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Accounting, Organizing, and Economizing:
Connecting Accounting Research and Organization Theory

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Abstract

This paper encourages scholars of management to pay attention to the mutually constitutive nature of accounting, organizing, and economizing. This means viewing accounting as much more than an instrumental and purely technical activity. We identify four key roles of accounting: first, *territorializing*, the recursive construction of the calculable spaces that actors inhabit within organizations and society; second, *mediating*, that much of what accounting instruments and ideas do is to link up distinct actors, aspiration, and arenas; third, *adjudicating*, that accounting plays a decisive role in evaluating the performance of individuals and organizations, and also in determining failings and failures; and fourth, that accounting is a *subjectivizing* practice par excellence, that it both subjects individuals to control or regulation by another, while entailing the presumption of an individual free to choose.

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The entanglement of these four roles, we suggest, is what gives the "accounting complex" its productive force, such that it is perhaps the most powerful system of representation for social and economic life today in many national settings. We examine these issues through a selective review of the accounting literature based on the construction of two intellectual histories. One deals with the growth of scholarly interest in organizations which created the conditions for a *behavioral turn* in accounting research and the embedding of accounting within management scholarship. The other schematic history deals with the emergence of normative accounting pedagogy and theory from practice. This was challenged by an empirical "revolution" drawing on the methods of analytical economics which was broadly market-based, facing away from management. We argue for a third body of work which reacts to the reductionism of both and which focuses on the processes by which accounting *representations* and metrics are simultaneously powerful *interventions* which shape people, practices, and organizations. We suggest that accounting is a mechanism by which the *economization* of organizational life becomes elaborated and institutionalized.

Introduction

In the early 1980s, accounting scholars began to address the links between accounting practices, modes of organizing, and more general societal processes of economizing. This transformed the discipline of accounting. We suggest that this work has important implications for scholars of organizations and management, for it meant viewing accounting practices as much more than neutral technical instruments. Accounting and organizing were analyzed as fundamentally interdependent, and this interdependence both facilitated and was facilitated by broader societal processes of economizing. This early work built on twentieth-century sociological insights concerning the roles of accounting in processes of rationalization (Meyer, 1986a). It built also on insights from organizational scholars concerning the behavioral consequences of accounting within organizations. And, stimulated by developments in neo-institutional theory, it fused these together to show how accounting increasingly provides the dominant narrative of market rationality within organizations, among organizations, and at a societal level.[1] This has resulted in what one might call a macro-level organizational behavior analysis of the roles of accounting in organizations and society. These developments in accounting scholarship parallel, and interconnect with, developments in institutional theory and the resurgence of interest in economic sociology, while predating arguments concerning the performative role of economics (Carruthers, 1995; Hopwood, 1983; Hopwood & Miller, 1994). If organizing without accounting is increasingly unthinkable today, accounting also makes organizing thinkable and actionable in a particular way. For example, while

management or regulators may be concerned with issues of efficiency or value for money, it is accounting practices that enable such ideas to be operationalized and made real. In making visible and calculable the objects and activities that are at the heart of management, accounting creates a facticity that appears objective and unchallengeable, beyond the fray of politics or mere opinion.

This review addresses the forming of this intellectual agenda, its multiple constituents, and its existing and potential further contribution to the management literature. We invite management scholars to view accounting as much more than an instrumental and purely technical activity. We view accounting very broadly as "... all those spatially and historically varying calculative practices—ranging from budgeting to fair value accounting—that allow accountants and others to describe and act on entities, processes, and persons" (Chapman, Cooper, & Miller, 2009, p. 1). Notwithstanding the evident size and power of the large professional service firms (Greenwood & Suddaby, 2006; Suddaby, Cooper, & Greenwood, 2007), and their important role in the dynamics of professional identity formation (Covaleski, Dirsmith, Heian, & Samuel, 1998), our focus in this review is on accounting, rather than accountants and the organization of an accounting industry. We accept that this focus leaves out many questions of great interest, and that the power of accounting is a joint function of a technology that seems to reveal and represent economic reality on the one hand, and a body of organized experts who prescribe and diffuse norms of best practice on the other. However, we suggest that the latent, structuring power of accounting as reviewed in this essay is at least a necessary if not sufficient condition of the more manifest power of the large firms. Also, these large firms do much more than accounting, and the reach of accounting is far wider than their activities, suffusing as it does today not only the upper reaches of the managerial cadre, but also the daily practices of professionals as diverse as doctors, teachers, and social workers.

The story we tell in this review is one of a critical reaction to two broad yet distinct lines of development in the intellectual history of accounting scholarship, dealing respectively with management control on the one hand, and accounting in capital markets on the other. The first line of development begins with Weberian sociology, and continues with the study of organizations and groups. This work provides the intellectual conditions of possibility for a behavioral and then an institutional "turn" in accounting research, one that interfaces at a number of points with developments in management and organization literatures. The second line begins with practice itself, the mechanics of bookkeeping, the emergence of accounting classifications, and the development of external reporting. This line of development, which has been less closely related to developments in organizational analysis and management, culminates in an empirical research paradigm focused on the relationships between accounting numbers and capital markets.

Our most basic proposition is that these two very different strands of accounting scholarship, both with a strong Anglo-American focus, led to a number of critical reactions and to a research agenda which focuses on the mutually constitutive nature of the triptych of *accounting*, *organizing*, *and economizing*. By economizing, we mean the processes and practices through which individuals, activities, and organizations are constituted as economic actors and entities, rather than the popular sense of reducing costs or making savings. For example, a museum must be made into an economic entity, and its managers constituted as economic agents, before its costs can be revealed, acted upon and, eventually perhaps, reduced (Oakes, Townley, & Cooper, 1998). The case of healthcare is similar. Instead of, or in addition to, the medical vocabulary of curing, if a hospital is to be assessed as an economic or financial entity, we first need a vocabulary that allows us to think of it as such (Arnold & Oakes, 1995; Chua, 1995; Kurunmäki, 1999; Oakes, Considine, & Gould, 1994). We need also a way of configuring the hospital into profit centers, cost centers, product or service lines, and so on, so as to act on it; and, we need ways of requiring or inspiring medical professionals to begin thinking in terms of the costliness of the myriad of decisions they take daily, and even thinking of the potential profitability of one treatment relative to another, or one specialism or type of intervention relative to another.

