How can performativity contribute to management and organization research ?
Theoretical Perspectives and analytical framework

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Abstract. The issue of performativity reverse the classical perspective in the social sciences, for they revolve less around describing a pre-existing reality than understanding how reality is produced by intentional interventions. Yet the link between intervention and performativity is by no means automatic. On the contrary, this approach encourages us to focus on the pragmatic conditions that allow this performation to be constructed.

In this sense, the aim of this article is threefold. First, it expands the field of performativity, which is structured around three dominant approaches (Austinian, Callonian and Butlerian), to encompass lesser-known research on writing and calculation. Second, it proposes a comparison between theoretical perspectives of research on performativity, and two other research trends in social science and in organizations. These, without using the term performativity, present strong similarities to it from a theoretical and methodological point of view: Foucauldian approaches and instrument-based approaches to organizations.

Based on the concepts thus introduced, this article then proposes an analysis framework for performation processes in organizations, articulated around three levels of analysis: i) the study, on an elementary level, of speech acts, acts of calculation, and acts of writing organized around instrumented activities; ii) their insertion within the *management dispositifs* that give them meaning and contribute to defining their boundaries; and iii) the putting into perspective of these *dispositifs* in historical transformations in forms of governmentality. This analytical framework is applied in the case of the car project referred to as L, an instance of collaborative research in which a crisis situation characterized by the disalignment between the elementary acts studied and the management *dispositif* implemented by the company was examine. This case illustrates a more general phenomenon in which management dispositifs produce negative effects on the skills dynamics in a company, and on individuals' involvement in these collective projects. It also explains the infelicity of certain performative acts.

Keywords: performativity, management instrument, *dispositif*, critical management studies

INTRODUCTION

Performativity is a trendy concept in social science. It has been used extensively since the seminal work of philosopher and linguist John Langford Austin, in fields as varied as linguistics, the philosophy of language and science, sociology, organizational theory, management, communications, and so on. In general, this concept refers to the fact that certain deliberate statements can change the reality and practices that they designate. On the epistemological level, performativity is distinguished from classical work in the philosophy of science, which considers that the role of language (natural, scientific or managerial) is to describe an objective reality that supposedly exists in and of itself (Hacking, 1983). In opposition to this classic conception, the performative orientation encourages the consideration of action with regard to not only its principles (ostensive dimension) but also its practices (performative dimension) (Latour, 1984). It considers reality to be a construction based on concrete and situated interventions mediated by instruments.

In a recent book, Fabian Muniesa refers to a performative turn in the social sciences that he describes as an "intellectual atmosphere" founded on a "pragmatic orientation" towards the study of situated practices (of intervention and action) that transform reality, rather than as a coherent set of works from an epistemological and theoretical point of view (Muniesa, 2014). .

Three classic perspectives on performativity are currently discussed in the literature (Gond, et al. 2015)[1] and [2]. The Austinian approach, based on research in linguistics, focuses on the study of speech acts in organizations (Austin, 1962); it has been very influential in work on communication in organizations (Cooren, 2004, 2014; Fauré & Gramaccia, 2006; Fauré and al., 2010). The Callonian approach, which has a sociological basis, emphasizes the processes of performation through which economic theories transform market activities and the organization of markets themselves through agencing (Callon, 2007; Callon, 2013). Lastly, the Butlerian approach, of Foucauldian inspiration, more specifically focuses on the processes of subjectification through which individuals or groups acquire an identity through the repetition of performative acts (Butler, 1997, 2010).

Along with these three perspectives that are well known today, to which I will return in the first section and whose critical potential and points of convergence I will examine, the aim of this article is threefold:

- First, it will expand the scope of performativity to two types of research that are particularly relevant for the study of elementary acts of management and organization: the study of acts of calculation (Fauré & Gramaccia, 2006; Fauré, and al., 2010); and the study of acts of writing (Fraenkel, 2006, 2007; Cooren, 2004). In our opinion, they constitute the three elementary acts of performativity along with speech acts;
- Second, it will put into perspective the relationships and potential complementarities of performativity by discussing two critical approaches to management which present complementarities on the theoretical, methodological and epistemological levels: Foucauldian studies regarding *dispositifs* and governmentality (Mc Kinlay & Starkey, 1998; Hatchuel and al., 2005; Foucault and al., 1991), as well as instrument-based and tool-

1. See Gond and al. (2016) who emphasize these three perspectives in a recent literature review based on a meta-analysis of performativity studies in the field of management and organization.
2. Another perspective called "anti-performativity" is also widespread in the field of critical research in management. However, and as it will be seen in the first section, it is based on a restrictive and debatable interpretation of the concept of performativity, which is very far removed from that of Austin's seminal work. It is therefore disregarded in the analysis.

based approaches to organization (Berry, 1983; Moisdon, 1997; Aggeri &
Labatut, 2010; Lascoumes & Le Galès, 2005; Hatchuel & Weil, 1995; Miller
& O'Leary, 2007).
- Third, based on the boundaries of the concepts presented, an analysis
framework for studying performation processes in organizations is
presented. This type of integrative theoretical framework for studying such
processes is lacking. This framework is established around the triptych of
elementary acts of management / management *dispositifs* /
governmentality. It is shown that concrete activities are articulated around
three elementary acts of language (speech acts, acts of calculation, and
acts of writing), which are mobilized to transform reality or to prepare for
subsequent decision-making. The complementarity between these three
elementary acts in situation and their articulation in sequences of decisions
and events is demonstrated. Through the concept of management
dispositif inspired by Foucault's work, it is shown that the production of
dispositifs plays a role in the production of the felicity (or infelicity)
conditions of these elementary acts. It is these *dispositifs* that are intended
to give meaning and purpose to elementary acts, allowing them to be
associated with one another. Finally, it is shown that the characteristics of
dispositifs and performative acts are more broadly integrated into forms of
governmentality whose features have evolved profoundly in organizations
over the course of the last decades.

This analysis framework is then applied to the case of the car project
referred to here as L, in which collaborative research was carried out. Over
the course of this project a crisis, characterized by the disalignment
between the elementary acts studied and the management *dispositif*
implemented by the company, was able to be studied in situation. This
case illustrates a more general phenomenon in which management
dispositifs have unintended and negative impacts on the competence
dynamic and on individuals' involvement in these types of collective
project. It also explains the infelicity of certain performative acts.

REVISITING THE FRAMEWORK OF PERFORMATIVITY: CLASSIC AND NEW PERSPECTIVES

CLASSIC PERSPECTIVES ON PERFORMATIVITY

The performativity framework constitutes a turning point in critical
research on management and, more generally, in research that reflexively
considers managerial activity and its effects. Rather than arguing for an
external analysis of relations of domination and power within organizations
and enterprises, performativity encourages the consideration of micro-
practices and intervention tactics aiming to subvert the managerial system
from the inside (Spicer et al., 2009). This new interpretation of
performativity is clearly departs from the "anti-performativity" approach
proposed by critical researchers in the field of management (Fournier &
Grey, 2000; Grey & Wilmott, 2005). Inspired by the reflection of Jean-
François Lyotard in *The Postmodern Condition*[3],   anti-performativity
debatably likens performativity to a permanent quest for accrued
performance in our modern societies. Interpreted from that point of view,
performativity would constitute an undertaking to rationalize, whose
subterfuges and effects of domination must be denounced. Many authors,

3. As Fabian Muniesa pointed out in his
book the *provoked economy,* Lyotard's
contribution is all the more debatable
as he refers to performativity in *The
Postmodern Condition* in only one
footnote which is moreover quite
ambiguous and has been the subject of
contradictory interpretations (Lyotard,
1984).

and in particular in the movement of critical research in management, have criticized this restrictive and biased interpretation of performativity (see Spicer, and al. 2009; Spicer & Alvesson, 2012). They rightly stress that performativity focuses on a much broader phenomenon than the quest for efficiency, and namely all deliberate acts that transform the real, including those carried out to counter companies' undertakings to rationalize. There is therefore an antithetical aspect in the use of the term by these authors, who underestimate its critical potential. Moreover, in the remainder of this article, This anti-performativity approach, which seems effectively to contradict other approaches to performativity, will not be discussed any further here.

Three main perspectives on performativity are generally discussed in the social sciences. I will now examine these three perspectives one by one, along with their potential for research on management and organizations.

The Austinian perspective

The oldest and best known of these perspectives can be described as Austinian, derived from the name of the inventor of the concept of performativity, the philosopher and linguist John Langford Austin. In his seminal work *How to Do Things with Words*, published in 1962 and which breaks with the analytical theories of language concerned only with the logical and formal properties of language, Austin proposes a change of perspective: as he explains, ordinary language does not only serve to describe things or state the truth; it also serves to transform reality, to "perform" it. Alongside constative acts of language, he identifies another category of speech acts, called performative, which are the cause of reality happening. When a judge declares that the court is in session, he is not describing a pre-existing reality. On the contrary, through these words, he is transforming reality: the session can effectively start. It is clear that such an utterance is performative only under very specific conditions, called "felicity" conditions. If the judge made a similar statement in an inappropriate place or someone other than the authorized judge made it, nothing would happen. The performative act therefore depends on social conditions and the establishment of a targeted *dispositif* (a courtroom in which different people are gathered together as a part of the proceedings, which are themselves set within a broader legal system) whose legitimacy is recognized by all (speakers and interlocutors).

Since the 1960s, Austin's arguments have had a considerable impact. Through this approach, Austin, who was strongly inspired by pragmatic philosophy, opened the door to a situated and practical analysis of ordinary language.

In the field of communications research, an entire research movement has showed the usefulness of the pragmatic approach to language in organizational analysis, by focusing on the organizational properties of oral and written language under certain felicity conditions (Taylor, 1993; Fauré & Gramaccia, 2006; Fauré and al., 2010; Cooren, 2014).

Austin's arguments also have however also be a target of much criticism. Pierre Bourdieu criticized Austin's lack of attention to the production of felicity conditions and in particular social conditions (Bourdieu, 1977). Derrida and Searle showed that the performativity of acts of language is not solely tied to their intrinsic properties or felicity conditions but also to their repetition, their iteration over time (Derrida, 1979; Searle, 1969). In this sense, when statements are repeated ritually,

their meaning is progressively established and they acquire a performative capacity. As such, to use the example of the phrase uttered by the judge once again, it is because it has been repeated tens of thousands of times under similar circumstances that the phrase produces no ambiguity and instead has the desired effect. As we will see later on, diverging from Austin, certain authors have attempted to expand the problematics of speech acts to other acts of language, such as writing, and to calculation acts.

The Callonian perspective

The Callonian perspective is more recent. It was first presented in 1998 in a collective publication edited by Michel Callon (*The Laws of the Market*), and subsequently expanded on in books and articles produced by a group of economic sociology researchers (Muniesa, and al., 2007; Callon & Muniesa, 2005; Callon, and al., 2013). Callon was originally a sociologist of science and innovation. Along with Bruno Latour he developed a pragmatic approach to the sociology of science, in which they studied science "in action" rather than science that was already established. In their approach, science is not the already-constructed structure founded on grand principles and logical rules; rather, it is a heterogeneous set of practices and *bricolage* built through successive experiments and the extension of networks of actants composed of humans and non-humans. This movement led to the formulation of the actor-network theory, based on the principle of the inseparability of humans and non-humans in action (Callon, 1984; Latour, 1987).

