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The making of the management accountant – Becoming the producer of truthful knowledge

Caroline Lambert [a,*], Eric Pezet [b]

[a] Accounting and Management Control Department, HEC School of Management, Paris 1, rue de la Liberation, 78351 Jouy-en-Josas Cedex, France
[b] Université Paris Ouest Nanterre La Défense, Ceros, UFR Segmi, 200, avenue de la République, 92001 Nanterre Cedex, France

ABSTRACT

In this paper, we analyse the practices through which the management accountant is constructed as a knowing subject and becomes a producer of truthful knowledge. We draw on a case study of an automobile equipment manufacturer in which management accountants play a central role. The centrality of their role is evidenced, among other aspects, by their participation in online reverse auctions, wherein they commit themselves and their company to long-term projects. This commitment is constitutive of their identity as knowing subjects and organisational truth tellers. However, the "validity" of the truth they produce can only be assessed over time. We argue that, in this firm, monthly performance review meetings constitute "accounting trials of truth" during which peers and senior management cross-examine the accounting truth presented. Preparations for these trials of truth constitute a form of subjectivation whereby management accountants act on their ways of being in the firm and become the producers of truthful knowledge.

Introduction

Accounting norms and controls are imposed on firms by stock market watchdogs on behalf of shareholders (Ezzamel, Willmott, & Worthington, 2008), by public authorities (Power, 1997), and by clients (Ezzamel, Hoskin, & Macve, 1990; Vaivio, 1999). In such a context, accounting systems are perceived as systems designed to produce transparency, and *fair or truthful* data about the firm. Previous research has shown that there is no universal, eternal or disinterested truth that emerges from the work of accounting (Burchell, Clubb, Hopwood, Hugues, & Nahapiet, 1980). From a Foucauldian perspective, truth is only revealed in certain places, it can only be told or formulated by qualified subjects, and it presupposes an interplay of power relationships. It relies on subjectivation—the making of the subject—which is a process whereby the subject is led to observe himself, to analyse himself, to decipher himself, and to recognise himself as a potential domain of knowledge (Foucault, 1994a, p. 633). Research has shown that surveillance can constitute one mode of subjectivation (Covaleski, Dirsmith, Heian, & Samuel, 1998). Roberts, Sanderson, Barker, and Hendry (2006) describe processes of executive subjectivation that combine anticipatory self-discipline practices and face-to-face meetings. Programmatic ideals also play a significant role in the subjectivation process (Ezzamel & Burns, 2005; Vaivio, 1999).

In this paper, we set out to understand other aspects of the process of subjectivation. More precisely, we examine organizational mechanisms and practices for acting on the self as the producer of truthful knowledge. Our paper draws on an in-depth case study of a French automobile equipment manufacturer that is quite unique in its context. Here we call this firm Equipauto. Typically in France, and notably in the French automobile industry, engineers constitute an elite (Lane, 1995; Levy-Leboyer, 1979; Porter, 1995) whereas management accountants are not organised into a profession and suffer from a relatively low status

* Corresponding author.
E-mail addresses: lambert@hec.fr (C. Lambert), eric.pezet@u-paris10.fr (E. Pezet).

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(Lambert, 2005). Yet in spite of this fact, our case study relates how and why management accountants at Equipauto have been made the official producers of truthful knowledge. In this paper, we argue that a firm that can be described as accounting-centric needs to construct its agents in order to maintain accounting as the dominant order. We show that this construction requires management accountants to undergo a complex process of socialisation and of work on the self. We describe how, on being hired, management accountants are selected and required by oath to enforce administrative and financial rules. Regular practices, such as their participation in online reverse auctions and reporting meetings, affirm the role they are expected to play and the ideal they should pursue: to become the producers of truthful knowledge about the firm. During online reverse auctions, management accountants are requested to declare openly how far future margins can be cut. The bidding price is set in stone once the auction is concluded, but the true quality of the management accountant's decision only becomes apparent over time as it comes under scrutiny during subsequent monthly performance review meetings. Since they are held accountable for results, management accountants must work on themselves in several ways. Consequently, they establish accounting metrics at every stage of the production process, not only to dictate the conduct of operational managers but also to guide their own conduct. Armed with such calculations, management accountants acquire power/knowledge enabling them to construct the governing accounting discourse about the firm. However, in everyday practice, they face the dilemma of deciding on the extent to which they seek to influence operational managers.

Management accountants' expertise and the appropriateness of their decisions are regularly challenged during monthly performance review meetings throughout the manufacturing process. We argue that the main thrust of the subjectivation process takes place during these monthly performance review meetings, which constitute "trials of truth". During these meetings, the *trialing* of accounting discourse is performed according to three criteria: compliance with the norms of elaboration, resistance to internal criticism, and respect towards the commitments made to clients and shareholders. For management accountants to pass these trials requires intense preparation on their part; they must monitor, test, improve, work upon, and transform themselves (Foucault, 1984a, 1994b).

A central contribution of this paper is our argument that preparations for these trials of truth constitute another or alternative form of subjectivation. Through their preparations for trials of truth, we show that management accountants undergo a mode of subjectivation whereby they act on their own ways of being in the firm and perform thorough examinations of their own behaviour on a daily basis. Management accountants act on themselves by managing their time carefully, both inside and outside work. Their acting on themselves also includes finding a delicate balance in their behaviour towards operational and production managers: they must regularly stand firm against operational managers without usurping the latter's responsibility and taking over. When preparing for trials of truth, management accountants engage in a particular kind of "practice of the self" (Foucault, 1984a, p. 28). By highlighting a specific practice of the self, our paper aims to add to understanding of the processes of subjectivation experienced by management accountants.

The paper is structured as follows. First, we review how accounting studies inspired by Foucauldian thought have so far addressed questions of the subjectivation of individuals and the production of truth. After presenting the case background and our methodology, we then move onto demonstrate how management accountants are anointed as the chosen ones, being selected and compelled to make a commitment in front of their peers. The subsequent section explores how the role they play in online reverse auctions makes management accountants the ones who know—applying the accounting metrics at every stage of the production process, acquiring power/knowledge and constructing an accounting discourse about the firm, and maintaining an accounting order within the firm. We then illustrate how monthly performance review meetings constitute trials of truth—to which management accountants submit and for which they prepare intensively—making them the official producers of truthful discourse about the firm. In the final section, we develop our concluding remarks.

Production of truth and subjectivation

The making of the subject

Accounting is not only a technique of producing data for decision-making, it is also a social and political technique (Burchell et al., 1980; Loft, 1986). In this way, accounting and control systems can be described as instruments of continuous surveillance that discipline organisational members by creating knowledge about them. Accounting is a calculating technology that enables the governing of individuals by deploying techniques of calculation, such as standard costs and budgeting, and techniques of observing and knowing individuals, such as industrial psychology and scientific management (Miller & O'Leary, 1987). Accounting makes the individual calculable (Miller & O'Leary, 1987; Miller & Rose, 1993) and enables the production of disciplined subjects.

This technology has impacted the power relationships between professions, notably by resulting in the rise to prominence of accountants in management hierarchies (Armstrong, 1985; Carter & Crowther, 2000; Ezzamel & Burns, 2005; Hopper & Armstrong, 1991). Through accounting technology, managerial government has at its disposal a surveillance device that makes it "at the same time absolutely indiscrete [...] everywhere and always alert, [...] leaves in principle no grey area and [...] relentlessly controls the very people who are in charge of control" (Foucault, 1975, p. 208).

However, such a viewpoint on surveillance tends to assume the existence of a docile subject (Bhimani, 1994; Boyne, 2000). Yet, resistance to accounting technologies can be observed (Alvarez-Dardet Espejo, Sanchez-Matamoros, & Carrasco-Fenech, 2002; Miller, Hopper, & Laughlin, 1991; Miller & Napier, 1993). For example, Ezzamel et al. (2008) analyse how the discourse of shareholder value is translated into specific accounting and control measures within organisations, serving to organise the interests of capital and leading to what they call, in reference to Burawoy (1983), "hegemonic despotism". They also show how such despotism works. The existence of resistance would suggest that subjectivation processes, tied to practices that have mostly been analysed from the viewpoint of surveillance alone, need to be examined in greater depth (Pezet, 2006).

Subjectivation is not attained through surveillance alone; it may also rely on discourses that inspire and shape behaviours (du Gay, Salaman, & Rees, 1996). Power is also enabling, rather than fundamentally and inescapably oppressive (Ezzamel, 1994; Foucault, 1982; Knights, 1992). Power acts on all those engaged in the matrix of power relations (Delbridge & Ezzamel, 2005) rather than simply being the exercise of authority by one over others; and its aim is to discipline both the self (Miller & O'Leary, 1987; Roberts, 1991; Townley, 1995) and others (Knights & Morgan, 1991).

Related to the making of individuals through disciplinary technologies are technologies of the self (Townley, 1995), such as confession whereby a person—either alone or with the help of others—acts upon his own body, behaviours and thoughts. To illustrate, the emerging focus upon subjectivity and identity within professional service firms often draws upon the work of Foucault. The mechanisms of individuation within audit firms operate, in part, through appraisal and performance assessment processes (Covaleski et al., 1998; Grey, 1994, 1998). Anderson-Gough, Grey, and Robson (2000) indicate how the processes of organisational discourse, such as the use of cliché and appropriate language, construct disciplinary conceptions of what makes an individual auditor into the "right stuff" (Cooper & Robson, 2006). Roberts et al. (2006) explore how the preparations of financial directors for their face-to-face meetings with investment fund managers shape executive subjectivity.

Accounting systems may be described as surveillance systems or subjectivation devices through which programmes are implemented in firms. However, until today, little research has tackled the link between subjectivation and the issue of the production of truth. Yet, according to Foucault, the production of truth is central to a complete understanding of governmentality mechanisms and power/knowledge relationships.

Regime of truth and truthful knowledge

For Foucault, truth is not only that in the name of which discipline is exerted; it is first and foremost that in the name of which one selects and one excludes. This may be a set of principles, such as an economic policy according to which a country is deemed to be "well governed" (Foucault, 1966), or a body of knowledge, such as psychiatric knowledge on the basis of which one opts to treat rather than to imprison a subject (Foucault, 1973). Truthful knowledge is produced in accordance with a regime of truth which is a "set of rules for producing truth, [...] a set of procedures that lead to a certain outcome, which outcome may be considered, according to its principles and its rules of procedure, as valid or not, as a winning or a losing position" (Foucault, 1994b, p. 725).