It is here that the role of accounting (and accountants) is decisive. Rather than remaining at the abstract level, as an instrumental feature of markets and their participants, accounting has a transformative or constitutive capacity with regard to both individuals and organizations, which is fundamental to its economizing abilities (Miller, 1994, p. 2). Just as the national economy had to be conceptualized as a specifically economic domain with its own laws and processes that were amenable to rational knowledge and calculation (Morgan, 2012; Suzuki, 2003), so too a variety of organizations in recent decades have come to be viewed increasingly as economic entities (Burchell, Clubb, & Hopwood, 1985; Hines, 1988; Hirschman, 1977; Miller & Rose, 1990; Tribe, 1978). Likewise, with the individuals or actors that inhabit organizations. Here, the contributions of institutional writers intersect with those working in the "governmentality" tradition, even if they use different labels to address a common concern. As institutional scholars have shown, the "actors" of modern society, with all their choices, constraints, and incentives, are part and parcel of a more general historical process of co-construction of markets, market actors, and market expertise (Basu, Dirsmith, & Gupta, 1999; Bromley & Powell, 2012; Fligstein, 1990; Meyer, 1986b; Meyer & Jepperson, 2000; Padgett & Powell, 2012). And, as governmentality writers have shown, "governing the soul" is, in important part, a matter of linking subjectivity and calculability (Hoskin & Macve, 1986; Miller, 1992; Rose, 1990). Put differently, economizing is an intensely personal process, a question of ensuring that actors come to think of themselves and others as beings

endowed with choices and decisions that can be rendered calculable and governable, albeit at a distance. Here, the construction of markets and the construction of market participants are tightly linked with the parallel construction of management as a discipline and body of expertise centered on the "decisions" of the manager and the dynamics of the "human relations" that make up organizations.

From this point of view, the roles that accounting plays within organizations co-emerge with the economized social relations that in turn provide its rationales and that shape the organization as an accounting entity (Hopwood, 1986). Put differently, if our accounts of the world fit snugly with the world we see, this is less because we have finally discovered how the world is, than because we have tailored each to fit the other (Hacking, 1992). Activities as diverse as manufacturing, healthcare, and education are increasingly structured around estimates of financial returns, assessments of risk and performance, and a multitude of other forms of financial representation. Whether it is a matter of private sector or not-for-profit organizations, we suggest that accounting facilitates a more general economizing of the entire social field, a process that is ongoing and, if anything, gaining increasing momentum today.

These developments have not escaped the attention of management and organization scholars (Fligstein, 1990; Meyer & Rowan, 1977). That said, we suggest that more systematic attention to the links between accounting, organizing, and economizing is warranted. This is in part because of the sheer scale and scope of the calculative infrastructure of contemporary accounting, which today extends way beyond the activities of formally accredited accounting experts. But it is also because of the important roles it plays in shaping the world in which we live, the institutions that make up this world, the ways we understand and act on the choices open to individuals and organizations, and the ways in which we administer the lives of others and ourselves. If management without accounting has become unthinkable, accounting also makes management thinkable and actionable in specific ways.

While accounting is profoundly technical, its role in patterns of economizing means that it is also and simultaneously profoundly institutional, in the sense of exhibiting styles and patterns of thinking about organizations and management that may be quite stable, and that are supported by habituated routines and work practices which realize and reinforce those styles. We find it helpful to highlight four particular aspects of the roles of accounting in organizing and economizing. First, accounting is an inherently *territorializing* activity. By this we mean that the calculative instruments of accountancy presuppose and recursively construct the calculable spaces that actors inhabit within organizations and society. This may be a matter of delineating particular physical spaces, such as a factory floor or a sub-area of it, an office, a hospital ward, or any other accounting unit. Or it may be a matter of defining a more abstractly conceived space, such as a department, a division, a particular cost

center, and a group of users or customers. The abstract spaces of accounting calculation may be very broad, such as an entire public service or set of such services, a group of companies, or even a field of companies, such as systemically significant banks which must be prudentially managed. Whatever the level and scale of the entity designated by accounting, it is something for which costs, revenues, and their risks, can be defined and calculated, something around which an "envelope" can be drawn, and of which financial calculations can be made.

Second, and closely related to this territorializing role, accounting is a fundamentally *mediating* activity. Here, it is important to note that accounting is much more than the calculations and the metrics that give rise to objects such as product cost, returns on investment, net present values, financial ratios, or fair values. Such instruments are of course decisive in the overall functioning of accounting as a social practice, typically giving rise to a single figure which allows the incomparable to be made comparable, and permits neutrality to be claimed for accounting expertise. But accounting is also a set of ideas. For example, auditing is as much an idea as it is a concrete practice, and it is this ideational character which has allowed it to be so readily diffused across a wide variety of domains (Power, 1997b). Put differently, accounting practices are mobilized and articulated through rationales or discursive mechanisms that are assembled at various collective levels and articulated in and across diverse locales. For example, technical calculations of costs are intrinsically linked to, and mobilized by, broader managerial and societal languages of costliness and efficiency (Hopwood, 1987). And, once embedded in organizational practices and external assessments, the language of costs and the calculations of costs act together as multipliers, each inspiring further demands for yet more calculations and yet more objects to be made calculable. Equally, the development of specific valuation metrics for assets and liabilities is motivated by abstract ideas of market value and how markets are presumed to use accounting information.

