

## WHERE IS STRATEGY?

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### Abstract

This paper proposes firstly that accounting, as primary practice, shapes strategy as secondary practice rather than the other way round. It recognizes that this challenges a widespread perception (both among business strategists and strategy researchers) but in doing so it allies itself with the view of Smith (2002) of 'strategy as numbers'. The paper then proposes that this relation needs understanding in two dimensions that we see as linked: the diachronic and the synchronic. In terms of the diachronic, our first argument is that the relation whereby accounting is primary is set up in the initial emergence of modern management and the modern business enterprise form, as integral to the constitution of the distinctive structural and processual characteristics of this form. Subsequent versions of business strategy, despite their manifest variety, still exhibit this accounting/strategy relation. However, we further argue that this modern relation is just the latest version of a dynamic which can be found taking different forms all the way back to the genesis of accounting as token-accounting in Mesopotamia in c 8000 BC (cf Schmandt-Besserat, 1990; Ezzamel & Hoskin, 2002). If humans arguably always in some sense 'strategize', accounting becomes central to (and transforms) human strategizing from this moment, through being the means to the establishment of a form of living based on settling in one space and farming it, which then becomes in Tuan's sense (Tuan, 2000) the 'place' of living, i.e. the Greek *oikos*. Accounting is from its emergence a new form of space/time/value 'machine' (Frandsen, 2005) which acts as the means to coordinating activity in this centripetal 'place' through enabling the repetitive allocation (in Greek *nomos*) of resources across the annual cycles imposed by farming. From then on accounting always enacts a mode of valuing through constituting visible signs which simultaneously name and count. Thus as machine it enables a new spacing where humans inhabit 'places' and their component parts, plus a new timing, of the recurrent cycle and its divisions, and a new valuing, based on constant naming and counting in textual forms (a system then extended with the development of money of account). A certain new objectivisation of space, time and value is therefore put in play, through their representation in, or displacement into, visible signs. Our argument is that accounting continues to act, in successively more sophisticated forms, as such a machine down to today, and so tracing the relation of accounting to strategizing is one of tracing the changes in this machine and in its textually-based modes of getting people to get things done, as a form of Latourian Actor. We apply these two aspects of our diachronic view here to the synchronic problem of strategizing in entities today. We argue that many enterprises till recently operated one kind of circuit where financial valuing and accounting circulated as seemingly primary practices, and other circuits where action and/or vision (including strategizing) were seen as predominating. In our view, the machine now increasingly colonizes all circuits of action and vision, as can be seen in cases such as those of the professionalizing bus driver (case 1) and the nurses (case 2) who learn to define a '10-minute patient' (thereby becoming '10-minute nurses'). Here

the modern pedagogic insemination of writing examining and grading practices and their embodiment in both modern accounting and strategizing not only enables a blurring of formerly distinct circuits, but also ensures that more and more people get involved in 'doing strategy'.

## Introduction:

Given the way that strategy is no longer conceived in many organizations and settings as purely a preserve of top management or reserved to the category of ‘strategic planning’, the question ‘where is strategy?’ has a new significance. Clearly strategic planning remains integral to strategizing, but as entities claim more and more to be knowledge-based or learning organizations, strategizing is increasingly understood as needing to be disseminated down and out through entities, and within increasing numbers of their members (i.e. human subjects). This constructs new roles for accounting in relation to strategy as increasing numbers of organizational members become constructed not purely as ‘calculable subjects’ (cf Foucault, 1975), but also, as managers and strategists have always been, as ‘calculable and *calculating* subjects’, and in this capacity even as *strategizing* subjects.

In this paper we wish to consider the relations of accounting to strategy in two ways which we contend are interconnected. First we want to suggest that this new kind of linkage of accounting to strategy is an extension of a principle which has been visible, if not always noticed, from the emergence of modern strategy in the context of the invention of modern management and the entity that Alfred Chandler (1977) attached to that invention, the ‘modern business enterprise’. Strategy in its modern and distinctive forms has always been a product or precipitate of the new kinds of (cost and financial) accounting developed as a key means of enabling management to be developed in the first place. Strategy as practiced since then has been what Chris Smith has called in the modern context ‘Strategy as Numbers’ (Smith, 2003).

But further, what we are witnessing, as exemplified in two contemporary settings we consider here, is the extension of this principle both across the extending expanse of – and down within every increasingly subdivided fraction of – organizational ‘space’ and ‘time’, something increasingly achieved by the construction (including the self-construction) of all of us as populations of calculating/calculable selves whose forms of calculation take shape under the sign of accounting. Thus organizationally and individually we have to answer the question, “where is strategy?”, not only by seeing it as currently or synchronically disseminating out and down in organizational space/time, but by understanding that it increasingly does so, for reasons that can be understood diachronically, as numbers, and particularly as those accounting numbers which always name and count, and so ‘value’..

That diachronic kind of understanding, we further argue, in our second theme, cannot be restricted just to an understanding of accounting’s relation to strategy since the invention of management and modern business, even though that distinctive relation needs understanding in its own right (cf Hoskin, 1990; Hoskin, Macve & Stone, 2006). For that modern development, we shall argue, is only a latest version of a relation which is first established with the invention of accounting, as token accounting, in the pre-literate world of Mesopotamia (Schmandt-Besserat, 1990; Ezzamel & Hoskin, 2002).

That relation goes through various transformations between that first articulation and its modern version, but, we shall suggest, always ‘remains the same’ in the way that

accounting drives strategizing, not vice versa. Why this happens, and the way it happens, is explicable once we begin to appreciate how accounting, from its invention, constitutes a 'space/time/value machine' (Frandsen, 2005), as a consequence of its distinctive quality as accounting, which is *always*, simultaneously, to 'name and count' (cf Ezzamel & Hoskin, 2002). Through naming and counting it engages necessarily in a form of valuing, which may be far from the only form of valuing, but becomes from then on one increasingly difficult to evade or resist, particularly in the contemporary 'grammatocentric' era, where in so many ways we privilege writing over speech. [Hence today we invent increasingly complex textual accounting constructs which combine forms of meta-naming with meta-counting (such as for instance 'Return on Investment' or 'Yield per passenger mile' and so on). We then put such constructs to work to devise value maps and diagrams (such as the Porterian 'Value Chain' or the Balanced Scorecard). In such ways the apparent supplement, accounting, becomes central.]

