Management control systems and organisational change:
Framing time and identity

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1. Introduction

1.1 Relevance and objective

Accounting scholars have extensively documented the contribution of management control (MC) systems to organisational change (OC) (see for instance, Hopwood, 1990; Macintosh & Scapens, 1991; Robson, 1991; Ezzamel, 1994; van der Meer-Kooistra & Vosselman, 2000; Soin *et al.*, 2002). On the other hand, since OC is generally associated with resistance, organisation science has been largely concerned with investigating causes and processes of resistance (e.g. Argyris & Schön, 1996). In particular various concepts of identity (organisational identity, personal identity) have been used to shed light on organisational change processes (Gioia & Thomas, 1996; Gioia *et al.*, 2000; Brown & Starkey, 2000).

Since MC change is often associated with OC, it is likely that such identity considerations can also be associated with MC change. However as far as we know, there has been a rather limited number of studies investigating MC change from an identity perspective. Such research generally focuses on new targets and related performance measures and shows how new system implementation goes along with a change in organisational, and beyond, actors' identities. For instance Covaleski *et al.* (1998) have scrutinised how the introduction of MBO in public accounting firms has contributed to shaping participants' identities.

There are however many other aspects in identity than those related to the nature and goals of human activity. Among them time appears a central aspect of identities. Such an aspect is related for instance to how individuals represent and enact time in their lives, or how they perceive their organisation: past-, present- versus future-oriented, short- versus long-time focused? Interestingly MC systems are powerful means of structuring time in organisations. Indeed plans and budgets are about future, while performance measurement refers to past; and performance management is about what we decide today from yesterday's reports. Management control thus can be considered as "meet[ing] our need of mastering time" (Méric, 2000, p. 1185). It is then likely that MC systems and their use interact with temporal aspects of identity, whether at the organisation's or person's level.

The research[2] reported in this communication aims at evidencing the role of MC systems in (re)shaping temporal aspects of identity during organisational change. Such investigation, which as far as we know has not yet been undertaken, appears relevant in at least two respects. First it complements the existing body of research on accounting and organisational change, namely it shows the specific and significant contribution of MC systems in reshaping organisational and actors' identities. Such contribution is generally

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underestimated by organisation scholars, and identity perspectives have not been paid much attention by accounting research hitherto, as mentioned above. Second, it highlights the temporal aspect of human activity and related representations. Such aspect is also often disregarded, maybe because human activity and life inherently exist *in time*, so that related awareness might prove uneasy. Though, enlightening temporal aspects of identity would enrich our understanding of identity processes.

1.2 Methodology and structure

As is relevant with this type of investigation we conducted a case study. The case setting under study is the division (thereafter, Inf-Rail) of a large French public sector transport company (thereafter F-Rail). At the time of our survey a new MC system had been recently implemented. This new system consisted of: (1) the implementation of periodic performance management meetings (thereafter performance meetings), during which exchange is based on (2) a new performance scorecard including traditional non-financial performance measures and new financial measures (e.g. unit costs). The explicit objective of this system is to foster the development of an “economic culture” within the division in a broader context of major organisational and strategic changes at the corporate level.

Our observations rely on the triangulation of (i) archival internal documents (mainly, the closing address of the Division CEO at an Inf-Rail Convention, a project document from Inf-Rail Finance Department, and the hands-out given to participants in training seminars about the new system); (ii) open interviews of a whole variety of managers directly concerned with the use and implementation of the new system in different geographical areas, at various hierarchical levels, and both in the operational line and in the financial function; (iii) passive observation of performance meetings in different geographical areas and at various hierarchical levels. We believe that such diversity of respondents and observations have provided us with significant insight into identities, both at the organisational and personal levels, and into how the new MC system interact with these identities in the context of the ongoing OC.

We have presented our main findings to our interviewees. According to them our analysis faithfully reflected what they had said and felt and more generally ongoing change in the organisation. Other participants in these feedback meetings (some interviewees changed position after the survey and new appointed managers were present for the feedback although they have not been interviewed) also found our analysis sound.

Inf-Rail’s geographical organisation has four levels: national, regional and locally, the levels of “establishments” and “operating units” (or OU) (see Part 3 for the detailed presentation of each level’s responsibilities). We focused our observations on two regions and four local establishments (two in each region). We observed eleven performance meetings and *before* these meetings, we interviewed 29 key-participants in these meetings (average interview time: one and a half hour-two hours). Indeed the observed meetings being spaces of appraisal, thus source of discomfort for both evaluatees and evaluators, the presence of observers could be perceived as particularly intrusive, and beyond bias interactions during the meeting. Interviewing individually participants before the meeting made it possible to create trust between participants and the research team, then to limit biases related to observation.

We thus interviewed:

- the two directors of the sectors supervising the two regions under study, at the national divisional headquarters (thereafter SECDIR). Indeed we chose our two regions in two different sectors so as to enhance further variety of observation;
- in each region, the regional delegate for the division (REGDIR) and two of his assistants: the regional production manager (REGPROD) and the regional management accountant (REGMAC),

- in each establishment, the establishment manager (ESTDIR), his two assistants respectively in charge of production (ESTPROD) and management accounting (ESTMAC), and depending on establishments and their managers' willingness, from zero to two operating unit managers (OUMAN).

Accordingly, the eleven performance meetings were observed at the three hierarchical interfacing levels. In each meeting (one hour to two hours and a half, depending on the hierarchical level) there were participants of the evaluated entity and of the supervising entity – those whom we had met previously and occasionally other colleagues of theirs. We thus observed meetings at the region-sector level (2 meetings), at the establishment-region level (4 meetings) and at the OU-establishment level (5 meetings).

Research has been initiated by the researchers, who had some informal contacts at Inf-Rail's headquarter level. Our pre-survey (collection of archival documents and interviews of the design team at headquarters) took place between June 2003 and February 2004 (a laps of time during which all authorisations for conducting the survey were gathered), and the interviews and observations were carried out between April 2004 and September 2004. At that time performance meetings have been held for more than one year (they started in April 2003). Observing meetings made it possible to control self-declaration biases and also to confront individual discourses about organisational and MC system change with the system's collective implementation, hence to "cross" representations and behaviours, discourse and practice, individual and collective levels, intended and actual changes.

From the first interviews on, it appeared clearly that recording was detrimental to the spontaneity and authenticity of response. Hence we gave up recording and interviews were systematically conducted by two (sometimes three) researchers so that to have to our disposal the most exhaustive notes. Depending on the number of participants, two or three researchers observed performance management meetings. Hence we did not collect the verbatim of interviews and meetings but the comparison of our individual transcriptions suggests that the quasi-totality of interviews is finally available for analysis. Final transcription results from transcription by the first researcher, incrementally complemented by the second one (and third one, when applicable). All involved researchers met for validation of the final transcription. All discrepancies in individual transcriptions were discussed and referred to context for final decision.

For this research we adopted an abductive process. After the first interviews, on the basis of the most recurring themes, we identified a few theoretical frameworks (psychological contract, cognitive consistency…) which might be worth considering. Following interviews were conducted with these frameworks in mind and specific related questions were asked. Later it appeared that most collected data could be associated with identity-related questions – which motivated the final choice of the theoretical framework presented here. Of course this construction is not free of our own categorisations and subjectivities.