Third, accounting plays a fundamentally *adjudicating* role in organizational and managerial processes. By this, we mean that a whole host of accounting practices exist to pronounce on and to evaluate the performance of individuals and organizations. In many cases, this role in adjudicating performance has acquired such legitimacy that it is now more or less binding on both organizations and societies if they are to be considered appropriate and modern. This institutionalization of rationalized myths has long been documented by organizational scholars (Meyer & Rowan, 1977), and the intensification of the adjudicatory role of accounting, via audits and performance measurement regimes, appears to be loosely coupled to real organizational and social outcomes (Bromley & Powell, 2012). From this point of view, accounting is fundamentally a responsibilizing practice even as its functionality in achieving desired outcomes is to be doubted.

Fourth, accounting is what we term a *subjectivizing* or individualizing practice in its effects, both within organizations and more generally. As Meyer and others emphasized more than two decades ago, individualism is a historically constructed social doctrine, one that is growing and that imposes obligations on the individual to "perform" (Meyer, 1986b). It is one of the core "conceits" of modern culture (Meyer & Jepperson, 2000). Similarly, as the philosopher Hacking has put it, making up people changes the space and possibilities for personhood (Hacking, 1986). Accounting is at the very heart of this enterprise of subjectivizing and responsibilizing. Subjectivizing here has two aspects: it refers to the possibility of being subject to regulation or control by another; but it also includes the fundamental presumption of an individual who is free to choose, and indeed obliged to choose, albeit often by reference to financial norms or standards. If one wishes to impose or assume responsibility and the ability to make decisions, one first has to make individuals to a certain extent comparable and calculable (Miller, 1992). From this point of view, accounting is significant in shaping the preferences of the very actors for whom it provides "information" (March, 1987).

These four themes of territorializing, mediating, adjudicating, and subjectivising are clearly interrelated, and we do not wish to suggest that they exhaust the roles of accounting in organizing and economizing. But we do submit that they are core features of the vast calculative infrastructure and associated narrative that comprises accountancy, and which have achieved such a dominant role in contemporary societies. And it is their entanglement that gives such productive force to the "accounting complex" that we describe below. For it is through such a complex that accounting has become perhaps the most powerful system of representation of social and economic life that exists today.

We turn now to examine schematically and selectively how this set of issues has come to be analyzed by a range of scholars within accounting, at the interface between accounting and management, and within the social sciences more generally. In doing so, we do not aim for comprehensiveness, and indeed our selection of studies is inevitably somewhat idiosyncratic.[2] In the next section, we begin by reviewing the curiously intermittent attention paid by social scientists to accounting across the twentieth century, in particular the shift from a societal-level explanation of the roles of accounting in rationalization to a micro-level behavioral examination of the roles of accounting within organizations and in relation to group dynamics. In the subsequent section, we trace the emergence of normative accounting scholarship from practice, its increasing entanglement with economics, and the development of a market-based accounting research (MBAR) tradition less explicitly focused on organizations. Then we return in more detail to the themes of territorialization, mediation, adjudication, and subjectivization as they are manifested in accounting studies. These studies can be positioned as reactions to, and extensions of, both the behavioral and market-based "turns" described in previous sections. We then suggest the idea

of the *accounting complex* as an ensemble of diverse elements which are constantly changing the nature of the territorialization, mediation, adjudication, and subjectivization.[3] Finally, we illustrate the idea of this complex with some speculations about the relation between accounting and markets.

From Accounting as Rationalization to Behavioral Accounting

In the first two decades of the twentieth century, the sociologist Weber argued that accounting was at the heart of the rationalization of society under capitalism.[4] Weber disputed the idea that capitalism was a matter of greed or acquisitiveness. He argued instead that capitalism should be understood as the continuous pursuit of profit by means of rational capitalistic enterprise (Weber, 1930, p. 17). According to Weber, economic action is capitalistic in so far as it depends on an expectation of profit through the utilization of opportunities for exchange. This "rational" pursuit of profit required, as its counterpart, calculations in terms of capital. The modern, rational organization of capitalistic enterprise would not have been possible, Weber argued, without the calculative practice of bookkeeping.

The notion of rationalization provided the overall *leitmotif* for Weber's sociological project. Weber was concerned with the conditions that gave rise to and enabled the spread of the "specifically modern calculating attitude" (Weber, 1956, p. 86). Accounting was central to his analysis of the sociological conditions of economic activity. Calculation in terms of money was, he suggested the mechanism by which rational economic provision could be conducted, and capital accounting was the form of monetary accounting peculiar to rational economic profit-making.

Weber defined an economic enterprise as "autonomous action capable of orientation to capital accounting" (Weber, 1956, p. 91), and stated that this orientation takes place by means of calculation. In this way, he placed a concern with calculation at the heart of a sociological analysis of economic activity, located mid-way between rational profit-making enterprises and the opportunities available to them. And double-entry bookkeeping, Weber argued, was the most highly developed form of bookkeeping, to the extent that it allows a means of checking on the profitability of each individual step or measure.

An even stronger argument concerning the relationship between double-entry bookkeeping and capitalism was put forward by Werner Sombart. He argued not only that rational calculation was important to the capitalist enterprise, but also went so far as to speculate that double-entry bookkeeping had given rise to capitalism. Regardless of the plausibility of this proposition, it presaged contemporary arguments concerning the constitutive or performative roles of calculative practices and their associated rhetorics (Carruthers & Espeland, 1991). Together with the arguments of Weber, Sombart helped to establish accounting as a proper object of study for social scientific analysis.