But it does not simply engage in valuing, its seemingly primary activity. For accounting, from the invention of token-accounting on, always privileges certain forms of space, or spacing, and of time, or timing. These are forms of space which entail, as their mode of spacing, an enclosing within boundaries and partitioning within those boundaries, and they are those forms of time which entail, as their mode of timing, a delimiting of unbounded temporality into cycles and a subdividing of the time within each cycle. In each case there is the constitution of a bounded whole and its articulation, or better reticulation, into a set or sets of internal units making up that whole. There is also a new form of objectising of both space and time through their re-presentation in (and so displacing into) a set of visible signs (the accounting tokens) which to signify have to be arrayed in their own form of spatial ordering, keeping categories and the amounts of categories distinct: and of course naming and counting simultaneously via visible sign similarly constitutes an objective mode of valuing not feasible before (and intensified in the money sign systems from money of account through coinage to the modern forms of 'xenomoney').

In this way the valuing conferred by naming and counting gains particular purchase because of how it can be simultaneously summed or synthesized to the level of the whole, and broken down or analysed to any unitary or sub-unitary level. [Such units and indeed wholes do not have to be uniform in their dimensions or subject to uniform or integrated systems of mensuration, but the naming and counting system, as means of valuing, can discover new properties and powers certain properties as they become so.]

In other words, our argument is that there is with the invention of token accounting – which is (see Ezzamel & Hoskin, 2002) constituted as an invention through being the first system of visible signs to combine linguistic and numerical signification in each of its signs – the development of an unprecedented kind of space/time/value machine. This is then and remains today a device that imposes forms of spacing and timing and valuing, which were absent from human experience before their invention but which become inescapable parts of human living, thinking and acting thereafter.

From the earliest forms of agricultural society which first use the token-accounting machine from around 8000BC they come into play. They gain more purchase in the early forms of accounting-based city states (which appear from around 4000BC, managing their larger space and its subdivisions through more extensive forms of token accounting), and extend in significance still more after the division of visible signs into separate linguistic and numerical ones (commonly known as the ‘invention’ of writing) around 3200BC, and through the subsequent supplementing of value as embodied in accounting signs and texts through the development of the first money of account. We do not have the space to follow that development in detail here, but we stress its analytical importance in seeking to understand the more recent diachronic development where accounting drives strategy, after the invention of management and the modern business enterprise.

For a particular kind of strategizing becomes possible with the development of the first accounting. Strategizing, whether as envisaging futures, planning options, enacting decisions and changing them within the fog of emergent events in a world of constant spatial and temporal uncertainty and mutability, is part of the human condition. Humans as learning and languaging animals are condemned to meaning, and strategizing is one mode of meaning through which our living in the world can be given putative sense and direction. But strategizing in the world before the successful establishment of the settled agricultural way of life, with its need to occupy and cultivate a bounded and subdivided space across successive and repetitive temporal cycles, proceeds without the space/time/value machine that is the precondition of undertaking the agricultural life successfully. It necessarily does so because that machine has not yet been invented.

As a result previous modes of human strategizing have no concern for the construction of a bounded and subdivided space requiring continuous occupation, or for the imposing of a regularity of action to meet the requirements of each successive stage in each successive cycle of cultivation and husbandry. The hunter-gatherer nomadic mode of living requires a strategizing that thrives on mobility not stability, and the ad hoc gathering or hunting of the resources of life, a fully ‘emergent’ mode of strategizing: which is why, as Marshall Sahlins says in *Stone-Age Economics* (1974), stone age humans worked ‘bankers’ hours’ (referring of course to that older and simpler banking age before the discovery of ‘the customer’ and the targeting of ever-more financial instruments to ever-increasingly differentiated market segments).

Beyond this early stage, our next significant diachronic moment is the constitution of modern business strategizing in the context of the emergence of the modern business enterprise. We see this as exhibiting a decisively different stage in strategizing because, as noted above, of new integrative levels of structural and processual coherence which are brought to bear on entities, to construct them as, in the modern usage, ‘organizations’. Here our argument is that in earlier forms of strategy there is firstly no integrative and centripetal *structural coherence* of the whole ‘war machine’ – armies function independently, ‘the general is the plan’, and there is an absence of a concern with logistics and supply chains, which are central to modern military (as well as business) strategy. Secondly there is no integrative *processual coherence* to strategic planning and

implementation across time because there is the absence of the detailed accounting and statistical information which are the processes which, as Alfred Chandler demonstrates (Chandler, 1977, Introduction) constitute the distinctive ‘administrative coordination’ which sets the modern business enterprise apart from all prior business forms.

The analysis developed here is therefore congruent with the view of ‘strategy as numbers’ which has begun to be made within the strategy literature (e.g. Smith, 2003; cf FOR insights generated in the strategy as practice literature, Johnson et al, 2008). However it gives that view, which sees a central and constitutive role for accounting in the present era, a historical grounding that has typically not been made within strategy research, and thus deepens the potential for going beyond views of accounting purely as secondary support system to strategy, by demonstrating in a new way how integral accounting has always been to strategizing from its first inception.

Finally, having given this diachronic preamble, we would note that our second theme, and indeed the point of the diachronic excursion, is to seek to understand what is emerging, synchronically, as the practice of strategizing today, and how accounting continues to shape it, but as a form of ‘strategy as new numbers’. Here we propose to consider in this version of our paper two different work sites, in different sectors of the socio-economic world, and to show how accounting plays out in ‘strategizing’ practice and how it is actively taken up by human agents as part of what we can see as strategies of becoming ‘strategic’.