Data have been analysed in two steps. In the first step we did not use any software since meaning is partly a matter of signifieds (and software only deals with signifiers). Meaning lies also in the spontaneous moves of thought and in formal qualities of discourse (voice, special words, metaphors…). The analysis presented in this communication relies primarily on our identification of the most recurring or/and the most sense-making themes and connections (free associations, explicit cause-effect relations, etc) in the persons' discourses. Again appraisal of sense-making and recurrence is undoubtedly subjective. However it is generally admitted that expert consensus leads to a form of objectivity – "disciplinary objectivity" (Megill, 1994). In a second step, data have been encoded (NVivo software) without any reference to the first step (and this was all the easier as we have also used the same data with reference to a very different theoretical framework), according to Glaser and Strauss's (1967) prescriptions, then providing a basis for validating our first-step analysis and enriching it.

The remainder of the text is organised as follows. Part 2 develops the theoretical framework that will further be used for analysing the case study. Drawing on prior work in organisation science, psychology, and accounting, we posit that a minimum level of consistency between related aspects of organisational and personal identities is needed in organisations, and that MC systems highly contribute to shaping temporal aspects of identities. Then we discuss the dynamics of this system formed by organisational identity, MC systems, and personal identities, and namely the impacts of OC and MC change, with a focus on time questions. Thus our model identifies three main elements worth observing (organisational identity, MC systems, and personal identities) for understanding the role of MC systems in shaping time-related aspects of identities during organisational change. Parts 3, 4 and 5 respectively analyse these three elements in the case setting under study. Each part discusses the relations of the analysed element with the two others, as well as the impacts of the various ongoing changes (organisational and MC systems changes). Drawing on these three analyses, Part 6 shows that this organisation is moving from a point of relative equilibrium where MC systems, organisational identity and actors' identities were aligned to a new point of equilibrium where MC systems highly contribute to shaping new representations of time at both the organisational and personal levels. This new equilibrium remained unachieved at the time of our survey, as suggested by the difficulties encountered at the implementation stage of the performance measurement/management system and other forms of actors' resistance. The conclusive Part offers a discussion and implications for further research and practice.

2. Theoretical framework: time in organisational change, identities and MC systems

In this Part, we build the conceptual framework that we will use later on for analysing our observations. Since we focus on the dynamics (organisation and MC changes) of a set of multiple elements (identities, accounting system), it appears appropriate to propose first an organisation of these various elements, that is, to describe the relationships between these elements within what we could label an "identity system". In a second stage we will explain the dynamics of this system, that is, how change affects its various elements.

2.1 Identities, MC systems and time

This section presents the two concepts of identity (organisational identity, personal identity) used in this research, with a specific focus on time-related aspects. Then we explain how MC systems frame time representations in organisations, so that one can consider such systems as providing a significant basis of temporal aspects of organisational and actors' identities.

2.1.1 Identities in organisations

The question of identity in organisations can be introduced from various perspectives. Historically identity has first been paid attention by psychologists who have been interested in persons' identities since the 1930s, whereas the concept of organisational identity has emerged fairly recently in the 1980s in organisation science.

<u>Personal identity</u>

By personal identity we refer to a person's identity. Identity is at core of individuality since it is « a construction from which the subject draws *permanence* and *singularity*[3] » (Chauchat, 1999, p. 7): permanence[4] of what (s)he is, and assurance of being unique. But identity is also a relationship to world, a way of taking place in the environment, that is, among others,

[3] Unless mentioned, all accentuation marks are original.
[4] As we shall see below, this does not mean that identity a static construct, but that identity deals with the feeling of existence throughout time.

relating to others. The concept of personal identity thus articulates individual and social aspects.

Both aspects have been extensively studied by psychologists with a focus on either *individual identity*, or *social identity*, while a third category has tried to integrate both dimensions. Sociologists, in particular those interested in the sociology of professions, have also investigated identity questions with a frequent focus on construction processes (Dubar, 1996) or social consequences, for instance, work or power relations (Sainsaulieu, 1977). Altogether however, sociology-inspired empirical research always focuses on social groups (e.g. professions, occupational groups) as opposed to individuals. For our research, we need a concept of identity recognising both its individual and social components, since processes involved in organisational change (resistance, appropriation, etc.) have both an individual and a collective dimension. Hence, since sociology does not recognise the individual aspect of identity at all, psychology appears a more relevant field for our research - and among psychology works, those proposing a concept of identity which recognises both individual and social aspects.

Before considering integration of both aspects, what are individual and social identities? Individual identity is defined as a personal disposition and corresponds to the concept of self. Social identity is defined in relation to stereotypes, norms and behaviour schemes in a social group. There is a long research tradition in both areas. As an example in the first area, identity is made of all characteristics a person recognises as him/her (the self) and to which (s)he gives value in terms of recognition (Erikson, 1959, p.101 et s.). In the second area, Social Identity Theory (SIT) is derived from seminal work by Tajfel who posits that an individual's social identity is linked to "the individual knowledge that he [or she] belongs to certain groups together with some emotional and value significance to him [or her] of the group membership" (Tajfel, 1972, p. 272).

This "split" between individual and social identity is however highly questionable. Indeed it disregards the fact that personal identity is always constructed within a social environment, and furthermore that "there is no difference in nature between [individual identity] and [social identity]. Indeed psychic processes are the same" (Chauchat, 1999, p. 9). In other words, personal identity is always both individual and social, since the subject is always related to groups.

Weinreich has proposed a very inclusive definition of identity which also denies any separation between individual and social identity.

> "A persons' identity is defined as the *totality* of one's self-construal, in which how one construes oneself in the present expresses the continuity between how one construes oneself as one was in the past and how one construes oneself as one aspires to be in the future" (Weinreich, 2003, p. 26, emphasis added).

This definition emphasises the fact that identity is a construction (and moreover a permanent one). Identity includes various components (gender identity, ethnic identity, occupational identity, etc.), which "are not separate identities, but components of the totality of a person's identity" (ibid., p. 27), in relation to membership of a given community at a certain moment of time. According to Weinreich, identity explicitly includes the social dimension, and this inclusion differentiates identity from self (ibid., p. 22). Identity is "more than the self is" (ibid., p. 42): it includes "self's experiences and representations of other people and the social and material world encountered by self" (ibid.). Such a definition is not inconsistent with the concept of 'multiple identities' (or selves) (Pratt & Foreman, 2000; Johnson *et al.*, 2006), which has been recently scrutinised in organisation research.

<u>Organisational identity</u>

There are two main streams in organisational identity research (Ravasi & Schultz, 2006). According to the *social actor* perspective organisation identity resides in a set of *institutional* *claims*, which are expected to influence members' perceptions of what the organisation is and represents. Emphasis is put on the *sensegiving* function of organisational identity. Conversely the *social constructionist* perspective emphasises the *sensemaking* function: organisational identity resides in *shared interpretive schemes* collectively constructed by members.

> "Organizational identity concerns those features of the organization that members perceive as ostensibly central, enduring, and distinctive in character that contribute to how they define the organization and their *identification* to it" (Gioia & Thomas, 1996, p. 372, emphasis added).

Ravasi and Schultz argue that "the juxtaposition of these perspectives (…) produce[s] a more accurate representation of organisational identities as dynamically arising from the interplay between identity claims and understandings" (2006, forthcoming). This proposal appears especially fruitful for OC investigations, as we shall see below. However for the purpose of our analysis we need one definition of organisational identity, not two, and we have chosen to refer to the social constructionist perspective exemplified by the above definition of organisational identity (Gioia & Thomas, 1996). Comparatively the social actor perspective which places the main emphasis on institutional views on identity appears less relevant. Indeed the constructionist perspective and above definition articulate elements at both the organisational level ("features of the organisation") and the individual one ("members' perception and identification"), which seems especially relevant to our objective of investigating the relationship between elements at the organisational level (organisational change, management systems) and individuals (personal identity).

