Scientists' come back: Manipulation as a way to gain back influence over the strategy of the firm

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Abstract:

The literature on participation to strategy processes examined the influence of middle managers but gave little importance to the influence of occupations. This is despite the fact that the literature on occupations underlines the influence of the latter on organizations. The paper examines this gap by considering the extreme case of a marginalized occupation: scientists in a large high technology French firm. It relies on a case study where after three R&D projects, scientists successfully convinced managers to give up on their aim to enter the automobile market. The paper shows how scientists do so by disrupting the beliefs of managers about the relevance of the expertise network that evaluates projects; by using the rhetoric of what they appointed as new stakeholders of the research agenda to defend their own goals; and by manipulating categories in a way that convinces managers that failure is due to the belonging of the partners to the automobile market, and not because of other possible reasons. Implications are examined for the strategy process literature and the literature on occupations.

Mots-clés : emergent strategy ; strategy process ; occupations ; power ; manipulation

Résumé

La littérature sur la participation aux processus de stratégie a examiné notamment le rôle et l'influence des middle managers. Cependant, la littérature sur les occupations montrent le rôle important de ces acteurs dans le processus stratégique. En partant d'un cas extrême, le cas des chercheurs marginalisé au sein des entreprises de haute technologie française, ce papier vise à mettre en évidence les mécanismes à travers lesquels ces acteurs parviennent à influencer la stratégie de leur entreprise. Il repose sur l'étude de la décision d'une de ces entreprises à entrer sur le marché de l'automobile en participant à des consortium de R&D. Suite à la participation à trois projets, les chercheurs parviennent à convaincre les managers d'abandonner cette orientation, en déployant trois types de tactiques : la reconfiguration du réseau d'expertise, l'usage de la rhétorique des occupations dominantes, ainsi que la manipulation des catégories d'évaluation du projet. Des implications pour la théorie des processus de stratégie et la théorie des occupations sont développées.

Scientists' come back: Logics' manipulation as a way to gain back influence over the strategy of the firm

1. INTRODUCTION

The literature on participation in organizations has examined how middle managers can influence the strategy of the firm through interactions taking place on a day-to-day basis (Vaara and Tienari 2010; Mantere and Vaara 2008; Mirabeau and Maguire 2013). This literature focused mainly on have been termed emergent strategies, that are patterned actions that are planned or not by top managers (Mintzberg 1978; Mirabeau and Maguire 2013). When other actors participate to the formation of these strategies, they succeed to do so either by discourse interventions in meetings (Vaara and Tienari 2010; Laine and Vaara 2007; Hardy and Thomas 2013), or through manipulations that transform projects into patterns of action (Mirabeau and Maguire 2013). In all cases, intervening actors seem to be organizational members that are not marginalized.

Indeed, research has shown that managers can produce what we will refer to as marginalized occupations. In the last years, symbolic actions such as censoring (Huising 2014) or exercising symbolic violence (Kamoche, Kannan, and Siebers 2014) allowed managers to reverse the power relationship residing between occupations and organizations (Abbott 1988). This led to the appropriation of expert knowledge, reducing thereby the dependence of organizations on particular individuals (Kamoche, Kannan, and Siebers 2014). Another mechanism of influence reduction is the increase in competition among occupational members (Dany, Louvel, and Valette 2011). Moreover, the increased control over these occupations was also coupled with a loss of legitimacy of expert practices that used to provide their discretionary power. As such, some occupations can be blamed for the bad performance of an organization (Huising 2014). This loss of legitimacy makes the intervention of such actors in processes of orientation negotiations on day-to-day basis more complicated. Yet, it is

still reasonable to make the hypothesis that they can still influence the emergent strategy of firms as it is difficult to totally abolish the discretionary power of occupations, especially since the it is reduced, the more they can negotiate over what is left for them (Contu and Willmott 2003).The question is to know how can they do it when they lost legitimacy and they experience an increased control over their work.

Scientists in high technology large French firms experienced this shift in legitimacy and influence in organizations. Indeed, starting from the 1980s and especially in the 1990s, with the liberalization of markets, they were blamed for the relatively poor performance of large French firms. Analysts describe the production of such firms as being preoccupied with technological "splendidness", and less with market concerns (Storper and Salais 1997). This resentment was shared not only by top managers, but also by policy makers that attempted to force even firms in the military industry to account more for costs, markets, and profits instead of what was perceived as a scientist concern, technology (Hancké 2002). This translated in the restructuring of many research departments in large French firms (Cohen, Decoster, and Tabaries 2002). ElectroCorp is one of these firms. Since the beginning of the 1990s, it undertook a wide range of measures that attempted to reduce the influence of scientists. This was coupled with a discourse that largely stigmatizes their expertise, considering that it does not account for today's economic challenges. Yet, our study shows that even in this firm, scientists succeed in orienting the research agenda; that is, what the firm decides to fund in order to build its future resources, and more generally, the type of partnerships that are perceived as beneficial for the firm. In the attempt to understand how marginalized actors can still influence the way a firm builds its future, this paper examines how these scientists succeeded to make the firm divert its attention from building a partnership with actors from the automobile industry after 10 years of trying to do so.