In the first we consider how bus drivers working for a transportation company are being made into ‘strategizing professionals’ as they are required to re-make themselves not just as effective and efficient operators of their machines but to process revenues and market an ‘enjoyable’ travelling experience to passengers since such companies now have to meet customer satisfaction targets as well as cost and punctuality ones in order to win and retain their contracts. We here have a case of ‘becoming strategic’ being imposed as part of the strategic planning process, but at the same time, the role of the professional bus driver as defined by the strategic planning function is not coterminous with the role as enacted by drivers. Although ‘becoming strategic’ is here imposed in top down fashion on the drivers, there is some evidence of drivers remaking themselves to take on a more strategic identity. The empirical material presented in this section is based on funded field research into transportation companies undertaken by the authors over the past several years and still ongoing (cf Frandsen & Hoskin, 2006).

In our second site we consider how accounting and accountability measures play out rather differently in a hospital setting where nurses are required to structure their activity around the idea of the ‘ten minute patient’. Here there is much clearer evidence of active appropriation of a ‘strategy as numbers’ approach by the nurses, who over time have moved from having numbers simply imposed from the top down to enact this time efficiency strategy to actively constructing numbers of their choosing as central features of being strategic actors. Again this material is based on field research, in this instance undertaken by one of the authors as a team member in a second funded research programme (Frandsen, 2008; 2009; forthcoming Frandsen & Mouritsen, 2008, ).

Therefore the paper will attempt to develop two complementary themes. In the first it will seek to locate today's strategizing practice in the historical context of the modern business enterprise, hereby revising conventional understandings of strategy within the mainstream literature and reinforcing the plausibility of the view of strategy as numbers (Smith, 2003). In the second it will seek to show how far strategizing via numbers plays out at the level of everyday work within very different workforces in different sectors, but as an integral feature of the respective 'worker identities'. Here our thesis is that, despite the differences in work activity and setting, the role of strategizing as accounting, endemic from the outset of modern organizing, is now embedded within and actively cultivated by human subjects across organizations.

Hence our answer to the question, 'where is strategy?', is not a simplistic 'strategy is everywhere'. For that misunderstands how strategy is constituted as numbers and precisely how it circulates, from accounting-infused 'strategizing' at the top level of entities, down and out into the entity's strategized and strategizing subjects. Strategy is not simply everywhere; instead our case studies suggest that it shapes organizational and individual space, time and activity in certain currently invariant ways (which is not to say that they must remain invariant or unquestioned going forward).

We next turn to consider our first diachronic episode in a little more detail, before considering the nineteenth-century episode, and then turning to our case studies.

### **Accounting and the initial Constitution of the 'Constant Space/Time/Value Machine':**

Accounting can be seen as one of the most decisive human inventions, thanks to the work of Schmandt-Besserat, as summarised in her *Before Writing* (1992). As she argues, there develops around 8000 BCE, probably in Mesopotamia, a new communication device consisting of man-made clay artefacts, or tokens, each of which is formed into a different shape (cones, spheres, etc) and which is then used both to *name* and to *count* items. *Ipsa facto* this constitutes the first known form of accounting. A first consequence of this technological breakthrough is the successful and sustained shift in the human way of living from hunter-gathering nomadic culture into the static, place-based mode of agriculture. Then around 4500 BCE there is a shift from small separate agricultural communities to the more integrated or coordinated mode of the city, and the city-based state (whose survival is based on an extension of accounting, as form of determining and extracting the tax or tribute required for the maintenance of the state's central leadership and administrative elite). Finally, she argues that, within this city-state world and around 3200 BCE, the first systems of 'writing', i.e. the first systems made up of distinct and separate linguistic signs and numerical signs, are developed directly out of this earlier token-accounting system.<sup>1</sup>

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<sup>1</sup> Her particular argument on this breakthrough is that from around 4,500 BC, the practice began of impressing the simple-shaped tokens into the damp clay before enclosure (and then similarly, of incising versions of the complex ones with a stylus), thus in each case producing enduring surface representations of what was inside. Then, later still, impressed and incised representations came to stand as signs in their own

This of course is typically taken as the moment of human breakthrough into ‘civilization’ given the shift in human communication and thought into ‘literacy’ made possible by these visible sign systems. As Walter Ong puts it: ‘writing restructures consciousness’ (Ong, 1982, ch 4), through establishing “‘autonomous” discourse...which cannot be directly questioned or contested as oral speech can be because...(it) has been detached from its author.’ It is not just that it establishes a stable text that constantly says the same so long as it survives unmutated or unchanged, it is that:

‘...there is no way directly to refute a text. After total and devastating refutation it still says the same as before.’ (Ong, 1982, 79)

Additionally writing is an artificial practice, ‘governed by consciously contrived, articulable rules: for example a certain pictogram will stand for a certain specific word’ (1982, 82). But to say that it is artificial, Ong continues, is to praise it. Artificiality is natural to humans, and this form of it ‘heightens consciousness’. It brings us to a world of silent meaning (even though in many cultures real reading has been taken as reading aloud, restoring the ‘living’ word of the author). For the text stands silent, and penetrates in its silence into our interiority, where it brings things that may be distant into a proximity where the images of those things conjured up by the silent signs may be ‘imagined’ and where we may then carry on ‘an increasingly articulate introspectivity, opening the psyche as never before not only to the external objective world quite distinct from itself but also to the interior self against whom the objective world is set’ (1982: 105).<sup>2</sup> And this is not a bad form of alienation – indeed Ong argues that ‘alienation from a natural milieu can be good for us and indeed is in many ways essential for a full human life’. Instead it foregrounds a necessary interplay in our action and thought between the near and the far, spatially, and the past and the present, temporally. For

‘to live and understand fully we need not only proximity but distance. This writing provides for consciousness as nothing else does.’ (1982, 82)

We buy into this kind of analysis of the transformative effects of visible sign systems. What scholars such as Ong, and also Derrida, then argue is that as we move forward in time from writing’s invention into subsequent – or as Derrida would say ‘supplementary’ (see further below) – scripts these effects intensify, particularly with the breakthrough into the alphabetic script. That script breakthrough was probably developed in ancient Greece around 750 BCE (although this remains an issue of contention among historians

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right, at which point the clay envelopes became clay *tablets*. The resultant texts were at first still purely accounts, made up of linguistic-numerical signs; but, from around 3,300 BC, the *impressed* signs in some tablets can be deciphered as functioning as purely *numerical* signs; so, ‘while retaining their primary meaning, for example as grain or land measures and as animal count, (they) acquired a secondary meaning as numerals’ (1992, p.193). By 3,100 BC, *incised* signs have begun to function as purely *linguistic* signs. Within a few centuries, the accounting provenance of the linguistic and numerical sign systems of Mesopotamia had faded from memory, to remain buried until the last few years.