Like personal identity, organisational identity is a subjective construct, although a certain level of consensus on what organisational identity is may arise among its members. Another common point between personal and organisational identity is the character of centrality, persistence and differentiation of traits perceived as constitutive of identity.

Organisational identity is something different from the organisation's image, which is a broader concept whose definition, according to authors, may refer to members' perception of how non-members see the organisation, or projected pictures aimed at various constituencies, or public's perception of an organisation (Gioia *et al.*, 2000). Similarly a person's identity is not the representation that others have of him/her. Between identity and image, either organisational or individual self-presentational strategies can take place.

Organisational identity is also different from organisational culture although the two concepts share some commonalities. A first difference lies in the scope of these two concepts. Without entering here into details it is generally accepted that culture encompasses values, rules and behaviours – which is both wider than and different in nature from the representations of "who is my organisation?". A second difference lies in the (also wider) viewpoint: culture can be represented by anybody, while, according to our definition, identity is only made of member's views. However organisational identity and culture are not independent from each other: Hatch and Schultz's (2002) reflexive Organizational Identity Dynamics Model articulates organisational culture, identity and image. Identity both mirrors the images of others and expresses cultural understanding. Simultaneously the reflecting process embeds identity in organisational culture, and expressed identity leaves impressions on others (image).

Interrelating personal and organisational identities

As suggested by the definition above, identification is a key process in interrelating organisational and personal identities: there is no organisational identity without persons' identification. Identification characterises a person's relation to the social groups of which (s)he is a member. It is "the perception of oneness with and belongingness to some human aggregate" (Ashforth & Mael, 1989, p. 21). Identification erases the distinction between oneself and the group. In other words, it turns the group into a part of oneself (Smith & Henry, 1996). Hence identification has been extensively studied by psychologists interested in the social side of personal identity whose work has inspired most organisational scholars[5].

Psychologists define identification as both a process and its outcome that can be positively or negatively connotated. It is often defined in terms of aspiration, but not always. Different types of identification have been proposed. For instance, Weinreich (2003, p. 58-60) distinguishes between idealistic (positive) identification (defined in terms of aspiration of gaining for oneself qualities attributed to the other), (negative) contra-identification (defined in terms of aspiration of dissociating from qualities attributed to the other), and empathetic identification (defined in terms of resemblance is not defined in terms of aspiration), which can be either positively or negatively valued. Kreiner and Ashforth (2004) do not make clearly the difference between aspiration and resemblance but they introduce complexity in value, as shown by their ' ambivalent identification' type.

Identification has been recognised for very long in organisation literature as an important construct in terms of behaviour, motivation (Van Knippenberg, 2000), commitment (Alvesson & Berg, 1992), and beyond, performance – for more details, see Ashforth & Mael, 1989. Consequently the main stream[6] of research focuses on identification processes with a normative perspective: how to "manage" organisational identity so as to enhance members' identification, and further organisational performance (see for instance, Scott & Lane, 2000)? Without getting as far as these normative perspectives, we believe that some types of identification (for instance, contra-identification with the firm belonged to) can be detrimental to organisational behaviour and performance. In others words there should be some degree of consistency between personal and organisational identities for positive identification to arise and produce positive outcomes for the firm.

2.1.2. Time in identities and MC systems

Having defined our main concepts we will now focus on time. We first show that time is an important aspect of identities. Then we will explain how MC systems play an active part in structuring time in organisations, and further time-related aspects of identities.

<u>The temporal aspect of identities</u>

Management and organisation science have extensively studied time using different concepts of time and considering time as either a dependant or an independent variable – see Clark (1985) or Lee & Liebenau (1999) for reviews. The concept of social time (as apposed[7] to clock time) recognises that time is basically a social construction likely to vary among social groups.

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[5] Although variously termed according to authors, most definitions of identification in the organisational field refer to the self-categorization theory (Turner, 1985) and social identity theory (Tajfel & Turner, 1986). According to these theories, persons tend to class themselves or others in social categories (age, occupation, gender, religion and other affiliations). This categorisation realises an organisation of the social world that makes possible to define others in the prototypical terms of the category. In addition it enables the person to locate him/herself in the environment and offers part of the answer to the question "who am I?".

[6] A minor stream of research studies the dark side of identification from a critical viewpoint. Often drawing on psychoanalysis, such scholars unravel alienation processes that can arise from the loss of personal identity into organisational identity, in particular processes in which the person's ideal self-image is captured by organisational ideal (see for instance, Aubert & de Gauléjac, 1991).

[7] This is however disputable as attested by the multiplicity of calendars (taking different religious events as their departure points), not to mention the 24 hour day, which also results from a social convention. Calendars, Zerubavel (1982) claims, are symbolic systems that contribute to group identity.

Gherardi and Strati (1988) have proposed the concept of organisational time to refer to how a particular organization generally possesses one shared conception of time. They consider organisational time as an important variable in decision-making processes. Schriber and Gutek (1987) who also consider time as an important aspect of organisational culture have shown that among work groups within the same organisation, among professional groups, and among organisations, there were differences in the shared norms of time.

Since cultural understanding is expressed in organisational identity (Hatch & Schultz, 2002), shared norms of time (culture) find an expression in perceived central traits of the organisation (organisational identity). In other words there are temporal aspects in organisational identity.

Temporal aspects have also been evidenced in personal identities, in particular in their social dimension. For instance, Dubinskas (1988) has evidenced temporality differences in biologists and managers. Biologists, he explains, operate with the domain of development time, which is open-ended and can be extended into the future. They implicitly refer to natural biological processes (having their own time patterns) in considering that things will take as long as they need. Conversely managers work within the domain of planning time, which is closed and leads them to perceive time as a linear way, with targets and milestones, for which the main reference is external (markets).

Numerous examples of the relevance of time questions to personal identities can also be found in cross-cultural research. Thus Hofstede (2001) suggests that according to the national culture they experience, persons are more likely to develop a short term versus long term orientation. They also tend to avoid uncertainty unequally, that is, among others, feel unequally anxious about the future. Hall (1983) suggests that persons can be monochronic (they prefer to engage in action sequentially) or polychronic (they prefer to do several things in parallel), and that such a preference is influenced by culture. Hampton-Turner and Trompenaars (1994) emphasise that time perspective (i.e. the personal orientation towards past, present and future) is culturally dependent.

Such examples witness for temporal aspects in various social identities (profession- versus national culture-related). This should not be surprising since “time is the *elementary*, temporal structure which characterizes the intentional processes of human consciousness” Luckmann, 1983).

<u>Time and management control</u>

Numerous organisational arrangements deal with time, and among them schedules, calendars and agendas which can be considered as tools for organising individual and collective action (Clark, 1985; Van Wijk, 2003).

Management control is highly concerned with time questions. First it relies on schedules and introduces rhythms which are not always aligned with the flow of time of operations. Accounting time is not operation time (Méric, 2000), as evidenced by the conventional reconciliation of accounting and production months. Second MC generates various time-related attitudes (retrospective, prospective, reactive, proactive) and systems which differ in how they relate to uncertainty and their orientation towards past or future (ibid.). For instance, planning and budgeting, as a representation of future, are unambiguously prospective, with various temporalities represented in various time horizons, and variance analysis is clearly retroactive. Globally MC is “a discourse about mastering time” (Méric, 2000, p. 1185) and it realises an “invisible” control on organisational participants (ibid., p. 1186).

It has been argued that “time management instruments not only define strong constraints on the organisation and execution of work, but they also do so without their full impact being noticed by the actors on which the temporal order is being imposed" (Van Wijk, 2003, p. 16). Although MC systems do not aim at managing time strictly speaking they frame time perceptions and representations in a way which is as unobtrusive as the way schedules and calendars frame action. Moreover MC procedures include specific schedules (for instance closing calendars) which are time management instruments, and as such, contribute to increase the level of temporal framing.