From this perspective, Callon discusses the conditions under which a scientific theory, identifiable in the form of a series of statements, becomes performative. In line with the work initiated by Andrew Pickering and Ian Hacking, he studies the ability of theories to transform reality in a direction consistent with their predictions (Hacking, 1983; Pickering, 1995). His main field of study is economic theory, which has the feature of being presented as a natural science attempting to describe an objective reality[4]. In opposition to this glorified representation, Callon shows that economic theory attempts to perform the real via the mediation of sociotechnical agencing that grants a performative power to theoretical statements (Callon, 2007; Muniesa and al., 2007.; Callon, 2013). This is the major contribution of this approach. The shift leads to the inclusion of material dimensions and, in particular, of instrumentation (calculative devices, models, infrastructure, tools, objects) in the analysis. Inspired by the actor-network theory, the notion of "calculative agency or of qualcul" thus emphasizes that economic agents are provided with models and instruments[5] and that, in view of this, they form an inseparable whole (Callon, 2013).

In a recent book on the sociology of market agencing, Michel Callon details his point of view by indicating that the study of what he calls "market agencing" is the point of entry to studying both the performation of theories in practice, as well as the production of individualized goods and the organization of the convergence between supply and demand. By market agencing, he designates the "*mechanisms of delimiting market activities, the sites at which they are operated, the spatial-temporal frameworks that they outline, the materials mobilized, the forms of knowledge and instruments implemented and the morphology of networks of*

4. Actually, this question is not entirely new. The naturalist perspective of economics and the instrumentalist perspective of the techniques associated with it, such as accounting, had already been criticized by Max Weber, who pointed out that accounting was not limited to recording the growth of capital but rather instituted it (Weber, 1978). Berger and Luckmann had a similar argument, noting that explicit theories – and in particular economic ones – had the particular function of legitimizing institutionalized behaviours (Berger and Luckmann, 1966). They constituted a reference framework for these behaviours and thus participated in their institutionalization.

5. In particular, these instruments include all of the managerial techniques that contribute to establishing the market (marketing, accounting, economic calculation, etc.).

interdependency between sites" (our translation) (Callon, 2013: 439).

This research stream is starting to lead to developments in the field of management and organizations through research on performance *valuation* processes (Guérard et al., 2013; Orlikowski & Scott, 2014), managerial practices originating in rational choice (Cabantous & Gond, 2011) or the performativity of managerial methods (Abrahamson, and al., 2016).

The Butlerian perspective

The Butlerian perspective, which originates in the work of Judith Butler, is more in line with the work of Michel Foucault. Butler studies how social categories and identities held as being a given (such as gender, for example) are historically built through the repetition of acts of language and practices that transform the meaning that individuals create with respect to themselves (Butler, 1997, 2010). She is focused strongly on processes of subjectification, highlighting mechanisms of performation that are invisible and yet omnipresent, and that govern individuals while remaining unknown to them. By revealing these mechanisms, she attempts to give these actors reflexive capabilities and means of criticizing these mechanisms or even of subverting them from the inside.

The perspectives opened by this research in the field of management are starting to be explored, for contemporary forms of management are aimed precisely at making use of these subjectification and self-discipline mechanisms under the guise of a discourse on autonomy and liberation (Harding, 2003; Harding, and al., 2011).

Common features and critical potential of these three perspectives

Aside from these differences, these three perspectives share a number of points in common. First of all, they give priority to the concrete analysis of the acts of language and of the effects related to their repetition and the construction of the felicity conditions that make them performative. In this sense, performativity is considered an enigma to be explained: why do certain statements in certain specific conditions produce effects while others do not? How are they able to generate identifiable effects regardless of the identity of the speaker and the interlocutor? What specific interventions allow for the famous felicity conditions to be achieved?

Second, performation as a process cannot be dissociated from an intentional intervention. As Benveniste points out, the performative act only has meaning if it can be identified as an act (Benveniste, 1966). This excludes from the field of analysis any unintentional actions that may nonetheless produce involuntary effects.

Third, these approaches are essentially critical. They share a critique of naturalist theories of representation which consider that reality exists in and of itself and that it can be objectively described. In the work of Austin, performativity goes against formal theories of language that focus on the logical properties of formal language. In the work of Callon, performativity goes against a traditional view of the philosophy of science according to which the purpose of science is to represent reality. In the work of Butler, the goal is to refute a naturalized representation of gender and identity. All these authors encourage a form of reflexive critique in which the categories and routines considered to be a given are called into question by highlighting performative processes which are so entrenched that they become invisible. Here critique has a reflexive dimension: the goal is not so much to denounce discourses as it is to understand why and how, via

their interventions, management or social groups produce (or do not produce) effects on others or on themselves.

Therefore, what performativity approaches encourage is a change in perspective: the focus is on the study of micro-practices (performative acts) and their agencing within *dispositifs* from the inside, and on the identification of the concrete effects produced by their repetition. The aim of this analysis is to highlight the mechanisms that cause certain acts of speaking, writing, or calculation to transform reality whereas others fail to do so. Based on the effects produced by elementary acts, the intention is to investigate and to trace the threads that reconstitute the felicity (or infelicity) conditions of these acts. This inquiry aims to shine light on the targeted *dispositifs* that delimit and ascribe meaning to elementary acts, and to identify the social, cognitive or institutional conditions that can have an influence on collective action. In this sense, the sociological or institutional dimensions of the action do not disappear, but rather are taken into account "from below" based on the concrete observation of situated practices and the effects that the researcher is able to attribute to them in the analysis of certain courses of action.

As Austin notes, the analysis of the failure of performative acts is as important as the analysis of their success (Dumez, 2014). This comment is particularly valid for management, in which the profusion of discourses by no means always results in concrete transformations. However, the performativity of management has another dimension: transformations may fail at times because they run into resistance and challenges. The ability to resist and therefore to articulate challenges that are performative in themselves implies demonstrating the failures in managerial reasoning and processes as well as the mechanisms by which a process of performation is possible.

In addition to its theoretical consequences, this change in perspective also has epistemological and methodological consequences. It is no longer the same objects being studied, nor the same observation and inquiry methods being used. From a Foucauldian point of view, this specifically consists in paying more attention to the silent managerial processes that appear to be neutral and inconsequential but that format, orientate and guide the conduct of actors toward assigned purposes.

ACTS OF WRITING AND ACTS OF CALCULATION

In organizations, managers and operations actors are unable to limit themselves solely to speaking: they write, and they calculate. I am going to focus on these two other elementary acts (acts of writing and acts of calculation) now by discussing two lines of research that are less well known than the previous ones.

Acts of writing

As the linguist Béatrice Fraenkel notes, John Austin did not really theorize the act of writing (Fraenkel, 2006, 2007). He saw a speech act *par excellence* as an oral act in the context of face-to-face interaction. He attentively examined the speaker, the pronoun used, the verb, and so on. However, all of these attributes lose their importance in written acts. To resolve this problem, Austin proposed a system of equivalence between the oral and the written, by attempting to liken the latter to the former, for instance by making use of the signature as an equivalent to the function of the speaker to authenticate an author.

When he mentions written acts, Austin refers to the law, which constitutes the matrix from which he conceives of performativity. Legal acts, which are highly formalized and explicit, provide him with a model to conceive of the performativity of ordinary language. When he examines the possible failures of performative statements, Austin deploys a method of analysis inspired by law (analysis of technicalities, consent and procedure). The paradox that Fraenkel highlights is that in Austin's work, written legal acts constitute the performative model; however, their written nature must not be taken into account.

Based on a specific analysis of acts of writing[6] in law, she defends the contradictory idea of the specificity of acts of writing . She demonstrates that written legal acts are inserted into a system of chains of writing, authorized people and signs of validation. The combination of these elements permits the authentication of the legal act. This chain of writing corresponds to the metaphor of the collective novel proposed by Ronald Dworkin, who analyses the work of the judge as needing to remain consistent with all past decisions (jurisprudence) as well as needing to best serve the novel (Dworkin, 1986). Written acts tend to be a task carried out by many different people. Moreover, they ultimately contain the feature of permanency that oral acts do not share. Writing results in rewriting, reading, and rereading, she explains. Contrary to an oral promise that may just be empty words, a written legal act creates obligations as well as rights, which may be deferred in time (like the performativity of a will at the time of its reading at the notary's office).

Written acts in law correspond to two types of rule: primary rules of obligation and secondary rules of acknowledgment. The second define the people authorized, the conditions of the formatting of acts, and so on. As such, that which gives a performative value to a will is not only the expression of the desires of the person writing it but also the formatting of the notary (writing on paper with a header, an adequate legal form, seal, signatures, registration of the act, etc.).

Based on these different elements, Béatrice Fraenkel argues for an ethnography of acts of writing; in other words, a concrete study of this situated activity, so as to best understand the rules of their production and the conditions of their performativity.

Transposition of this analysis to management

To what extent can this analysis of legal acts of writing be applied to management? As Romain Laufer explains, management can be considered to be a quasi-legal system in that languages and statements are standardized through a series of rules, procedures, codes, charters, policies and strategies that determine their conditions of utterance and legitimacy (Laufer, 1996). In this case, the role of written acts is therefore fundamental in the legitimization of managerial decisions and their performativity.

In light of this, it is undeniable that a large number of written acts in organizations have the same features as legal acts:

- they are the result of complex chains of writing in which a written act is based on a series of prior acts that it completes. Like jurisprudence, the written acts of the organization constitute a sort of collective novel that is regularly expanded on and transformed by managers;
- this written production is above all collective, as emphasized by the

6. Her analysis is consistent with that of François Cooren, who emphasizes the autonomy of the activity of writing and its specific effects within organizational arrangements, a phenomenon that he names "textual agency" and which he proposes to analyze as the subject of a specific study in the field of organizations research (Cooren, 2004).

specific exercises of progress reports or sustainable development reports, which are written by various people;
- certain written acts produced by authorized authorities have a performativity that is theoretically more significant than others: these are managerial decisions;
- rules of acknowledgment (the layout of texts, formats, signature, diffusion, filing, etc.) play an essential role in the performativity of these acts.

In the system of legitimacy and authority of large organizations, based on specific standards and regulations, an act of writing is more powerful than a speech act. Nonetheless, written acts in organizations are far from all having the same performative capacities. Certain documents, such as progress reports or CSR reports, have functions that are constative and performative. It is impossible to say beforehand to what extent commitments have a binding nature or if they can be likened to empty words.