It is in the name of the truth that experts hold influence (Rose & Miller, 1992), yet their capacity to produce truthful knowledge may be contested. Miller and O'Leary (1993) demonstrate this point in their analysis of the shift to a "politics of the product" in the United States in the 1980s; its bottom line was that the opinion that counts is that of the person who pays the bills rather than the opinion of accountants (1993, p. 189).

The production of truthful knowledge has not only been studied in consumer goods markets but also in the financial markets. In the latter case, the regime of truth is the regime of financial reporting, namely a set of institutions (Securities and Exchange Commission, Financial Accounting Foundation, American Institute of Certified Public Accountants, etc.), of rules (Generally Accepted Accounting Principles defined by the Financial Accounting Standards Board) and of auditing procedures. These institutions generate what Gray, Dey, Owen, Evans, and Zadek (1997) call 'quasi-laws' which shape the way in which society conceives of corporate accountability. These institutions are not alone in constituting this regime of truth; financial analysts, brokerage firms and the press are all associated (Ekbia & Kling, 2003). The overall function of this regime of social truth is to create validated financial statements about the economic performance of business firms, and to make these statements public so that, in their specific institutional milieu, these statements function as truth. They function as truth to the extent that many investors use these accounts as a basis for investing their money in the stocks of specific firms (Ekbia & Kling, 2003, pp. 12–13). The rules established by financial institutions and analysts contribute to defining a regime of truth insofar as corporate annual reports drafted in accordance with these procedures are truthful in the eyes of the investors who use them (Young, 2006). Once certified by auditors, annual reports are deemed truthful (MacLullich, 2003; Pentland, 1993, 2000; Power, 1997).

Accounting research demonstrates the importance of mechanisms for acting on the self to produce truthful knowledge (MacLullich, 2003; Roberts et al., 2006). The financial regime of truth is not composed of formal rules alone; it is also composed of subjectivity. The truth produced is influenced by the perception of the power held by those who mobilise these procedures to produce information on the firm. Pentland (1993) analyses the rituals whereby the inherently untrustworthy financial statements of corporate management are transformed into a form with which auditors and the public can be comfortable. Referring to Foucault (1984a) and Roberts et al. (2006) show that the preparations of financial directors for face-to-face meetings with investment fund managers change their conduct as directors because they attempt to anticipate investors' expectations. In particular, they emphasise the truth effects of these meetings, which publicise and make visible the ideals that inform both investors' and directors' conduct. The same phenomenon of subjectivation has been observed by MacLullich (2003) with regard to auditors in face-to-face situations with their clients; for auditors, it was a matter of scrutinising their own judgements during interviews.

We pursue these studies, reflecting on Foucault's works from 1984 onwards (1984a, 1994a). According to him, subjectivation is not only produced through discipline but also by engaging individuals in trials of truth. From a Foucauldian perspective, these financial directors and auditors are subjects who submit themselves to trials of truth. In this paper, we argue that subjectivation through trials of truth allows us to understand how the discursive request for truthful knowledge and the instrumental combine to produce a more or less stable and coherent working ensemble, even if any stability is only ever transient (Miller & O'Leary, 2007). Existing studies have explored how these instruments serve a broad-ranging discourse or a regime of truth but focus little on the local contextualisation of this discourse. It has been demonstrated that a number of actors and agencies influence the constitution of discourse and that contextualisation creates resistance (Ezzamel et al., 2008). Consequently, we focus in this paper on the local production of truth, *i.e.* within organisations. Specifically, we investigate how local producers of truthful knowledge are made, how they produce and support a contextualised regime of truth, and how this process both requires and fosters subjectivation and sustains power/knowledge relationships locally.

Case background and research methods

Our analysis is based upon a field study conducted in a single organisation we call Equipauto for the purpose of anonymity. Equipauto is one of the world's leading automobile equipment manufacturers, with turnover of €10bn and 61,200 staff from 93 different nationalities at 125 production sites worldwide in 2007. This industrial group is fully focused on the design, production and sale of components, systems and modules for automobiles and trucks, for both the original equipment and spare parts markets. As an Original Equipment Manufacturer (OEM) in the automobile industry, it transforms materials or assembles products from second-level suppliers for sale to a limited number of customers, *i.e.* automotive constructors.

Equipauto's origins date back to 1920 in France. It started in the distribution and then manufacture of brake linings and clutch facings. In 1932, it was floated on Paris Bourse, the French stock market. The 1960s and 1970s were a time of development as the firm both branched out into new sectors (brake systems in 1961, thermal systems in 1962, lighting systems in 1970 and electrical systems in 1978) and expanded internationally (Spain in 1963, Italy in 1964 and Brazil in 1974). Its policy of diversification even stretched beyond the automobile sector. At that time, Equipauto was organised into branches, each of which was developing its own devices and methods. In light of the high degree of competition in the sector—affecting automobile manufacturers as much as the OEMs themselves—cost-cutting measures and improvements in productivity increasingly became a question of survival. The mid-80s marked a turning point when a new CEO was appointed by shareholders "to make Equipauto an organisation that responds as effectively as possible to the market and to align the firm with the market", in the words of Equipauto's head of management accounting. Within Equipauto, alignment with the market translated into a new management regime built on three pillars of visibility/transparency: the business, organisational structure, and work processes. The first level of visibility, i.e. the visibility of the business, relates to a desire to make Equipauto's activities more transparent, comparable and manageable, by refocusing exclusively on core automobile activities:

> When I arrived at Equipauto in 1987, its board had for ten years sought to turn the group into a conglomerate. But by branching out into diverse businesses, the firm was losing its very soul. In a fortnight, I built a new strategy. I visited the plants and the design offices and met with clients to determine Equipauto's identity. I concluded that everyone wanted the firm to become a firm focused on the automobile sector once again. I consequently sold off anything that did not relate to our core business. (Former CEO of Equipauto extracted from an online interview, http://www.journaldunet.com/management)

A second pillar of visibility relates to the organisational structure. A multi-divisional, decentralised structure, with autonomous units designed to be accountable, replaced the former organisation in which "barons" at the top of each sector used to keep a veil over their activities, management and performance:

> In other groups, there are big sectors. Each sector has its management accounting and conducts its business as it sees fit; and then there is a chairman who speaks to the three sectors but who doesn't really keep an eye on operational management and operational managers. Here, [...] senior management keeps its eye on the performance of the directors of its divisions, for instance, on an almost daily basis. (Georges, Management Accounting Director, Head Office)

The level of the branch is designed as a transparent pivot and surveillance of the divisions can be performed directly from head office using a control system.

Third, the production process is made visible in the sense that it has to be understandable to management accountants. All workflows and operations were made calculable in the sense given by Miller and O'Leary (1987).

> It is important to implement a very simple and visible production flow. When you go into a plant, you must be able to see the entire production chain at a glance. All Equipauto plants the world over have been built according to this same principle and, whether you visit a plant in France, the US or Asia, you can immediately recognise the brand's hallmark. (Former CEO of Equipauto extracted from an online interview, http://www.journaldunet.com/management)

Equipauto's alignment with the market was accompanied by a call for greater transparency, visibility and accountability for all activities within the firm (Gray, 1992; Messner, 2009; Roberts, 2009). Greater visibility was achieved by simplifying and standardising the practices of engineers and, as a consequence of power/knowledge relationships (Foucault, 1975), this gave management accountants a more central role to play.

> In my opinion, it's about opting for efficiency. In the equipment-manufacturing sector, in which an economic war is being waged, it is not possible to have marketing at the wheel or to have engineers at the wheel; they'll make marvellous products but we won't be able to sell them. The fact is, we are in a world in which we cannot simply cut prices, we must smash them; in which, if we fall asleep at the wheel for a year, we're dead, it's game over... If we aren't steered by the financier, the firm will not survive. (Bernard, Management Accountant, Branch)

The new focus on accountability and transparency triggered a shift in power from operational managers—mainly engineers, both at the top (the old branch barons) and mid-management levels (managers in charge of production processes)—to management accountants.

> The advantage of management accountants compared to engineers is that they will simplify everything. We are not here to do engineering. We have to have our feet on the ground. [...] The fact that we are not technicians or engineers is actually an advantage. It enables us to raise pertinent questions. (Bernard, Management Accountant, Branch)

In order to see everything, and specifically to enable comparison and control of all activity in all countries, Equipauto's head office now relies on a network of management accountants, which it views as the "backbone" of the firm. The CEO's decision to put power overtly in the hands of the accounting department is presented as the obvious and inevitable response to competitive pressure exerted by automobile manufacturers on OEMs. However, it should be noted here that in France, and notably in the French automobile industry, engineers traditionally play a central role[1] whereas management accountants do not constitute a profession. In such a context, devoting a central role to management accountants is a surprising decision we wished to explore further through an in-depth case analysis.

Data collection and analysis

Interviews with management accountants at Equipauto form the basis of data-gathering in this case study. These interviews were conducted at three levels of the reporting line: at division level, at branch level, and at plant/site level, since accountant positions are to be found at each of these levels in the organisation. The reporting line is very flat and there are few levels of accountants (see Fig. 1).

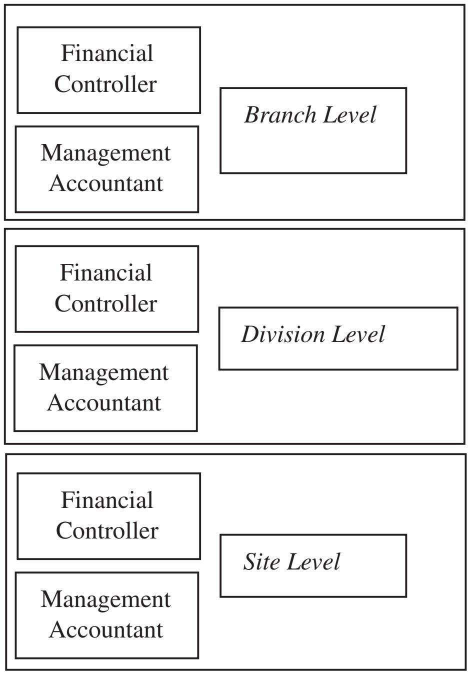

Fig. 1. Management accountant positions in Equipauto's structure.

Equipauto's hierarchical structures are very similar, with staff sizes varying solely according to the size of the entities and highly standardised responsibilities and positions at all sites across the globe. Most of the management accountants interviewed work on production sites. The majority of accountants in our sample have had training in management and only the director of management control, with 32 years of seniority, has an engineering background and training with a postgraduate qualification in management. All but one of the interviews took place on site, mainly in the French provinces. The interviews lasted between 45 and 180 min. Questions were organised around the daily work and interactions of management accountants. After a brief description of their careers and current positions, management accountants were asked about their daily tasks, about others with whom they work, and about their satisfying and less satisfying experiences at work. Interviews were tape-recorded and transcribed in full, generating a large body of data (see Table 1).