The paper shows how occupational members succeed in progressively transforming the perception of project failures with the automobile from a punctual failure with a particular partner to an impossibility to partner with automobile industry actors, by manipulating other occupations' rhetoric and tools. This takes the form of espousing the rhetoric of financial services, jurisdictional services or lobbyists indifferently, by turning them against each other, or by applying their tools to reach their goal. They succeed as such in stopping different projects, or making the firm reduce its investments by making them look like failures, and ultimately, allowed the interpretation of different failures in projects as a strategy mistake.

Our study contributes to the literature on participation that have largely focused on discursive strategies (Laine and Vaara 2007; Vaara and Tienari 2010) and meaning negotiation (Hardy and Thomas 2013; Thomas, Sargent, and Hardy 2011) by showing how the appropriation of an occupation the tools and rhetoric that are perceived as legitimate by managers can become a mechanism for participation. This in turn invites for the enlargement of studies on participation beyond middle managers to include the potential influence of other organizational members. Second, the paper shows that under circumstances where an occupation is de-legitimized, rhetoric is not tied anymore to the identity or logic of the occupation (Fine 1996; Suddaby and Greenwood 2005), but becomes a shield for individuals attempting to gain back influence over their work. Consequently, the study of rhetoric becomes a biased way of capturing occupational logics as in most studies these two elements are believed to be tied. Third, it contributes to the debate on power and control of occupations in organizations by showing that despite attempts to silence an occupational interest, the latter can reappear "dressed" in another way, but still consisting of the same logic.

The paper is structured as follows. First, the theoretical background on participation to strategy processes is set, and the case for emergence of tools intending to discipline certain occupations is set. The methods part describes the empirical setting of the case used to examine the theoretical question, as well as the data collection and analysis. The findings part further develops the argument and illustrates it. The lasts sections are a discussion of the literature and a conclusion.

2. THEORETICAL BACKGROUND

2.1. THE ISSUE OF PARTICIPATION IN FIRMS

An emergent strategy is a pattern of actions that the firm follows and that is not necessarily intended by top managers (Mintzberg 1978; Mirabeau and Maguire 2013). The concept accounts for the fact that firms are arenas (Mintzberg 1985) where even actors who are not designated to participate to the decisions related to the becoming of the firm, attempt to do so. The issue of participation then becomes important to understand how these patterns are emerging. Who is initiating them and how?

Studies on participation to emergent strategy have mainly focused on middle managers' capacity to influence firms' agendas (Dutton et al. 2002; Dutton et al. 1997), construction of meaning (Thomas, Sargent, and Hardy 2011), discourse (Vaara and Tienari 2010), or roles

(Mantere and Vaara 2008). Actors can also help frame how managerial decisions should be interpreted (Kaplan 2008; Eggers and Kaplan 2013), or how work should be organized to reach some stated goals (Obstfeld 2012), making the firm move progressively towards a new way of doing that was not decided by top managers.

However, these studies rarely examined how occupations influence strategy (for an exception, see Laine and Vaara 2007). This is surprising because on the other hand, studies on occupations permanently underline the tensions between organizational goals and occupatmional logics, as well as attempts to accommodate for the latter (Abbott 1988; Ackroyd 1996; Anteby, Chan, and Dibenigno 2015). According to this literature, it should then be expected that occupational members can participate to the strategy process, that is, the process through which a pattern of decision emerges or is stopped.

2.2. IS THERE STILL SPACE FOR MARGINALIZED OCCUPATIONS?

According to the literature examining occupation's influence on organizations, it appears that the latter comes from their discretionary power (Contu and Willmott 2003), or from grey zones in the firm (Anteby 2008).

These however can be limited in the case of marginalized occupations as it is possible to reduce the influence of an occupation by design through acts such as pushing competition among members (Dany, Louvel, and Valette 2011), blaming them for bad performance (Huising 2015), or exercising symbolic violence (Kamoche, Kannan, and Siebers 2014). Even authors examining the influence of middle managers would agree that designing roles and their attributes is an important step to know the extent to which middle managers will be able to intervene in the strategy process (Mantere 2008).

Theoretically then, we would expect that if firms intend to marginalize an occupation, they will succeed in reducing their influence over patterns of action, or what we called emergent strategies. This is however contradicting with our empirical results. The question is then to understand how marginalized actors succeed in influencing the strategy of the firm?

3. METHODS

In the attempt to understand how marginalized occupations attempt and succeed to influence strategic decisions, this paper relies on an in-depth case study, ElectroCorp. ElectroCorp was

selected among four case studies conducted in a larger study because it is a case where scientists experienced successive attempts to "discipline" their behavior - in managers' words - but still, it was possible to observe how they subtly reorient a strategic decision: indeed, the firm aimed to enter the automobile market, and after three successive R&D projects that were supposed to help it build knowledge and convince potential buyers, it gave up the idea of entering this industry. The study traces the process through which this decision changed. In this section, the case, as well as the data collection and analysis methods will be presented.