Acts of calculation

In addition to speech acts and written acts, other scholars have proposed to distinguish a third category of acts of language: acts of calculation. Starting with the seminal work of Max Weber, many authors have emphasized the rise to power in our modern societies of rationalization founded on calculation, substantive rationality and science. The role of quantification in our modern societies was emphasized by Alain Desrosières, in particular, who studied the birth of statistical reasoning through the historical formation of quantification techniques and their effects (Desrosières, 1986). Roland Barthes suggested that quantification is a rhetorical exercise that is often mobilized in the production of contemporary myths. By reducing all qualities to a quantity, it is a facile attempt to make sense of reality (Barthes, 1957).
It is in this context that Bertrand Fauré and Gino Gramaccia proposed a theory of acts of calculation in organizations (Fauré & Gramaccia, 2006). Based on the importance of statistics and calculations in the legitimization of certain management activities (accounting, management control, economic calculations, etc.), these authors focus on acts of language that express a calculation or a statistic.
More specifically, they denote "the act of calculation as a performative statement intended both to accomplish an act (this is its illocutionary objective according to Austin) as well as, through the quantified proposition that it expresses, to state something true or false with regard to an observed fact likely to be analysed by means of a calculation. By contrast, acts of calculation are the instruments of pragmatic strategies liable to succeed or fail."
Further on, they specify: "talking about productivity, competitiveness and profitability only makes sense in reference to numbers, and these numbers allow the people who utter them to be able to legitimately and seemingly objectively put forward discourses, reasoning, and justifications associated with these notions. The framework for interpreting, explaining and justifying the numbers varies depending on the position occupied by the people uttering them in the system of relations constituted by the social order."
In their approach, acts of calculation are not limited to the execution of quantified operations; they also encompass discussions produced around the presentation of numbers and the reasoning that has led to the result calculated. Acts of calculation are therefore a specific subcategory of acts of language, which are highly instrumented and delimited by

calculation. Therefore, they respond to a specific regime of argumentation that differs from other, less-delimited acts of language that I will call acts of oral language or speech acts. When they are performative, acts of calculation in turn feed acts of writing that validate the quantified argumentation in an account or a contract.

The aim of the analysis of acts of calculation is therefore to study their performative capacity in a process of argumentation as well as their power to structure debates and to lay the groundwork for decision-making, in particular.

We also see that the three types of elementary act (speech, calculation, writing) do not contradict one another. In managerial practices, they are often combined to maximize the intended effects. As such, acts of calculation pertain to dialogical processes in which other acts (discourses, management memos, regulations, etc.) that aim to delimit the conditions of interaction of acts of calculation are involved.

The goal of this article is to show the usefulness of articulating these three elementary acts in the empirical analysis of management situations, for it enables u to account more fully for processes of performation in organizations and to identify problematic situations from which an inquiry into felicity conditions may be undertaken.

THE CONTRIBUTION OF FOUCAULDIAN STUDIES AND RESEARCH ON MANAGEMENT INSTRUMENTS TO PERSPECTIVES ON PERFORMATIVITY

While the analysis of these three elementary acts, their interactions and their interdependency constitutes a starting point for the study of management situations, it does not constitute an end in itself by any means. As I indicate with regard to criticism of Austin, the analysis of performative acts cannot go without that of the felicity conditions. In other words, once performative acts are selected and their specific performation is studied, it is then necessary to follow the traces of the inquiry to bring to light the felicity conditions.

To go further, it is necessary to complete the analysis framework by drawing on concepts and research that specifically help to highlight these conditions. To this effect, I believe that two lines of research are particularly useful for this insofar as they focus on the question of performativity under other names (study of effects and of practices): the instrument-based approach and Foucauldian approaches to *dispositifs* and governmentality. The usefulness of these two approaches is not just to focus on micro-practices and their effects but also to associate them with strategies or forms of government that pertain to historical rationalization movements.

Instrument-based approaches

From a more Weberian or Foucauldian perspective, modern forms of governmentality cannot be dissociated from the proliferation of tools and instruments that make up management technologies and that are visible to a greater or lesser degree but are nonetheless structuring (Foucault, 2001). "Instrument-based" [7] thus turn the perspective upside down with respect to the classic approach to management or public policy: it is no longer strategic or political decisions which come first but rather the design and use of the instruments that structure collective action.

7. In the literature, the terms management tools and instruments are often used interchangeably. I however make a distinction between the two concepts. According to the definition proposed by Jean-Claude Moisdon, a management tool is manifest in the form of an artifact with a technical substrate (model, indicator, database, organizational diagram, list, etc.), but as an object with a specific purpose it is also underpinned by a management philosophy, and incorporates a simplified view of organizational relations (Moisdon, 1997). The notion of a management tool however brings to mind the modest image of a manager as a craftsman who uses it to run his or her business. Even though it is very popular among managers, this image does not reflect the political and strategic use of management instruments. This is why the notion of management instrument is preferred in the article which, as in common language, refers to the fact that the idea of a strategic purpose and aims to direct behaviours, even possibly against the will of the people (Aggeri & Labatut, 2010). The notion of instrumentation is therefore limited to know-how and practices based on the use of instruments.

In Foucault's work we find the idea that, in order to be able to act remotely, modern forms of organization and government are supported by government technologies and instruments. This clearly applies to management, in which there is a proliferation of all sorts of management tools and instruments designed to guide behaviours towards set goals. As Michel Berry points out in his famous essay entitled "Une technologie invisible" ["An invisible technology"], this constant production of tools is accompanied by unexpected uses and effects (Berry, 1983). Therefore, the performativity of these instrumented practices does not at all resemble that which instrumental rationality tends to indicate. Rather than being neutral auxiliaries to power, these instruments in action build practices and even impose their own logic on those who make use of them, as in the case of the financial performance indicators with which managers are so obsessed.

The importance of this instrumentation furthers our understanding of management: it is seen from below, from the machine room. From this angle, instruments acquire a degree of autonomy: they produce their own effects and result in diverted uses that diverge from the intentions of their designers. This research tradition, which is benefiting from resurgence in popularity in the field of management and public policy (Lascoumes & Le Galès, 2004; Halpern, and al., 2014; Hatchuel, and al., 2005; Mc Kinlay & Starkey, 1998; Pezet, 2004), has longstanding roots. Max Weber pointed out that, starting in the late nineteenth century, accounting constituted the core of capitalist rationalization, primarily by contributing to forming our perception of economic reality: the critical analysis provided by accounting appeared to be an economic technology (see Chiapello & Gilbert, 2013). For over forty years, a series of research projects have been undertaken in both France and the United Kingdom to study the role of management instrumentation in the management of collective action (Miller & O'Leary, 2007; Aggeri & Labatut, 2011; Moisdon, 1997; De Vaujany, 2005; Miller & Power, 2013).

This other viewpoint on performation processes based on instrumented micro-processes allows us to reveal management mechanisms that managerial discourses tend to hide. The autonomy of instruments illuminates performation processes from a different angle: it shifts attention from discourses or strategic decisions to chains of mediation based on instruments that reshape of the initial decisions and produce their own, often unexpected, effects.

One of the ways to integrate this research on instruments into research on performativity is to analyze the elementary speech acts, acts of calculation and acts of writing produced around and based on these instruments in the context of dialogical processes.

When these acts are repeated in the form of identifiable models of action (patterns), they become organizational micro-routines whose performative and generative dimensions are studied in many contemporary publications (see Feldman & Pentland, 2003; Aggeri & Labatut, 2012).

Dispositifs and governmentality: presentation of two Foucauldian concepts

From *Madness and Civilization: A History of Insanity in the Age of Reason,* his thesis defended in 1961, Michel Foucault attempted to de-naturalize concepts and categories such as madness believed to be a given, as he would subsequently do with prisons and sexuality. He showed that locking up mad people in asylums was a recent historical phenomenon that was inseparable from the medicalization of madness (Foucault, 1972). In other words, he emphasized how medical knowledge transforms

language regarding madness with respect to a scientifically-constructed normality and established new forms of performativity that did not exist before. Like Austin and Max Weber, Foucault did not consider truth to be a universal and ahistorical criterion. On the contrary, he showed how propositions are considered to be true within the context of regimes of truth, which are historically situated and based on specific instances of knowledge.

With Foucault, the more general role of language and knowledge is central to the emergence of new forms of governmentality. Foucault is one of the scholars who have reconciled the analysis of micro-practices with a historical analysis of rationalization. In the three volumes of *The History of Sexuality,* he is also the analyst of the subjectification processes through which individuals become acting subjects who impose a discipline upon themselves (Foucault 1976, 1980, 1984). We find these different elements in the work of Judith Butler on the construction of identity, which she studied both on the level of micro-practices and in a historicized context.

In Foucault's work in the 1970s, the *dispositif* became the key concept used to analyze the historical formation of heterogeneous elements, both discursive and non-discursive, in view of a strategic purpose (Foucault, 1994). Like in its etymological sense of *dispositio*, Foucault's *dispositif* both designates the fact of being provided with elements for a purpose, and arranges arguments in such a way as to make them intelligible in the context of a rhetorical process.

Foucault's *dispositif* does not immediately have the coherence of a technical *dispositif.* It is composed of heterogeneous elements, the agencing of which cannot easily be identified by actors. In addition, the *dispositif* is based on a strategic urgency, an intentionality that can be identified. Yet once it has been designed, it is likely to acquire a relative autonomy and to elude the intentions of its designers, because it is built through successive interventions and layering processes: it is the product of distributed, continuous and capillary actions.

The elements that compose the *dispositif* pertain to the said and the unsaid, to discursive and socio-material elements, to the speakable and the visible. However, between these last two terms, there is not isomorphism but rather "ties of reciprocal presupposition", as Gilles Deleuze put it (Deleuze, 1988). In other words, the visible (architectural elements, measurement instruments, machines, the arrangement of spaces) is not the translation of strategic utterances but rather constitutes an irreducible dimension of collective action; hence the importance of not reducing the *dispositif* to solely discursive dimensions.

In Deleuze's eyes, maintaining this heterogeneous description is a central methodological element. His historical study of disciplinary *dispositifs* aims to highlight all of these elements, both discursive (regulations, knowledge, legal rules, etc.) and non-discursive (the socio-material agencing called schools, barracks, prisons, workshops, etc.), that were progressively to structure the emergence of a disciplinary society by governing individuals' behaviour in its most insignificant details.

From the late 1970s, Foucault focused less on disciplinary *dispositifs* than on the new forms of governmentality accompanying the development of neoliberal thought. From this point of view, it was not so much about constraining the individuals as about acting on their conduct by means of incentives and guidance. Foucault proposed to study the new *dispositifs* associated with these new forms of governmentality.

Dispositifs rooted in regimes of governmentality

Dispositifs do not emerge randomly; they are contained within rationalization processes, in historically situated systems of thought and strategies. In the management field, Armand Hatchuel and Benoît Weil showed that the rationalization of collective action is structured in successive waves around the diffusion of managerial techniques (Hatchuel & Weil, 1995). In Foucault's work, governmentality refers to these historically situated ways of directing, managing and governing, supported by specific government technologies (Foucault, and al., 1991; Rose, 1999). With neoliberalism, Foucault observes the rise to power of new forms of governmentality in which action is more distributed and is carried out in the form of incentives and conduct rather than constraint.

It is therefore necessary to resituate the *dispositifs* studied in the larger context of the governmentalities in which they operate and which provide them with the symbolic, material and cognitive resources they need. For example, not all forms of management are equally legitimate during all time periods. Post-Taylorian management techniques function on the principles of incentives, self-evaluation and subjectification that are very different from Taylorian systems, which are founded on established relations of instruction and a strict distinction between design and execution. They produce forms of *flexible constraint* that are a burden on individuals and are all the more difficult for individuals to oppose, given that they are presented in the form of participatory processes which supposedly play a role in these individuals' emancipation and fulfilment (Courpasson, 2000).

