneous	Benevolent, well-bred, wise, sensible	Celebrity, prestige, public recognition	Representative, free, official, statutory	Desirable, valuable, wealthy	Effective, functional, dependable
Dignity of persons	Love, passion, creativity	Comfort, ease, judgment	Well-known, reputed, visible, persuasive	Freedom, democracy, civil rights	Self-interest, desire, consumption	Work, energy, activities
Repertoire of subjects	Visionary, child, artist, woman, fairy, crank	Father, king, superiors, inferiors, boss, stranger, chief	Star, fans, spokesperson, thought leader	Elected officials, the party members, representatives	Competitors, client, buyer, seller	Professionals, experts, specialists
Repertoire of objects	Spirit, body, dream, the unconscious	Good manners, etiquette, titles, rank, gifts	Media, brand, campaign, message	Elections, law, committees, lists, criteria, decrees, codes	Wealth, luxury objects	Tools, resources, methods, plans, norms, tasks
Forms of investment	Risk, detour, calling into question	Rejection of selfishness, duty, obligation	Abandonment of privacy	Renunciation of personal interests, solidarity, struggle	Opportunism	Progress, effort, investment
Determinant of "worthiness"	Independence, uniqueness	Respectability, responsibility, authority, honor	Recognition, notoriety, visibility	Membership, delegation	Possession	Mastery
Nature of relations between people	Create, discover, imagine, dream	Reproduce, procreate, educate, invite	Persuade, influence, convince	Social movement, public gathering	Sell, buy	Function, implement, run
State of the "natural order of things"	The imaginary, the unconscious	Home, family, custom	Public image, audience	Democratic republic	Market	Organisation, system, structure
Test (to prove "worthiness")	Adventure, quest, journey	Family, ceremonies, celebrations, marriage	Presentation, press conference, launch	Demonstration in favour of a moral cause, assembly	Deal, transaction, contract	Test, control, launch
Form for expressing judgment	Illumination, stroke of genius, intuition	Trust, appreciation, respect	Public opinion, rumour, fashion	Election results, votes	Price	Performance, effectiveness, functionality
Form of evidence	Faith in intuition	Anecdotes, examples	Success	Laws, statutes, rules	Money, profit, results	Measures
State of being "small" (or "lesser")	Habit, routine, "reality"	Impoliteness,	Banal, unknown	Division, isolation, individualism	Loss, poverty	Amateurism, lack of productivity

Appendix B: Details of the observation part of data collection (2006-2009)

	Type of events	Number of events observed	Approx. total of hours
Governance context	Board meetings	16	28 (audio taped)
	General Assemblies	3	6 (audio taped)
Regular, operational day-to-day context	Regular, working days at the Co-op doing volunteer tasks, having informal talks with members or just strolling around to observe interactions	21	123
Special occasion context	Meetings with members (welcoming meeting for new members, liaison committee creation meeting, worker-members meeting, business development meeting, etc.)	5	7
	Special events (launches, celebrations)	4	8
TOTAL		49	172 hrs

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Appendix C: Some examples of codification nodes

(Combination of emergent and deductive codes)

<p>1) What's being discussed when a number arises? (issue and associated tensions, <i>i.e.</i> the context surrounding the mention of a number)</p>	<ul style="list-style-type: none"> - financial management - human resources and staffing - governance crisis - purchase of the building - online sales - partnerships - selling food - ... <p>Note: often closely related to the points at the agenda of board meetings</p>
<p>2) People who speak (of) numbers: who is bringing up the number? (type of member, demographic characteristics)</p>	<p>Worker member 1 (general manager, 40s, man, ...) Worker member 2 (store manager, 30s, man, ...) User member 1 (30s, woman, social worker) User member 2 (50s, woman, administrator) Support member 1 (60s, man, professor) Etc.</p>
<p>3) Type of numbers: what number is brought up?</p>	<ul style="list-style-type: none"> budget, results accounting and POS computerized system delays, time space inventory democratic participation, membership, social shares human resources related (wages, shifts, etc.) subsidies and financing
<p>4) The worlds of the numbers (in terms of Boltanski and Thévenot's grid; 1991, 2006): to what world does the number pertain?</p>	<ul style="list-style-type: none"> Domestic Industrial Market Civic Inspiration Opinion
<p>5) The role of numbers: what does the number "do" and make people do ?</p>	<p>Emergent coding :</p> <ul style="list-style-type: none"> accusing, criticizing gaining support, legitimacy controlling diverting, postponing facilitating lacking, creating problems generating tensions, debates influencing, assessing informing, suggesting, recalling justifying mobilizing organizing, prioritizing passive, manipulated numbers questioning rushing, creating panic or emergency
<p>Context (source)</p>	<ul style="list-style-type: none"> Board meeting General Assembly Special Meeting (financial development, other) Special Event (BND, Earth Day, etc.)

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