3.1. PRESENTATION OF THE CASE

ElectroCorp is a multinational company specialized in electronics. It is considered an innovative firm by journalists, counting 53,000 employees around the world and spending about 5% of its net sales on R&D. Historically, its main client has been the French army; it mainly sells electronics components for security, telecommunications, and airplanes. Changes in the firm's environment can help to explain why it joined an R&D consortium that was initially considered to be strategic, though the firm ended up disinvesting from this project later.

The military industry in France was restructured at the end of the Cold War, and this movement greatly affected ElectroCorp. First, firms supplying the Ministry of Defense were expected to rationalize their activities by cutting costs. This was ensured by hiring the former CEO of an automobile company as the head of the unit that issued orders for the army in the 1990s. His unit ensured that firms supplying the French government were making considerable efforts to cut costs. Second, research activities were greatly affected by this movement, as scientists were criticized for activities disconnected from market considerations. While most firms adopted a linkage model (Varma, 1995), through which marketing departments gained greater influence over the research agenda of the firm, ElectroCorp went so far as to close its historical research center, reduce the number of its scientists (Cohen, Decoster, and Tabaries 2002), and replace their activities with R&D departments belonging to business units. According to one of the firm's top managers, "this was to ensure that research stopped acting like a state within the state and got disciplined by marketing departments". The domination of market rationale over scientific rationale was further assured through a number of measures such as tying budgets to market needs, creating new evaluation procedures, and controlling recruitment. This was coupled with a speech

stigmatizing the expertise of scientists. Table 1 illustrates how the speech about the need of their expertise is coupled with blames about their ethos and organizational measures that intend to limit their influence.

Table 1. The managerial blames to scientists' logic

	The managerial blames of scientists' ethos	**Organizational design to limit their influence**	**The need of scientists' expertise**
ElectroCorp	**Technological toys** "When you belong to a firm that has some history in contributing to the production of technological jewels that remain on your shelves , you know that you should worry about what scientists tell you that the firm should research" (Manager of technological strategy) **Public Service** "Some scientists believe that we can afford to do public service, that it, do science to increase the knowledge of society without	**Restructuring of research activities** "Before we used to have a central research center that is the brain of the firm. They kind of decide what others should be working on. Now it is totally different. We literally broke this structure. Even the buildings do not exist anymore. We have small offices dedicated for a few scientists in one of our buildings. The others now work in business divisions" (Manager of technological strategy) **Cut in budgets**	**Feasibility** "Our procedure for selecting research projects associates closely scientists. We need their opinion on feasibility issues. IT will be fool to completely exclude them just because they like technological toys. It is your job as a manager to sort their arguments and figure out when to follow them or not" (Manager of a division) **Implementation** "The entire implementation phase relies on scientists. Of course,

	worrying much about the returns for the firm" (Manager of technological strategy) **Community belonging** "Scientists sometimes prefer to publish and enhance their reputation instead of worrying about what is good for the firm" (Manager of a division) **Ivory tower** "This is probably the occupation where you find most solitary people. Sometimes I feel like they don't really care about what is going on around them. They have their idea, they live in their ivory tower, and dig in one direction no matter what	"We moved from a research center with 2000 scientists to one with about 250. Budgets were also considerably reduced. Now we use clients' demands more and more to fund new technologies" (Manager of technological strategy) **Redefinition in scientists' organizational goals** "If we have an ongoing project with a client waiting, I would expect everyone to be contributing to the success of the project. I don't tolerate people telling me 'I am working on my own research project'. This should be left for times where	project managers should be good here. But they are not the ones doing the technical work. They should be good at motivating the team to do the work properly. Otherwise, your decisions can not be implemented". (Manager of a division) **Prestige of an innovative firm** "It is simple. When you open our annual report, we put the number of publications, patents, conferences our scientists went to, and other related information to show that we really worry about thinking the future in a very innovative firm. In some international rankings, we are considered as a very

	happens" (Manager of a division)	activity is low. Scientists are evaluated on their capacity to contribute to the divisions' economic life" (Manager of a division) **Increased reliance on academic research** "In a way, today, a large part of our research activity is done by academics. We don't need scientists to do what we used to do. We need them to make sure that others are doing this for us" (Manager of technological strategy)	innovative firm. What our scientists do allow us to prove it."

Starting the end of the 1990s, a third tendency was observed in the French military industry in general, and in ElectroCorp in particular. Following debates on the "civilization of the military industry" – an indigenous expression that designates the push to make the

industry abide by the same rules of competition as civilian industries – at the European level, French companies were pushed to enter new markets in order to ensure their survival if the military market was to be liberalized (Dumez and Jeunemaître, 1999). It is in this context that in 2005, ElectroCorp joined an R&D consortium that sought to produce a simulation platform to be used by the automobile industry.