Connections between the notion of dispositif in social science research

If we look carefully, we can identify a link between Foucault's work and the actor-network theory. In one of the rare texts in which he discusses Foucault's work, Bruno Latour notes that "*the advantage of Foucault's analysis is to draw our attention to the entire* dispositif *that mobilizes, records and assembles*" (our translation) (Latour, 2006: 50). In his more recent work, Michel Callon explicitly discusses this link to the Foucauldian approach. He replaces the notion of assemblage with that of agencing, which, according to him, more explicitly denotes a capacity to act[8]. In a long article on market agencing, Callon details the similarities and differences between the concept of agencing and that of *dispositif* as proposed by Foucault (Callon, 2013). Deeming the term *dispositif* to be too polysemic and ambiguous, he suggests replacing it with the more neutral concept – from his point of view – of agencing, which he borrows from Gilles Deleuze, who came up with the concept based on a discussion of none other than Foucault's *dispositif.*

On the contrary, it can be argued that the polysemy of the term *dispositif* is very useful for accounting for the strategic and rhetorical dimensions specific to strategic or managerial actions. A *dispositif* is indeed an agencing, but it aims to produce certain effects. We find this meaning in everyday language, for example when referring to the implementation of a police or military *dispositif* for a specific strategic objective, such as to avoid losing control of a protest. In that example, it is not solely about deploying forces and means within a given spatial-temporal context and giving orders, but also about using specific discursive and argumentative strategies to neutralize the risks of conflict.

8. Callon's analysis resonates with the seminal work of Jacques Girin on organizational agencing, in which Girin emphasizes that the role of management is primarily to make others act via this agencing that delimits collective action (Girin, 1995).

From Callon's analysis, I retain the importance of the activity of agencing in the design of *dispositifs*, as well as the delimiting role that it plays in processes of performation. Hence, designing a *dispositif* consists not in acting directly but rather in making others act by agencing human, discursive, material and instrumental elements in such a way that they orientate and delimit collective action in situ.

Thus, I propose to a *dispositive as the arrangement of heterogeneous material, cognitive and discursive elements designed to frame the behaviour of governed subjects and to guide it towards specific goals.*

Transposition to management

For over thirty years the tradition of research on Foucauldian approaches in management and organizational theory has been investigating how a set of discursive and non-discursive micro-practices construct the identity of actors and enable new fields of knowledge/power and new managerial practices to emerge. In research on accounting in the English-speaking world, the main question focuses not so much on relations of domination, but rather on the transformation of subjects into governable and calculable objects via the application of accounting technologies (Miller & Power, 2013).

Foucault studies have evolved profoundly over time. Attention has progressively moved on from disciplinary technologies (workshop, hierarchy, etc.) toward the study of new forms of governmentality and the technologies and instruments associated with them. Therefore, new techniques of subjectification in the field of human resources (coaching, competences, self-evaluation, etc.) have been studied extensively (Townley, 1994; Pezet, and al., 2007). The same goes for the analysis of the mediating instruments that accompany the development of new technologies (Miller & O'Leary, 2007.).

There are multiple relationships between this research and these publications on performativity: they share a pragmatic orientation that aims to study micro-practices which are both discursive and non-discursive, as well as their performative effects; and they focus on the historical construction of concepts and categories and their impact on subjectification processes. However, Foucauldian research introduces an additional dimension: it pays particular attention to the management technologies, instruments and *dispositifs* that constitute media through which a practical intervention is constructed and a performation can take place.

Unlike political science or sociology publications in which the Foucauldian approach to *dispositifs* is prevalent (see Beuscat & Peerbaye, 2006), use of the concept of a *dispositif* in research on organizations and management differs significantly from that proposed by Foucault (Aggeri, 2014). The concept of management *dispositif* is often used as a synonym for management tool or technical object. These usages are most likely explained by unfamiliarity with the work of Foucault and the polysemy of the French term *dispositif*. In the English-language literature, the term has no equivalent. It is incorrectly translated as apparatus or device, with the former giving a structuralist viewpoint of the action, which is the opposite of the approach that Foucault advocates, and the latter referring to a technical object. In his book *What is an apparatus?*, Giorgio Agamben sustains this confusion by proposing a broad definition that encompasses both technical objects (e.g. the telephone) and more complex assemblages

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(Agamben, 2007). This translation problem may explain the relative misfortune of this concept in the literature on organizational studies[9].

In the remainder of the article I use the concept of *management dispositif* in the sense mentioned above to denote *the agencing of heterogeneous physical, cognitive and discursive elements designed to frame the behaviour of governed subjects and to guide it towards specific goals.*

HOW TO STUDY PERFORMATIVITY IN ORGANIZATIONS? ANALYTICAL FRAMEWORK AND ILLUSTRATION

Based on these theoretical elements, it is now possible to put forward an analytical framework for performation processes in organizations. I propose that such a framework be structured around three concepts: elementary acts of language (speech, of calculation and of writing), management *dispositifs*, and governmentality (see Figure 1).

The project can be summarized as the study of *processes through which managerial statements are performed by means of dispositifs of management embedded within regimes of governmentality.* In this performation process, managerial statements are produced during acts of language and constitute one of the elements of the *dispositif*. They are intended to act upon the conduct of subordinates or, more precisely, to frame situated elementary acts of language by subordinates, the performation of which is the object of managerial intervention. Thus, studying the process of performation aims at reconstituting the chain of interventions, from initial managerial statements through to the subordinates' acts of language, and explaining why they fail or succeed.

9. This risk of quid pro quo was identified and analyzed by Sverre Raffnsoe, who adopted the approach of maintaining the French term *dispositif* or *dispositive* in his articles to emphasize the very specific meaning of this concept in French and the specific conceptualization proposed by Michel Foucault as well as its potential for the critical study of organizations (Raffnsoe, and al., 2014).
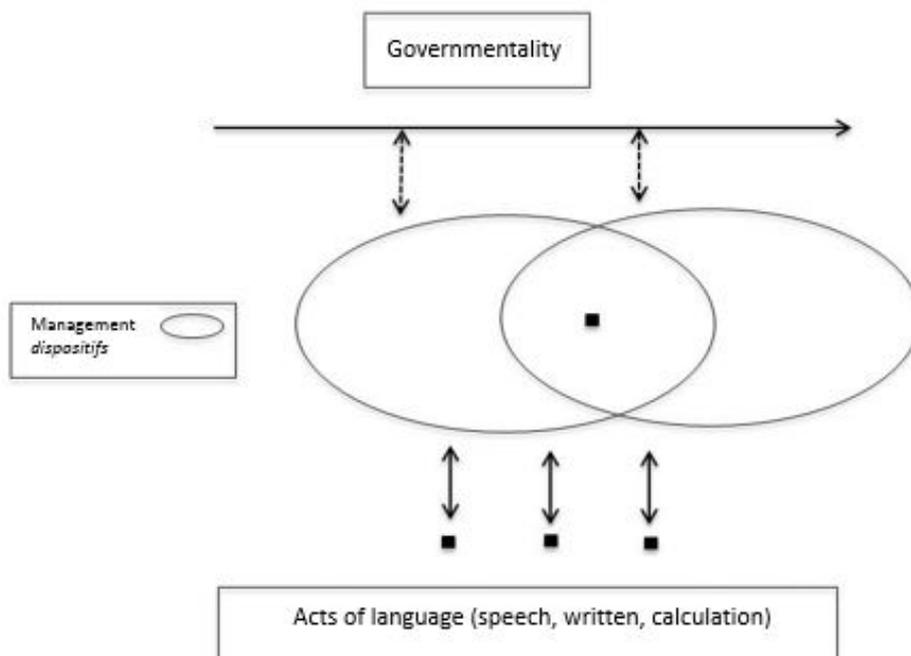

Figure 1 : Analytical framework

Elementary analysis of instrumented micro-practices: speech acts, acts of writing and acts of calculation

Research on performativity encourages close examination of the conditions under which speech acts, acts of writing, and acts of calculation transform reality even though they fail to do so under other circumstances. From a critical point of view, this has various implications. First, it indicates that managerial action never has automatic effects and rarely has direct ones. It is designed primarily to act on others' behaviour. When this is the intention, a managerial statement has an indirect performative effect, for it aims to act on the behaviours of subordinates so that they perform the decisions taken by the managers. Conversely, the more statements are produced at an operational level, and the easier their performativity will be to establish because they refer to observable actions. Hence the idea that, to evaluate the performativity of managers' statements, it is necessary to analyse the chains of mediation that links them to those of their subordinates and that explain why certain acts of language are successful while others are not (see Figure 1).

Subordinates often devise ways of avoiding, working round or changing to their advantage decisions or actions taken by managers. In other words, performativity stages active agents who act on situations to transform them, and which are provided with multiple symbolic, cognitive and relational resources to achieve this. Finally, what performativity adds with respect to other theories is the idea that these mechanisms never operate generically but rather are activated and reconfigured in situation by the actors themselves. Hence the importance granted to the pragmatic analysis of situations, which is never in accordance with the ostensive approaches to collective action and how it should theoretically take place.

The performative turn in organizations is therefore inseparable from a situated analysis of practices (practice turn). It is necessarily accompanied by a specific analysis of these practices, their unexpected effects and the resources that actors can mobilize to make performation processes succeed or fail. To carry out such a pragmatic analysis, we have to study elementary acts in the context of ambiguous and uncertain management situations[10] so as to understand their mechanisms, effects, unexpected and distorted uses and felicity conditions. From a critical or reflective perspective, it is essential to understand why managerial strategies can succeed or fail, and how actors may divert instruments or *dispositifs* in a direction different to that which was initially intended. This implies understanding how performative analysis can result in a comprehension of processes in a different way to that of the ostensive approach, which is very widespread in management research.

For this analysis to be fruitful, it must be accompanied by a specific theoretical framework. The concepts presented above can contribute to that. Management situations in organizations are characterized by the proliferation of instruments and artefacts supporting collective action. Group or face-to-face discussions are often equipped with tools: discussions take place based on reports, plans, indicators or PowerPoint presentations, which constitute mediating instruments (see Miller & O'Leary, 2007; Kaplan 2011). Around these instruments and artefacts, closely interlinking speech acts, acts of writing and acts of calculation are structured.

The limit of Austin's seminal work is that he implicitly considered felicity (or infelicity) conditions to be givens. Yet in the study of

10. The management situation concept was proposed by Jacques Girin. It arises when participants are gathered together and, within a given time frame, must accomplish a collective action leading to a result subject to an external judgment (Girin, 2011). Benoît Journé and Nathalie Raulet Croset developed an analysis framework for situations in contexts of ambiguity and uncertainty. They show that the situation and organization co-emerge in a series of interactions in which the organization produces other situations that in return modify it (Journé, and al., 2008).

organizations, such a naturalization will never be adequate. On the contrary, it is necessary to understand how these felicity conditions are produced by a whole series of prior interventions.