Following the writings of Weber and Sombart, there was little or no interaction between accounting and the social sciences until the 1950s. As we suggest in the following section, accounting had developed its own pragmatic pedagogy and associated strands of research (for example, *Betriebswirtschaftslehre* in Germany). This bottom-up intellectual trajectory was entirely independent of macro-sociological analysis. When a sociological concern with accounting did resurface in the 1950s, the focus had shifted from a macro-level concern with processes of rationalization and accumulation to a more micro-level concern with groups, group dynamics, and the role of accounting in them (Platt, 1996). One can mark the shift by reference to Argyris' (1952) influential paper on the impact of budgets on people, commissioned by the Controllership Foundation. Argyris examined what "budget people" think of budgets, and how factory supervisors think differently about budgets. He combined a study of accounting practices with a sociological concern with groups. Rather than taking groups as given and self-evident, he described the interaction between people and budgets as one of the creation of groups. If management puts increased pressure on individuals, he argued, groups are likely to form. These groups can in turn help absorb the increased pressures placed by management on individuals. Once formed, such groups can persist even after the initial pressure to produce them has disappeared.

In proposing that the interaction of people and accounting practices be understood in this way, Argyris was drawing on two decades of research in sociology which had substantially re-focused the discipline since the late nineteenth and early twentieth centuries. In the first three decades of the twentieth century, when social scientists looked at people on a factory floor, they saw only the individuals of Taylorist management theory. After 1930, looking at the same set of people, they saw groups. From 1930 onwards, groups and their dynamics became a major preoccupation for social scientists. The boundaries between social psychology and sociology became blurred, and social scientists found groups everywhere.

The character of Elton Mayo is central to this change in ways of analyzing the relational life of the enterprise. The studies conducted under his supervision at the Western Electric Company's Hawthorne Works in Chicago between 1927 and 1932 illustrate the transformation. These studies had a clear conclusion: the dynamics of groups explain changes in industrial output more successfully than changes in the physical environment. The enterprise can be viewed as a social system, and interpersonal relations and group dynamics are at the heart of this social system. Others, such as the administrative theorist Barnard remarked similarly: "the most usual conception of an organization is that of a *group* of persons . . ." (Barnard, 1938, p. 68). He argued that the "system of interactions" is the basis of the group, and that formal organization should be regarded as "a system of consciously coordinated activities or forces of two or more persons" (Barnard, 1938, p. 73).

World War II and its immediate aftermath provided a "laboratory" in which such group relations could be studied in their depths and details (Miller, 1986).

In the 1950s and 1960s, the concept of the group became a central preoccupation for the rapidly expanding discipline of sociology. The sociologist Homans (1951) was the first to attempt a theoretical synthesis based on the concept of the group. A range of influences as diverse as Freudian theory, Kurt Lewin's social psychology and the sociometry of Moreno fuelled the growing interest in the study of the small group. The contribution of Homans was to attempt to draw these diverse strands together, and to work toward a general sociological theory which would make the group the starting point for the study of social relations.

Alongside the theoretical synthesis being attempted by Homans, sociologists were busy examining substantive organizational issues such as absenteeism, staff turnover, morale, productivity, and industrial conflict as symptoms or problems of group relations. A "wildcat strike" was analyzed by Gouldner (1954) in terms of a "general theory of group tensions". The painting of toys in an assembly line situation was understood in terms of group dynamics and intergroup relations (Strauss, 1955). The journal *Administrative Science Quarterly* was founded in 1956 as a broad platform to explore the sociology of administration. Dalton (1959) proposed that cliques, small groups of persons with a common interest, could be the indispensable mechanisms for promoting, stabilizing, and resisting change. Bion (1946) coined the idea of the "leaderless group" as a way of analyzing the location of the individual within a complex of interpersonal relations, while Jaques (1951) depicted industrial conflicts between managers and workers as manifestations of underlying problems of group relations.

"Behavioral accounting" is the label used to describe the wave of studies that appeared from the late 1950s onwards, and which built on these developments in the intra-organizational and social-psychological analysis of groups. Located at the intersection of accounting, administrative science, and sociology, behavioral accounting examined in differing ways the interrelations between accounting and group relations. In an early paper directed more toward sociologists than accountants, Dalton (1959) showed how pressure to meet cost targets, when combined with reward schemes based on success in meeting such targets, can result in the distortion of records. In an early and innovative study, Ridgway (1956) analyzed a variety of performance measurement systems, pointing out that single accounting-based measures can have undesirable performance effects. Drawing on theories of decision-making (March & Simon, 1958) and the ideas of "human relations" writers such as McGregor (1960), Likert (1961), and Herzberg (1968), behavioral accounting consolidated the focus on group relations within organizations. While many of these developments involved scholars outside accounting departments or even the discipline of accounting, they provided an important stimulus to

the development of behavioral accounting. In short, the behavioral turn in accounting research connected it to core issues in the study of management.

The organizational and behavioral aspects of budgeting, together with related concerns about the interrelations between accounting and organization design, became a central preoccupation of researchers across the 1960s and the early 1970s. Prompted in part by developments in the behavioral theory of the firm (Cyert & March, 1963; Gavetti, Greve, Levinthal, & Ocasio, 2012), accounting researchers extended their study of the roles of routines and operating procedures in resource allocation processes within organizations. Becker and Green (1962) used laboratory settings to extend the concerns of Argyris with the group dynamics of budgeting processes. They examined the interrelations between work group cohesiveness and the acceptance of budget goals, and the impact of this on outcomes. Shillinglaw (1964) examined the linkages between responsibility accounting, internal performance reporting, and organizational design. Hofstede (1968) depicted the budgetary process as a game which people play for its own sake, the key ingredient of which, he argued, was the "game spirit" with which managers entered the "budget game". And this line of reasoning was extended significantly by Hopwood (1974), who problematized the link between participation and budgeting, and re-focused the debate by identifying three distinct ways of using budgetary information. Hopwood identified a "budget constrained" style, a "profit conscious" style, and a "non-accounting" style. Only the "profit conscious" style succeeded in producing a concern with costs, yet without the manipulation of accounting reports and general deterioration in relationships between managers and those to whom they reported that was often associated with the "budget constrained" style.