In 2005, the French government introduced a public policy that encouraged the creation of R&D consortia among actors in the same territory. It was an occasion for ElectroCorp's top managers to engage in relations with actors from the automobile industry – an industry recommended to them by consultants, as it was believed that the amount of electronics in cars would continuously increase and that there was space for new actors in this domain. The project in which ElectroCorp participated was defined jointly with other partners at top-level management. The project's goal was to develop a simulation platform that would reduce the cost of an existing platform while maintaining state-of-the-art performance. This was of particular interest both to members of the automobile industry, who couldn't afford existing platforms, and to ElectroCorp's second in command, who viewed the preparation of the company for an "era of competition" as his main mission. The group's top manager in charge of Research and Technology thought that the project in question would facilitate an entrance into the automobile market. In particular, he thought that by partnering on an R&D project, his teams would be able to learn ways of reducing costs, to discover the electronics and software needs of automobile makers, and to show the firm's competencies to potential clients. He delegated the project to the telecommunications division, which had already mastered the development and use of such a platform and which had some experience with civilian market actors. ElectroCorp planned to use its experience with such platforms in order to help create the new platform; in exchange, ElectroCorp would gain access to the cheaper platform and would learn the needs and the trade secrets of the automobile industry. The group's top manager in charge of Research and Technology thought that the project in question would facilitate an entrance into the automobile market. In particular, he thought that by partnering on an R&D project, his teams would be able to learn ways of reducing costs, to discover the electronics and software needs of automobile makers, and to show the firm's competencies to potential clients.In this sense, the project was very strategic, as it was believed to help build knowledge that would be essential for the firm's survival in the future. Top managers believed that because ElectroCorp was not central to the consortium (they contributed two full-time scientists in addition to the project manager), it would be able to

avoid conflicts with partners and build very good relations with the market's actors in addition to acquiring strategic skills. Yet, six months later, ElectroCorp declared to the consortium partners that it would reduce its investments in the project. In particular, they reduced the scientists' working time. In parallel, it set a new project with the competitor of its existing partner thinking that their difference in culture will make a difference for the potential success of their partnership with an actor of the automobile industry. Three months later, ElectroCorp announces that it would rather not go further on this project and stops its participation. The managers argue that their most promising entry point to the automobile market would rather be a specialist in electronic equipment that can understand their technical expertise. They constructed a new partnership, and disinvested once again 12 months later. After this project, managers announced that the automobile is not a good market to enter, and that they should think about an alternative to enter the civilian market.

The goal of the study was to establish the mechanisms that explain the change in the ElectroCorp managers' orientation. More specifically, the aim was to understand how the first project went from being the firm's priority to a marginalized project, both in terms of resource allocation and in terms of perceived importance for the firm's overall strategy, and how, after believing in the automobile market for more than 6 years, they later decided that this is not a good strategy. This is where scientists' capacity to influence firms' policies despite their marginalized professional ethos appeared to be important, which gives reason to why their personal characteristics and their interactions with different managers were further examined.

3.2. DATA COLLECTION

The study was conducted between 2006 and 2009, and relied on qualitative data. Three main sources of data were used: semi-structured interviews that lasted an average of one and a half hours, documents (project proposals, project evaluations produced by public authorities, PowerPoint presentations, etc.), and non-participant observations of periodic consortium meetings.

The first step of the larger study was to find changes in the consortium's decisions. For this, the author obtained authorization from firm partners to attend "follow-up meetings", where subsidized actors presented the state of their project's advancement to government evaluators in order to receive funding for their expenditures. These meetings were the occasion for participants to specify changes in the project, including the change in the

architecture of partnerships, the cancellation of working packages, and the reorientation of research. Once these changes were observed, further investigations were conducted in order to establish the processes that produced them. In particular, experts working for public authorities were interviewed for their opinion on potential reasons for these changes. When the latter believed that changes were not due to technological "trajectories", researchers examined the inter- and intra-organizational dynamics that led to the decision. This is how the case of ElectroCorp was identified within the automobile consortium.

In order to understand the dynamic of cooperation at the consortium level, interviews started with project managers of different organizations participating in consortia. Project managers were the entry point because they participated in feedback meetings. They were first interviewed about the origins of the project, with questions about the origin of the idea for the research topic, whether it was transformed in order to get accepted by managers when they were not at the origin of the project, how partners were chosen, what role they played in the project, who within their organization participated in the project, how they exchanged with partners and intra-organizational actors, what the content of their exchanges was, etc. These were typical questions, but further questions were asked as interviewees gave information. At a later stage, these actors became important in understanding how their organizations changed positions. They referred, for instance, to their scientists' claims of feasibility or their lawyers' concerns. Starting from these interviews, a *snowballing* technique was adopted to identify other inter- and intra-organizational actors who influenced the process.