From elementary acts to chains of mediation

Through inquiry, it is possible to follow the lines of argument, to search for the relationships linking these elementary acts to others, and to better comprehend what grants them a performative capacity (or not). Therefore, to demonstrate performation processes, we have to bring to light the chains of mediation that interconnect acts of writing, calculation and speech with one another.

This archaeological task must aim to better comprehend the specificity and specific functions of these different acts. As we saw earlier on, in the field of management certain acts of writing have a performative capacity that is theoretically greater than that of speech acts. However, an act of writing does not inherently have performativity. As in the case of law, this performativity depends on a chain of acts of writing articulated with one another in a coherent whole associated with a doctrine or strategy. Likewise, an isolated act of calculation will be more likely to be performative if it is based on chains of calculation and routines that delimit its exercise and its reception (see Callon & Muniesa, 2005).

Elementary acts framed by dispositifs

How can we give meaning to these performative elementary acts? How can we explain that they succeed or fail? Sticking to the pragmatic analysis of situations is not enough. We have seen that Austin's suggestion of referring to pre-existing felicity conditions is not adequate either. Our proposal is to consider that these elementary acts acquire a meaning and a performative power once they are situated in the larger context of the management *dispositifs* int which they are embedded.

As noted above, the *dispositif* is a concept with a performative purpose introduced by Michel Foucault to denote the agencing and framing of practices produced by those who govern, with the intention of remotely acting on the behaviour of the governed. Transposed to the field of management, the analysis of *dispositifs* aims to study strategic action, not only from the angle of its discourses and decisions, but also as an activity of agencing discourses, rules, instruments, architectural and material elements and competences with a strategic goal in view. In light of that, strategic management is primarily an activity of framing and agencing rather than one of producing new ideas or viewpoints. It aims to direct conduct toward assigned purposes, and acts on micro-practices within the organization.

The *dispositif* consists of elements that are visible and others that are not. The visible ones include written acts that define elements of doctrine, organize collective action, or establish commitments framed by contracts. The performativity of these written acts can be analysed, but we need to bear in mind that they are an integral part of the *dispositif*. They are not isolated or independent acts, and the *dispositif* is not an instrument of mediation between a managerial statement and elementary acts carried out by operatives.

In the *dispositif* we also find less visible elements stemming from the successive layering and transformation of other *dispositifs* over the course of time. Hence, certain elements are in a sense part of the décor. They are considered to be things rather than the result of past intentional

interventions. When analysing strategies, managers tend to stress only the most innovative and least controversial aspects of the *dispositif*. To reveal its form, internal logic and functioning, a specific inquiry is necessary.

How to carry out the inquiry

In this case I am using the concept of inquiry in the sense proposed by philosopher John Dewey, who highlighted the similarities between scientific inquiry and ordinary inquiry in an indeterminate situation (Dewey, 1934; Journé, 2007). Dewey recommended that inquiry activities [be] observable in the ordinary sense of the word (Dewey, 1934 : 76) and that attention be paid to the methods and instruments used by actors in situ. He pointed out that inquiry is induced by the doubt stemming from the indeterminate nature of the situation, which is what it aims to clear up. Dewey also insisted on the fact that all singular objects or events take on meaning only with regard to an overall situation that participants experience as a whole. Therefore, researchers' challenge is to re-establish how actors experience a situation, including the share of ambiguity and doubt peculiar to each one[11].

The first stage of inquiry, according to Dewey, is to move on from an indeterminate situation to a problematic one by explaining what establishes the problem. Next, it is necessary to select the facts marking obstacles or resistance, which orient the inquiry and allow one to reformulate the problem in order to solve it (Dumez, 2007).

Illustration of the framework of analysis: the case of Project L

To illustrate this framework of analysis and show how it can be applied on a methodological level, I use a concrete example drawing on the field research that a colleague and I carried out over eighteen months at Renault, on a new vehicle project called project L (Aggeri & Segrestin, 2007). Renault is a company with a long tradition of collaborative research with social science researchers. This research was therefore part of a series of interventions carried out with regard to transformations in design activities. With the help of the socio-economic unit of the research department, we contacted Renault's engineering department as well as the Project L team. The project was considered to be ambitious – and therefore risky – because it introduced multiple technical and managerial innovations while being intended to be a leap forwards in terms of performance. We were requested to accompany the project and to critically analyse it. The main focus was the robustness of the project *dispositif* implemented, and namely its capacity to delimit and orientate collective action in the direction desired by the managers. Following discussions, it was decided to restrict the scope of intervention to the assembled painted car body – a domain that is often critical in the development of new vehicles, given the constraints that are involved in it.

To enhance our understanding of the inquiry process, we studied this project not from a strictly instrumental perspective of a managerial technique whose efficiency we were attempting to measure, but rather as a management *dispositif* with multiple ramifications that is deployed in successive layers. From this point of view, we studied the design of the *dispositif* and its capacity to produce felicity conditions for performative acts associated with design processes. Examining the obstacles and resistance raised by some of these acts, I discuss the conditions of

11. Dewey's approach was strongly influenced by the work of Karl Weick and specialists in sense-making, who present their research in the form of a story that aims to reestablish the collective construction of meaning in situ (Weick, 1988; Journé & Raulet Croset, 2008).

infelicity produced by these *dispositifs*.

This case is interesting because in addition to revealing these failures in performation, it also reveals the failure of managerial *dispositifs* to produce adequate felicity conditions.

To structure the story of this project whose deployment was monitored in real time, I start by analysing the managerial governmentality implicit in contemporary forms of project management. I then describe the inquiry that we carried out over the course of this collaborative research. First, I highlight the adjustments made to the project *dispositif* at Renault in the context of the Project L experiment. I then analyse the crisis that took place at the end of the project and that revealed situations of failure of performation of the acts of language studied. As I explain, the failure was attributable not to individual failures but rather to the induced effects of management *dispositifs* that proved to be incapable of producing the required felicity conditions.

Project management: what governmentality?

For twenty years or more, there has been a craze for management by projects. As Luc Boltanski and Eve Chiapello show, this mode of organization symbolizes a new form of "post-bureaucratic" governmentality characteristic of a new spirit of capitalism (Boltanski & Chiapello, 1999, 2005). Project-based management, as presented in management manuals or managers' discourses, is a new management technique (Hatchuel & Weil, 1995) consisting of three elements: (i) a *management philosophy* that celebrates the flexibility and adaptability of this type of organization for managing complex projects; (ii) *technical underpinnings* consisting of a set of universal management rules and principles that embody this management philosophy; and (iii) a *simplified view of relations*, that is, a new conception of social and human relations within organizations.

First of all, contemporary project management is based on a well-known management philosophy that has been thoroughly analysed today. In contemporary project rhetoric, it was implemented to counterbalance the unwieldiness of large functional organizational divisions organized into fields of expertise or business units. Managers often say that projects function according to a commando logic: the actors are grouped together in a team under the project manager, who has broad powers to attain a goal defined in advance within a short period of time (for example, to develop a new vehicle to be put on the market). An image commonly used by managers is that of a rugby team, in which the virtues of solidarity, commitment and cooperation are required to achieve the established goal in non-routine situations subject to randomness and surprises (Midler, 1993). From this point of view, adaptability, flexibility, commitment and individual initiative are values that managers actively seek in project participants. As Boltanski and Chiapello note, the power of this discourse is that it astutely recycles a set of values (autonomy, flexibility, empowerment) originating in social and artistic criticisms, to give a new legitimacy to managerial discourses in the eyes of employees and thus to make them adhere to this approach (Boltanski & Chiapello, 1999, 2005).

Secondly, project management is presented as a set of universal management rules and principles. Modern project management is distinguished from older forms that had long been used in the design of large-scale projects (Garel, 2003) via the formalization of management instrumentation. In addition to a project team temporarily federated around a project manager directly authorized by the executive management and who is granted a large degree of autonomy in decision-making

(heavyweight manager), the project is organized around milestones (stage gates). These correspond to the main stages of the project, with contracts to set the objectives that participants agree to commit to, the production of intermediate objects (plans, deliverables, mock-ups, briefs, etc.) that materialize the object to be designed at different stages in its genesis, and lastly indicators and dashboards for monitoring the progress of project performance (Garel, 2003).

Finally, management by projects is the promise of new forms of social and human relations within organizations. Instead of vertical and hierarchical relations structured around organizational routines, it fosters mutual adjustment and horizontal relations maintained around a pragmatic objective. On the individual level, it holds the promise of fulfilment through gratifying work enhances autonomy and teamwork along with the commitment of all in the service of a common goal.

As David Courpasson explains, the project is presented as a chance for the individual, as a sign of the trust that the organization grants to some. The project thus appears to be a *soft constraint* for individuals because it is not formalized. However, it also appears to be a source of symbolic violence insofar as it is impossible for them to refuse to submit to it without challenging the legitimacy of the company's policies and human resources management (Courpasson, 2000).

In managerial rhetoric, the coherence of these three dimensions of project-based management is magnified by stories of successful projects presented as a technical and human adventure. The opportunity for self-betterment enables individuals to accomplish exploits that are blown out of proportion, despite obstacles and resistance that may hinder their success in large organizations. To use the language of performativity, management by projects embodies these new forms of organization and instrumentation aimed at creating the felicity conditions of performative design processes; in other words, projects that succeed on all levels.

Transformations in the project management dispositif at Renault

In no industry has this mythology of management by projects been so celebrated as a form of organization conducive to innovation and performance as it has in the automotive industry. One of the best-known examples is the widely-read book by Christophe Midler which recounts the saga of the Twingo project at Renault, the first vehicle to have been successfully developed through this new approach, despite the initial reluctance of many of the company's managers (Midler, 1993). The book illustrates that management by projects is much more than a simple managerial technique: it constitutes an evolving management *dispositif* in which multiple heterogeneous elements are agenced and re-agenced, in line with new strategic objectives.

Material elements, for example, play a central role in this. To facilitate cooperation and communication between project designers, companies opt for the co-location of actors at the same site. At Renault this site is the Technocentre de Guyancourt, nicknamed the "*Ruche*" [the "Beehive"] with reference to the constant agitation and movement that takes place there. The building's architecture was designed to foster communication: a large artery crosses the building from end to end to service all offices and meeting spaces. Open spaces, cafeterias, places of communication and dining areas were also designed to facilitate circulation within them. Spaces dedicated to the creation of physical and virtual prototypes or the analysis of the competition's vehicles also constitute

places of communication in which designers hold discussions around physical or virtual objects.

As an incentive for employees to adhere and commit to a project, nothing is neglected as regards training and skills management. The project philosophy is hammered home during regular seminars and internal training sessions. The launch and the completion of projects are moments of communion that are staged and organized in a ritual way so as to galvanize all participants around a common goal. The production of shared narratives also plays a role: systematic feedback is organized to draw lessons from past projects, while the aims of the project with regard to the competition, customers or performance are staged and dramatized to keep the staff under pressure. The goal is to develop vehicles that are desirable to customers, less costly to produce and of a better quality, within ever-shorter time frames.

Finally, the project *dispositif* is not just limited to elements internal to the organization. It is in direct contact with the outside through a complex web of relations: with standards and regulations via homologation procedures; with the media and customers via press files on the project, advertising and the marketing of new products; with multiple partners and subcontractors involved in the project via co-development contracts that precisely define the modalities of cooperation; and with specialized researchers and consultants involved at the company to improve the efficiency of the *dispositif*.