Such systems have consequences for organisations and individuals. The MC systems locally considered as important (in terms of value given or time devoted) convey messages on relevant time orientation (past versus future), and thus are likely to impact on organisational identity. The same can be said about time horizons which are signs of short versus long term orientation. Such systems also resonate with individuals' representation of time. For instance Arias-Ramirez (2005) has evidenced that actors' perception of MC systems features was different according to their time perspective (i.e. their personal orientation towards past, present and future), which itself was influenced by national culture.

Preliminary conclusion

Our model assumes that, regarding the temporal dimension, there is a trialectical relationship between organisational identity, personal identities, and MC systems. Such relationships are summarised in Figure 1 which features what could be called an "identity system".

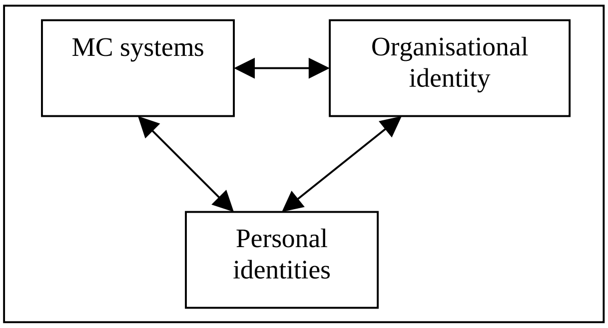

Figure 1: The identity system.

2.2 Organisational and MC system change and their impacts on the "identity system"

In this section we explain the dynamics of this system over time.

Organisational change can be considered as an institutional claim on what the organisation should be now, in contrast with what it was until tomorrow. It is thus a change in organisational identity, in the social actor perspective meaning of the term (see below). Such a change is thus a possible threat for existing identification (which was based on "what the organisation was until now"). Numerous studies in social psychology have explored the transformations of social identities as a result of changes in the social context – see Jetten *et al.* (2002) for an inventory. Jetten *et al.* (2002) have demonstrated that a work-team restructure within an organisation resulted in lower levels of both work-team identification and organisational identification (compared to the level of identifications before the restructure).

Threats put on identification by organisational change conjure up situations of "identity fragmentation" occurring for instance when corporate identity is not aligned with occupational identity (Ogbor, 2001, p. 596). To go on identifying positively with the organisation after change, the person must partly change perception of his/her own identity - which may be a difficult, long and painful exercise, sometimes described as a mourning process (Carr, 2001).

To sum up OC can be considered as a disruption in identification, which results in a move in organisational and personal identities, aiming at restoring identification. However such adjustments take time, so that as long as identification is not restored subjects may experience dissonance and possibly negative emotions (such as anxiety for instance) in proportion of the threat put by change on the positive consequences of temporary lost identification (Carr, 2001).

MC change is often associated with OC. Dent (1991) reported how accounting change contributed to a radical change in organisational culture. Less radical change, for instance changes in structure, objectives or strategies (for instance lean production) having organisational consequences are reflected in new responsibility centres or new performance measures. It is thus likely that MC change will run parallel to OC.

Figure 2 summarises the dynamics of the identity system over time.

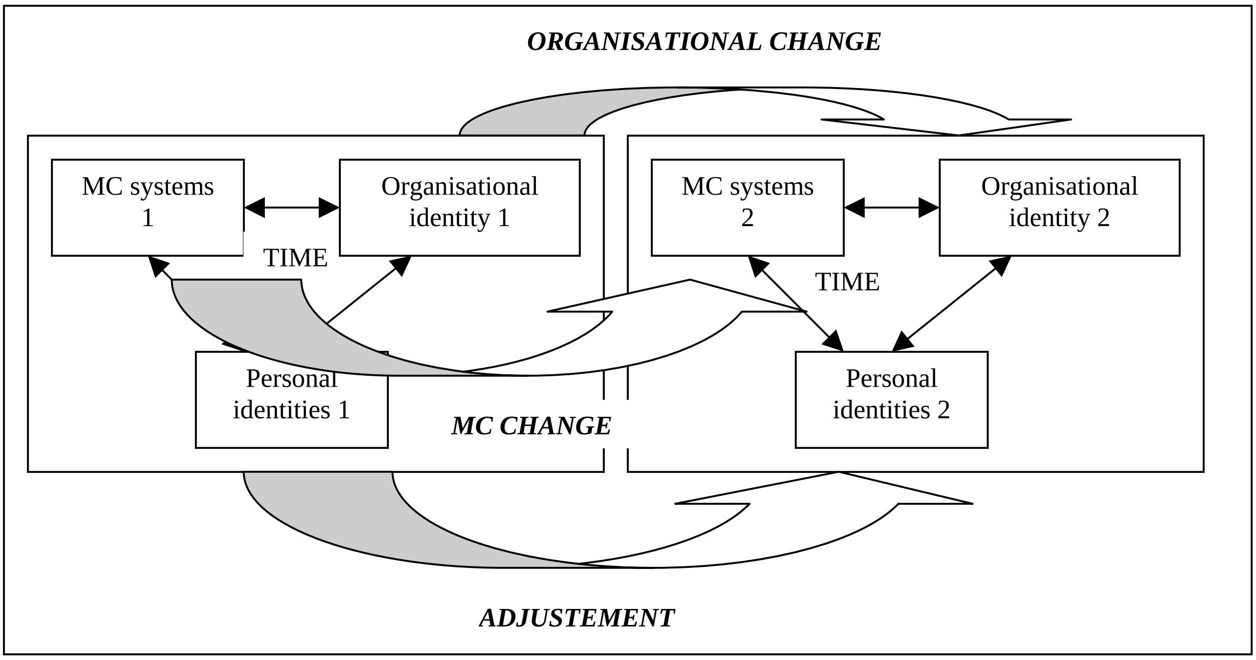

Figure 2: Organisational change and the identity system.

Two states of the identity system are represented, using conventionally numbers 1 and 2 to differentiate them in time. Moving from one state to the other may be represented as a three-aspect process. First, organisational change is a claim on aspects on which the organisation should change, which ultimately results in a change in organisational identity. Second, MC change, considered as fostering organisational change, is often associated with it, with the substitution of news forms or methods of control for existing ones. Third, there is a parallel adjustment in actors' identity so that finally identification is restored. However as long as identification is not restored, it is likely that disruption in identity is a first step towards adjustment. During a transition period the length of which may be variable, such a disruption is likely to give way to resistance to organisational and/or MC change under various forms.

While such a process is probably applicable to various aspects of identity, our focus in this paper is on time-related aspects only. The four next Parts of this text successfully examine such aspects in the three steps of the process in the case setting under study. Part 3 will analyse the intended change in organisational identity. The contribution of MC systems, i.e. MC change, to this move will be analysed in Part 4. Subsequent adjustment and disruption in actor's identity will be discussed in Part 5. Finally Part 6 will inventory the various signs and forms of resistance to change associated with identity disruption.

3. The case setting: main characteristics and temporal aspects of organisational identity

In this Part, we present the main characteristics of the division under study (3.1). We then provide detailed evidence and analysis of its organisational identity, with a focus on time-related aspects. We start with a "traditional" view of the division, that is, a description of its identity traits before the ongoing change (3.2.). In a second step we discuss the nature of this change and analyse it as a widely embracing project aiming at making the division's members inscribe their daily activity in the short term perspective, substituting for the long term orientation which has prevailed since the origins of the firm. It is argued that OC disrupts temporal aspects of the organisational identity (3.3.).