In addition to the project manager, interviews at ElectroCorp included managers at the business unit level, department managers, scientists, and lawyers. These actors were invited to explain the interactions they had with one another and to give details about the sequence of events that led to the cut in investments at ElectroCorp. They were interviewed about their daily activities on the project, the exchanges they had with other actors, the parallel activities they had outside the life of the project, the personal expectations they had for the project, and so on.

In total, this paper draws on 21 semi-structured 90-minute interviews with 10 different people. Informal interactions with these actors during meetings or general assemblies allowed researchers to identify the right moments to interview key persons. The paper also uses contextual elements from a larger study that includes 112 semi-structured interviews on the four consortia as well as the public policy mentioned above.

Other sources were used in addition to interviews. Representatives of public authorities offered comments on the relevance of the partnership and provided their evaluation reports on the projects studied, giving researchers access to expert evaluations of the projects, their relevance to the ongoing scientific debate, and their potential market impact. These reports included comments on whether the gathered partners were the best-recognized actors on the topics studied (in terms of perceived reputation), whether there was a potential partner that was surprisingly absent from the consortium, whether the expert believed the research topic was promising to satisfy existing market needs, and whether the topic in question contributed to an ongoing scientific debate. This was of use in discussions with organizational actors concerning the relevance of their arguments regarding the market, science, or their partnerships in general. Other documents such as PowerPoint presentations were also gathered from actors participating in meetings and those who mentioned these documents during interviews.

3.3. DATA ANALYSIS

The first step in the data analysis was to restitute the process through which the decision to enter the automobile market was reverted (Langley 1999). For this, various techniques were used to control for biases. First, interviews with actors were mainly based on their activities and their own expectations rather than on their interpretations or analyses of a situation. Second, interviewees were asked to describe the same events so that interviews could be *cross-verified*. When relevant, interviews were *triangulated* with documents and meeting notes. This ensured that events could be established as accurately as possible in a chronological order (Yin, 2009).

The second step intended at labelling the events in a way that sheds light on the tactics used by marginalized occupations. In particular, we attempt to understand this through the tension between the identity/rhetoric frame that arises in this particular context as, as it was shown in table 1, we observed that the rhetoric that reflects the identity of scientists is itself blamed and can't be used even to respond to organizational needs such as giving an opinion on the feasibility of a project. So the question was then to understand how these actors "justify the work" they believe they should do? To explain the mechanisms through which this is made possible, the paper draws on the literature in political science where authors

attempted to understand how actors attempted to change authoritarian systems through small acts such as petitioning (Straughn 2005) or using a specific rhetoric which is compatible with the dominant logic (Straughn 2009). As such, acts of "borrowing the logic of lawyers" during meetings or "using tools of financial services" to prove their point were identified. Moreover, concepts of manipulation of categories (Callon 1986) and more generally, translation processes (Latour 2005) were identified to show how progressively, scientists succeed in making managers believe that the projects are failing because the particular partner is not appropriate, to the idea that the more general category of the partner – i.e. being an automobile actor – is to be blamed for failure. Overall, we argue that scientists manipulate other occupations' rhetoric to constitute chains for translation (Latour 2005) that make managers switch from a strategic orientation. The findings are detailed in the next section.

4. FINDINGS

In this section, we will illustrate the process through which the strategy of the firm was reverted. It should first be noted that the automobile projects were in a sense "not welcomed" by scientists for different reasons. Some considered they were a threat to their personal careers.

> "I didn't know if it was the after-dissertation effect, but I was not sure to enjoy the topic. I was thinking about my supervisor and had his voice telling me: 'do you seriously think that you can publish on a cost-reduction problem? Use your time in a smart way'[...]" (Junior Scientist)

Others were more concerned about the relevance of the strategy of the firm as they believed that they could contribute more efficiently elsewhere.

> "If we spend our time working on such projects, we will be wasting a precious time that we need to keep our leadership in the telecommunication industry." (Senior Scientist)

In all cases, what matters for this paper is that from a scientists' perspective, this orientation should not persist as it is not compatible with their technological know-how.

> "I could imagine that the technologies used in the civilian industries wouldn't be as advanced as the ones used in the military industry, but very honestly, I couldn't believe that people could still do business with such old technologies." (Senior Scientist)

As it will be shown, scientists will be the main actors to push to change this strategy orientation, and they succeed.

We will show that for this, scientists need to create negotiation opportunities in organizations. To do so, they shock existing beliefs about the expertise network by invoking new actors. Once these opportunities are created, it will be argued that scientists' winning tactic is a rhetorical manipulation that aims at reconfiguring the expertise network around the research agenda of the firm by generalizing, narrowing down, or transforming the claims of other experts. This allows them to revert a decision. A work of manipulating categories that intends to prove that projects with different actors of the automobile industry fail because of their belonging to this industry is what ultimately changes the strategic orientation.