Interview data were supplemented by secondary sources, including Equipauto's website and annual reports as well as those of other major automobile constructors, to complete our analysis.

Analysis

Coding was performed using the software NUD*IST NVivo, a programme enabling the analysis of qualitative data. This software allows coding line-by-line, even word-by-word, using categories determined by the researchers. These codes emerge from three main sources: prior research questions, theory, and empirical data, but also from the interaction among these three elements which

[1] As Porter argues (1995, p. 117): "French engineers enjoy the prerogative of an elite: to exercise judgment in regard to issues of public importance [...] They do not think of themselves as mere calculators". They form part of the economic elite (Fayolle, 1999; Levy-Leboyer, 1979), even the political elite (Marnot, 2000). In contrast, in many cases, management accountants in France fulfil a variety of different roles and their influence is often considerably weaker than that of the powerful Anglo-Saxon "business partners" (Bouquin, 1995, p. 73; Lambert, 2005) who are destined to become influential members of the board (Armstrong, 1985; Fligstein, 1990; Loft, 1986; Sathe, 1978, 1983) and enjoy a highly respected status (Bourdieu, 1989; Lane, 1995, p. 161; Suleiman & Mendras, 1997).

Table 1
Persons interviewed in the Equipauto case study.

		Years of exper. control	Years of exper. position	Staff in accounting depart.	Training	Title of position	Operational reporting line	Type of unit
Olivier	Plant	5	1	16	University	Financial controller	Director of a plant	Plant
Laura	Site	5	2	12	Business school	Management accountant	Financial director	Plant
Rachel	Site	10	3	12	University	Financial controller	Director of a plant	Plant
Félix	Plant	3	1	12	Business school	Plant management accountant	Director of a BU	Plant
Boris	Division	7	3	12	University	Financial controller	Director of a plant	Plant
Edouard	Division	12	2	12	Business school	Financial controller	Director of a division	Division
Vincent	Division	3	1	4	Business school	Management accountant	Financial director	Division
Barbara	Branch	8	4	4	University	Zone/branch accountant	Director of a branch/ zone	Branch
Bernard	Branch	12	1	100	Business school	Zone/branch accountant	Director of a branch/ zone	Branch
Georges	Head office	32	15	3	Engineer + management training	CFO	CEO	Central

occurs during the research process (Anderson-Gough, Grey, & Robson, 2005). We adopt an understanding of field study research according to which the main task of the researcher is to make sense of his or her observations by abductive reasoning, i.e. by moving back and forth between data and theory (Ahrens & Chapman, 2006). The initial analytic framework, derived from theory, was significantly enriched and enhanced during analysis of the interviews. Our aim was to identify which codes seemed to emerge from the themes addressed during the interviews, rather than structuring the interviews around pre-determined themes. As Anderson-Gough et al. (2005) underline, this is one way of dealing with the issue of dynamism in the research process.

As we moved back and forth between theory and data, we observed a subjectivation process whereby management accountants construct themselves in order to become the producers of truthful knowledge.

Anointing the chosen ones

At Equipauto, it is clearly the financier who is king. *(Laura,* Management Accountant, Site).

Selecting from one's own kind

The very first step of management accountants' subjectivation at Equipauto begins when they are offered the job. The management accounting department is fully autonomous when it comes to managing the recruitment and career progression of its members; the human resources department has no mandate to intervene. The autonomy granted to the accounting department in managing its own staff testifies to senior management's firm backing, contributes to the subjectivation of the leaders of this elite group, and shapes the perception of newcomers to the accounting/finance department.

> At the level of the different functions, finance is the royal function here. Finance recruits for itself. The HR department doesn't intervene. (Félix, Management Accountant, Plant)

Branch management accountants must search for candidate profiles—both internally and externally—best suited to the needs of their business units and both the recruiter and the recruited are management accountants. These recruitment and career progression procedures endow the newcomer with the feeling of joining a family, *i.e.* the kind of institution to which one must show loyalty and respect. This heavily influences the self-image of management accountants. Indeed, all the management accountants, even newcomers, seem to share a singular awareness that they are the elected, the "chosen ones":

> This company is a kingdom ruled by financiers, but we're quite unique in the sector in this respect. (Rachel, Financial Controller, Site)

The fact that engineers usually play the central role in the automobile industry reinforces the management accountant's feeling of privileged status at Equipauto. Being a member of this family is a privilege that management accountants must deserve and living up to it means adhering to a code of conduct. Accounting and control devices constitute the main pillars of the code of conduct management accountants are sworn to uphold.

The pillars of the code of conduct

The main accounting and control devices of Equipauto can be presented as follows: (see Table 2).

The code of conduct includes an Administrative and Financial Handbook (AFH) in which are compiled all the rules and procedures of internal control with which Equipauto entities must comply.

> At the level of procedures and management rules, we have a book called the AFH, the Administrative and Financial Handbook—it's our bible—which is put into practice everywhere. (Bernard, Management Accountant, Branch)
>
> We are asked not to reinvent the rules that have been designed by the branch. We are asked to ensure compliance with the procedures. Our job is to enforce the procedures in practice—in the field—and

Table 2
The Code of conduct and its metrics.

	Equipauto's devices	Examination tool	Frequency of examination	Form	Individuals involved
Code of conduct	Administrative and financial handbook	Chekov	Almost daily	Procedure handbook	All plant directors, management accountants of all levels
	Five axes	Reporting EPQ audit	Monthly yearly	Battery of annotated indicators	Management accountants soliciting operational managers
Metrics of the code	Budget and operational indicators	Reporting	Monthly	Battery of annotated indicators	Management accountants soliciting operational managers
		Five-minute meetings	Daily, even several times daily	Battery of annotated indicators	All members of the organisation in subgroups

Fig. 2. The five axes.

not to try to improve on them. (Olivier, Financial Controller, Site)

Management accountants must "ensure compliance with norms" in the entities in which they operate. The AFH is on display in most offices and management accountants consult it regularly; that it is termed "our bible" signifies its sacred status within Equipauto. Nothing but strict enforcement is expected of them; hermeneutics or any drift away from orthodoxy is severely frowned upon.

The "Five Axes" are presented on Equipauto's website as "a cornerstone of the Group's operating culture. This methodology is applied by all employees and suppliers all over the world to deliver 'zero defects' to customers and to provide them with the optimal quality regardless of the production plant" (*Source*: Equipauto's website) (see Fig. 2).

> Interviewer: In what sense do these five axes represent Equipauto's culture?
> Everything is grounded in them. The five axes—I do not know if you have them in mind—are involvement of personnel, supplier integration, production system, and constant innovation... And these bring you to Total Quality.
> These five axes help you to improve your production. All these elements also lead you to what we call profitable growth. They are everything. Everything is built on these. You have methods you can use, such as "roll-maps", which help you to improve in each of the axes. These are analytical methods. They allow you to study production problems. For instance, you have the PDCA: to Plan, to Do, to Control and to Act. Each time you identify a problem, you have to establish the information and follow each of these steps. Finally, the five axes are both our culture and the summary of many tools and methods. (Laura, Management Accountant, Site)

In short, everyone should always have the five axes in mind at all times (even the interviewer!). The way in which each of the axes interacts with the others, however, is not clear. The all-encompassing expression "the five axes are both the culture and the summary of many tools and methods" suggests a rather esoteric dimension to the five axes; their importance as a mainstay of organisational culture is clear, but so too is the fact that management accountants encounter awkwardness in explaining and ambiguity in defining how the five axes actually work. Moreover, expressions such as "they are everything" extol them as a kind of credo, to which one swears undying loyalty without necessarily understanding how it works in practice.

Rules are complemented with accounting metrics, and management accountants are judged on how well they adhere to these metrics. The budget is one pillar of these metrics—an annual budget, revised half-yearly—and comprises an income statement, several balance sheets, and various cash flow analyses.

> Everyone is implicated in the budgeting process. It is part of the contract. That's a contract we negotiate each semester. Non-compliance with the contract is akin to malpractice... Because we have to turn up the heat on the teams. (Bernard, Management Controller, Branch)

The metrics also include indicators developed to implement the five axes. For instance, one measure of "staff development" is the multiple-ability rate. This metric includes a series of sub-indicators, their definitions, as well as a number of objectives to reach (see Table 3).

The metrics help management accountants to apply the code of conduct, since the five axes themselves are defined in a relatively vague manner.

Table 3
Composition of the five-axes indicators: example of the "multiple-ability rate" indicator.

Multiple-ability rate		
Sub-indicator	Mode of computation	Objective
Accident rate	Number of days of sick leave due to work accidents	0
Absenteeism rate	Number of days of sick leave	0
Progress proposal rate	Number of proposals per person per year	12/person/year

> We know that we have all the financial ratios in our heads we must aim for. Rotation rates, earnings, turnover, the percentage of general expenditure in relation to turnover... And we try to achieve them by optimising the structure. (Bernard, Management Accountant, Branch)

Once he has acknowledged the rules and accepted the metrics, his taking an oath formally concludes the management accountant's engagement.

Swearing the oath

When joining a division and in every subsequent year, the division director and the financial director co-sign a letter in which they pledge to run operations according to the rules laid down in the Administrative and Financial Handbook.

> At Equipauto, every year, the director of the division and the financial director must sign a letter of commitment, saying: "I agree to uphold and to enforce all the Administrative and Financial Handbook rules."
> If you sign and you don't comply, you're... out. Straight out of the door. (Vincent, Management Accountant, Division)

For those who sign this letter of commitment, it is an act akin to swearing an oath of allegiance. Another pledge relates to the undying loyalty a management accountant owes to *the family*. This oath is less formal since it does not involve a written engagement, yet the commitment and subjectivation it suggests is stronger, given the tacit values it conveys. Ostensibly, the management accountant is asked to be the co-pilot of the operational manager; however, tacitly, even secretly, his "golden rule" is not to conceal anything from the branch.

> The golden rule is not to hide anything from the branch [nor head office]. We present things to them as they are. (Edouard, Financial Controller, Site)
> As a management accountant, you are the co-pilot of the entity's director. (Bernard, Management Accountant, Branch)
> You should know that my first loyalty is to my functional domain. And if there is a problem or a disagreement between my two directors, paradoxically it is the functional director who wins. (Olivier, Financial Controller, Site)

To conduct themselves, management accountants need to put into practice the rules they adhere to. How management accountants apply these rules is heavily influenced by the role they play in reverse auctions, at the intersection of the market and the firm.