More generally, the behavioral theory of the firm and the notion of bounded rationality became a central component of the theoretical infrastructure of much accounting research from the mid-1970s onwards.[5] This is perhaps unsurprising, given that as early as 1954, at a time when management and accounting research was less clearly differentiated, Simon was the lead author in a study commissioned by the influential U.S. Controllership Foundation (Simon, Guetzkow, Kozmetsky, & Tyndall, 1954). A group of management theorists from Carnegie Mellon University was asked to study the organizational location of controllers. They based their analysis on the then emerging theories of the bounded rationality of organizational decision-making and the importance of intra-organizational politics in large dispersed organizations. The study identified different purposes of accounting, and the potentially multiple roles of accounting in organizational decision-making. This, together with the formidable body of subsequent writings, ranging from Cyert and March's *Behavioral Theory of the Firm* to March's writings on "garbage can" processes and the ambiguities or inconsistencies that characterize organizational decision-making, transformed the sort of questions that

could be asked of the roles of accounting within organizations (see, e.g. Cyert & March, 1963; March, 1987, 1988; March & Olsen, 1976; March & Simon, 1958). The black box of the firm was henceforth to be opened up, which required realistic study of how bounded rationality played out in "flesh and blood organizations" (Gavetti et al., 2012, p. 4). This research agenda was pivotal in inspiring much of the writings of Anthony Hopwood, albeit blended judiciously with admixtures of neo-institutional theory and the insights of Karl Weick. Others, including Berry et al. (1985), Cooper (1981, 1983), and Dent (1991) also drew substantially on such notions, substantially extending our understanding of the interdependence of accounting systems and organization design and decision-making processes.

A further part of this transformation of accounting research in the 1970s and 1980s was the encounter with political science. Here, the writings of Wildavsky (1964, 1976)[6] were highly influential, as were those of Lindblom (1959). Together, they showed the rationalistic surface rhetoric of accounting for what it was, even if such rhetoric continued (and still does) to have considerable suasive force. Accounting was, instead, depicted as in large part a "science of muddling through", a conception that strongly influenced Scandinavian studies of accounting in organizational settings.[7] It was also seen as needing to be analyzed not only through the tools of the political scientist but also through those of the anthropologist, which meant studying how people in various societies come to believe in what they believe and the way that they believe it (Wildavsky, 1976, p. 123).

With these diverse building blocks in place, and leaving aside wilful denial by some of the considerable body of evidence suggesting that accounting is much more than a purely technical process, accounting research was brought into close proximity to administrative science and organizational analysis. But, and notwithstanding the encouragement provided by those such as Meyer, March, Wildavsky, and many others to look beyond the organization, accounting research until 1980 still operated with a somewhat constrained view of the roles of accounting, one that was limited to studying accounting within organizations only, and at the micro-level of groups and group dynamics. This was to change soon, however, in line with further developments in the social and organizational sciences.

A further line of enquiry explored the ways in which accounting was implicated in broader organizational processes, and how it was affected by a wide range of contingencies. A number of writers, including Lawrence and Lorsch and Perrow in the U.S., Crozier in France, and Woodward, Burns and Stalker and the "Aston Group" in the UK, drew on systems thinking, and the notion that the environments within which organizations operate can impact on organizational functioning (Thompson, 1967). These writers examined the ways in which contingencies such as technology and environmental change can impact the optimal design of organizations.

"Contingency theory" is the label that came to be given to this set of studies that showed that there is no universally valid way of designing organizations. Galbraith (1973) demonstrated the value of exploring how a variety of factors (such as technology, size, strategy, and organizational environment) can impact on organization design. Once again, this placed accounting in a pivotal position within organizations, while the notion of uncertainty acted as an umbrella term for a range of factors in the environment of organizations. The ability of an organization to manage uncertainty was presented as a function of its ability to handle information, with accounting being central to this equation.

Accounting researchers seeking to both understand and prescribe accounting systems enthusiastically embraced the contingency approach. Early empirical studies such as Khandwalla (1972), Bruns and Waterhouse (1975), and Hayes (1977) demonstrated that universal prescriptions for the design of accounting systems were likely to be invalid. This redirected the attention of accounting researchers away from the search for the single most desirable method of generating financial data to promote effective decision-making. A significant essay by Gordon and Miller (1976) argued that much greater attention should be devoted to the attributes of the environment, the organization, and decision-making styles. For instance, environments can vary in terms of their dynamism, their heterogeneity, and their hostility. Organizations can vary in terms of the extent of decentralization, differentiation, integration, bureaucratization, and resources. And decision-making styles can vary according to many dimensions, including the amount of analysis devoted to prospective decisions, the time horizons considered, the variety of factors considered, and so on. The point, however, was not to identify an almost infinite number of variables, but to analyze how environmental, organizational, and decision-style traits cluster together to form more or less common sets or configurations, which Miller and Gordon termed "adaptive", "running blind", and "stagnant bureaucracy" (Gordon & Miller, 1976, p. 65 ff.).

This marked an important step for the analysis and design of accounting systems, even if the general point of these early studies can appear more or less self-evident today. From the mid-1970s onwards, it came increasingly to be accepted that internal accounting systems—whether cost, responsibility, budgeting, or performance evaluation—needed to fit the overall organization design. Also, and importantly, the focus here was on the interaction between accounting information and the organization as a whole, rather than on individuals. By 1980, Otley (1980, p. 413) could speak of the "recent vogue" for contingency research in accounting, and went as far as to say that in the space of five years it had come to dominate published work on the behavioral and organizational aspects of management accounting. But Otley was cautious about overstating what contingency research in accounting had achieved by then, suggesting that it required improved conceptual clarity and the use of

different research methodologies to those typically used until then, given the highly inter-connected structure of control devices, of which accounting is but one. In so far as contingency theory in accounting suggests the importance of matching specific aspects of an accounting system with defined circumstances, Otley argued that empirical studies to date had been vague as to such linkages.