4.1. REARRANGING THE EXPERTISE NETWORK TO CREATE NEGOTIATION OPPORTUNITIES

The expertise network (Eyal 2013) is the set of experts gathered to deliberate on the research agenda of the firm, that is, what the firm formally supports as being strategic for its future. As mentioned earlier, managers in ElectroCorp relied on the "go-no go" process of arbitrage where the marketing department and scientists debated over the value of a proposal. Under this process, it is assumed that the value of a proposal lies somewhere between the market principals underlying the marketing department's work logic and the scientists' work logic (for a description of the principals underlying this process, see Gastaldi and Midler 2005), even though, in most cases, in practice, the latter was undermined.

> "If you want to get your project approved, it is better to convince the marketing department before you arrive to the meeting, otherwise, they will veto it for sure. They need to get time to check that the market potential your research orientation is promising really exists in a way." (Senior scientist at ElectroCorp)

On the first project, during the first follow up meeting with managers, scientists attempted to rearrange the expertise network relevant to judge the value of the debated project by introducing a legitimate new work logic that challenges the duality of science versus market rationales, thereby disturbing the existing arrangement. In particular, they first raised the issue of contracts as being a real threat for them to reach the set goals of the project, that is, to learn about the needs of the automobile industry.

> "[Senior scientist] reported that lawyers were concerned that it is particularly difficult to find agreements with automobile actors because they don't share with their

> counterparts the same definitions and routines of writing contracts. This means that they can't get the partners to talk openly about their needs." (Division manager, talking about what happened in the meeting)

As such, scientists accepted to give up on their own jurisdictions. They accepted to follow the rhythm of contract negotiations instead of respecting the technological timetable, and gave up on their right to reorient the project by reducing their contribution to responses to orientations set by partners and the project manager.

> "Usually, when we have contract issues, scientists can help find a solution. They keep working on the project. On this project, they are objecting that contract negotiations are conflicting and it is therefore dangerous to exchange with partners under these conditions. But contract negotiations are always conflicting [...] At the end, they decided that they will only react to issues raised by partners. The problem with such behavior is that you cannot seduce a potential client if they do this." (Project Manager, ElectroCorp)

In this case, even though the project manager approved their point about the difficulties faced on the jurisdictional level, he contested the need to account for this in the evaluation on the basis that contract matters can be solved with time and should not threaten the life of the project. To make their point more salient, scientists used the financial service's cost/benefit tool during the metting, a matter which is also not that frequent as the division manager recognizes.

> "Until now, we thought our projects in term of existing markets. But at times where investments become rare, it is true that we should start to think in terms of returns on investment. So which one of these projects is the most beneficial?" (Division Manager)
>
> "Some firms already integrate to the meetings delegate of their financial services. This is what we ask for. It is different to say the project is interesting because it has a market impact rather than to say that it is interesting because it has high expected returns." (manager of the financial service)

Here, scientists attempt to reduce the impact of their opponents by accepting to collectively share the control over the agenda of the firm with the financial service in a temporary way. This means that they introduce new actors that can challenge their opponent, but also that can challenge them in the future.

> "It is true that if we have particular contract problems on this type of partnership, it should be taken into consideration before we build other partnerships of the same type" (Division manager)

Overall, scientists attempted to rearrange the network of expertise in charge of valuing the worth of projects by invoking potential rivals to their opponents and making them stakeholders of the research agenda, giving up thereby on their own jurisdiction. In all cases, the goal is to rearrange the expertise network in a way that disturbs the procedure followed by managers, thereby producing the loosening of existing arrangements and the opening necessary for negotiations. They thereby succeed in shaking the beliefs of managers about the suitability of the arbitrage process for judging the cases at hand and in making openings, or negotiation opportunities (Thomas et al 2011), for exchanging around the research agenda.

4.2. RHETORICAL MANIPULATION

Rhetorical manipulation is a discursive tactic through which actors attempt to defend an idea. Usually, it can be a marker of their identity (Fine 1996). However, it happens that actors manipulate rhetoric in situations where there is a dominant ideology that should not be contested, while actors would like to accommodate for some ideas or personal interests (Straughn 2005). As mentioned earlier, in the studied projects, scientists were more likely to influence the agenda of the firm when they identified outsiders to the decision-making process. These should have a work rhetoric (Suddaby and Greenwood 2005) that is considered as appropriate in the organization, and should feel concerned by the process, even if not to the same degree as scientists. After invoking actors to shake the beliefs of managers about who is legitimate to decide for the value of a given project, scientists also manipulated their rhetoric as it will be shown.

During the follow up meeting of the first project, not only did scientists invoke lawyers, but they also narrowed down what can be considered as a more general occupational claim. In other words, lawyers defend generally the relevance of their participation to project evaluations, and not only to the specific case of projects related to automobile actors.

> "We keep repeating to scientists that contracts are important to protect their competences. On this project, they played the game, but this should be how it functions in general." (Lawyer, ElectroCorp)

Instead, scientists relate with them only to talk about a particular type of projects, those that associate automobile actors.