<sup>2</sup> We note here the closeness in formulation to Foucault’s above, except that in the latter case the idea of the self as object as well as subject sets off the analysis of the interplay between the modes of objectivization and subjectivization within the self.

of writing, depending upon how the alphabetic breakthrough is defined – Ong is one who argues for earlier Semitic ‘syllabaries’ being fundamentally alphabetic). It enables the apparent mirroring of speech in writing for the first time, by being able (apparently) to break the infinity of sound into a set of between 20 and 30 elemental letters out of which syllables, signs and narratives can then be constructed (so long as the letters, syllables and signs are properly combined to convey the signification desired). Knowledge (as in Plato) can then be seen as being constructed on the alphabetic model, and understanding as being reached on the basis of analysis down into elements and their reconstituting synthesis into new wholes. A whole new range of things can be easily articulated and so circulated to be thought and added to by others via this technology (which is never to say that other sign systems cannot articulate and circulate complexity and newness – they manifestly can – the power lies in the ease of articulation and of that articulation’s decoding by others). That kind of intensification of things articulated and thought is then further intensified in medieval Europe with the first combination of alphabetic script with the arabic numeral system incorporating the zero, to form what is often now described as ‘alphanumeric’ writing, with all the consequences that are now familiar to us in terms of the again extended range of things that get articulated and thought and circulated as forms of knowledge in the centuries since, in what is an ever-intensifying expansion of knowledge and its dissemination down into the present.<sup>3</sup>

All of that we agree with, and we see it as a necessary framing to what we are seeking to say here about accounting. But what we may now argue is that everything that applies to writing and its effects on what and how we know and think applies equally to the breakthrough some five millennia before writing into accounting. For this token-accounting technology already constituted a first visible sign system, in the strict Saussurean or Peircean senses (see Ezzamel & Hoskin, 2002), the only difference from writing being that its naming-and-counting signs always *combined* linguistic and numerical signification. [Indeed on this argument the ‘breakthrough’ into writing only consists in translating the existing accounting signs into signs that make that separation into two types.] For this system of manufactured tokens – through being shaped spatially (first in three dimensions though later in two) in such a way that each token-sign was decodable as different by the viewer or reader – already functioned as a set of signifiers that have the indexical quality (as Peirce would have it) of designating and repeating a particular signification within each shape. Equally each of the signs was, in Saussure’s

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<sup>3</sup> The essential characteristic of both breakthroughs is the ‘zero’ principle. Just as arabic numerals with the inscription of a sign for zero ‘0’ enables the use of place value and the articulation of complex mathematical statements (and the articulation within the alphanumeric frame of further sign systems, algebra as a mix of letters and numerals, logarithms, the calculus, and all the various notation systems in modern mathematics), so is the alphabetic breakthrough dependent on the inscription of a ‘zero’ sign. In this instance it is not so much the invention of vowels as the designation of certain signifiers as consonants, silent signifiers which can only be ‘sounded with’ the supplement of a vowel (try saying ‘t’ or ‘d’ without some vowel or aspiration). That separation of certain letters as ‘sounded with’ or ‘con-sonantal’ is what enables the reduction of the number of signifiers to between 20 and 30 while enabling a far closer tracing of what is articulated in any given language phonemically. It is economic, efficient and effective, and of course thereby relatively easy to learn in comparison with non-alphabetic scripts (cf Havelock, 1976; Harris, 1982).

terms, a signifier/signified double, and signification was produced and maintained out of the difference between them.<sup>4</sup>

The breakthrough to this first visible sign system, the invention of accounting as something beyond previous human experience, marks the constitution of what we describe as the new form of space/time/value machine. It is a machine in the strict sense of the Greek *mêchanê*, an artificial device for doing something that is not doable before its invention or without its presence. It also already has all the key characteristics and effects of writing. Its signs, and the accounts formed with them, constitutes the same kind of “autonomous” discourse that is detached from its author, and is open to reading by anyone else who has the skill and competence to decode the signs. So long as it survives unchanged, it not only ‘speaks its truth’ but cannot be refuted directly. Working with token-accounting is equally an artificial practice governed by consciously contrived rules. The each constitution of any particular token account depends first on the deliberate spatial shaping of the signs as different, next on their deployment in relation to each other and as a whole spatially so that they designate what is being named and counted in an accurate and stable manner. The tokens must then be collected together and maintained as a collection, to be added to or subtracted from only to mark changes in the account. The account is therefore a text made up of signs, in just the way that all forms of writing are. And as a visible-sign text it puts into circulation a new and distinct and newly powerful form of knowledge, the content of silent text that in its act of naming and counting not only privileges what is named and confers value on it through the double action of naming plus counting it, but also excludes and ‘de-values’ what is not named and counted. Accounting, like all the forms of writing that come after it, is therefore not just descriptive, prescriptive and even inscriptive, but also ascriptive (and arguably aggressive too in that what gets ascribed a name is made into a significant presence as result of being signified, both in the external world of action and in the internal world of thought).

It therefore puts in play the same relation between proximity and distance, externally and internally. In the external physical world the space of the account must therefore remain stable, in which case time is frozen as the necessary condition of the event(s) recorded remaining as a record (until change needs to be marked, at which point time is unfrozen as the account is ‘updated’, and so frozen anew). Equally it alienates from the natural milieu, since what is in the signs (the supplementary inscription of events being recorded) becomes for the keeper of accounts and the planner of future activity (who may or may not be one and the same) the primary focus of attention. The accounts ‘tell’ whether there is surplus or deficit, and what needs doing and when. Therefore in a range of ways this accounting mobilizes new kinds of space and spacing, time and timing, and value and valuing as integral parts of human action and thinking.