3.1. Inf-Rail and F-Rail

As presented in the introduction, we studied the maintenance and engineering division (Inf-Rail) of the railway company (F-Rail). We start by describing both level of the organisation.

<u>F-Rail</u>
F-Rail is a French railway company whose majority shareholder is the French State and whose most employees benefit from a special status guaranteeing them, among others, life-long job security. This company has undertaken extensive changes for ten years. On the one hand, the quasi monopolistic position held for decades is threatened by the deregulation of the transport sector decided by the European Community. On the other hand, in order to comply to the European Directive 91/440, the French State has created in 1997 two distinct legal entities to manage infrastructure activities (network's ownership and responsibility for its maintenance and development) and operation activities (production and sales of transportation) - that were previously integrated in F-Rail. A new company has been created to carry out infrastructure activities, F-Net, that can call on any supplier for the maintenance and the development of its network. Nevertheless, as of today, most of the skills in terms of railway maintenance and engineering are still concentrated in F-Rail, more precisely in its division Inf-Rail that remains thus until now F-Net's main supplier.

F-Rail's organisation is both divisional and geographical. Divisions correspond to activities, namely railway equipment and traction; different segments of operations (freight, long distance lines, regional lines, Parisian lines); and infrastructure – the Inf-Rail division. Divisional organisation is recent. It has been implemented after F-Net's creation (1997) and aims at orienting the organisation towards customers and developing among its employees a greater sensitivity to economic issues. The objective assigned to each activity is profit making. The 23 regions run all the activities deployed locally in establishments. The existing regional organisation results from past (successive mergers of formerly independent local railway networks).

<u>The Inf-Rail division</u>
This division gathers F-Rail's competencies in terms of maintenance and engineering. Its main client is the company F-Net (network's maintenance and development) and it also works for F-Rail's other activities (real estate maintenance, for instance), but to a lesser extent. All these customers can now call on any supplier and choose the most competitive for the services offered by Inf-Rail.

Inf-Rail's geographical organisation has four levels:

(1) headquarters, which include various functional services (for instance Finance, HR…) and Operations Direction in which sector managers supervise the regional delegations;
(2) the 23 regional delegations, that have functional but not hierarchical authority on
(3) the establishments (around 120), themselves composed of several
(4) Operating Units (OU) – the field level for operations.

3.2. Organizational identity at Inf-Rail before the OC

F-Rail organizational identity is mainly based on four main characteristics to which interviewees refer in a quasi unanimous manner: the "public service mission" of the company, the technical excellence with an ideal of perfection in the work done, the requirements of security both for customers and employees and the uniqueness of the company in terms of activity and of the required skills. These characteristics define F-Rail organizational identity inasmuch as they are essential, discriminating (relatively to other firms) and source of identification for members.

This identity is strongly perceived since, except very rare cases, actors' discourses show that identification to the company is strong or very strong. As one interviewee put it:

> I was born a railwayman. (ESTPROD)

Moreover, this identification is very positive – this being, in Weinreich's words (2003), empathetic identification inasmuch as our interviewees feel particularly concerned as persons with public service, technical excellence and security considerations:

> The railwayman identity is a value that is quickly accepted (sic). It is the value of belonging to an outstanding company. It is a bit supernatural, surrealist. (ESTPROD)

Regarding the temporal aspects, these four main characteristics are consistent with an organizational identity based on a long term perspective. Indeed, the "public service mission" of the company points to needs that are not subject to changes in the consumer's needs (there are no consumers but "users of public services"). Moreover, the uniqueness of the company and its excellence seems to guarantee that no other company could compete to provide the same service. Altogether, this makes the company eternal for its employees. This has a strong impact on the way time is envisioned both at the company and at the division level.

This long term perspective was also true for the rolling stock or the installations which were designed to last long:

> A bridge at F-Rail never breaks down, it can support 10 times what will pass on it. (REGDIR)

Maintenance work was also undertaken with the view that it should last for many years:

> Before we used to make systematic reviews of all the line: we entered at one end and went out at the other. We thought: it is done and it will last for 10 years. (SECDDIR)

Finally, planning was also done on a long term horizon:

> We based our work on 10 to 20 years master plans… Then we felt we had real control on our work. (ESTPROD)

Since these traits of the organization are considered as belonging to the past, the actors discourses do not explicitly exhibit identification to them, but rather resistance to the ongoing change that aims at moving toward a short term perspective (see part 5 and 6). However, the last quotation shows that the long term perspective was considered as positive since it allows for better control. Moreover, at the operational level, we found people who still identify themselves to a company that would exist for all eternity therefore wanting to work mainly for the timelessness of installations:

> My real job is to ensure a level of timelessness of installations. (OUMAN)

Altogether, the main temporal feature of organizational identity is that of a company that is eternal therefore leading to envision work in a long term perspective.

3.3. The organizational change

The new MC system we have studied is only one step in the Inf-Rail division of a broad organizational change concerning the whole company and which takes its roots in the liberalization of the passenger transport market organized by the European Commission.

This change meant among other things a separation between the ownership of the railway infrastructures and the operation of the railway transportation activity, the latter being liberalized. As we mentioned, the choice that has been made in France consists in the concentration of both the railway transportation and infrastructure maintenance and development activities in the same company, F-Rail (with the infrastructure activities being controlled and monitored by an independent company, F-Net). F-Rail is thus both a customer and a supplier of the infrastructure owner, F-Net. As a customer, F-Net expects a precise knowledge either the maintenance engineering costs and/ or the works undertaken by its supplier. In addition to this, the former F-Rail entity used to cumulate heavy operating losses. In the wake of the creation of F-Net, F-Rail major shareholder (the French State) demanded that the new F-Rail company should get rapidly back on the road to profitability.

This led to the decisions:

- to a reorganization of the company moving from an overall structure organized around functions (commercial, train management, control and production) to one of activities ("*domaines*" or divisions: Main Lines, regional Traffic, Freight, Paris Region Lines), responsible for sales strategy, with profit targets and "buying" internally the necessary services (like maintenance, train management, etc.) from internal departments.
- to reconstruct the cost and management accounting system (which included defining new accounting rules and developing a new information system) and move the budget from a financial "envelope" to be spent to a management by objective tool. This part of the organizational change aims at moving from a traditional reporting system mainly based on calculation and justification of variances to a real management dialogue focused on action and improvement. Therefore the project includes the creation of *tableaux de bord* (i.e. scorecards or sets of performance measures) in all the divisions and of performance reviews. The project we have studied is one example in a specific division of the implementation of such scorecards and associated performance reviews (cf. part 4).

Together, all these developments have been labelled as a "cultural revolution" for the company.

Though there is no specific mention of time in the new organizational goals, the organizational change clearly implies that the company is moving from a stable environment and a long term perspective to a much more instable setting with a more short term orientation. This change is clearly perceived by actors at Inf-Rail at all hierarchical levels.

> Today, a central notion is that the work is done as needed, at the moment where it is required and not in a systematic way. We will not anticipate anymore. (SECDIR)

It appears clearly that the organization has changed and does not allow for taking the necessary time for some specific actions:

> Some actions are very difficult to organize and require time. But we are in a system that does not admit that anymore. The yearly basis is meaningless. (ESTPROD)

The management control change at stake is thus part of a broad and deep organizational change that disrupts temporal aspects of the organisational identity.

4. Management control change and change in time experience and representations

This Part contrasts the MC system under implementation with the previously existing system. It is evidenced how the new system contributes to changing actors' activity in relation to time, and associated representations of temporal aspects of organisational identity.