Subsequent research entailed both criticism of contingency research for what was held to be its inherently conservative nature (Cooper, 1981, p. 188), as well as notable extensions that set out increasingly complex views of the contingent relations between accounting systems and organization design (Chenhall & Morris, 1986; Merchant, 1981). For instance, Chenhall and Morris (1986) investigated the effect of structural decentralization, perceived environmental uncertainty, and organizational interdependence on the design of management accounting systems. In addition to examining the effects of such contextual variables, the study also sought to understand how the independent variables interacted.

Simons (1987) extended the literature further, and in an important new direction for management researchers, by connecting contingency research in accounting with strategy research in management. Utilizing Miles and Snow's (1978) strategy typology, Simons sought to investigate the differential use of particular accounting procedures for "Defender" and "Prospector" firms. His findings were that high performing Prospector firms appeared to attach considerable importance to forecast data, setting tight budget goals and monitoring outputs carefully, while reducing emphasis on cost control. Defenders appeared to use their accounting control systems less intensively, even noting negative relationships between performance and attributes such as tight budget goals and output monitoring. Based on further research, Simons developed his levers of control framework (Simons, 1995). Subsequent work in a related vein questioned the merits of the rather stylized oppositions (of mechanistic and organic organizations, for instance) that had characterized early contingency approaches to accounting, and called for further investigation of the complex roles of accounting systems and their multiple interactions with both organizational and environmental variables (Ahrens & Chapman, 2004; Chapman, 1997; Chenhall & Morris, 1995).

Two decades of Anglo-American research into the behavioral aspects of costing, budgeting, and related evaluation mechanisms transformed the discipline of accounting, such that social-psychological understandings of the interrelations between accounting and organizational dynamics were firmly established by the mid-1970s. From then on, and for a similar amount of time, accounting researchers began to draw increasingly on concepts drawn from sociology and political science to analyze the roles of accounting within organizations (Covaleski, Evans, Luft, & Shields, 2003). For example, budgeting was not to be understood as a series of technical routines, but was

rather a profoundly political and interested process (Wildavsky, 1964). That said, in the mid-1970s accounting researchers still worked with a somewhat constrained view of the influences on organizations. In concentrating largely on what happened within organizations, much was left out. The need to alter this was stated in characteristically forceful terms in the late 1970s by Hopwood (1978), who argued that accounting researchers needed to pay much more attention to the ways in which the wider social and economic environment impacted on accounting. There was, he argued, an urgent need for accounting research to examine accounting as both an organizational and a social phenomenon (Hopwood, 1976). Studies of power, influence, and control should, he suggested complement studies of the behavioral aspects of accounting within organizations.

Hopwood's work from the late 1970s and the early 1980s (Burchell, Clubb, Hopwood, Hughes, & Nahapiet, 1980) created the conditions for a further sociological and social-theoretical turn in accounting research, embracing, and encouraging connections to emerging ideas from institutional theory (Covaleski & Dirsmith, 1981, 1983, 1988), political economy (Bryer, 1999; Puxty, Willmott, Cooper, & Lowe, 1987), and the writings of specific social theorists in order to illuminate the roles of accounting in organizations and society. Organizations were no longer autonomous entities within which accounting related behaviors would play out, but porous sites, and elements of fields essentially open to wider social ideas, values, and forces (Miller, 1990).

From Bookkeeping to Market-Based Accounting Research

It is said that the earliest examples of writing were "accounting" records (Edwards, 1989, pp. 23–26). Methods of keeping track of monies owed and owing reach back to ancient Egypt (Ezzamel, 2012), and were codified in the double-entry method by Luca Pacioli in 1494. Under this system, every transaction can be understood as a flow of value with a "dual" character as Marx had noticed. If a capitalist puts money into an enterprise, then by the logic of double-entry there is an increase in the capital in the business and an equal increase in a cash resource for use in the business. Capital is the representation of the capitalist's interest. If some of that cash is expended on a building, cash will decrease and there will be an increase in an asset—the real building. The interest of capital will remain the same. This transactional system will roll on but there are always two components of "debit" and "credit," which must be equal. This is true even for the most extensive and complex stream of transactions.

Double-entry bookkeeping is a powerful and enduring basis for accounting because of its numerical discipline and rationality (Carruthers & Espeland, 1991). This is one of the reasons for Sombart's exaggeration of its constitutive role in capitalism as noted above. It emerged from centuries of mercantile

practice in the control of business assets, the calculation of amounts owing and owed, and crucially in the determination of surplus for distribution. This logic also allowed for development and further elaboration and bookkeeping became much more than a substitute for human memory. Accounting classifications multiplied over time. For example, a distinction came to be made between assets with a long term and continuing use in a business and those whose benefit was realized and expended almost immediately. Capital accounts came to be broken down into statements of profit and loss and conventions of periodicity for reporting surplus were established. With the growth of these conventions and their associated classifications, accounting also came to be permeated by judgment. The reporting of net assets or operating profit could no longer be a matter of pure calculation—assumptions were essential about such things as asset life, the period in which a transaction took place, and even the measurement of value itself.