Becoming the knowers

Importing market discipline: management accountants and reverse auctions

Initially developed in the automotive industry,[2] reverse auctions have rapidly come to play a significant role in sourcing materials for major automobile manufacturers (Jap, 2003). These reverse auctions consist in putting suppliers in direct competition on virtual platforms; each supplier participates in the negotiation that starts from the reserve price[3] set by the buyer and the lowest bid is the one chosen. As an OEM, Equipauto experiences both roles, being both a bidder in reverse auctions held by automotive constructors and a buyer when organising reverse auctions for its own supply.

In a document aimed at its suppliers, Peugeot, a customer of Equipauto, presents its adoption of this tool in the following terms:

Document 1. Quote from Peugeot-Citroen Reverse Auction Guide

Modernising our purchasing process to optimise our collaboration... Through reverse e-Auctions

We bring transparency to our relationships! [...]

YOU:

- You benefit from more precise specifications.
- You are assured of complete equity between suppliers
- You gain a greater perception of your competitive market position

WE:

- We reduce negotiation times
- We decrease the buyer's administrative burden
- We bring greater transparency to our supplier relationships

(*Source*: Reverse Auction Guide http://b2b.psapeugeotcitroen.com/en_US/actu/base_actu/auctions_english.pdf)

The way this argumentation is presented illustrates how communication about reverse auctions serves the rhetoric of transparency. There is an asymmetry between the argument for greater transparency, presented as a win–win situation, and the argument for potential savings (made mainly by the buyers). Explicitly, increased transparency is presented as a perfect answer to the expectations expressed by both buyers and suppliers ("you gain a greater

[2] In 1999, a consortium of the world's largest manufacturers—General Motors, Ford Motor Company, DaimlerChrysler, Nissan, and Renault—created COVISINT, a tool "positioned to leverage the power and potential of the Internet to solve industry-specific business problems in real-time". Its goal was "to deliver a secure marketplace, portal and application sharing platform for the global automotive industry" (http://www.covisint.com/about/).

[3] This price is the maximum amount the buyer is prepared to pay.

perception of your competitive market position; we bring greater transparency to our supplier relationships"). Implicitly, the arguments put forward suggest that suppliers are supposedly critical of the opaqueness of relationships between buyers and suppliers. Any savings the buyer expects to make using this new form of relationship are only discreetly and indirectly advocated in the expression "we decrease the buyer's administrative burden; we reduce time negotiation". Indeed, buyers expect the intense competition not only to save a considerable amount of time compared to (traditional) face-to-face commercial negotiations, but also to provide substantial price reductions (*i.e.* cost reductions for buyers). Clearly, buyers speak of reverse auctions only as a win–win device and fail to mention the potential losses for suppliers. Mirroring the discourse developed by automobile manufacturers, Equipauto also presents its own online reverse auctioning device as "a way for suppliers to evaluate their pricing compared to the market and rapidly increase their business with us" (*Source*: the Equipauto website; date viewed: March 2008), detailing the way it functions as follows:

Document 2. Quote from Equipauto website

Only suppliers that are selected and validated by Equipauto can bid. If you are already an Equipauto supplier, get ready to enter the competition! It is essential to be prepared for the auction. After the first round of off-line costing, the supplier can receive comments and suggest improvements. In order to have a good chance of winning a contract, you need to know on which lots you have a competitive edge and concentrate your bidding on them. A lot is a set of products of the same type submitted for bidding. On the bid day, suppliers are advised to keep in mind that the reserve price must be reached or bettered in order for the contract to be transferred from the current supplier to the new one. The reserve price is defined by Equipauto as an amount that will cover its switching and validation costs. As soon as bidding is closed, Equipauto can accept no more proposals. Soon after the auction, the Equipauto buyer will report on the results and the allocation of contracts. If you have won a contract, the Equipauto teams will help you determine what initial samples you need to supply. They will do everything possible to ensure that this new project materializes very quickly. Of course, your commitment is essential in order for the auction process to result in a win–win situation. (*Source*: the Equipauto website; date viewed: March 2008)

The supplier must prepare and propose its price, keeping in view the baseline price below which the contract is no longer profitable and the supplier no longer able to compete for the contract. Buyers only set the reserve price and then withdraw from the arena to observe the intense competition that takes place between the different bidders. Buyers position themselves as arbiters between bidders and, ultimately, identify the most attractive bid. With online reverse auctions, buyers are offered a transparent market place. The transparency of supplier relationships and suppliers' clearer perception of their competitive positioning are key arguments here and reveal the intensification of market discipline for both Equipauto and its suppliers.

First, online reverse auctions considerably transform and increase the importance of pricing in calls for tenders. Prior to this, calls for tenders from constructors were organised in such a way that all aspects of the exchange were discussed simultaneously, mainly with Equipauto's salespeople. Along with its price, Equipauto could also put forward other arguments (commitments to quality, deadlines, and innovation) that were likely to influence the buyer's final decision. Furthermore, such negotiations could extend over time allowing suppliers to make proposals likely to modify buyers' expectations. Today, the technical and qualitative elements of supplier bids are examined prior to the auction, as described in Peugeot's Reverse Auctions Code of Conduct:

Document 3. Quote from Peugeot-Citroen Reverse Auction Guide

Every auction leads to business being awarded.

The technical and qualitative elements of suppliers' tenders are examined prior to the auction.

Only those suppliers that PSA decides to invite to the auction may participate in the event.

Bidders must honour the bids they make during an auction.

PSA will not place "phantom" bids during an auction.

Business will only be awarded to a supplier that has participated in the auction.

The definitive supplier choice is made after the auction, once all the technical, qualitative and economic criteria of each supplier tender have been evaluated. (*Source*: Reverse Auction Guide http://b2b.psa-peugeot-citroen.com/en_US/actu/base_actu/auctions_english.pdf)

The buying organisation invites only pre-qualified suppliers to compete each against another. By taking the multidimensional arguments previously tabled in negotiations and breaking them down into a series of sequential approvals on separate issues (technical, then financial), online reverse auctions transform the very nature of both the decision-making process and the final decision. This obviously increases emphasis on pricing, as implied in the following advice given by Peugeot to its suppliers:

Document 4. Quote from Peugeot-Citroen Reverse Auction Guide

The reduced negotiation time means that you should prepare your commercial strategy prior to the auction by conducting: a price breakdown, cost analysis... The auction is so dynamic that you will need to react instantly to your competitor's bids. http://b2b.psa-peugeotcitroen.com/en_US/actu/base_actu/auctions_english.pdf)

The intensification of market discipline created by online auctions and the transformations in the negotiation process this entails, along with the greater emphasis on cost/pricing issues, require the active and long-term participation of management accountants in knowledge accumulation. In the context of the automobile sector in which innovation and cost cutting are essential to survival, mobilising information to enable sound arbitrage between bids remains a difficult task.

> The latest deals are listed, there are four of you, you are on the Internet, and you see the pricing curves of your competitors, and you must adjust your prices in accordance for two hours. Roughly speaking, it is reverse auctioning. You can imagine that if you don't have this type of fool proofing [*i.e.* prior analyses from the accountants], you quickly make several blunders. You take margins at 5, telling yourself, "I don't care: in three years, we'll see. Anyways, we won't be here any more; other people will have to pick up the pieces". So, it's good to have this type of tool, to be able to say, "Wait a minute, with your portfolio, you have a 10% margin, what are you doing?" (Olivier, Financial Controller, Site)

There is a striking contrast between the time frame of the event itself (around 2 h) and the time scale of decisions made (3 years) during this short and intense moment. In the case of an auction organised by a constructor, Equipauto's management accountants are accountable for providing appropriate forecasts of revenues, costs and consequently margins well ahead of time. Most of the revenues are set as soon as the auction is over, when suppliers learn if they have been awarded all or part of the business. At this point in time, management accountants have a relatively precise idea of the revenues they will generate from the deal.

In contrast, at the moment the auction takes place, management accountants must also already have in mind a relatively clear idea of the associated costs. Otherwise, they face the prospect of committing their firm to a financial blunder by missing a potentially valid bid or by committing to a business deal with overly reduced margins.

It is therefore at the moment the auction takes place that the norms of production (which will take effect later on) must be set by accountants, at least in their minds. However, it is only one to 3 years later, once production begins and depending on the degree of innovation needed to produce the component in question, that the appropriateness of the positions taken by accountants during the closing of the contract can actually be assessed.

Management accountants actively participate both in setting the ceiling price when bidding with their suppliers, and setting the floor price when bidding with constructors. They can be viewed as positioned at the intersection of the market and the firm. Management accountants commit themselves when deciding how far their own margins, or those of others, can be safely cut. In doing so, they expose themselves and impose their authority at the same time. In order to prove that they have set the right prices and deserve to be the official voices of truthful knowledge within the firm, they must both enforce and also fill in any gaps in the accounting metrics.

Filling in gaps in the metrics to forecast activity

As we noted above, the appropriateness of the positions taken by the accountants during the closing of contracts cannot be assessed immediately due to the length of time taken by production processes. Nevertheless, management accountants constantly want and need to know the position they are in currently in order to keep everything under control. A large part of their time and effort is devoted to translating operational activity into the metrics, in light of which the quality of their conduct will be judged. These metrics include production norms, the budget, and the five-axes indicators.

Attempts to make operational activity calculable are constantly made throughout the product's lifecycle and even before it comes into being. The first difficulty faced by management accountants arises from project selection. The policy of constant innovation, one of the five axes, is defined in relatively vague terms: "innovating with discipline for profitable growth" (*Source*: Equipauto's website). It is the management accountant who is expected to provide a detailed and careful evaluation of the financial viability of a given project.

> When we launch a new product, procedures at Equipauto require us to provide a document in which we present the project and its profitability before giving the customer an estimate. This first document is called the "Contract Approval Application". So this is the first document that must be signed by the branch, and sometimes by the group, depending on the case in hand. The prices shown are the prices we hope to offer. And so, to reach this figure, we must already understand the problem. We have to have validated the figures, have identified the risks, etc. (Félix, Management Accountant, Plant)

In fine, management accountants are the ones who commit themselves when they set prices and production norms during reverse auctions.