Furthermore, once invented, this new form of space/time/value machine becomes a constant of human existence. For thereafter accounting always names and counts, always utilizes visible signs whose ability to signify depends upon a principle of the signifier shapes being different, is always laid out in some bounded spatial lay-out that enables

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<sup>4</sup> This sign system differs from earlier visible marking systems such as tally sticks, which perform a counting function but without naming what is counted (cf Ezzamel & Hoskin, 2002).

accurate and stable counting, and constant possibility of updating through re-inscription, and therefore always, as the basis for its distinctive quality of constantly updatable stability, deploys the tactic of freezing and unfreezing time within its space.

At the same time, this constancy is (as in the case of the writing that comes after it) manifested in constant change and updating, precisely because accounting as first visible sign system is the quintessential ‘supplement’, in the sense articulated by Derrida in his *Of Grammatology* (1976). Like writing but before writing, accounting is the supplement to speech which supplants the world of pure orality. It supplants the world as lived in before agriculture by making possible the two things required for running and maintaining a successful agricultural economy – the stewardship, regulation and allocation of the resources named and counted in the accounts, and the coordination of activity involved in utilising those resources, according to a rhythm and timing imposed by what the accounts ‘say’. In this way accounting makes possible a mode of living within what can then become a settled and continuously cultivated space – what the Greeks called the home or *oikos* – as it simultaneously constructs a rule for the allocation – in Greek *nomos* – of the resources involved in successful cultivation of the ‘home’ land: in other words it constitutes the first ‘oiko-nomic’ way of life, supplanting the hunter-gathering way, and redefining those who live outside the world of the *oikos* and its economy to the status of ‘nomads’, as Deleuze and Guattari have noted.

But the second characteristic of the Derridean supplement is of course that it supplements itself, not frequently, but often decisively, so that the initial supplement gets supplanted, in a series of further developments. Perhaps one may draw, as Latour has so successfully in recent years, on the ideas of Gabriel Tarde on imitation and invention to understand this process in the case of accounting more clearly. The token-accounting system, once invented, spreads from Mesopotamia, eastwards into India and westwards to the Mediterranean littoral. Here the basic system is imitated, in the Tardean sense of being appropriated and put to one’s own particular uses. [Hence imitation, as Tarde stresses, is not a process of identical replication but of creative appropriation, therefore deploying its own principle of difference.] So we see the constant machine being used to designate different objects and its signs carrying different significations, as it penetrates to new cultures pursuing different forms of agricultural life in different oral cultures with different languages.

Then every so often there is a creative imitation/differentiation that makes a decisive difference, as with the shift posited by Schmandt-Besserat (see above note 1) to putting tokens in clay envelopes and then impressing the tokens on the outside, so generating two-dimensional signs and the new separate linguistic and numerical sign systems. The token-accounting system dies out, but the constant machine goes on, now operating with the new separate linguistic and numerical signs to prosecute its ‘naming and counting’ form of valuing. As it does so, it generates, as a further supplement to itself as the process of Tardean imitation proceeds, ‘money of account’, which is the first money (cf Ezzamel & Hoskin, 2002). It continues to deploy its internal spacing and timing technologies but now utilising the monetary supplement to define and circulate value. At the same time, that supplement takes on a life of its own, structuring and regulating exchange and

contractual relations, discovering the ‘time value’ of money that gets expressed as interest, enabling principal-agent relations to be enacted and regulated to mutual acceptance (whether via agreement or imposition). The power of the monetary supplement is then supplemented further with the invention of coinage (c 800 BCE), and further still with the development of the written supplements to coinage in the early modern world (e.g. bills of exchange, discounted notes, banknotes) and further again with the supplementary monetary instruments of today’s financial markets.

## **2 On the 19<sup>th</sup> century constitution of modern ‘strategy as accounting’**

It has recently been argued (Hoskin & Macve, 2004; Hoskin, Macve & Stone, 2006) that a new relation of strategizing to accounting comes into play with the development of the modern managerially run business enterprises in the US in the 1840s and 1850s (see again Chandler, 1977), in particular on the Pennsylvania Railroad between 1849 and 1856. Enterprises then increasingly take on what is a new form of *centripetal* and *strictly bounded* form of structure (whose boundary is not at the level of the entity as such, but either excludes, for instance, non-executives, or goes beyond the entity level through new modes of contractual binding, as with subsidiaries and modern principal-agent relations so widely deployed now). So the level of analysis for understanding structure is not a particular form (such as the M-Form) but at how far it is centripetal and how strictly bounded it is.

These new entities, however, do not succeed through new structuring alone. The structuring only works insofar as they also implement *processes* of administrative coordination which utilise constant accounting and statistical information to enable logistics to become a central feature of both planning and implementation processes. Indeed Hoskin, Macve & Stone (2006) argue that this form of strategizing then disseminates in a back formation from the business *to* the military world during the American Civil War in the 1860s.

The argument then made by Hoskin and Macve, and extended in Hoskin, Macve and Stone, is that this transformation in business practice, and the consequent enhanced power of accounting at the heart of managing and strategizing, follows from a slightly earlier transformation in the practices of teaching and learning, wherein students in elite university settings, from the 1760s, were made subject to a new trinity of practices, being made to write regularly for formal pedagogic settings, being examined in those settings on their writing, and being numerically graded on their performance. The case is made in this work (cf Hoskin, 1993) that these practices, first developed in European educational settings in the late 18<sup>th</sup> century, are then translated into the business (and indeed then the military) world by students who had internalized the power of constant writing, examining and grading by undergoing this new pedagogic regime.