> "[Senior scientist] reported that lawyers were concerned that it is particularly difficult to find agreements with automobile actors because they don't share with their counterparts the same definitions and routines of writing contracts" (Division manager, ElectroCorp)

To the opposite, scientists also generalized the financial services' occupational claim to make it relevant to this particular case.

> "Scientists argued that the costs were more important than the benefits for this project because we usually say that it is not because there is a potential market that we will make considerable profits. They used this logic against the marketing department on this project. The fact is that I am not sure it really works in this case. There is a lot of risk associated with the project. Risk is however not a cost. So it is a little bit tricky and it requires that we look into the details of the project to be able to say whether they are right or not" (financial officer).

These rhetoric manipulations help scientists explain to managers why on the first project, they should reduce their investments. Overall, they argued that the automobile constructor with whom they are working had a firm culture that makes the negotiation of contracts difficult.

> "Of course, you can't tell the managers that their idea about entering the automobile market is not realistic because you tried to work on a project that is running late. From your position, you can say that it is not realistic to work with this particular partner, and you provide explanations that are related to your case." (Senior Scientist)

However, it became easier for scientists to build a "case" against automobile constructors when the second project followed a similar pattern: lawyers conflicted with their counterparts about the way to right contracts. They in turn asked scientists to reduce their interactions with their counterparts, the matter that caused the second project to run late as well. Managers investigating the reasons for this got the same answers as for the first project from scientists.

> "Scientists explained that partners were being unrealistic with their demands: They didn't want to hear about our constraints related to the military market concerning confidentiality on certain technologies. So here it became clear for us that constructors cannot understand the specificities of our job or the challenges of the technology more

> specifically. Well one of the scientists told us on the second project that he thinks it is the entire automobile market but we couldn't believe this at this level. We only had the proof that constructors act in a similar way. I was convinced by what [Senior Scientist] said about the fact that constructors lost the electronic competencies a long time ago, and that it might be better to turn to firms that still work on electronic devices. This is where the idea of building a new partnership came from." (Division Manager)

It should be noted at this point that the project manager running both projects was against the idea of disinvesting or reducing the participation to these projects, so was the marketing department.

> "The problem is us. We have been trying to talk to actors from the automobile market for ten years now. We do not want to seriously put energy and resources to learn how to do things differently. We think that if we do them differently, they are not good anymore." (Project Manager)
>
> "We have market studies on electronics in the automobile sector that show that there is a great opportunity here to enter a market that will grow in the future. You know, with cars that should park on their own or drive on their own, you need radars, ships and things that we normally master very well." (Manager in the marketing department)

Overall, scientists succeed to convince managers despite having project managers and the marketing department against their idea of disinvesting, and despite the fact that lawyers and the financial services were not present at the meeting. During the entire process, scientists never used their own expertise to defend their arguments. They for instance never spoke about the trends of science implying that research topics suggested by automobile actors shouldn't be of interests. They didn't talk neither about the difficulties individuals specialized in enhancing performance have to reduce cost. They only spoke in the name of legitimate experts such as lawyers or financial services, attempting to destabilize the local order. In that sense, they politically use the expertise of other legitimate actors to achieve their ends.

4.3. MANIPULATING CATEGORIES

In addition, scientists succeeded in transforming isolated separate partnerships into one general category related to partnering with actors from the automobile industry. To make sure, a partner can be described as a "big" firm, a "family" owned firm, a firm specialized on something, or a firm with a given nationality. Virtually, the attributes that can be given to a

firm can be infinite. Manipulating categories is a tactic through which an actor succeeds in making others believe that the most important characteristic to the issue at hand is one that she or he can determine (Callon 1986; Latour 2005). Consequently, a failure can be explained as a consequence of any of these attributes. Scientists however succeeded in reducing the attributes of three different partners to the one related to the fact that they operate on the automobile market, and made out of this characteristic the principal cause for their failure.

> "It was the juridical problem that helped understand that what was problematic to all of these projects was the automobile market. This is because when they negotiate contracts, they start talking about how the competition was harsh for them and not for us, and how we should be helping them instead of asking them to help us. It was as if we were the charity because the government was one of our clients. This was a shared conception in the automobile industry." (Scientist working on the second and the third project)

Lawyers who were complaining about partners did not make themselves this connection.

> "Well, negotiating contracts is about making the opponent accept to give you what you want. In this way, these partners had nothing special. What was surprising for us was that even if they just say what will be their need in the future, they want to share with you your result under the excuse that you will have not done this did they not tell you what they needed. Yes, but in our field, if you don't participate to the prototype, you can't share a patent. So this is where they were special." (Lawyer)

In fact, the connection itself is not evident because if the speech of top managers justifying the partnership at the beginning was compared to the one they had to withdraw from such types of partnerships, incoherence can be seen. Indeed, at the beginning managers underlined the fact that they wanted to learn ways of doing from the automobile industry.