> Who is held accountable when the product rolls out? We end up with a potential margin. So, we have to monitor all the expenses tied to this new project, and everything that relates to the cost of a product that doesn't exist yet. (Bernard, Management Accountant, Branch)

A second document, called the "Project Approval Application", includes an "Investment Authorization Request" that requires a much more detailed financial analysis of the project:

> Then, once the estimate is made, there is the "Investment Authorization Request" in which we make a more in-depth analysis of the project's profitability. For us, "the investment" means the share that is charged to our accounts. We make slightly more advanced financial calculations to produce internal return rates and payback. These are the most closely watched indicators, especially the project's payback. And there are also financial comments we need to present, in which we give our financial interpretation, etc. We give our detailed opinion of the project. (Olivier, Financial Controller, Site)

Internal rates of return and payback are viewed as testimony to the fact that management accountants have adopted the *right* behaviour, *i.e.* that they have made the *right* evaluation leading to the *right* decision. However, management accountants point out that the very specific nature of project selection cannot easily be grasped in full using these accounting metrics.

> In anything that is a project, there is a side of it that... It's all on paper. It's not yet in the production phase. (Boris, Financial controller, Plant)
> That is also a rather particular job because we work with forecast rates using real rates and we need to know how these rates will change over time. (Bernard, Management Accountant, Branch)

Recognising such flaws in the metrics, they work hard to fill in any gaps in their knowledge. At department level, two main strategies are developed. Senior management accountants help project management accountants (often junior) to improve the way they use the metrics; and they also recruit estimators—technicians with accounting skills—to provide backup for project management accountants.

> Here I work a lot at division level to help them move forward in the best way to proceed, to forecast and to work on the business totally upstream. So that they have the right methods for calculating provisional production costs, have the right tools in the short term, calculate the right payback figures and do not wait until the investment is being made. (Bernard, Management Accountant, Branch)
> Finding the right project management accountant profiles is not easy. In fact, they have to be supported by an estimator, someone from the design office who is a technician and who has had training in management control as well. But you have to be able to go into quite a lot of detail when specifying a product that is just at the beginning of its development... a product for which we haven't yet put in a bid to a buyer in order to be able to estimate figures that are more or less reliable. We cannot afford to get it wrong. (Edouard, Financial Controller, Site)

Applying the metrics in the case of project selection is by no means straightforward and this places management accountants in a delicate position in which they must rely on additional forces. This situation illustrates the relentless efforts they think they must make to become infallible, mirroring the never-ending, continuous nature of the Foucauldian subjectivation process.

Enforcing accounting metrics for daily production

This relentlessness can also be observed in more favourable power/knowledge situations. In the context of regular production, workflows and processes have been highly standardised (*cf.* case study background) to render the activity fully calculable. Here, management accountants must constantly build on their knowledge to build their power and *vice versa*, developing a form of accounting order (Preston, 1986).

When production begins, management controllers must be particularly vigilant with regard to compliance with budget objectives, on which the system of reverse auctions—by creating downward pressure—has already placed considerable constraints.

> If you have taken a deal at 0% margin, have worked on it, cut costs and have perhaps brought it up to 5–7%, it still represents a lot of work to put right. (Boris, Financial Controller, Plant)

Investment is one of the most convenient and most powerful levers management accountants can activate both to achieve the goals set by the metrics and to display their power to operational managers. Postponing or refusing investment requests appears to be one easy way to safeguard their bottom line.

> For investment approval requests (IARs), we have a whole circuit of standard validation, according to the level of investment. Here, we are supposed to help people create their IARs, to set up their calculations of payback and of return on investment, on the one hand, but, on the other hand, to criticise and to say yes or no and whether or not we agree with it. So, when I said that we typically have a strong role to play in investment requests, it may seem strange to you. It shocks some people, because we are not producers.
> Outsiders tell us: "You have no credibility to say: 'No, we are not investing in that'. It's not your domain".
> And yet it is! I may be backtracking a little, but the definition of financial control at Equipauto—which may seem hollow but I think it matches reality—is being a co-pilot with the division director. [...] It's telling them: "OK, perhaps industrially your thing is very good, but with payback of more than a year and a half, we are not going to do it. It isn't profitable, so we're not doing it". (Olivier, Financial Controller, Site)

One of several arguments deployed by those interviewed, "payback of more than a year and a half" slices through investment requests like a guillotine. Whenever translating operational requests into the metrics proves difficult and problematic or whenever computation shows that an investment decision would delay or jeopardize fulfilment of their (cash) objectives, the management accountants are not slow to wield their veto.

Another management accountant reflex is to input new products into the production accounting metrics as soon as they can.

> When we launch a product, we hit problems—the product nomenclature may be late, there may be errors... These products don't have all the necessary conditions to be correctly input into the system because the initial samples were not approved... So, we already need someone to control things 100% [...]. As soon as we have poor quality flows, and we have so many caused by new products in particular, variances are generated. (Boris, Financial Controller, Plant)

The efficiency of management accountants is measured by their ability to make variances disappear in the metrics. Eliminating any variances must be an objective they share with operational managers, which dictates the agenda and shapes the conduct of both management accountants and operational managers.

> Let's take the example of the multi-ability rate. Last month, we were bad on the 3 sub-indicators [the accident rate, the absenteeism rate, and the progress proposition rate]. So this means that: (1) Our people were not working; (2) When they work, they have accidents; and (3) Once recovered, they do not make any improvement propositions. So, what can we do to improve ourselves? Well, we have to develop an action plan to come back to the norms. These indicators enable us to structure these plans. (Olivier, Financial Controller, Site)

"We have to develop an action plan" illustrates both the implication of management accountants in operational activity and the commitment they expect from operational managers in return. The indicators developed from budget targets or from the five axes shape management accountants' conceptions of operational activity and ultimately orientate the action plans to be implemented by operational managers.

In order to ensure commitment from operational managers, management accountants make certain that operational managers embed their operational activity in the metrics. They provide operational managers with already filled-in spreadsheets in which management accountants' estimates of labour needs figure clearly. Each week, operational managers are required to fill in this document, which immediately reveals variances from what remains a forecast budget, since production has not yet started.

> We force the Autonomous Production Units to show their losses and gains in relation to the budget. We say: "Here's the file, it's at your disposal". The system guides them fully by telling them the number of people they need in order to comply with the budget. Then, the operational manager goes off and does his own calculations. How many people does he need [according to requests provided by logistics]? However, he has to explain why.
>
> Then, at the end of this production meeting, we present our document. We say: "Here is everything you say you need and here is everything you should need if we comply with the budget". With this document, we immediately materialise. If we want transparency with respect to the budget, we have to materialise so that we know about all the losses immediately. We have simple spreadsheets, one per production line. If we look at the section on variances, we can find out about any production delays straight away. (Boris, Financial Controller, Plant)

Operational managers are asked by management accountants to perform variance analyses on activities that have not yet started. Although it may seem surprising at first, management accountants thereby engage operational managers, compelling them to be aware of any future variances and forcing them to be prepared to explain and to act on them. By co-opting operational managers in general variance analysis, management accountants are looking to make them acutely aware that they will have to make good on any future variances.

These examples illustrate how stringently management accountants enforce the accounting metrics to establish their authority and, at the same time, constantly refine the metrics to fill in any gaps in their knowledge. They invest a considerable amount of time and energy refining their calculations to make them more relevant and reliable. Boris gives the example of labour cost analysis—a particularly critical factor in his plant where it amounts to 15% of turnover. He computes efficiency rates in the relatively classical way, comparing the actual number of employees to the number of employees forecast (calculated according to product schedule and production volumes).

> The goal is to provide the efficiencies of direct labour on a daily basis and in particular—and this where it gets more complicated—an analysis of the sources of these efficiencies. So already, as a prerequisite, we need ready-to-use product schedules. This wasn't previously the case, so we put some young controllers on the task to make the system more reliable. Now, the number of people forecast is provided by the system with reference to the hours needed per product schedule. (Boris, Financial Controller, Plant)

Management accountants need high-quality data in order to become the ones who know and the ones who tell the truth. They therefore expand the scope of their tasks to cover methods and pure bookkeeping, for instance, in order to ensure data quality, which in this case relates to the reliability of the product schedule.

> The really big difficulty is having an accurate picture of hours actually worked in each unit. The ideal would be for us to be able to output the information and to be able to match it perfectly with an information system. But the difficulty is that there is a lot of internal mobility with temporary staff reassignments. If one production line has a particular problem, it borrows one staff member or another. This presents significant drawbacks. So we always have to resort to something slightly more manual to know who is presently working on which production workstation. (Boris, Financial Controller, Plant)

However intense the efforts management accountants make to develop sophisticated metrics, the quality of the information and of its interpretation ultimately depends on cooperation with operational managers. In our case study, engineers, when dealing with operational problems such as production line breakdowns, often undermine the models drawn up by management accountants. An informal interview with a production line worker sheds light on this situation. A temporary worker whose contract is renewed on a weekly basis—a rare occurrence in France—he has little inclination to invest himself fully. He confides in us:

> It's really demoralising in this company. The engineers are bad. I've worked at Peugeot and it was nothing like this; there, they were good and we respected them. Here, on top of that, you're hired by the week... You don't know on Friday if you will be back on Monday... To be honest, it's demoralising. I have a headache, I'm fed up and I want to go home. (Mickael, Production Line Worker, Plant)

The decision to make the vast majority of costs—and notably labour costs—more flexible results more or less directly in defects and malfunctions, in particular for new products. The lack of motivation clearly shown by workers negatively impacts quality and makes running production lines more prone to difficulties. Management accountants simply cannot account for this parameter: savings made due to more variable working hours are far easier to calculate than the cost of a drop in quality tied to a variety of factors. From their viewpoint, the variability of these costs is non-negotiable and solutions must be found elsewhere.

In order to improve continuously on the accounting metrics, to display their authority and to assess their personal achievements, management accountants supplement what they call 'structural indicators'—those defined in the metrics of the code of conduct, *i.e.* the five axes, the budget—with *ad hoc* indicators. Whenever operational problems emerge, management accountants translate them into measurable issues by developing specific indicators to pinpoint malfunctions and misbehaviour from operational managers. Edouard illustrates this point with his example of delivery backlogs for orders of spare parts:

> We came out of the summer period with a very big delivery backlog for spare part orders. We had more than one million euros-worth of delivery backlogs for spare parts. So we set up an indicator for the backlog, which we monitored every week. Now, late-January/early-February, the backlog has been cut down to zero. So I have now deleted the indicator. (*Edouard*, Financial Controller, Site)

Such *ad hoc* indicators systematically spotlight the inappropriate behaviour of operational managers and, by making the effects of malfunctions visible, management accountants can compel operational managers to see what they must eliminate. Management accountants only delete these indicators once the relevant malfunctions have been corrected and inappropriate behaviour rectified. Furthermore, management accountants' general reliance on indicators implies that all operational activity, processes and successes must be performed in a way that can be input into a spreadsheet format (Vaivio, 1999).