Specifically the management breakthrough identified by Chandler was made by graduates of the US Military Academy at West Point, as the historical evidence now indicates (cf Hoskin & Macve, 1994; 2004). But these graduates could make this breakthrough, in the setting of the US business world, because they were the first students in the US to

undergo this pedagogic trinity of practices in a sustained and systematic way. For Chandler's pioneers of modern business all turn out to have studied at West Point in the years after 1817, when it was transformed into an institution teaching the best scientific knowledge of Europe via a pedagogy stressing (for the first time in the US) this trinity of writing, examining and grading. This transformation was introduced by the Academy's third Superintendent, Sylvanus Thayer, who imported from the Ecole Polytechnique (right after the French defeat at Waterloo) its textbooks, its pedagogy and even one of its teachers.<sup>5</sup>

However, while this is an important argument concerning the distinctiveness of the modern accounting/strategy relation, we would just want to reiterate that this new and discontinuous relation only becomes possible because there is also a continuity to older and different relations between these two practices and to how accounting, as noted above, always shapes strategizing from the token accounting breakthrough on.

On the basis of this analysis, strategizing as *modern* practice can then be seen as having been disseminated throughout managerially structured entities from their first invention and into large numbers of their managers and workforces, typically embodied via accounting and other performance measurement numbers. For these form the ground for both the strategic planning of possible (centripetal) futures and then, once appropriately translated and refined, for the attempts then made at implementing the futures selected by the entity's strategists. [Arguably this gets obscured once the development of the ROI accounting metric makes it possible to generate M-form structures made up of companies within the company each of which is charged with hitting its strategic ROI, or 'son of ROI' target (e.g. RI, CFROI, plus all forms of 'value' added metric). At that point the emergence of the 'strategic planning' function in a Head Office charged principally purely with strategic decision making makes possible the constitution of the strategist as hero and the obscuring of how strategy is always disseminated across the entity, particularly with the emergence of the discourse of strategy as 'rational planning' and of strategy research as undertaken in Business Schools and consultancies in the past half century (cf Ghemawat, 2002).]

Moving to what is argued here as the most recent moment of discontinuity, the argument made by Hoskin and Macve, and extended in Hoskin, Macve and Stone, is that this transformation in business practice, and the consequent enhanced power of accounting at the heart of managing and strategizing, follows from a slightly earlier transformation in the practices of teaching and learning, wherein students in elite university settings, from the 1760s, were made subject to a new trinity of practices, being made to write regularly for formal pedagogic settings, being examined in those settings on their writing, and being numerically graded on their performance. The case is made in this work (cf Hoskin, 1993) is that these practices, first developed in European educational settings in the late 18<sup>th</sup> century, are then translated into the business (and indeed then the military) world by students who had internalized the power of constant writing, examining and grading by

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undergoing this new pedagogic regime. Specifically the management breakthrough identified by Chandler was made by graduates of the US Military Academy at West Point, as the historical evidence now indicates (cf Hoskin & Macve, 1994; 2004). But these graduates could make this breakthrough, in the setting of the US business world, because they were the first students in the US to undergo this pedagogic trinity of practices in a sustained and systematic way. For Chandler's pioneers of modern business all turn out to have studied at West Point in the years after 1817, when it was transformed into an institution teaching the best scientific knowledge of Europe via a pedagogy stressing (for the first time in the US) this trinity of writing, examining and grading. This transformation was introduced by the Academy's third Superintendent, Sylvanus Thayer, who imported from the Ecole Polytechnique (right after the French defeat at Waterloo) its textbooks, its pedagogy and even one of its teachers.<sup>6</sup>

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The analysis developed here is therefore congruent with the view of 'strategy as numbers' which has begun to be made within the strategy literature (e.g. Smith, 2003; cf FOR insights generated in the strategy as practice literature, Johnson et al, 2008). However it gives that view, which sees a central and constitutive role for accounting in the present era, a historical grounding that has typically not been made within strategy research, and thus deepens the potential for going beyond views of accounting purely as secondary support system to strategy, by demonstrating in a new way how integral accounting has always been to strategizing from its first inception.

### **Synchronic layers**

We now turn to our two synchronic cases, that of the professionalizing bus driver and of the newly strategic nurse who discovers how to construct the '10-minute patient', and so

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arguably becomes a strategist in the sense of Mintzberg's typical manager, as the '10-minute nurse'. Each of these cases shows a new role for accounting practice and a new circuit where it plays that role, turning local arenas into strategic spaces. Each has its distinctive features and differences, depending on the form of the work site, as well as the structuring of the entities through which the respective services are delivered, and the particular forms of accounting and statistical processing already in play in the respective entities.

*The professional bus driver, accounting and strategizing*

It has been recognised by the Public Transportation Authorities in Sweden to increase Public Transportation<sup>7</sup> and make it work efficient bus drivers have been identified as a key element. To increase passengers in order to secure tax income, increase ticket sales and more recently to promote the environment they needed an outlook/inward facing approach. However, one main obstacle on this route was the short supply of bus drivers. This, it was argued, was related to the low status of being a bus driver. At the same time the bus driver was seen as a step towards this vision of increased passengers. To make long story short, it started as a local initiative but was imitated among public transportation authorities for its potential into an almost nation wide training program where a certificate of 'professional bus driver' was introduced. This required a practice that could find new professional bus drivers, and that was set in place was training and examination. As a start up bus drivers was first introduced to a 'Knowledge bus' (Frandsen & Hoskin 2006) a sort of theatre on a bus with 'tricky' real situations to make bus drivers reflect on their service behaviour and how they dealt, guiding them to approach this with the right service attitude. This was the first step to become a *professional* bus driver meaning:

'Today the profession is not just about driving the bus. A bus driver has many roles, as driver, as service professional, as cashier. It is a profession which requires more and more competence to do well. Still *the* most important aspect of this profession is to create good relations with the customers.' (DVD 'To travel is to learn – the Knowledge Bus' Original stress)

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<sup>7</sup> Public transport in Sweden since 1985 has had a public authority in charge of all planned routes, based on increasing costs for public transport. The authority could be said to translate the citizens' need by planning and controlling down to very specific details laid out for a bid. For instance, the tender for a bid includes the colour of the buses, average age of the bus population, exact operating meters that are paid for measured by GPS or use of Mapinfo (the operator is paid based on the planned operating route meters, defined by the Authority, what is actually performed and not ticket fees even if incentives are now also introduced), ticket prices, how often the buses are cleaned and surveys to keep a track of the customer satisfaction. The winning operating company can come from anywhere in the EU and will sign a contract for 3-8 years, where it will be the sole operator for this contract during this time. This is sometimes could be called 'The Limited Competition Model' or 'efficiency of consumption' model, since its transport solutions aim first and foremost to offer efficient service to the passenger. In Sweden, the public transport is financed by 40% tax/ 60% from ticket fees. As a comparison, in the UK but outside London, the model of 'Deregulated, Free Market Model', also called 'efficiency of production' model is in use. Here the competition is at the bus stop, with each passenger using different ticket prices and types of buses rather with the authority when routes are open for bids.