4.1. The MC Change

The new MC system relies on the implementation of regular performance management meetings (called "management reviews") at Inf-Rail. It is one element of the introduction of a MBO system presented above. Its implementation is managed jointly by the division's Operations Direction and Finance Direction and aims at:

- "optimising contracting processes between the company's different hierarchical levels",
- "formalising management dialogue in defining ways according to which periodical management reviews between the different hierarchical levels should take place" [8].

Concretely the project has led to implementing:

- Management reviews (i.e. performance review meetings) between the OUs and the establishments, between the establishments and the regions and between the regions and the sectors. These meetings are organised on a monthly, bimonthly or once every four months basis depending on the hierarchical level. The participants are the entities' managers (for instance OU manager and establishment manager) and their two assistants in charge of production and management control (if existing). The management review is structured along
- a tableau de bord that includes information about production progress, costs, punctuality, security, investment, and internal services. Actual figures for these indicators are compared to the budget. Punctuality and security are two traditional performance aspects in the company that refer to both quality service for customer and working conditions of employees. Production progress is not a new area of measurement, but the emphasis put on meeting the objectives of the budget is recent. As regards costs, investment and internal services, most indicators are new.

Before this project, the analysis of economic results was more or less formalized depending on the hierarchical levels and the line managers did not participate much in this process. Three meetings were organized between the corporate headquarters and the regions (the sector level did not exist at that time): two intermediate meetings and one "conclusive". One person from the corporate headquarters who was in charge of organizing these meetings and was the only headquarter member attending them. The document that was used in this meeting, called "unifying thread", included mainly operational performance indicators. All these indicators were examined during the meetings with no attempt to classify the variances and to use a management by exception procedure. At the more decentralized levels, the region visited the establishment once a year during what was called the "command round". The way economic performance analysis was led was left free to the local units. In practice, this analysis was poorly formalized. It was only focused on the analysis of the different types

[8] Excerpts from the documents of presentation of the project used in internal training sessions.

of expenses relative to the budget, but did not look at unit costs. The pressure on economic performance was lower and when the budget was exceeded the consequences were low.

4.2. Impact on time experience and representations

The new tableaux de bord were aimed to serve as reference documents in management reviews that must be “short in time, prepared, led by exception, action-oriented, frequent, and based on reliable data”. It is emphasised that “the objective is action, and at minimum learning”. As a consequence, the management review should “end with a decision report”, that should not exceed “one A4-format page”. This decision report should be followed up and form the “first point on the agenda of the next management review”[9].

These objectives clearly emphasize the importance of time (the meetings must be short in time, frequent). They put the emphasis on the short term with the increased frequency of meetings and the need to make decision at the end of the meeting that are necessarily short term oriented. Indeed the meetings are held on a monthly basis (except at the highest national-regional level) and the decisions should be followed up at the next meeting.

Beyond these objectives, we will now analyse how the systems inscribes this new schemes of time in work in practices. The first example of that relates to the calendar of the management review process itself. This process requires to enter the data in the system, and to organize performance reviews at three hierarchical levels before the results are communicated to the division’s CEO. The timing is imposed by the date at which the CEO wants to have these results. Because of the number of hierarchical levels this leads to tight deadlines between the time when data is available and the time when the meeting takes place:

> When I receive it [the tableau de bord] for my colleagues, it is always an anguishing period. We receive it on the 20th and the meeting is on the 22nd. [...] It takes it more than two hours to download [the file]. Before sending them we have to analyse them. (ESTMAC)

As stated by one of our interviewees, even the division’s CEO seems to have realized that the timing was too tight:

> I think the timing issues are not well taken into account. Even [the division’s CEO] starts being worried […]. (ESTDIR)

The second point on which time schemes have been changed relates to the definition of monthly objectives. Previously, the objective was to have the forecast work completed at the end of the year. The new system makes it compulsory to split forecasts on a monthly basis so as to allow for a monthly analysis of variance. But this principle does not seem to be easily implemented:

> Having monthly forecasts for each production item is not an easy task [...]. The monthly forecast is not reliable. (REGMAC)

> In a previous job, I was [ESTPROD]. I had to make monthly forecasts of the expenses in order to be able to compare. It is a very difficult exercise to do. (ESTDIR)

According to our interviewees several reasons explain the difficulty of making monthly forecasts. First, each operational unit has a large number of tasks to realise each year, and second, optimizing the schedule of these tasks requires taking into account a number of factors which are both numerous and perceived as uncontrollable (for instance, weather

[9] Excerpts from interviews.

conditions, availability of shared equipments, authorization of having long periods of time between trains to work on the line). Participants often refer to the “complexity” of their activity to explain their difficulties both to do and to meet reliable monthly forecasts.

The third example of impact on time schemes is linked to the management by exception principle. Within the old system, during the much less frequent performance meetings or 'inspection rounds' as one interviewee put it, all the technical indicators were reviewed. This should not be longer the case because of time saving issues. Since meetings take place more frequently, the number of meetings has increased. In addition to this, new, economic indicators like unit costs have been brought in. Therefore, so as to limit the duration of each meeting, reviews are meant to be conducted under a management by exception principle:

> If we only look at variances, it [the meeting] should go fast. (SECDIR)

> If we look at all the technical indicators, it will take too much time and we will not have enough time to look at anything else, particularly at the cost. (REGMAC)

These three examples demonstrate that the new MC system in itself inscribes new schemes of time in work practices. Altogether, the new MC system is part of the concrete translation in practice of the OC. This is particularly true for what concerns the time schemes which are being framed by this new system. This leads to disruptions in the way time is experienced and thus involves evolutions in personal identities.

5. Disruption in time-related aspects of personal identities

In this Part 5, we analyse previous changes (i.e. organisational and MC changes) in association with identity-related representations at the individuals’ level (personal identity).

Actors in the division under study define themselves as “technicians”, which is associated with values such as technical excellence (and even perfection), which itself depends on specific time perceptions. Activity is viewed as inscribed in the (very) long-term perspective with heritage as a core value.

These values are aligned with traditional time representations in the division – the former organisational identity which is perceived as one of technical excellence. In the way it is mentioned by the interviewees, identification is always present: “the railwayman is technical excellence” (sic). This pride in technical expertise (“basically the technician’s motto is to make and make right, for the sake of art”) conjures up some reference values of guilds and craftsmen communities (for instance, the quasi-perfection [Malicot & Reissier, 2004)]) as well as the “artistic” tradition of the engineer’s profession in France (Vérin, 1993). This pride is coupled with that of being a member of a “unique” company. The uniqueness is referred both to the activity (there is no other railway company in France) and to the specificities of the required skills (“the basic jobs of railwaymen are not taught outside F-Rail”).

Given the specific technical skills that are required and the in-company training process that any new employee has to undertake once he/ she has been hired, an employee would, until about the 1990s, typically join the company just after graduating from engineering or technical schools and remain in the company until he/she retires.

> Before, when someone entered F-Rail, he knew that he would end his career there. (ESTMAC)

In addition to this, if one goes back further in the past, many F-Rail employees used to be themselves children or grand-children of F-Rail employees, leading to F-Rail denomination and sociological analyses as "the big family" with a very strong corporate tradition (Lemoine *et al.,* 1993). The company used to provide housing for its employee, support special, more advantageous social security regimes and social benefits, provide social institutions such as family gardens, sports grounds or libraries. A preference was explicitly given in the recruitment policy of the company to an employee's family relatives (Lemoine et al. 1993). Being an employee at F-Rail used to be perceived as conferring a privileged social status, and occupational and social/family dimensions of people's identity used to be tightly intertwined. From the 1970s though, F-Rail went through a process of social change, partly determined by the transformations in the French social structures and institutions. However, the idea of what being an employee at F-Rail used to mean remains present for today F-Rail employees, at least for the eldest of them. Privileges are associated with nobility and legacy and therefore structure people's perception regarding the passing of time, allowing them to project themselves in a seemingly never-ending future. For instance, one of our interviewee refereed to "transmitting" F-Rail competencies and values to "future generations":

> Even when I am not here anymore, it's important that [F-Rail] goes on living with the values which are its today. (ESTMAC)

The typical in-company career scheme and the remembrance of the lasting corporate tradition further fostered the identification to the company and explain that occupational identity is associated with a perception of a time that develops in the long run. Infrastructures, when they were built, were built to last and people used to undertake maintenance work accordingly (see section 3.2 above).