By developing and regularly monitoring indicators, management accountants build their accounting and financial knowledge and display their legitimacy by intervening in a variety of operational and strategic issues.

> Effectively, knowing the small indicators enables us to construct this type of macro reasoning. That's what makes this job interesting. It is that, (1) we know our plants very well and (2) this allows us to weigh in on decision-making for things like implanting lines, transferring activity from one plant to another, even building a new plant. We are able to say this activity, it is X team, with Y people, producing Z products per hour. And we think that we can know all of this. (Olivier, Financial Controller, Site)
> One day, I asked an operational manager, "Are you sure that when you decide, *you* are really deciding? Are you sure that *you* are the decision-maker?" He looked back at me with a wry smile on his face. (Georges, Management Control Director, Head Office)

However, management accountants are also conscious of the corollary of this dynamic and feel that they tend to gloss over issues that they cannot measure.

> Equipauto's management system has many qualities, but one drawback that can be a little awkward is that we are extremely focused on short-term results and we sometimes lack clear vision and a well-rounded business plan. (Edouard, Financial Controller, Site)

This remark sheds light on doubts shared by all management accountants about applying the metrics too strictly, when complying with every letter of the code of conduct law can lead to betraying its spirit. Such doubts reflect the relentless striving that the process of subjectivation entails: measuring up to the ideal is both an everyday objective and an unreachable goal. It is in the monthly performance review meetings that management accountants are judged on their ability to attain this ideal—to produce truthful knowledge about the firm.

Becoming the producers of truthful knowledge

Monthly performance review meetings as trials of truth

Monthly performance review meetings constitute trials of truth, because it is during these meetings that the ability of management accountants to produce truthful knowledge is judged.

These encounters last around 3 h, during which management accountants are subjected to systematic cross-examination.

> During end-of-the-month closing presentations, the branch financial controller along with branch management accountants, the branch VP and the branch HR director are grilled.
> You are faced with a jury of white shirts with sombre ties sitting in sober silence. Sitting in judgement is the board of directors, including, of course, the CEO and CFO [...] It's like an interrogation [...]
> In fact, the CEO only listens to the financial teams and puts pressure on them alone. Operational managers do not have a say. At first, the CEO puts on his show and waxes lyrical, but then comes the "face-slapping" session. That's what we call it, we use this expression all the time: "Spare a thought for us", we management accountants say, "we're off to have our faces slapped". During these meetings, people become mortified and the stress almost palpable. People are transformed, the tone of their voice changes and they start stammering...

Held in courtroom-like settings, these face-to-face encounters are staged on purpose to make management accountants feel insecure, as if they were being put on trial.

> Sometimes the meeting is held using videoconferencing... All it needs is for someone to be slightly off camera for the session to start off on the wrong foot, giving the CEO the impression that he's talking to a bunch of

"little boys and girls", to use his own words... It is staged in a way that creates a climate of terror right from the start. (Barbara, Management Accountant, Branch)

Preparing these meetings is a demanding exercise for management accountants. Presented as being the equivalent to annual account closures in other organisations, the reporting requires intense preparation from them, both in terms of compiling raw data and interpreting it.

The reporting encompasses a complete monthly income statement, a monthly balance sheet, and all that this entails—a whole battery of physical indicators. The five axes, you see? There are four indicators per axis that we report systematically on a monthly basis. Afterwards, there are all the analysis spreadsheets, also reported on a monthly basis. Then there is cash flow analysis, by the direct method, by the indirect method, and Return On Assets, which is calculated as a result. I would say that, every month at Equipauto, what we carry out is basically equivalent to annual account closures in many other companies, with no less than 80,000 numbers to present. [...] All these data are laid out in a document called the Green Book. (Olivier, Financial Controller, Site)

All management accountants, regardless of their level, are involved in this process. The monthly performance review meeting is a regular event in which they are reminded that they are part of the finance family.

M. Rossignol, the group's financial controller, knows all the site/division financial controllers. If you talk to him about Olivier—myself—it's staggering: he knows where I am and he knows what I am doing. And it's true for all his accountants. With the branch financial controllers, we are in touch at least three times a month, at least, because there are the results and particular problems to manage. [...] And as for the budget, I present my budget to the branch director. And the branch director presents it to [the CEO]. So, it goes out live and direct. (Olivier, Financial Controller, Site)

Any sign of underperformance is singled out by, and in front of, the finance hierarchy and even the highest strata of top management. Knowledge is judged truthful according to three main criteria. It is stated in front of peers and hierarchy; it must stand up to internal criticism; and it has to respect the commitments made towards shareholders and clients.

Sometimes it ends well and sometimes it ends badly... It largely depends on the results but it's not quite as straightforward as a correlation with good or bad results... It's more complicated because the CFO has the memory of an elephant and remembers the commitments and promises we made to him last quarter or even last year. He has a great capacity to recall the action plans that he is entitled to expect from us, complete with our commitments from last year that, without our notes and crib sheets, we are unable to remember in quite so much detail. (Barbara, Management Accountant, Branch)

Disappointing numbers can mean management accountants having to justify themselves in spot checks by the CEO, during which they must show that they are accountable.

The reporting about the notorious product line that wasn't working very well—it was actually bringing down the branch's profitability every month—was given to the CEO. And every month, he has monitored it. Since then, there has been considerable improvement...
You have to know that if a division is running badly, you may well have Thierry R. [CEO] come down to see you, which happens regularly, and say to you [*i.e.* the financial controller]: "What's your plan for getting out of this situation?" And you have to have a plan ready-made; you are THE person held accountable [interviewee's emphasis]. (Olivier, Financial Controller, Site)

Taking for granted their adherence to financial orthodoxy, being accountable means that they must prove they are able to formulate immediate operational action plans in case of failure.

When we build the budget, we are not asked to output figures. We are not asked to bring out a table and say: "We had a margin of 16 of this thing and we fell to 13", as we sit firmly in our chairs. That is not what we are asked to do. We are told: "If we drop from 16 to 13, what action plans do you have to get back to 16? What levers are at your disposal? Which lever to pull: the industrial lever or the restructuring lever? What does restructuring mean?" We arrive at the budgetary presentation with proposals for a direction to take. (Olivier, Financial Controller, Site)

During these trials, questions are not restricted to ostensive failures and the scope of the inquisition is limited only by the imaginations of those sitting in judgement.

And we have tough questions to answer and people play with us—although it's not actually a game—challenging us on all the indicators. If you have a good operating margin, for example, you might well face questions on the five-axes indicators. This was the case for us. We had good financial results so we were fingered for our five-axes indicators, which weren't good. And in reality, in a plant, there are always things that aren't right. So this allows the firm to sustain this culture of continuous improvement. (Olivier, Financial Controller, Site)

Resisting the onslaught of criticism ("we were fingered for our five-axes indicators") is one of the keys to successfully passing this trial and the phrase "people play with us" refers to the fact that management accountants are aware of the rules of the game. The point of this interrogation is not so much to gauge how well management accountants master every single aspect of financial and operational information; rather, it is to test their capacity to convince their audience that they are reliable. In other words, the issue here is to know whether or not they have become and can be considered producers of truthful knowledge about the firm.

In order to convince their peers and hierarchy, management accountants relentlessly seek to improve their numbers and to respect their commitments. At the end of each monthly performance review meeting, they announce their commitment to the action plans they will undertake and submit to judgement every single month.

> I detail our results at the site's board meeting once a month and I present it to managers on the board, complete with their staff indicators. For example, I focused recently on scraps, which were very high for one unit produced. We had an income statement per product line and the product line manager was targeted on that issue. (Olivier, Financial Controller, Site)

Management accountants must rely on operational managers to achieve results and fostering the latter's commitment requires collaboration behind the scenes. Management accountants impose the same regime of calculability on operational managers to which they themselves submit. As a result, when preparing for these trials of truth, management accountants must gather the most relevant operational information possible and ensure, in collaboration with operational managers, that the action plans they envisage are realistic.

Through questioning and confrontation, management accountants must be able to justify both the procedures they follow to arrive at particular outcomes and the measures they take with operational managers to achieve the goals initially set.

> Results meetings can go very badly... either because one division was wrong about quality costs or because, in one instance, there were questions that one financial controller was unable to answer in one of these meetings... He was fired the following year. It was all done very quickly.
> But was he wrong about his forecast or about the figures?
> He was wrong about the extent of the damage incurred for one product that was later returned by our client and he had underestimated its cost impact. But mostly, the steering committee berated him for his lack of clear communication with the client who got very annoyed. When a client gets annoyed, he phones the CEO directly and then... you're dead! This happened to be a big client who complained about how disastrously this crisis had been managed and about how our response to him had been terribly inadequate... We all got an earful. The poor old site financial controller was roasted for three quarters of an hour... It was awful. He totally lost his composure and his face sank; he retreated into silence and didn't know how to respond. His silence in response to questions about his management of the quality crisis was perceived as being very bad.
> Then, we received instructions for... Well, the branch financial director was given a dressing down. He was asked why he had kept on a financial controllers who did not know how to management a quality crisis situation on an industrial site. In their view, the financial controller should have stood in for the quality director... even though it is usually the latter's job at the very least to take charge of crisis communication in this kind of situation.
> Obviously, his superior, the branch financial controller, was afraid of losing his job and did not want to question this decision. You cannot imagine the amount of face slapping that took place as a result. (Barbara, Management Accountant, Branch)

Heavy bursts of criticism and interrogation are employed by senior management like an ammunition machine (Burchell et al., 1980) to test the quality of management accountants' subjectivation. Sustaining this culture of continuous improvement appears to be a quest for the Holy Grail that is shared by both judges and defendants alike.

Examining one's behaviour in order to be prepared

As we have described above, monthly performance review meetings are formal and recurrent events in which management accountants go through an extremely probing trial. The intensity of these meetings partly explains the preparation management accountants undertake beforehand.