The certificate is now a program with structured training with exams developed at a university and a new contract drawn up. The idea is that the bus driver should conduct self studies with assistance from both employer and the authority. The area for study includes service approaches and attitudes, the role of public transport in society and how it works, and specific bus driving technical issues with a local appendix. Bus drivers have access to self evaluating practices that simulate the exam on time on line to limit being 'off' bus driving time. Finally, an exam is performed and if passed a certificate will be handed over. The bus driver is then expected to wear a badge with their given name on to visualize for passengers their new skills. Today there are indications that many bus drivers are failing to pass the exam (based on interviews from two operators) and these problems are now being addressed.

Arguably, the Knowledge Bus, now delivered to 10,000 bus drivers since 2003, makes sense in some respect but remains a fragile way of promoting a desired outcome, compared to others, in particular in comparison to the new style Driver's Certificate mentioned above. A contract encourages each operator to enrol each driver in training, to grade and examine them. From the author's most recent empirical work (in March/August 2008) the company under study gives further examples of accounting as black box doing strategy. The company, also listed on the London Stock Exchange, entered the Swedish market in 1998 by the acquisition of a local bus company. This outside looking perspectives for new markets (where Sweden is a prime target in Scandinavia) and future values was also combined with new outside/inside looking accounting/strategy practices. For instance in 2005 when all the routes were open for bids, as a package, in Helsingborg they offered local government a new incentives-based contract that was linked to the explicit interest of the local government namely, to increase the number of passengers. This fitted into Helsingborgs' new environmental vision and strategy where public transport is (as for the national government) important to improve air quality etc. to make the city attractive and to secure future tax revenues.

Helsingborg developed a tender where incentives were included to increase passengers. However, the tender was open for negotiation in terms of incentives the Bus Company offered the lowest bid and the negotiation went on with the municipality to form the new contract. The vision the city has is to double the number of passengers by 2013 or 15,2 Million (people who get on a bus), where the index year is 2005 with 7,6 Million passengers. The contract contains 10% incentives related to these driving forces. According to the material handed out by the regional Manager, a former finance accountant from one of the big four accountancy firms, 75% of profits stems from incentives.

However, accounting as named number not only offers a way of making a future, it also offers discipline and control by inscribing measurements into human performance where Return on Investment (ROI), the very explicit link to the profit/loss and balance sheet, is an important tool for the encouragement of business schooled trained unit managers performance. When taken for granted accounting composite numbers can be used to do strategy involving visions of futures and values, for instance, investors entering the public transport sector, private equities looking for new opportunities searching for profit

elsewhere, investment companies where accounting is *the* language and to know the world (Frandsen 2004). At the same time as this section indicates a change of self is also involved, different professionals are needed. By becoming more 'professional', the professionalization in the company is associated with ideas on profit and money.

*'Public transport has focussed on production with investments in x amount of buses but now the authority is focusing on how to adjust to the market and what the passengers wants. The only way to earn money is to attract more passengers'.*  
(Manager at the Bus Company, March 2008)

Both the local government of Helsingborg and the specific operator are using accounting to do strategy, driving strategy where the revenue is clearly connected to the revenue and profit of the Bus Company. The new bus driver is seen as a way to increase passengers, bringing in more people which requires new professionals via the new certificate (and different passengers too). Accounting textual modes and coordinating activities are translated into bodily movements and vice versa, and made into distinct valued events, while pedagogic devices such as examination and grading are important to reach out in scope and scale. The Bus Company's information material called 'From soft values to sharp results' illustrates these points. As the manager highlights:

*'Swebus drive more effectively but we are very good at taking care of the passengers to make them satisfied with the public transport. To create a positive image of travelling / this is really a driving force through the contract. So the certificate for bus drivers is part of this. In spring 2006 we got a bad score and feed back in the latest survey, and we did not get our bonus set out in the contract because of that. We had to do something. We needed better results.'*

*'We also measured each team of drivers to see if they reached the target set. This is related to the bonus -incentive we have in the contract. The maximum bonus we hand out is one extra monthly pay, which includes everyone in the company here. The quality bonus is handed out depending on three things, one how big the bonus is that we will receive; how few accidents they have, and then how healthy they are. If the target is reached or better the bonus is paid out then this is what everyone is sharing. One is on the company level and the other is on the team level. If a target is not reached by the team, questions are asked why and further enquiries are made'*

The bus company wants to grow further and at the same time they also try to influence other regional authorities to use a more incentive based contract and with that the bus drivers will keep moving into a value driven strategizing profession where Place/Time/Value machine is operating.

## 2. Nurses, accounting self-examining practices and strategizing

The Centre: This site and episode will illustrate how accounting is getting inside nurses and how they use them in stratetgizing new possibilities for their future work. The

Centre, a nurse-led centre for the treatment of heart failure, came into existence in 1997 (Consensus 1987, Johansson et al. 2005) offering new possibilities. The Centre is also an accounting space, constructed by established references circulating to and from The Centre, to be added to other accounting numbers and to be scrutinized by others. These numbers are also imposed on the nurses, to which they must manage to relate. In fact, The Centre was accounted for by explicit calculations made by the medical profession itself (Johansson, Dorrits and Frandsen 2005). Statistics showed that a CHF diagnosis demands complex and expensive care and yet is the most common reason for hospital care (Schaufelberger, 1999). Simple cost-benefit analysis supported The Centre's transformation from a trial project into a permanent way of doing things, it being a more effective and less expensive way to structure CHF care. Still, the increased demand for CHF care structured in this way and The Centre's limited resources are still constant challenges which the nurses must manage. Consequently, accounting has become an omnipresent element<sup>8</sup> in everyday medical work where inscribing technologies—primarily computer software such as the patient administrative system (PAX), connecting appointments with codes for different categories that are directly linked to accounting to express different forms of value. The nurses are fully aware of what these codes stand for, and with taps of their fingertips they can press the keys and connect appointments to accounting throughout the day.