From this point of view, the form of accounting became increasingly institutionalized and jurisdictionally specific. The conventions of accounting initially emerged from below, from the regularities of practice itself and not from any higher order principles. They were enlisted by business taxation regimes and developed pragmatically. Despite the existence of occasional commentary from reflective practitioners, accounting development was largely a reflex of changes in the wider economy and in the nature of the enterprise, driven also by growing analytical aspirations to make the performance of enterprises more *comparable* and *commensurable*. During the nineteenth-century basic accounting requirements were embodied in new law for joint stock companies, opening the door to the emergence of an accounting profession in Great Britain (Edwards, 1989, p. 262). As the corporate economy grew in the first half of the twentieth century, accounting faced the issue of the growing distance between providers of capital (shareholders) and managers. This "agency problem" created new institutional pressures on accounting at the enterprise level. Far from being a private matter of the owner-manager, a sub-field of accounting—which we now call financial accounting and reporting—was set on course to be a mechanism by which professional managers would be accountable to providers of capital, a mechanism enshrined in law.

Until the early years of the twentieth century, accounting was predominantly understood in a pragmatic way: "accounting is what accountants do" (Young, 2006). Accounting had its own internal logic of production and practical pedagogy produced by emerging accounting firms, but was not generally regarded as a field worthy of extended scholarly reflection. Weber's reflections on the significance of accounting noted above were thoroughly decoupled from its practical development. Standards of practice became codified and distributed in professional texts, but they emerged in a largely *ad hoc* fashion often focused on specific sectoral issues, such as costing and depreciation in capital intensive industries like railways.

The history of this pragmatic tradition of accounting knowledge development was not a smooth one, evolving via a series of shocks and scandals. For example, the collapse of the City of Glasgow Bank in 1878 and the Royal Mail case of 1931 were two important events in Britain which led to accounting change and gave birth to a legal framework for accounting that was exported to many other jurisdictions and is recognizable today. In addition, the experiences of depression in the U.S.A. and Germany shaped financial accounting to restrict distributions and protect creditors. Yet, the intellectual insulation of accounting thought largely persisted despite these shocks and there was little distance between the concerns of practice and those of its scholars. Accounting was predominantly coded as a mechanism of accountability and seemed to have little to do with the running of a business and its strategy other than being a supportive hygienic element, although parallel developments to improve internal cost accounting as a core managerial discipline were also taking place (Loft, 1986). In short, accounting was its own sub-system largely disconnected from prestigious academies. The emergence of business schools in the U.S.A. in the late nineteenth century provided the conditions of possibility for accounting practice to develop abstract conceptions of its purpose, although the autonomy of the accounting field only began to be challenged in a variety of ways as the twentieth-century progressed (Zambon, 1996).

In two specific respects accounting came to be increasingly regarded as problematic, setting in motion both professional and specialized academic processes of reflection which remain pertinent today. Indeed, one might say that these two issues are the essential fault lines of financial accounting which continually challenge its coding as an autonomous practice. They concern foundational questions: the purpose of accounts, and the measurement basis for representing economic position and performance.

First, the very purpose of accounting might be described as schizophrenic and as having both legal and economic "logics". The legal coding of accounting is perhaps the oldest and the principle of creditor protection lies at its heart. Accounting law was originally designed and subsequently refined with the aim of ensuring that payments could not be made which would place creditors' debt at risk. From this legal point of view, the purpose of financial accounts was to ensure the *stewardship* of resources entrusted to managers. Professional bodies continued to elaborate accounting principles but there also emerged an interest among a small group of British economists in the concepts of income, cost, and their measurement (Hicks, 1939; Parker & Harcourt, 1969). Although the very idea of income might be relative to preferences and was not an absolute *a priori* concept, income theory contributed to a conception of accounting scholarship and its objects which was distinct from other fields of management. Today this is known somewhat dismissively as "normative" accounting theory (Watts & Zimmerman, 1986, p. 4).

While accounting practice and income theory had very little to do with each other until the late twentieth century, variants of income theory were developed by accounting scholars in a number of countries who defined a "trading zone" between academia and practice (von Colbe, 1996; Lindenfeld, 1990; Zambon, 1996). The UK is an outlier in this respect (Napier, 1996) with more of an institutional divide between universities and practice, and more of an uneasy relationship as a result of an autonomous research agenda (von Colbe, 1992; Hopwood, 1988; Power, 1997a, 1997b; Schipper, 1994). This divide provides the conditions of possibility for a later "sociological turn" in accounting studies in the UK which was not replicated to the same extent elsewhere, and which continues to live uneasily with economic analysis of accounting phenomena. Cambridge University once argued that accounting was a practical art and not a scientific discipline, and therefore did not merit professorial status (Puxty, Sikka, & Willmott, 1994, p. 153). It later relented and located accounting as part of applied economics. This close relation between accounting and economics is now globally established, and regarded by many as an obvious condition for accounting in universities to be regarded as a social science. Yet, the absence of a mediating business economics tradition in the UK and North America, and the emergence of financial economics in its place (Whitley, 1986), may explain why practitioner criticism and dismay at the impracticality of much of this economics-informed research is more pronounced in these countries.

The positioning of the study of accounting as a sub-field of economics represented an anti-behaviorist style of analysis which eventually challenged the stewardship coding of accounting from the 1930s onwards and gained momentum, particularly in North America, after World War II. Developments in the decision sciences coupled to the expansion of capital markets provided the catalyst for a new conception of financial accounting. The new focus was to provide *relevant information* which would be useful for existing and potential investors in their capacity as decision-makers (Whitley, 1986; Young, 2006). This shift also marked the beginning of efforts to embed accounting within a decision-theoretic conception of management and investment.