The on-going organizational change challenges the way things used to be which impacts people's occupational identity and time-associated representations, for instance in terms of typical career schemes:

> Now it's not sure that employees can and will remain at F-Rail during their whole career (…). Now the job market is different. Some people resign. (ESTMAC)

This is reinforced by the new MC system, which fosters new, short-term focused work practices disrupting traditional ways of thinking and experiencing time in the workplace. This is even mentioned by some interviewees as the main problem of the new MC system:

> The problem [with the new system]: it's that it's the race. (REGMAC)

Because of tight deadlines, the new system does not allow people to do what they think they are expected to do thanks to the new system, which is analysing the data. These same perceptions are encountered at all hierarchical levels:

> We do not have the means to prepare the meetings enough in advance. (SECDIR)

> [One of] the greatest problems [is] (…) the time that we have to analyse data and discuss it with the region [the upper hierarchical level]. (ESTDIR)

One OU manager explains that when he notices a significant variance, he has no time to understand the reasons of this variance:

> I should go thoroughly in that […] I should dive into it […], but I don’t have time for that. (OUMAN)

Alongside production managers, management accountants also complain that they do not have time enough for analysing the data:

> We try to go fast, but here, we go too fast. Because when we notice a variance somewhere, we should take the time to go thoroughly into the problem and it's not

> with two days and three phone calls that we can succeed in it [...]. The quality of the analysis is poor because we don't take enough time to do it properly. (REGMAC)

In addition to this, as the new system is based on monthly scorecards intended to support monthly performance reviews the production work itself has to be scheduled on a monthly basis. This promotes a time-span that questions prior practices and the associated occupational identities:

> [...] it is not in our culture to plan the production [on a monthly basis]. (ESTPROD)

6. Resistance to change and implementation concerns

Drawing on and connecting the elements highlighted in the above Parts 3, 4 and 5, Part 6 argues that this organisation is moving from a state of relative equilibrium where MC systems, organisational identity and actors' identities were aligned (long-term focus with MC systems underdeveloped) to a new state of equilibrium in which MC systems highly contribute to shaping new representations of time at both the organisational and personal levels. This new state remained unachieved at the time of our survey, as suggested by the difficulties encountered at the implementation stage of the new performance measurement/management system. Such difficulties demonstrate (largely unconscious) actors' resistance arising from the disruption in organisational identity brought in by the new MC system, which in turn questions their own personal identity.

Based on our analyses, we argue that the three components of the conceptual framework identified in the second part of this paper – i.e. organizational identity, individuals' identities, and management control systems – formed a rather coherent setting which allowed for the positive identification of the employees to their organization. In particular, representations of time underlying both organizational and persons' identities were aligned and MC relied on very formal and largely ceremonial systems which were consistent with these representations of time. The company was supposed to develop its activities in the long-run, satisfying permanent societal needs (the transportation of goods and persons in a timely and safely manner), this being allowed, among other things, through the maintenance and development of the railway infrastructure conducted in the Inf-Rail division with a reference to values of technical excellence transmitted among employees in a craftsmanship mode rooted in a secular tradition. Occupational identities were built around the value of being a good, conscientious and skilled professional who has patiently learnt how to do his job through in-company and on-the-job training. People would stay in the company during their whole working lives and develop a sense of proud belonging to an outstanding, unique company. Management control systems were underdeveloped, operational dimensions of performance (security and regularity) prominent and budgetary constraints almost incidental. Realizations were compared to objectives on an annual or semi-annual basis only and on these occasions the focus was rather placed on justifying variances than analyzing these variances and elaborating corrective/ efficiency-oriented action plans.

The new MC system which aimed at "optimizing contracting processes" and "formalizing hierarchical dialogue" through "periodical management reviews" (see part 3) was coherent with the transformation of the company into a customer-oriented, more productive and economically efficient learning organization. Representations of time underlying prior organizational and occupational identities were challenged: the company has to strive for cost reductions and productivity gains in a competitive environment which could threaten its very sustainability in the long run.

> Today we are a railway company that is doing the maintenance work. Nothing guarantees that tomorrow it will still be the case (ESTPROD)

Maintenance work should be undertaken when needed, conservatively and according to evolving technical specifications as opposed to systematically and preventively, with the idea of restoring at long time-intervals the infrastructure in an optimal, enduring operational state.

> Today we have a notion that work has to be done gradually where and when it is necessary, and not systematically. We will not anticipate anymore. (SECDIR)

The new MC system inscribed in people's daily occupation at work the perception of a time that is more short-term oriented and fragmented. Maintenance work has to be programmed on a monthly, as opposed to a yearly, basis and realizations are checked against objectives each month through the information provided in the new scorecard and discussed in performance reviews. This situation conduces to feelings that the pressure on time is not reasonable, and has a negative impact on the way maintenance work is done:

> When I was an establishment manager in S. and in C., I had time to go out of my office and take some time… It is not normal to start on the phone at 6.30 am and to end at 8 pm. (ESTDIR)

> Now we do not have control anymore… We have no visibility… It's patched-up maintenance. (ESTPROD)

The new organizational identity supported and promoted by the new MC system questions and disrupts people's occupational identities, which have retained much of their prior characteristics.

> This is an historical culture, very strong, so since it's very strong, it has certain inertia. (…) but it's changing, all the same, I think that that [the new MC system] is participating to the promotion of a [new] culture. (REGDIR)

As a consequence, identification processes to the new organizational identity are either hampered or even failing and the new system which is part of the on-going OC has not been appropriated by its would-be users who happen to exhibit reactions of dissatisfaction, discomfort or reject.

> The performance reviews, for all my colleagues who are operating unit managers, this is anguishing. (ESTMAC)

> Once a month, we go through the 'trapeze trial'. (OUMAN, speaking about the performance review meetings)

> According to you, why do people say: "It's high time that we leave?" Working methods are evolving quickly, ever and ever. 20 or 30 years ago, an operational manager used to know in which cupboard he would find such or such document. Operating notes would fix the environment. Today the environment is changing quickly; the documents and the data carriers are changing… People who are of age have difficulties in adapting themselves. (OUMAN)

7. Discussion and conclusion

This conclusive Part offers a discussion of the limitations and contribution of this analysis and suggests implications for further research and practice.

7.1 Summary, contribution and prior research

This research has highlighted the role of MC systems in (re)shaping temporal aspects of identities during organisational change. Namely the performance management system implemented in the organisation under study embodies the substitution of short term orientation for traditional long term one, thus framing new or changed working practices. The long term orientation was a core element of both organisation and personal identities in this organisation in which, before the change, identification was strong and highly positively valued. The move in time orientation disrupts existing identification, which, at the time of our survey, results in various forms of resistance towards the new MC system.

This research contributes to an increased understanding of social and human processes involved in MC change, in particular identity processes which have seldom been investigated hitherto by management scholars. It also contributes to demonstrate the importance of management systems in shaping these processes, which is sometimes disregarded by sociologists and psychologists. Bridging accounting and psychosocial perspectives proved to be a fruitful exercise. Finally it sheds light on an under-investigated aspect of MC systems, namely its framing of the temporal aspect of actions and related representations.