Other software tracks their working time. Working hours are translated into individual performance measures used to monitor prohibited overtime hours, which measures are then related to the hospital's economic resources. These numbers will circulate and finally return in a P/L as staff costs, providing the nurses with a picture of how well they are doing (or not). To increase the details of open day care treatments as viewed through the accounting eye, a program was introduced to be used by politicians and managers to guide decisions and evaluate performance. This required the nurses' engagement and their recording of their activities to avoid being invisible and not financed. It encouraged them to redefine their activities and also made them knowledgeable about the efficacy of their medical practices in providing open care. Surrounded by and involved in producing accounting references in the middle of medical practices, two conflicting numbers were imposed upon the nurses, which put a lot of pressure on them. The doctor in charge expected an increased flow of patients because the queue of people in need of medication was getting longer, but the manager granted no overtime.

Seeing their work through a number of composite accounting/medical numbers and facing the increased pressure, the nurses realised the direct-visits had to go faster. They decided to undertake a time study of their work to explore the problem further. Two documents were designed, one for activities associated with the patients and one for other activities. Patient-oriented activities included patient status, drug checks, documentation in Melior (journal), etc., and other activities were PAX work, telephone (support, prescriptions, change of drugs), e-mail (reading, answering), meetings, lunch, ladies' room, administration, etc. These two documents, together with a stopwatch, helped them to define, both as direct and indirect visit time, what they were doing and how long each task was taking. When times were defined for each specified task/category, they could be

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<sup>8</sup> The Centre is of course not alone in this scrutiny, which is in every other medical site today.

translated into the format of a document where they could display to themselves and others how they spent their time.

During normal working hours, the nurses conducted their self-examinations and made their self-inscribed performance measurements to visually document what they were doing. They compared themselves to each other and learned more about their work as nurses. A standard 'average' nurse was used evaluate themselves as a group and as individuals to examine and grade their performance. Then they used the results of the evaluation to produce new medical and economic accountabilities. The time study made them see possibilities for changing the way they worked to increase their "output", and the 10-minute patient was born. The "10-minute patient" meant that an appointment for a patient without problems, with their medication, and 'well' enough to do just the routine check-ups, should not take longer than 10 minutes. In January 2005, the nurses launched the idea in the form of "Drop-in" visits between 8-11 AM, two days a week

Selected patients were not necessarily 10-minute patients from the start, but rather they had the potential to become 10-minute patients with some practice. For instance, it was striking how the nurse would talk faster, ask fewer but more concise questions, and move faster. The nurses did parallel activities; for example, while talking to the patient they would also change the paper sheets on the bed, and while the automatic blood pressure machine was taking a reading, they were making notes. The patients did their bit as well. Some patients weighed themselves outside the examining room before it was their turn and when inside the room asked fewer questions. Some patients even took their shoes with them to put them on again outside. Still, it was very rare that the nurses actually did a check-up in just ten minutes. Using their old and new measures, the nurses could now evaluate their performance. It revealed increased efficiency from 4.8 patients per day to 5.2 patients per day. Using the time study, including the direct and indirect time of (changed) activities, the nurses were able to balance the pressures from the doctor and the manger. With details regarding direct and indirect timed activities, they were able to acquire new knowledge, new actions, new identities and new accountabilities.

The public transport episode illustrated the point of changing professionals by doing strategy and the stressed centrality of accounting and accountability. The accounting machine is not restricted to different models but can be translated across various models as it interacts with strategizing practices. The UK based bus company's ROI can be translated across different public transportation models because how accounting numbers are operating. The intensity and scope of how accounting/strategizing is working inside people where it is locally translated will differ. The bus driver had to become a professional driver to increase the number of passengers. Over a couple of years training, self evaluating practices, exam and grades that reflect success or failure. Other bus company targets for internal/external approach worked in the same way, through the number of passengers/bonus targets and levels of profits. In a similar way at The Centre there was a strong emphasis among the nurses to change the strength of their success and claim for existence through the use of new composite numbers working inside/outside the self. This was seen when the nurses were able to create new 'entities', new patients, new

nurses and enrol others, and hence change the productivity, the organization and resource consumption of The Centre, performance management can then be seen as not primarily about describing the world, but more importantly as concerned with intervening in the world and transforming it (Frandsen & Mourtisen 2008).

## **Conclusion**

We hope that the above, although as yet still a work in progress, begins to indicate how the diachronic interplays with the synchronic, not only in terms of understanding accounting, but in seeking to understand the relations of accounting to strategy. We consider that a major task going forward, because there is still such a widespread assumption, not least among strategy practitioners and theorists, that accounting is the secondary support system to strategy. Our argument, based on the two historical episodes reviewed here, is that this has always been the reverse of the case. Accounting is certainly, in the Derridean sense, a 'supplement', indeed it is the supplement whose own great supplements are the first forms of separate linguistic and numerical sign systems, those departures usually (if, we can now see, mistakenly) taken as signaling the 'birth' of civilization. But as such a supplement, according to what Derrida described as the 'logic of the supplement, it is in fact central. The relations of accounting to strategizing can then be seen from the invention of accounting as being precisely as identified, purely in a contemporary context of business strategizing, by Chris Smith. The numbers always come before the strategizing.

What we can further see, informed by that view, is how, in the two settings we consider here, human subjects get re-made as both 'professional' in new ways and in the process rendered as active 'strategizers', not just pure passive carriers of a strategy that is properly reserved to elsewhere, at the 'top'. We believe that this form of analysis, seeking to combine the diachronic and synchronic in this way, can be a helpful way, going forward, of helping both strategy practitioners and researchers to have a more realistic of what they do, as strategy practice in the present, and of how it is shaped, though never wholly constrained, by strategy / accounting relations from the past.

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