> Yes, you have a lot of pressure. [...] Generally, you get a lot of pressure about results... You are there to be treated like a fool and you're shouted at: "But you haven't reached your budget targets!!!" (Félix, Management Accountant, Plant)
> When facing senior management, you have to know your figures by heart. What characterises best practice in this area is knowing your boundaries like the back of your hand, showing flawlessly that you are on top of things and that everything is under control. You have to have an extremely high degree of anticipation for any questions that may be asked, particularly with respect to any divisions facing difficulties. You know that you'll be grilled on that. So, you need to be ready to face down and respond firmly to remarks that can be very harsh, such as: "What are you waiting for to close down this site?" You cannot take it personally and you have to be tough. You have to develop a sufficiently thick skin to be able to respond in a calm and collected manner to these interrogations. They expect you to be straight talking and cool-headed. That's a sign of control and shows that you can be counted on. (Barbara, Management Accountant, Branch)
> There is pressure. But, for me, stress is... It's also the result of pressure you put on yourself. So, you have to know how to keep calm and take a step back. (Edouard, Financial Controller, Site)

When the firm's results do not match the goals previously set, the pressure on their shoulders can become so intense that some of them cannot cope with it anymore.

> Those who cannot take the pressure leave, after no more than two years. But others hold on, not wanting to fail... But in the end, some break, especially if family or personal problems come into play. There have been

> many cases of depression and suicide[4]. We just don't talk about it. It's taboo, but it's also a reality. (Barbara, Management Accountant, Branch)

Knowing the high expectations that hang over them, management accountants develop self-discipline. To be prepared to tell all, one must first have seen all.

> You never know what the questions will be about. It's like Russian roulette. To help branch financial controllers face questioning, we prepare crib sheets—around thirty pages of complementary information focusing on any topics likely to be raised in the meeting. Sometimes they use this information, often not. We follow the branch financial controller's hunches... [These sheets] are drawn up on the basis of our cost structures: sections on materials, operational margins versus budgets, direct labour costs, and a special focus on any sites where we see results falling. In fact, everything evolves around cash and operating income, which makes for a lot of topics... This takes a phenomenal amount of time, analysis and reflection, and creates a lot of stress. You have to manage all three of these aspects... because we obviously have so much more than that to do. (Barbara, Management Accountant, Branch)

This discipline includes how they manage their time both inside and outside work, often working at night and at home.

> Mostly, we end up doing this kind of thing at night. In general, it's best to work on this kind of issue between 9 and 11 p.m., because during the day it is often too hectic. Between phone calls, mails and meetings, it is extremely hard to think. (Boris, Financial Controller, Plant)
> This preparation frequently requires us to work into the night. I don't bother counting these late-night work sessions anymore. Usually, I take a break around 9p.m. to get things clearer in my head... You get exhausted... And then I go back and join the team to work for two or three hours more. (Barbara, Management Accountant, Branch)

A more difficult exercise in self-discipline consists in finding the right positioning in relation to operational managers. Management accountants not only have to manage their own stress, but they also have to gauge carefully the pressure they place on operational managers' shoulders, as they find themselves balancing short-term market pressures with long-term strategic decisions.

> It's true that we are feeling market pressures more and more, especially since we started to announce our results every quarter. [...] And yet, it is part of the role of financial controller to know how to slalom between the two, facing short-term imperatives—namely, that we must meet the targets we have announced to the markets—without ever sacrificing the long term. [...] So there are moments when we need to know how to ignore this pressure so that we can continue to pursue the medium-term goals we have set ourselves. [...] The financial controller must temper things. He must be able to reduce this pressure, because if he keeps it to himself he will implode. Yet, at the same time, he must not change the direction of the work of his operational managers every five minutes. (Bernard, Management Accountant, Branch)

Furthermore, management accountants must continually play on both sides of the game, since they are held accountable both for enforcing administrative and financial rules and for ensuring that targets are met.

> The accountant is a player in the game but, at the same time, he's also the referee. He's the one who keeps the score. He's the one who whistles for offside. Even for offside against his own team. (Georges, Management Accounting Director, Head Office)

This places them in an awkward position in which they have to decide for themselves the extent to which they want to influence operational managers. On the one hand, they must stand firm and assert themselves:

> One of the difficulties of financial control is that we must maintain our role and hold onto what we have because it is one of the keys to Equipauto's success. But we regularly face conflicts. (Olivier, Financial Controller, Site)
> The management accountant must assert himself. He must persuade. (Georges, Management Accounting Director, Head Office)
> As soon as you take the pressure off, everything starts to go wrong. (Edouard, Financial Controller, Site)

On the other hand, management accountants are told not to substitute for operational managers.

> Since we have the tools, we have a greater capacity for prediction compared to management. And the temptation is also very strong, when management is a little light, for us to supplant it, to grab the joystick and fly the plane ourselves. And that is very dangerous. I think, at Equipauto, this temptation is very, very strong. We are also, to a certain extent, organised to do just that, so you need willpower to say to yourself: to each his own job. [...] And I find that pretty hard to handle. (Rachel, Financial Controller, Site)

Rachel's discourse clearly states that, despite understanding all the production processes and possessing all the necessary information to be at the heart of

[4] Committing suicide because of work-related stress has recently become a national issue in France (source: http://www.lemonde.fr/economie/article/2010/03/11/a-france-telecom-la-vague-de-suicides-se-poursuit_1317646_3234.html). French Labour Minister Xavier Darcos met the head of the country's main telecommunications company (France Telecom) to discuss a wave of staff suicides which has seen more than 20 workers take their lives in the past 18 months – some leaving notes blaming job stress and misery at work (source: http://news.bbc.co.uk/2/hi/8252547.stm). In 2007, a French prosecutor opened an inquiry into working conditions at carmaker Renault after suicides at one of its factories (source: http://www.guardian.co.uk/world/2009/sep/09/france-telecom-staff-suicides-phone). Those deaths have triggered a national debate about whether they are evidence of a wider malaise in French factories and offices (source: http://www.businessweek.com/news/2010-01-25/suicides-inside-france-telecom-prompting-sarkozy-stress-testing.html).

decision-making, management accountants must "hold back" and not "grab the joystick and fly the plane" in place of operational managers. Senior management provides accountants with all the conditions required to seize power and yet tacitly, and somewhat hypocritically, demands that they know their place. Acting on the self extends to accountants managing the contradictions they face.

Preparations for monthly performance review meetings include practical exercises and self-examination that management accountants undertake of their own accord, assessing their progress and numbers through audits and self-assessment questionnaires.

As we mentioned earlier, for instance, the rules contained in the Administrative and Financial Handbook (AFH) must be consulted on a regular basis.

> This is a task that is becoming increasingly important for the management accountant. It is to verify that nothing gets out of hand and that a certain number of financial norms that are defined at group level are being applied. [...] The tool in question, for internal control, we call "Chekov". This is an extremely comprehensive list and we verify compliance with it very regularly, on an almost daily basis. For instance, on the issue of rolling inventories: are we using the right methods? Are we using them every month? Are we still using cheques (a practice banned in our company)? It's a set of rules on sound management and good practice that have been formalised. So, we spend a good deal of our time verifying that these procedures are being implemented because, otherwise, we find that things get out of hand very quickly. (Bernard, Management Accountant, Branch)

The Chekov questionnaire, which tests compliance with the administrative and financial rules, is referred to on an almost daily basis and management accountants use the Equipauto Purchasing Quality audit to test their compliance with the five-axes philosophy.

> There is what is called an EPQ audit, which means Equipauto Purchasing Quality. Auditors come to do an audit in accordance with the five axes. So, the five axes are applied in roughly 100 to 150 questions each. And the response to each of these questions must be positive. This is one way for the branches to manage progress. (Laura, Management Accountant, Site)

These questionnaires help management accountants to remain constantly aware of their level of compliance with the code of conduct. They are examinations the right answers to which examinees know in advance.

The Equipauto 5000, another widely used questionnaire, is designed to assess the overall performance of business unit management accountants by leading them to benchmark their overall performance with other Equipauto sites.

> There is a whole system of internal control, or internal auditing. The Equipauto 5000 questionnaire generates a ranking of the different sites. When the site directors meet at the board of directors, at branch head office, the finger is pointed at them: "You got 56% at your last Equipauto 5000, that's bad news. Look, he got 83%". That's the kind of thing that really gets to people. And it's true that it is used as a tool for applying pressure, a management tool at Equipauto. (Laura, Management Accountant, Site)

These questionnaires appear as self-reflection exercises, with the number of wrong answers equating to the distance management accountants have yet to run if they are to measure up to expectations (Foucault, 1984a, p. 28). They are a confessional in which accountants admit their bad deeds—confession, according to Foucault, being a key device for accessing the self-knowledge of the subject (Covaleski et al., 1998; Townley, 1993).

In addition to managing their time and stress daily and to facing regular questionnaires and examinations, management accountants use 5-min daily meetings to complete their preparations for the monthly performance review meetings. Depending on their position in the reporting line, they must either attend or chair several 5-min meetings each morning. For instance, as one plant's financial director, Edouard organises financial control meetings and takes part in the plant's management board meetings:

> I have three five-minute meetings. The first meeting is the meeting of the division board, at 8:15 a.m. Then, there is the plant meeting, where there are four or five people from Autonomous Production Units, and people from quality and methods. In general, 80% of the time is spent explaining volumes and the performance of the previous day. The remaining 20% is spent on alerts and reminders of several big events in the coming day. And then, I have the financial meeting. (Edouard, Financial Controller, Plant)

Five-minute meetings are examinations for which management accountants need to prepare. Self-discipline includes learning to face operational managers.

> I've got into the habit of arriving a little before the five-minute meeting because it's better to prepare for it and have your ammunition ready. Normally, I arrive around 7 a.m. (Rachel, Financial Controller, Site)

Indeed, 5-min meetings can be viewed as daily rehearsals for the monthly performance review meetings, since it embodies in part the theatrical dimension of the latter (Goffman, 1973). These meetings bring together on the same stage members of senior management, management accountants and operational managers and require intense preparation backstage. They are designed to make sense of the past, to manage and organise the immediate agenda for the different business units, and to reaffirm power/knowledge relationships within the firm.

Discussion

In this paper, we describe the making of producers of truthful knowledge. Following on from the work of Roberts et al. (2006), we provide fruitful insights into the mechanisms for acting on the self to produce truthful knowledge and emphasise the interplay between individual subjectivation and rituals of truth production. The role management accountants play in online reverse auctions turns them into producers of truthful knowledge about the organisation in the eyes of clients and shareholders. We show that they can be made producers of truthful discourse because the rules for producing discourse have themselves been established and imposed through selection rituals and the ritualised roles they play. Their legitimacy is validated during monthly performance review meetings that constitute trials of truth for management accountants. To pass these trials, management accountants must invent norms of conduct for themselves—a true process of subjectivation.