Our findings are not inconsistent with Dubinskas' (1988) findings regarding temporality differences in biologists and managers. Our railway technicians are very close to Dubinskas' biologists. They view time as open-ended and extensible if needed. External conditions (weather and other assumed uncontrollable conditions of operations) are viewed the way biologists view biological processes – as professionals actors have to do with them, and they consider related delays as imposed on them. Conversely the new performance management system operated closures in the time flow, in the form of targets (objectives) and milestones (monthly scorecards and performance meetings). Dubinskas suggested that managers and scientists understand each others' temporal perceptions if they were to work together properly. In our case setting we have not observed conflict (or "improper" work) between both populations – probably because our various types of population share a common professional identity. Indeed although surveyed managers and management accountants are not occupying professional positions anymore, they have been socialised as professionals, so that they spontaneously develop professionals' representations about time and action. In other words both our technicians and managers react as Dubinskas' biologists. Instead of intergroup conflict we observed some difficulties in appropriating the new MC system, which conveys the same values as Dubinskas' managers. Conflict between the actors and the system has substituted for conflict between social groups.

Our findings are also quite close to Pettersen's (1995) research in Norwegian hospitals who has evidenced decoupling between beliefs about how the system *would* operate (beliefs from "politicians and bureaucrats") and the way professional actors *really* used the system. Drawing on March and Olsen (1989), she analysed decoupling as resulting from differences in how action is represented by respectively the former and the latter. She argued that, while persons involved in political and administrative processes represent action in terms of "preferences and expected consequences" (logic of consequentiality), professionals define primarily action in terms of "obligation" towards the public (logic of appropriateness) (Pettersen, 1995, p. 217). Such an analysis can be fruitfully combined with Dubinskas' standpoint. It seems to us that these two logics point to different temporalities, the logics of consequentiality and appropriateness pointing respectively to Dubinskas' (1988) framed time (targets and milestones) and open ended time.

The notion of obligation towards the public is central in our case study, as illustrated by the following excerpt which contrasts professional obligations with MC-related tasks:

> [On time and reliable data entry] is not, and cannot be, the priority of the establishment. *The* priority is reaching an adequate level of security. (…) Plus the regularity of train circulations. We are not at the top either. You cannot have 36 priorities. When a superior tells me "this is your priority", I answer "no, I care about it

> but it is not my priority”. It is an important element, we are making efforts. When all other points are at the top, it can be my priority. (ESTMAN)

Such a discourse also evidences the open-endedness of the representation of time. The interviewee does not precise *when* priorities are met, and it is pointless to him to know it. There is an obligation to meet such priorities, whatever the time it takes.

On the other hand the new MC system embodies the logics of consequentiality. The social world is represented in terms of causes and consequences: action (cause) is translated into performance measures (consequence), and measures (cause) are source of reaction aiming at improving performance (consequence). Such a representation is inscribed in time. In Dubinskas’ terms (1988), it needs closures in the time flow and milestones in the calendar. Action is measured at certain points of time, and reaction (assumedly in performance meetings) occurs also at specific moments. Such arrangements conflict with the representation of obligations within an open-ended time which is central in our interviewees’ and further organisational identities.

At this point the reader probably expects some comments about Dent’s (1991) famous research on British Railways since evolutions towards competitive markets and profitability have been parallel in both countries (although Britain was quite ahead on this schedule compared to France). There are important differences between case settings. Structure is different, in particular the status of those acting as the main reformers, and MC systems too. However the main gap between Dent’s and our research lies between the concepts used to investigate change in the railway company. Dent focused on the role of accounting in cultural change, not the role of accounting in changing identities, and subsequently he did not address the question of personal sense-making which is the core of our research.

7.2 Limitations, further research and practical implications

The present analysis presents limitations. Although the positions surveyed were different, as well as persons’ age, seniority and education, our conclusions are constrained by the size of the sample (29 persons and 11 meetings) and by local specificities. For instance additional analysis would be fruitful to gauge the influence of upper local managers on representations by subordinate teams. More should be done also to appreciate whether some differences in representations could be attributed to occupation (in particular, accounting versus production positions), to positions (regional versus establishment-located positions) or to education. Moreover, our analysis is based on one unique case study, in which individuals have a strong and shared professional identity. Although there are similarities between our case study and other European public sector analyses (see above), it would not be surprising if the French national culture impacted on our conclusions – but this is still to be analysed. Findings are also framed by our own categorisations regarding the main aspects of identity highlighted, as well as by the relationships we assume between identity dimensions and attitudes towards accounting systems and change.

The lack of longitudinal data (Pettigrew, 1990) may be also considered as problematic since we can only provide a “static” view of the undergoing change. We offer insights on organisational and accounting change and related identity-processes at a certain moment of time, and it is highly probable that two years later our observations would produce a different image of the organisation and its members. However although we have not provided a thorough picture, we think that studying in depth the very moment where identities are disrupted and its consequences on working arrangements and practice, among them those related to management control systems, is useful and relevant, both to management control research and organisation science.

This research implicitly takes a positivist view on identity: in describing organisational and personal identities, we assume that identity is knowledgeable. This is highly questionable especially by scholars adopting an interpretative stance (for instance psychoanalysts). Such a debate is not new. It recurrently emerges about other social facts, like national culture or sense-making. The basic question indeed is to know whether it is possible to get access from outside to such constructs, the consciousness of which is sometimes not clear to the person him/herself. We agree that this way is paved with many dangers (projections, transfers, etc.) possibly leading to various kinds of myopia and finally the production of a representation which is more what the researcher wants or has been happy to see than what the social object (identity, culture, etc.) is. We are aware of such traps and have been concerned all along our research with these potential dangers. As has been said in our Introduction being three researchers with different backgrounds and research interests has certainly helped in constraining subjectivity. The fact that the survey was not an ”order” of the company has also probably prevented projection of expected results. We have also been attentive to what Cassel (2005) refers to as ‘identity work’, that is, the fact that interviews were places of construction of identity for both the interviewer and the interviewee. The same could be probably said of performance meetings although identity construction processes are probably different.

Should one adopt a positivist stance towards human and social research objects? We believe so. Admittedly the external description of identity, culture, etc. tends to reify such constructs in closing them up in always oversimplified traits which negate their living and changing human (or social) nature. The researcher who refuses to be an agent of this reification is left with two choices open. Either (s)he exclusively refers to the interpretative paradigm for investigating such questions. But in that case, (s)he is left with the subjects' myopia which is sometimes greater than the observer's one, not to mention self-presentational biases… Either (s)he avoids any researching on these themes, which is another (and probably worse) kind of reification, since lack of research on social and human constructs would lead to develop a reified view of the world. None of these two choices is satisfactory to us. This is why we consider the positivist stance as a “necessary evil” to increase our understanding of human and social sense-making processes.

This research could be extended in various directions. It would be of interest of gaining a longitudinal view over such processes so as to investigate the process of restoration of identification. We have documented the disruption step and it would now be relevant to study how and when disruption turns into restoration, and whether this return to consonance also means a move from resistance to appropriation of the management systems involved.

It should also be relevant to assess the possible impact of the French culture on our findings. This could be done by conducting a research in settings of the same company located in different countries and experiencing the same organisational and/or MC change.

As for practical implications, this case study suggests that the power of influence of new management control systems is limited and highly framed by the simultaneous speed of evolution of actors' identity and identification, as long as the system under implementation resonates with aspects of their identity. Our findings suggest an increased consideration of time and identity questions by system designers and organisational change promoters.

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