> "The goal is to learn how the automobile market works, what are the expectations of large players, how can we help them solve their technological challenges, and eventually convince them to become our clients." (One of the top managers who arranged the partnership at ElectroCorp, speech at a general assembly)

This means that they were open to do things differently. However, the same manager explained to a government representative that, "it is impossible to work for automobile actors because they believe that everyone should work their way, and that they know how to be competitive on the market, while we are sort of "fils à papa", spoiled by government

spending" (Evaluator for the French Government of automobile projects). When interviewed about these projects, a top manager at one of the two automobile constructor firms said:

> "Well, they told us we want to learn from you, and then they came to explain to us how we should work with them, how we should write contracts, and how we should interact. To be honest to you, we don't have time to waste on discussing these issues with them. The automobile market has its conventions, and they are the same all over the world. It is useless to have such discussions. They either play by these rules, or they stop wasting our time." (Top Manager, Constructor Firm, partner on project 2).

Overall, the company switches from its strategy for no apparent external reason. Nothing changed to its environment, neither should we consider that it was surprised that automobile actors have different ways of working. Scientists' manipulations to first invoke new actors and point them as relevant to judge these projects, then to use their rhetoric to show why these projects should not be considered as important to the firm, and then, to orient the reasons of the failure on partners and getting attention away from internal problems explain how this occurred. In fact, competing firms to ElectroCorp could enter the automobile market, and it shouldn't be considered that the two industries have incompatible conventions and routines. The only difference is in the profiles that competing firms recruit to conduct research and development activities, scientists' at ElectroCorp being those that are the most passionate about "state-of-the-art technologies".

5. DISCUSSION

This paper has shown how an occupation which should have been marginalized because of the symbolic violence it endures as well as the structural arrangements in place succeeds in influencing the strategy orientation of a firm. This was done by shaking the beliefs of managers about legitimate actors who should participate to the evaluation of these ongoing projects, by using the rhetoric of these new stakeholders of the research agenda, and by making managers believe that the problem of these projects comes from the very fact that partners operate on the automobile market, while this was not an issue to their competitors. Our study has three implications.

First, it contributes to the literature on participation to emergent strategies. While this literature focused on discursive strategies (Laine and Vaara 2007; Vaara and Tienari 2010), language (Mantere 2008) and meaning negotiation (Hardy and Thomas 2013; Thomas,

Sargent, and Hardy 2011), the paper complements these studies by showing how the appropriation of an occupation the tools and rhetoric that are perceived as legitimate by managers can become a mechanism for participation.

Moreover, showing that even marginalized occupations can influence strategy, invites for the enlargement of studies on participation beyond middle managers to include the potential influence of other organizational members.

Also, it shows how change can occur incrementally without changes in the environment (Dutton et al. 2002; Kaplan 2008). Indeed, scientists seized an internal situation whereby some actors could have been invited to the arbitrage meeting sooner or later, or not at all. By doing so, they disturbed the beliefs of managers and created the uncertainty favorable for change (Kaplan 2008), where it did not exist.

In addition, the case shows how structural arrangements and texts that distribute roles in firms (Mantere 2008) are not a fatality. Actors can still build themselves a different role by borrowing momentarily the tools and rhetoric of other occupations.

Consequently, our study shows the importance of following the change to trace back the actors that carried, reoriented, or influenced original decisions. This is compatible with studies adopting a political approach and looking at changes as generated by sort of invisible social movements inside firms (Obstfeld 2012).

Second, the paper shows that under circumstances where an occupation is de-legitimized, rhetoric is not tied anymore to the identity or logic of the occupation (Fine 1996; Suddaby and Greenwood 2005). In the case of scientists, it would have induced us into an error to consider that they espouse a jurisdictional or a financial logic while they are the ones who on other occasions reject to hear arguments structured along this vain, considering that the formal process do not allow these actors to speak for the research agenda of the firm. In other words, rhetoric can become a shield for individuals attempting to gain back influence over their work, or lifes more generally (Straughn 2005) without exhibiting who they really are. Consequently, the study of rhetoric becomes a biased way of capturing occupational logics as it is done in most studies (Suddaby and Greenwood 2005).

Third, the paper contributes to the debate on power and control of occupations in organizations by showing that despite multiple managerial attempts to silence an occupational interest, the latter can reappear “dressed” in another way, but still consisting of the same

logic. As such, scientists speak like lawyers or financial services, but still defend an idea according to which a project that does not fit with their scientific logic should be stopped. The speech on an increased control in organizations (Fleming 2013; Kamoche, Kannan, and Siebers 2014; Cooke 2006) should consequently be tuned down. It is certain that actors do not explicitly voice their concerns, but even when set to become marginal, they can still succeed in attaining their objectives.

6. CONCLUSION

This paper was dedicated to understanding how occupations that are marginalized by managers - that is, blamed for bad results and structured in a way that reduces their influence – still succeed in influencing the research agenda. Manipulation of the expertise network as well as of other legitimate occupational rhetoric, altogether with the transformation of isolated failures into a major one related to the fact that partners belong to the automobile industry, explains how scientists convinced managers of their firm to divert from their attempts to enter the automobile industry.

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