The project *dispositif* in the car industry context is therefore a tightly linked web, a constant agencing of heterogeneous elements in view of improving the performance of concrete development products. Its design and improvement constitute a significant portion of managers' activity, especially in the field of engineering.

The project *dispositif* is there to create felicity conditions favourable to the performation of development activities; in other words, it aims to provide the material, symbolic, cognitive and relational resources for supervising, organizing and guiding design teams so that they can meet the goals set in advance and which they have contractually agreed to. However, this mode of management does not come without repercussions: all designers regularly mention constant pressure and a feeling of urgency weighing on them.

Stage 1 of the inquiry: identifying the management dispositif of Project L and managerial statements

During the first months of our collaboration in the early 2000s we set out to identify all of the elements of the managerial *dispositif* implemented for project L. We interviewed close to thirty managers who explained the stakes of the project as well as the changes implemented to remedy the shortcomings identified in past projects and to achieve the objectives.

The project was ambitious: the objectives were unprecedented in terms of development times and cost reduction. Like some of its competitors such as Toyota, the company undertook six major adaptations of the management *dispositif* employed in previous projects:

- platform design, to be able to develop a wide variety of models around a small number of standard elements (base, superstructure, transmission) which, when produced in series, reduced production costs;

- the replacement of physical prototypes with virtual prototypes making use of digital tools to accelerate development time;

- the integration of design experts by creating product-process teams bringing together multiple skills around sub-assemblies of the vehicle. This consisted of correcting supposed failures in cooperation and coordination identified through feedback;

- the outsourcing of design to partners to both reduce costs and improve design performance;

- the introduction of innovations to industrial processes to reduce manufacturing costs;

- the introduction of new project management tools, and in particular "convergence plans", a sort of large-scale schedule in which each activity is monitored and represented with a green, orange or red light, depending on whether it is consistent with the objectives or not.

One of the key elements of the *dispositif* that crystallized the various commitments made by the project managers to the company's general management was the project contract. In this written document, a managerial statement is found that explains the deadlines, costs, expected performances and risks at all the project levels. In this case, the contract sought to reduce production and development costs significantly, and to bring deadlines down. A first level of analysis was therefore to determine the extent to which the project contract, as an act of writing, was going to be performed. We immediately see that the test of reality was delayed: it was only on completion of the project that it became apparent whether the contract had been fulfilled or not. To obtain this result, the project team's entire efforts were geared towards organizing the design process during the course of the project, by mobilising *inter alia* a whole series of appropriate acts of language.

The difficulty that we encountered at the beginning of our collaboration was the apparent smoothness of everything: on paper, the *dispositif* appeared to be perfectly coherent and capable of producing the expected effects. Its revision was based on a specific process of feedback, analysis of the competition, and the identification of sound managerial practices. In addition to involving many internal managers, this process also mobilized many specialized consulting firms to work on transforming the managerial and technical systems.

But what happened when this *dispositif* was put to the test of reality? How did it transform, in the intended direction, the elementary acts of language associated with design processes? How was the managerial statement included in the project contract going to be performed?

It is clear that for more in-depth analysis, we needed to analyse the expected and unexpected effects of the *dispositif* on specifically selected elementary acts of language. During the remainder of the collaboration, we monitored and supported teams of designers working on parts of the vehicle in which the design appeared to be more constrained than elsewhere.

Stage 2: From the dispositif to the analysis of elementary acts of language in the design process

The design of a new vehicle is a distributed process that mobilizes hundreds of designers organized into multi-focus teams structured around sub-assemblies (doors, the undercarriage, seats, the passenger compartment, etc.). The supervision and integration of these decentralized processes is carried out through project reviews in which each elementary team reports on their progress to the project team. In our collaboration, we monitored teams of designers, participated in dozens of meetings, interviewed many individuals in the company (junior designers as well as middle managers) and attended project reviews.

Design activities are above all collective; it is not possible to schedule them entirely. Design consists in managing a multitude of unforeseen situations that occur throughout the process: parts designed in parallel do not coincide; a crash test detects unforeseen weak points; defects in materials appear; a supplier proves to be inadequate; acoustic problems appear; and so on. The management of these unforeseen aspects is the daily task of designers. To overcome them, they communicate and meet constantly to attempt to resolve this continuous barrage of problems and to make appropriate decisions.

Yet despite this uncertainty and to our great surprise, for a long time the project appeared to be under control. All the convergence plan indicators were green. This did not mean that there were not constant problems to manage; rather, none of them appeared to be likely to undermine the project schedule, to deteriorate to quality, or to increase costs beyond the reserves allocated upstream by the project team.
Given all of that, should these management instruments have been trusted? Were there weak signs that escaped the managers' and designers' vigilance? The difficulty with which we were confronted was the same as that of the managers: among the multitude of design problems, on which were we to focus? Where were we to start the inquiry? How could we identify risks for which management models and management tools introduced from above might fail?

As a result, we decided to focus on a small number of design files in which significant modifications had been carried out to resolve poorly identified problems. Among these files, one of them caught our attention given its complexity and challenges: the design of the side doors.

Elementary acts of language in the design process

Design activities are hard to understand for an external observer. Naturally, they encompass acts of language, but also nonverbal activities such as reasoning, drawing or manufacturing. There is no isomorphism between the two but rather, to borrow from Deleuze's analysis, ties of reciprocal presupposition. Acts of language may explicitly express, conceptualize or trigger nonverbal actions, but this is not always the case. Design inevitably retains a tacit aspect that is not outwardly stated in a natural or mathematical language. The interpretation of these nonverbal actions implies the mobilization of specific theories (see Le Masson et al., 2010), which is beyond the scope of this article. To remain within the framework of performativity, I therefore limit our analysis solely to the acts of language associated with design processes. This limitation is justified on at least two counts. First, what would a non-verbal statement be? Second, without verbal explanation the performativity of these non-verbal acts is difficult to establish. How can an outside observer who is not proficient in the language under consideration know which drawing or prototype succeeded or failed to produce the desired result? Third, we can assume that if a non-verbal act fails, there will necessarily be verbalization to

explain to the other members of the organization why this is so. Hence, in the analysis of situated acts of language, it is necessary to be attentive to the material and visual elements that the language clarifies or on which it is based.

Design activities mobilize the three types of acts of language defined above. We find:

1) Acts of calculation based on technical or management tools and used: to carry out structural calculations or to measure the behaviour of parts during tests; to model a physical phenomenon; to evaluate costs; to measure risks; to provide indicators and dashboards, etc. These cognitive operations mobilize specific expert languages and are based on modelling and particular regimes of justification. They serve as cognitive support for discussions between designers, for which they provide a framework. For example, when an expert simulates an impact test that reveals weak elements in design, he or she forces the other actors to adopt his or her language and reference framework. His or her calculation leads to a diagnosis that prompts designers to raise questions on the causes of the problem and to carry out an inquiry that will result in a modification of the design of the incriminated parts.

2) Speech acts that appear outside of these acts of calculation in the strict sense. Speech acts have one main function in the world of design: to establish mutual understanding between designers from different fields of expertise, who have their own specific languages. Such acts are likely to occur on any occasion: around a coffee machine, at a team meeting based on a PowerPoint presentation, around a digital mock-up, around a prototype, when a part arrives from a subcontractor, based on the revision of the schedule, and so on. It is important to note that these acts of language are most often established around physical media. They are intended to produce a common meaning based on the examination of these artefacts. However, unlike calculations, these speech acts are far less limited in their forms and mobilize not only expert knowledge but also sensible knowledge.

3) Written acts that may also take on multiple forms in this context: meeting reports; a revision of written commitments; reporting for the activities carried out; a memo sent by a manager to his or her subordinates; a test report, etc. As for speech acts, certain written acts are constative whereas others are performative. However, as opposed to speech acts, written acts comply with a much more regulated regime of justification and production: each type of act addresses these norms because it is inscribed within a system of traceability in which documents are indexed to one another and constitute the important evidence of the design file. Moreover, they have a much stronger performative power than the two other types of act because they materialize acts of calculation and speech acts by summarizing their conclusions in a reference document that is the basis for managerial decisions. If an unexpected problem arises, responsibilities will be invoked and written documents will be used to establish them.

As such, each of these three elementary acts is a part of a complex set of cross-references. During an act of speech language, to support their argument, designers may evoke a certain calculation or a certain written act. In an inquiry, however, it is useful to distinguish them to understand the conditions of the validity of a certain utterance.

Ensuring the coherence of these different acts takes place on certain specific occasions that must be noted. In projects, a key moment is the project review, when the individuals responsible for the project regularly meet to take stock of its progress. The main purpose of these meetings is therefore to discuss the performance of suggestions originating from

elementary acts. In other words, they consist in verifying that what has been said and written is based on sound evidence, in addition to resolving potential conflicts between different experts.

The second objective of these meetings is to select, from the multitude of potential subjects, those which are deserving of discussion and which justify making decisions. In this sense I found that, depending on the speaker and the interlocutors, acts of language did not have the same performative capacity. Certain acts of calculation are more legitimate: if a safety specialist identifies a risk to passenger safety based on a test, measures will be taken immediately; if a quality expert estimates that a certain part is not compliant with technical specifications, actions will be taken. On the other hand, certain subjects that are more recent and less entrenched in corporate technical culture, such as recyclability, ergonomics or reparability, will fall victim to the compromises made by the management or designers. In our opinion, this difference in treatment is explained both by the legitimacy which is perceived and progressively acquired by certain types of expertise and by the priorities established by managers.

Stage 3: Identifying crises in which elementary acts of language fail to produce the expected effects

An essential point to emphasize is that these elementary acts of language produce not only immediate effects but also delayed effects. In this sense, modifying the design of a part immediately leads to the modification of its blueprint and the technical information related to it. On the other hand, the part itself will be produced only several months later, at the time when definitive tools have been produced. Only then will it be known whether the real behaviour of the part is consistent with elementary acts of calculation. This indeterminacy explains why the successes or failures of performation can be evaluated only over the long-term and in the context of a precisely reconstituted sequence of actions and decisions.

As Dewey pointed out, experimentation is based on an encounter with obstacles and resistance. In the case of Project L, these came into play at the end of our collaboration, at the time of the creation of the final prototypes, just before the manufacture launch of the new vehicle. These unexpected incidents caused a major organizational crisis that mobilized not only project actors but also the entire company. The organizational crisis was a direct result of the failure of various performative acts, the sequence of which I am now going to reconstruct.

What were the key points in this crisis? The last wave of prototypes based on definitive tools was supposed to validate the feasibility of the design and constitute the last milestone before the production launch of the new model. It is the litmus test, because it consists in building the vehicle designed under real conditions. During this phase, quality management experts in charge of homologating the conformity of parts based on definitive tools, discovered that the side doors presented prohibitive defects: creases were found on the sheet metal, along problems in the geometry of parts. From the point of view of quality management, which is the spokesperson for the customer, the verdict was final: while waiting for a solution to be found, the launch of the new model was to be postponed *sine die*. The company's reputation in the eyes of its customers was at stake. This was a crucial decision, for it called into question the terms of the project contract underpinning the project team's legitimacy. From this point of view, the failure of the contract's performativity was a sufficiently serious fact to trigger a major organizational crisis within the company.