Subjectivation: playing with time and others

Research devoted to subjectivation and the production of truthful knowledge has focused mainly on face-to-face situations and a number of studies have been carried out in accounting and financial circles on situations between financial analysts and accountants (Roberts et al., 2006), between auditors and their clients (MacLullich, 2003), or between controllers and managers (Ahrens, 1996). In this study, we argue that the situations in which management accountants are subjectivated form an extensive and on-going process that combines acting on the self, face-to-face situations, and collective trials.

This process begins by making management accountants feel they are the "chosen ones", that they are joining a family of peers. Signing the letter of commitment marks an official step in the subjectivation process, a moment in time when management accountants become aware that, from now on, they must measure up to their peers.

We show that online reverse auctions constitute the next step in the subjectivation process, making management accountants discover the role they are expected to play and the ideal they should pursue, *i.e.* to become producers of truthful discourse about the firm. Online reverse auctions have radically transformed the nature of relationships between buyers and suppliers: extensive, face-to-face negotiations between salespeople and buyers have been transformed into 2-h fights between anonymous bidders who focus strictly on the changing prices on their screens.

We demonstrate that this new configuration requires the active participation of management accountants before, during and after the bidding process. Management accountants fight against a market made visible on a screen, in a presence–absence paradox (Preda, 2009); what they say alone sets the price and commits the whole firm in the eyes of both shareholders and clients. Commitments made to buyers during reverse auctions must be complied with, which assumes that management accountants are able to take appropriate positions during auctions, to set production norms and then to enforce them.

We show that enforcement of production norms reveals a new facet of the subjectivation process. It is a matter of conducting face-to-face relationships with operational managers and of finding a balance in power/knowledge relationships. The part played by the management accountant is a difficult one: the script is sometimes ambiguous but the lines must be pitched just right. Only by acting on the self on a daily basis are management accountants able to "stand firm" without "grabbing the joystick", to be "a co-pilot with the operational manager" without forgetting "the loyalty" they owe to the financial function.

We show that preparations for monthly performance review meetings constitute an additional step in the subjectivation process, requiring ascetic practices from management accountants. Monthly performance review meetings hinge on knowledge of the field, take a long-term view, and must be intensively prepared. Alone, management accountants undergo self-examination and what Foucault calls practices of the self (Foucault, 1994b). These exercises cover the extended business timeframe and range from verifying compliance with financial rules annually (by means of internal audit questionnaires) to testing their mastery of production and broader business issues daily (through 5-min meetings). *In fine*, during monthly performance review meetings, the truthfulness of their accounting discourse is assessed according to three criteria: compliance with the norms of elaboration, resistance to internal criticism and respect of the commitments made towards clients and shareholders. This assessment constitutes a genuine trial of truth, during which production of truth is collective and requiring the physical presence of the hierarchy, head office and operational managers.

The series of face-to-face meetings with other actors that management accountants endure enhances the collective dimension and the long-term duration of processes of subjectivation and of the production of truthful knowledge in the firm. There are different timeframes at play here—meetings, exercises, and the work of the management accountants on themselves all have their own rhythms. We show that acting on the self, face-to-face situations, and collective trials constitute an on-going process of subjectivation. However, they all contrast markedly with the short duration, intensity and pressure of online reverse auctions.

Online reverse auctions: mirroring the markets

We show that online reverse auctions impose new relationships with the market and new rules for producing truthful knowledge. Complex and multi-dimensional negotiations between salespeople and buyers have been transformed into parcelled discussions that conclude with a fight focused strictly on price. Mistakes cannot be tolerated: a price pitched too low risks cutting into already tight margins; a price pitched too high may lead to the bidder being evicted from the auction market without appeal.

We demonstrate that, by transforming the object, the time frame and significant others (Goffman, 1973) in the decision-making process in commercial negotiations, online reverse auctions compel firms to grant management accountants a central role. Management accountants find themselves, alone, at the interface between external (buyers, suppliers) and internal stakeholders (senior management and local operational managers). By placing participants in intensive competition with each other to win contracts, online reverse auctions are in themselves one type of surveillance, making visible and intensifying market discipline.

Online reverse auctions considerably increase the pressure weighing on management accountants' shoulders, yet they are also a source of power for management accountants, allowing them to control costs ruthlessly to meet the norms they helped to set during the auction. Their commitment in reverse auctions helps to diffuse and promote financial discipline over time within the organisation.

The metrics: an accounting rhetoric and a rhetoric of the self

A number of studies have analysed how financial discipline is backed by accounting metrics, which have been used to foster a swing in power in favour of financiers (Armstrong, 1985; Carter & Crowther, 2000; Ezzamel & Burns, 2005; Ezzamel et al., 2008; Fligstein, 1990; Loft, 1986), or how they can feed some forms of resistance (Ezzamel & Burns, 2005). Roberts (2009) shows how such metrics can be used as a mirror of the self, locking individuals into the insatiable logic of continuous self-improvement.

In our study, we explore in greater depth these mechanisms whereby individuals are locked in and we shine a light on the interplay between the rhetoric of accounting and the rhetoric of the government of conduct. Measurement in terms of deviation from a rule relates to both an accounting rhetoric and to a rhetoric of the care of the self. In order to measure up to the ideal, management accountants are willing continuously to assess their progress and numbers in relation to the objectives they have themselves helped to set. These objectives are materialized through accounting metrics, and more precisely, through norms established during reverse auctions and included in the five-axes indicators and the budget.

One issue facing management accountants is that information is constructed from operational activity. The accounting metrics, according to which management accountants measure their deviation from the ideal, should be shared with operational managers. Ultimately, both operational activity and raw data come from operational managers. Reducing any deviation from the ideal partially relies on imposing metrics on operational managers, at all times and in all places. Such metrics are central to investment decisions and project management and they are continuously referred to for the management of daily operations. Management accountants expect operational managers to translate their activity into the metrics on their own accord, by means of a declaration of forecast variances, thereby making them accountable for, and preparing them to explain and to reduce, any future variances.

However, it should be noted that the strategy of management accountants is not to make operational managers take an oath and commit themselves, as management accountants themselves do. Such an act would be synonymous with sharing their ideal and their prestige with operational managers, whom management accountants do not want to become "chosen ones" or "ones who know". Consequently, management accountants focus their efforts on making operational activity calculable, down to the very last detail. Like auditors who transform the financial statements of corporate management from an inherently untrustworthy state into a form with which they and their public can be comfortable, management accountants try to make activity calculable to offer a sense of order and safety (Pentland, 1993). Management accountants' ability to paint an accurate picture of operations and production processes is a prerequisite to convincing their audience—*i.e.* head office and operational managers, whom they want to keep at arm's length—that they master the information and that they are the one and only reliable producer of truthful knowledge within the firm.

The problematization of the self and the making of the ethical subject

In this study, we highlight the relationship between conduct of the self and production of truthful knowledge. By making management accountants the producers of truthful discourse about the firm, online reverse auctions create a specific form of problematization: a problematization of the self. According to Miller and O'Leary (1993, p. 189), accounting is a problematizing activity, *i.e.* it proposes some objects of thought from which are derived objectives for action and work methods. Productivity is one of these concepts. Problematization through productivity entails acting upon workers' motivation and morale in line with methods drawn from psychology (Miller & O'Leary, 1993). Miller and O'Leary shed light on the relationship between accounting and conduct of the self and, more precisely, conduct of the self as a motivated subject.

In this paper, we show that accomplishing a moral duty requires an individual to turn himself into an ethical subject whose actions relate to the prescriptive elements that make up the code (Foucault, 1984a, p. 26). Foucault states that compliance with moral and ethical norms requires problematization of the self. This problematization of the self takes the shape of surveillance of the self (Foucault, 1994b). Foucault illustrates the relationship between truth and the self in the story of *The Man of Desire*. For Foucault, the story of *The Man of Desire* is not a story about forbidden fruits but a story about the problematization of the self (1984a, pp. 10–11). Sexuality is not a standard behaviour but a domain from which the individual produces norms of behaviour for himself. It is by recognising and explaining his deviations from the norm that the individual thinks of himself as a subject (Foucault, 1984a, pp. 5–6).

Here, we analyse the mechanisms of the problematization of the self that management accountants perform. This problematization can be labelled ethical in the Foucauldian sense of the word. It leads management accountants to take an oath to comply with the rules for producing an accounting discourse, to adhere to the code of conduct and to follow rituals. The code of conduct includes the rules and procedures compiled in the Administrative and Financial Handbook and the Five Axes, constituting a prescriptive ensemble (Foucault, 1984a, p. 26) tied to detailed metrics.

We demonstrate that this prescriptive ensemble, more than simply a set of rules to enforce, is used by management accountants to gauge the efforts they must make to measure up to their ideal, *i.e.* to become producers of truthful knowledge about the firm. Management accountants develop practices for acting on the self, submitting themselves to what Foucault calls "spiritual exercises"[5] (Foucault, 1994b). These are inextricably tied to the metrics that provide a basis on which management accountants can measure their conduct. These self practices are designed to make "a strong subject rather than a lucid subject" (Gros, 2007), meaning an individual who seeks to be as near to his full potential as possible (Foucault, 1984b). In this case study, we show that management accountants turn themselves into ethical subjects in the Foucauldian sense of the word.

Conclusion

In this paper we analyse the mechanisms whereby management accountants work on themselves and on others. Through this process of subjectivation, they convince themselves and others that they are the producers of truthful knowledge. Research has explored several modes of subjectivation, including surveillance (Covaleski et al., 1998) and sophisticated forms of discipline (Roberts et al., 2006) that are associated with programmatic ideals (Ezzamel & Burns, 2005; Vaivio, 1999). This paper investigates other aspects of the subjectivation process and, more precisely, organizational mechanisms and practices for acting on the self as the producer of truthful knowledge.

As illustrated above, Foucauldian analysis offers several fruitful concepts, such as trials of truth, which enable us to understand how wider society's demand for transparency and accountability is enacted within the firm. In this case study, we show that the truthfulness of discourse is determined through rituals for selecting and making management accountants and through the enforcement of rules for producing truthful knowledge. However, there is clearly scope for further research in this area. Examining the forms these trials of truth take in different contexts and the way they influence the production of truth and accounting knowledge constitutes one avenue of research worth exploring.

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[5] Foucault's study of ancient sexual behaviour is framed in terms of Hadot's notion of spiritual exercises. Accordingly, Foucault's aim is to link the practices of the self exhibited in the domain of sexual behaviour to the spiritual training and exercises that govern the whole of one's existence (Davidson, 1990, p. 480).

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