The company was in a state of commotion. An inquiry was undertaken: why did the calculations and multiple meetings recorded in written reports not reveal anything abnormal? Why did written commitments not hold up? Why were oral promises not kept? Based on the evidence, elementary acts of language were unable to have the performative effect intended. There was an active search for the culprit. The origin of the problem was identified as pertaining to the German supplier that designed the stamping tool. The supplier was summoned by the heads of departments, the project management, and then by the company's executive management. It was established that the supplier intentionally omitted problems that it had found when fine-tuning certain tools. The prototype parts provided to Renault during the project had been reworked by hand to comply with the technical specifications. Managers had believed that the supplier was capable of providing adequate parts based on definitive tools, but discovered that this was not so.

Renault called upon the supplier to resolve the problems immediately under threat of terminating its contract signed with the company. The partner acknowledged that, in the headlong rush to produce, it had effectively hidden the problems encountered, hoping to resolve them later without informing the customer. It admitted that it had tried everything but did not have the necessary competences to resolve the problems. The supplier was questioned regarding its past. It had been a Mercedes supplier and in this position, had produced stamping tools but had never yet designed one. Project L was therefore an opportunity for it to learn how to be a designer on the job.

Renault's executive management then turned to the business managers at Renault who had monitored the development of the tools at the supplier's facilities. Given that they were young and inexperienced, these managers had not found anything abnormal. Despite regular communication with the supplier, at no time had they suspected that the latter had deceived them.

The executive management then turned to the design departments. Since the supplier was incompetent, the tool design was to be taken away from it and entrusted to the in-house teams of experts specialized in tool design. However, in that case as well, Renault's designers soon proved to be incapable of finding solutions to the creasing and geometry problems. The meetings that we were able to attend took place in a highly feverish atmosphere: helpless and subject to enormous pressure from the management, designers searched in vain for trails to follow. They bitterly discovered the dark side of project management: it was no longer a question of solidarity but rather the search for the culprits and penalties. For weeks, meetings floundered. On the way, it was discovered that stamping expertise was lost during the outsourcing of these activities. It thus became clear that an innovation process applied to the doors – continuous laser welding[12] – raised unprecedented problems that digital simulations had not revealed, due to a lack of adequate models.

The problem, under new light, gradually became the object of the entire company's attention, given that each day that the commercialization of the vehicle was postponed incurred a significant loss of earnings. The crisis then took an unexpected turn: basing himself on the logic of commitment, the CEO summoned the project director and threatened to fire him if he did not find a solution immediately.

As the tension in the company was at breaking point, designers had the idea to seek out a toolfitter, a trade that was disappearing at the time of

12. This is a technique that consists in laser soldering two sheets of metal of different thicknesses prior to their stamping.

our research, because the model of the construction of competences based on companionship and the transmission of empirical know-how had been deemed to be too costly to maintain and incompatible with the logic of knowledge modelling to which the company gave preference. The tool-maker, with thirty years of experience working in factories, was an expert in stamping but did not speak the same language as designers: he had intuitive reasoning and proposed modifications without being able to justify them with scientific reasoning. He suggested scrapping the stamping tool and making a new one with a different shape shape. However, in addition to the fact that his solution was costly and would take time, nothing guaranteed that it would resolve the problems.

Under pressure from deadlines and considering the lack of better options, the project management agreed to the tool-maker's plan to modify the tools. After months of trial and error a solution was finally found, albeit at the expense of significant extra costs and a six-month delay in the launch date.

The downward spiral of the logic of commitment: the search for

Trapped in a destructive logic of commitments, the executive management sought out scapegoats during the crisis: the partner was questioned first, followed by the design department, and last of all the project manager, none of whom had kept their promises. Under considerable pressure, each of them acknowledged that they were incapable of finding a solution to a complex problem that revealed a knowledge deficit and a series of risky and poorly managed design choices. Hence, while management was looking for individual responsibility, the designers challenged the project *dispositif* and its negative effects on the competence dynamic.

Stage 4: What the failures of elementary acts reveal about the infelicity conditions produced by the dispositif

Our analysis of elementary acts of language enabled us to propose another analysis of the crisis. Each elementary act was contained within a sequence of distributed elementary acts, of which no single actor had an overview. The absence of weak signals strengthened the designers' confidence in digital calculation tools, in the supplier who sent compliant parts, and in the convergence plans that obstinately remained in a green light state.

What was our role in such a crisis? It primarily consisted in producing a grounded and objective analysis of the situation. Our investigations led to a plausible explanation: rather than looking for a culprit, we shone light on a sequence of inadequate acts of calculation that highlighted risky strategic choices.

Tracing back the chain of elementary acts

By tracing back the chain of elementary acts leading up to the final crisis, our inquiry allowed us to understand better why each elementary act did not allow for the identification of risks, and even how these had deliberately been sidestepped in certain cases. We were able to identify two types of failure that played a key role in the crisis.

The first failure originated in certain acts of calculation: digital simulations. Based on calculation models, they had been used extensively to back up design decisions. Digital simulation aims, for example, to

visualize the behaviour of a part subject to an external impact (for example, a safety test) or following a production operation (stamping, for example). Colour images alert designers to results that are not compliant with technical specifications. Designers thoroughly discuss the results of these simulations, which feed project reviews and lead to design decisions. In the case of the doors, the simulations were invalidated by the introduction of an apparently harmless innovation. In this sense, nobody upstream questioned the robustness of calculation models, when parts had to be produced based on an innovation that had not yet been tested: *continuous laser welding.* However, it was revealed that the stamping of continuously laser welded metal sheets has a behaviour in terms of material flow that is very different from uniform sheets of the same thickness. The elimination of physical prototypes prevented them from spotting the failures of simulations.

The second failure originated in the monitoring of tool suppliers, which mobilized speech acts, acts of calculation and acts of writing. Each supplier was monitored by a sales manager at Renault and their communication was regulated by specific acts. The first of these was a written act (a partnership agreement) that specified the reciprocal commitments of the two partners and stipulated that risk monitoring had to be combined with penalties in the event of failure of the supplier to fulfil the contract. Acts of calculation were carried out by the supplier, which discussed them with its sales manager to justify the design choices carried out. Speech acts also punctuated the project, given that the business manager regularly visited the supplier's facilities, assessed the quality of design processes, met with designers, discussed objectives and potential problems, visited the production site, and carried out a visual evaluation of the prototype parts produced. In theory, the risk of failure was therefore limited by this regular communication. Weak signals could have alerted him – delay in the delivery of parts, questions that went unanswered regarding certain technical aspects, etc. – but he did not imagine that the supplier had been able to deliberately hide certain failures from him and was able to deceive him by modifying certain tools by hand to make them compliant with the manufacturer's requirements.

Failures that reveal incoherent strategic

The failure of these elementary acts revealed those of the project *dispositif* and other management *dispositifs*. By massively outsourcing key activities and restructuring business units according to new criteria, the company had weakened certain engineering competences; by wanting to eliminate certain competences deemed to be obsolete, it had disregarded the fact that certain tacit skills based on experience are difficult to explain and to model; by introducing process innovations without organizing a specific monitoring process, uncalculated risks were taken; by selecting a less distant supplier to decrease costs, managers were incapable of measuring the risks to which they were subjecting the project; by replacing real-life tests based on physical prototypes with virtual tests, designers forgot that digital tools can only represent phenomena that are already known and have already been modelled.

These decisions were taken at different times by various actors, without their interdependence being established. For example, the continuous laser welding innovation was prepared upstream (outside of the project) by the innovation department; outsourcing was a general company policy implemented both in Project L and elsewhere; the choice of suppliers was the result of a combined decision made by purchasing

departments, the engineering department and the project department; the management of competences was managed both by the engineering department and by the human resources department; and so on. These choices, that some saw as being outside the scope of the project, had long-term effects that were largely invisible. Thus, competences in practice are hard to assess in theoretical terms. They can only be identified in situ, especially during crises of performance in which they are pushed to their limits.

This sequence of poorly coordinated decisions underlines two mechanisms generating organizational myopia (Levinthal and March, 1993): the simplification of the experiment and the production of specialized responses. Each of the strategic choices cited above had its own rationale. It was their combination that proved to be incoherent when put into perspective with one another in the global situation of Project L.

Stage 5: Communication of the results of the inquiry and feedback

We revealed the conclusions of our inquiry to various members of the organization (experts, project managers) who were searching for explanations for this unexpected crisis. Our intention was to present it in the full extent of its complexity and unity, and thus to avoid the slippery slope of looking for scapegoats. On the contrary, we highlighted the importance of the inquiry itself as a process of reflection and organized intelligibility. This research drew the company's attention to the management of learning processes and to the need to design experimental *dispositifs* adapted to this goal in situations where process innovations whose effects are difficult to observe are introduced.

The managers endorsed our analyses. The project manager, shaken by the crisis, saw the advantage that he could draw from an analysis that partially exempted him from carrying all the responsibility. Not only did he not oppose our conclusions, but he also played the thoughtful manager card by approving their dissemination in the company. As such, we subsequently presented our analyses to various directors and other development project managers.

Certain middle and operations managers admitted that when faced with orders from the executive management, they had given in to an escalation of commitments in which each person was led to take more and more risks that could threaten the results of the project. Based on this experience, they considered that the only possible way out for them was to strengthen the experts' competences, to be capable of avoid the negative effects of this escalation in commitments upstream, by refusing excessively risky endeavours.

On an individual level, this crisis resulted in a great deal of bitterness and suffering among certain engineers and technicians at the heart of the crisis. Under pressure and threats from management, they felt like they were being stigmatized. The solidarity and cohesion so praised in managerial discourses gave way to a darker side of project-based management: the implacable logic of commitments and management through pressure with, in the case of failure, its load of sanctions, humiliation and violence, in which everyone attempts to shake off their share of the responsibility.

In these phases of acute crisis, the researchers, despite also being subject to the tension and stress of the situation, were in a better position to objectively analyse the situation than were the operations staff, whose opinions the managers would in any case regard with suspicion. In such a process, the researcher's legitimacy is based on his or her ability to carry

out an inquiry by mobilizing his or her specific knowledge, all the while being attentive to immersing him- or herself in the situation in order to reconstruct its full complexity from the inside. In this case, the explicit description of the inquiry process plays a key role by allowing its diagnosis to be shared by the actors of the organization. The key phases of this inquiry process are summarized in the table below (cf. Table 1)

	Actors Involved	Objects of Study	Obstacles and Resistance
Phase 1: Discovering the *dispositif* and managerial statements	Managers	The agencing of the elements of the *dispositif* for a strategic purpose (discourses, interviews, documents), managerial statements	Identification of potential inconsistencies or points that trigger resistance
Phase 2: Analysis of elementary acts of language	Designers, managers	Participatory observation of design situations (meetings, interviews), selection of significant facts	Identification of elementary acts in which their performativity is potentially problematic
Phase 3: Study of performation crises	Designers, managers	Monitoring of performativity crises	Identification of crises of performation or performative acts not producing the expected effects
Phase 4: Analysis of the felicity (or infelicity) conditions produced by management *dispositifs*	Designers, managers	Identification of mechanisms explaining performation crises, proposing of an analysis of the failures of management *dispositifs*	Identification of crises hidden from knowledge and incoherent strategic choices
Phase 5: Feedback from actors	Managers, designers	Submission of the inquiry and group discussion	Integration of criticism and actors' reactions

Table 1: The Inquiry Process

DISCUSSION

The analysis framework that I have illustrated based on the case of Project L at Renault articulates the interventions of managers and operations staff around two key concepts: the design of management *dispositifs* on the one hand, and instrumented and situated acts of language on the other. It is clear that the link between these two activities is infinitely more complex than practitioners and consultants make it out to be. A detailed understanding of performation processes requires a profound analysis of the interactions between these two types of activity.

In defense of another approach to the performativity of management

In terms of studies on the performativity of management, the natural tendency is to focus on the two activities that are the most visible and considered to be the most essential for strategic management: the production of strategic discourses; and the effects of strategic decisions. Two classic questions stem from this: to what extent are strategic discourses capable of transforming reality in the intended direction? What are the consequences of strategic decisions?

The contribution of the analysis framework proposed here shifts the focus to other activities and processes in which strategic discourses and decisions constitute only some elements among others. As such, the study of *dispositifs* allows one to reduce the performative power of strategic discourses often praised in the narratives. In reality, strategic discourses only constitute the visible facet of management *dispositifs*. They would be nothing but an empty shell without the patient work of agencing carried out by a multiplicity of managers, both within and outside of the organization, to establish the coherence of heterogeneous elements – management of competences, management systems, training practices, the organization of workspaces, the construction of values and norms, management instruments, partner relations, professional standards, etc. – with these strategic discourses, and to frame the practices of subordinates in their most minor details. While managers dedicate a great deal of energy to designing these *dispositifs*, strategic discourses are not enough. They require finely agenced mechanisms to make them act, in other words, to provide them with a performative capacity (see also Gond, and al., 2015; Abrahamson, and al., 2016).

Therefore, our approach constitutes above all an argument in favour of shifting attention towards these more distributed and less visible – because sometimes institutionalized and therefore in the background – activities of the design of *dispositifs*. To understand what a targeted management *dispositif* is likely to help perform, it is necessary to evaluate the capacity of these *dispositifs* to frame the elementary acts of language addressed in the context of the inquiry.

On this micro-analytical level, the analysis of these elementary acts of language allows us to move beyond the primacy granted to the study of decisions. Decisions constitute only a moment preceded by an entire design effort that is manifest in discussions, calculations and writing. By studying these elementary acts, we realize that the absence of decisions is as informative as the decisions themselves. Moreover, a specific painful decision – such as delaying the sale of a vehicle – is explained by profound causes that may not be reduced to individual failures, but which do a good job of revealing organizational failures.

From a reflexive point of view, we can expect that these analyses will allow managers and operations staff to take a step back with respect to

orders and managerial approaches, and to engage in a more objective and in-depth analysis of *dispositifs*, their incoherence and their unexpected effects.

From a critical point of view, this shift allows us to take into account the variety of elements acting on individuals' subjectivity and behaviour. For example, project management *dispositifs* contain the seeds of their own crisis by championing the collective adventure and solidarity while seeking to assert, in practical terms, a logic of commitment combined with management via pressure based on manufactured urgency.

One of the lessons of Project L is that individuals (operations staff as well as middle managers), when subject to contradictory orders, must avoid the escalation of commitments liable to boomerang in the event of failure, and must challenge the mythical narratives of collective feats based on self-improvement.

From the generic study of performativity to the study of performation processes

The example of Project L shows that generically analysing the performativity of a certain *dispositif* or elementary act is hardly meaningful. The same elementary act does not have the same impact, depending on the time period and the situation in which it is set: quality management memos based on evaluations and qualitative assessments do not have the same performative power, depending on whether they are issued upstream from the project in which design choices are still reversible or downstream at the time that the scale-one test is approaching. The same goes for *dispositifs*: prior to the door crisis, the Project L *dispositif* met all expectations. After the crisis, it was necessary to explain the entrenched causes that provoked it, which inevitably led to critical analysis of the *dispositif's* long-term effects on design practices.

More generally, *dispositifs* and elementary acts are intimately intertwined in a dynamic process in which the former are articulated to one another and produce decisions that alter reality and test the capacity of the *dispositif* to produce the adequate felicity conditions. I believe that the study of these situated performation processes is of theoretical and empirical importance for management research.

The fact that the quality control decision to postpone the sale of the vehicle produced such conflict at Renault was because the company's executive management had transformed the respect for commitment into something sacred – in terms of deadlines in particular –; that is, into an absolute principle that was not to be breached except in the event of force majeure. Everything happened as if, for the corporate managers, strategic discourses crystallized in the form of written commitments (the project contract) had a performative power in and of themselves.

It is possible that if fewer risks had been taken in the design of the lateral doors, the project might have been able to meet its objectives. That would have reinforced the executive management's illusion of the power of the logic of commitment and management through pressure, whereas we have shown that a loss of competences was insidiously at work due to the very fact of past strategic choices.

The study of elementary acts also allows us to challenge their expected hierarchy in terms of performation. In this sense, the example of the door crisis resolution through the intervention of a tool-maker demonstrates that, in a situation of crisis, a speech act based on qualitative assessments that are theoretically not very legitimate can have an

unexpected effect that is much more significant than acts of calculation or writing, which are in theory more legitimate in design situations today.

Lastly, the combined analysis of management *dispositifs* and these elementary acts allows us to study the felicity (or infelicity) conditions of these acts over the course of time, based on events and their sequence. Moreover, the analysis of elementary acts allows us to see how actors attempt to escape from the jaws of *dispositifs* by operating in zones of uncertainty or by circumventing the rules. Studying these disalignments between the *dispositif* and elementary acts allows us not only to identify failures in the design of the former, but also to identify resistance strategies when effects that are visibly too harmful for the actors are apparent.

Methodological recommendations

This framework of analysis seems relevant when it is possible to identify acts of language associated with dispositifs of which the conditions of success or failure can be studied without too much ambiguity. It is also useful when these acts of language are not isolated but are regularly reproduced over time, so that cases of success or failure can be identified and compared or put into perspective, and thus serve for a critical organizational analysis of   failures and shortcomings of management *dispositifs*.

In the case studied here, the criteria of success or failure of a project contract were established unequivocally, as were the subordinates' elementary acts of language. These acts of language were sufficiently iterated from one project to another for a critical analysis of the shortcomings of managerial devices and of their interactions with the elementary acts of language to be carried out.

This framework of analysis should however not be used to analyse the performativity of managerial statements that are too vague or ambiguous (such as "*our goal is to be a responsible and innovative business*"), or that look like an opinion or a prophecy, for which the performativity criteria are imprecise and/or where it is impossible to identify the managerial *dispositifs*. Rather than studying the performativity of managerial strategies defined too broadly, I recommend, where possible, to identify sufficiently limited managerial situations for this framework of analysis to be fully relevant and to serve an organizational inquiry.

CONCLUSION

The problematics of performativity propose a change in perspective. This approach does not consist in describing a reality considered to be already present; rather, it is about understanding how reality is produced by deliberate interventions. Yet the link between intervention and performativity is by no means automatic; on the contrary. This approach shifts our focus to the pragmatic conditions that allow performation processes to be constructed.

From this point of view, this article had three objectives. The first was to open up the field of research on performativity, which is structured around three dominant approaches (called Austinian, Callonian and Butlerian), to less well-known publications on acts of writing and calculation. I have shown the complementarity of speech acts, acts of writing and acts of calculation in organizations, as well as the usefulness of studying their interaction and their dynamics in the sequences in which they are articulated to produce certain effects.

The second objective was to put research on performativity into perspective with respect to other research trends in social science and organizations. Many recent articles emphasize the originality and contributions of performance to the renewal of organizational research (Gon, and al., 2015; Spicer, and al., 2009; Abrahamson, and al., 2016). Without minimizing the phenomenon, I believe that it is essential to discuss in depth the differences and complementarity between these publications and other approaches which, without explicitly referring to performativity, offer additional clarifications. In this sense, I have discussed research on performativity in relation to older traditions of research on the instrumentation of management on the one hand, and the Foucauldian concepts of *dispositif* and governmentality on the other.

This discussion has allowed me to propose a framework of analysis for performation processes in organizations, which combines three levels of analysis: first, on the elementary level and in the context of an inquiry in the field, it consists in selecting acts of language to study (speech acts, acts of calculation or acts of writing) which are often organized around instruments; second, it consists in studying how these elementary acts take on meaning with respect to the strategic *dispositifs* that delimit them and, by doing so, participate in the production of the felicity (or infelicity) conditions of these elementary acts; and third, it consists in putting the *dispositifs* studied into perspective in the more general context of a historical transformation of regimes of governmentality.

I then proposed a methodological approach consisting of five stages to implement this framework in the field research. I illustrated it with the case of a collaborative research project carried out over eighteen months, focused on a car project. The point of departure of this field research was a management situation and a strategic problem formulated by the organization. The first stage consisted in carrying out an inquiry among managers to analyse the strategic *dispositif*(s) implemented and improved over time by the organization, for specific purposes, and to identify key managerial statements to be studied. The second stage consisted in selecting the activities deemed to be critical, associated with the managerial statements studied, and in studying routine elementary acts of language in relation to these activities. The third stage aimed to identify situations of crisis or dysfunction in which acts of language failed to produce the expected effects. Here I described the symptoms of this crisis or these dysfunctions and traced back the sequence of elementary acts leading to them. The fourth stage consisted in analysing the failures of the *dispositif*; in other words, in highlighting the conditions of infelicity explaining failures in performation. It also consisted of establishing the consequences of this on an organizational, a managerial and individual level, by showing the hidden effects in terms of competence dynamics, suffering in the workplace, and individuals' identity. The fifth stage consisted in informing actors in the field of the finding of the research so as to share the results, produce an argument-based critique, and suggest lines of action and vigilance. Note that the order of these stages is not set in stone and may vary, depending on the course of the inquiry. If, for example, the researchers become involved after a crisis, it would be logical for them to start be describing the crisis and then to follow the threads of the analysis up to the sequence of critical elementary acts of language and the related management *dispositifs*.

The case studied illustrates the disalignments between management *dispositifs* – including managers' acts of language – and the operatives' elementary acts of language, as well as the negative effects of the former on the latter. From this example we can draw lessons for managers and

individuals. On a reflexive level, the analysis aims to emphasize the importance of the design of the *dispositif* as a central strategic activity that warrants attention to details and to their agencing. I encourage people to be more attentive to the invisible and long-term effects of the *dispositifs* that they design, and to acts of language that are liable to fail. On a critical level, this approach aims to help individuals to identify, in *dispositifs*, the mechanisms of subjectification that guide them, as well as the contradictory orders that may generate stress and suffering or even threaten their identity in the workplace. I suggest lines of reflection to ease the constraints weighing on their work and to avoid the escalation of commitments, a modern disease of organizations in their constant quest for better performance.

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