Although the logic of decision-relevance has never been enshrined in the law in any jurisdiction, this view of the purpose of accounting rapidly gained currency in the upper reaches of practice, reinforced by an expansion of academic interest in studying accounting through the lens of information economics. This "revolution" in accounting thought (Beaver, 1981) in the academy was both conceptual and empirical. Conceptually, it was to influence the articulation of a framework for financial accounting—decision-relevance became a fundamental organizing ideal of accounting. Empirically, it set in motion a new research program to explore the consequences of accounting numbers for market valuation, which we discuss further below. Accounting was no longer confined to what accountants did within the bounds of legal

prescription; it was required to be useful within capital markets. This constructed sense of use was the catalyst for the expansion of an accounting research industry, namely MBAR (Young, 2006). In turn, this capital markets based agenda also generated a number of oppositional critiques (Bryer, 1999; Cooper & Hopper, 1990) which claim that the very purpose of accounting is plural and contested, not only in terms of information and stewardship objectives, but also in relation to a wider cluster of values associated with the idea of corporate social responsibility (Gray, 1992).

The second and perhaps most important foundational issue is that of accounting *measurement.* Once again, we can understand the issue in terms of two rather different codes or logics for accounting, leading to different measurement conventions. For many years, historical cost was the dominant measurement convention. For purely stewardship purposes it might be argued that measurement mattered less than a clear audit trail for legitimate transactions and uses of resources. Indeed, for rank and file practitioners, a transaction record in terms of the historical or entry cost was largely acceptable on pragmatic grounds, provided that the income statement could approximate the cash realization of profit. From this point of view, the balance sheet was not intended to be a statement of value but was a residual effect of the double-entry method.

However, this pragmatic measurement consensus (and income statement focus) came under increasing pressure. It was clearly inadequate during the inflation of the 1970s. Furthermore, as the difference between reported accounting net asset values and observed market values grew from the 1980s onwards, the pragmatic view of accounting measurement became harder to sustain and the ability of accounting to enable comparisons of performance across firms was undermined. While there were strong academic defenses of the virtues of historical cost accounting (Penman, 2007), there was also a strong lobby for measurement conventions which might better represent the underlying economics. While some thinkers saw an opportunity to reconnect accounting to its managerial base, invoking variable measurement conventions depending on *management intention*, others sought a measurement convention grounded in the market—so-called "fair value" accounting which we discuss further below. In addition, there has been cumulative pressure to recode accounting with a focus on the balance sheet and valuation issues, thus bringing it into line with some of the precepts of income theory developed in the first half of the twentieth century. Therefore, the apparently technical issue of an accounting measurement convention is in fact a political space in which the relationship between managing, accounting, and markets has been, and remains, contested (Power, 2010).

These two issues of purpose and measurement represent vectors of continuous pressure in financial accounting and give it its essential contestability (Power, 2012). At the level of practice, the profession engaged in a project to

rationally reconstruct the foundations of accounting based on decision-theoretic ideas. Efforts to think conceptually about accounting in the early part of the twentieth-century acquired institutional momentum after the World War II in the form of a conceptual framework project in the U.S.A. from the 1960s onwards. The project was led by the Financial Accounting Standards Board (FASB) and the intention was to create a rational foundation for the production of financial reporting rules. Yet, far from solving the fundamental tensions within accounting described above, and far from underwriting the scholarly autonomy of accounting as a distinctive field of what we might call "economic jurisprudence", the conceptual framework project only made these issues more apparent. Furthermore, the very idea of a single framework seemed to live uneasily with the evident plurality of possible purposes for accounting (Macve, 1997).

In parallel with this search for a conceptual framework for accounting, research at the major universities began to take a social scientific turn, with leading scholars aligning themselves with traditions of enquiry from economics, psychology, and other disciplines. This was in effect both a *positivistic turn* in methodological terms, but also a shift in focus toward the use of accounting numbers as information sources in capital markets and away from the messy and idiosyncratic internal world of managerial control and budgeting. There was also less interest in explicitly studying what accounting *should* be, and more focus on its effects and consequences. Accounting as an academic field was being transformed from a discipline inductively founded on practice, into an object of the social sciences, most specifically in its growing alignment with the methods and assumptions of financial economics.

When Ball and Brown (1968) published their seminal paper investigating the role of accounting numbers in the formation of security prices, they initiated an entire research program drawing on the methods of analytical and empirical economics. Normative accounting theory and practitioner discourses had asserted, and continue to assert, the relevance of accounting numbers to investors. Ball and Brown (1968) and their followers challenged this assumption by turning it into an empirical question. Thereby, accounting research moved into the terrain of economics, drawing on breakthroughs in financial economics, not least portfolio theory and the development of the capital asset pricing model (CAPM) (Lev & Ohlson, 1982).

This MBAR, as it has come to be known, uses models of valuation to investigate whether accounting practices (new technical standards, depreciation methods, accruals, etc.) give rise to a reaction by stock prices. Such studies of accounting "events" are simultaneously tests of both valuation models and real market reactions, and many of the advances in econometric methods have been focused on dealing with this issue of jointness (Sunder, 1997). In broad terms, accounting numbers are treated as independent variables in a capital market setting, and as one information source among many which

feed into the price formation process. A significant part of MBAR research has been used to test market efficiency ideas and there has been considerable interest in the extent to which capital markets "see through" practices of earnings management or creative accounting. In recent years, the recognition of the role of intermediary interpreters of accounting information—financial analysts—has led to investigations of how they react to accounting numbers and, indeed, how accounting numbers may be produced to be in line with analyst "forecasts" (Kothari, 2001). This work suggests that the production of accounting numbers may be driven by perceptions of market actor expectations as much as they are pieces of information giving rise to reactions by such actors. In addition, MBAR has taken its own institutional turn (Leuz, Nanda, & Wysocki, 2003), enabling comparative studies of the effects of accounting relative to the corporate governance regimes in which they are situated.

This body of work led naturally to an interest in the role of accounting disclosure as information (Healy & Palepu, 2001) and specifically on the discretionary or so-called voluntary disclosures that firms make to the market, which might include non-financial information. Further developments in the field have explored the role of accounting numbers in contracts, formal and informal, and the politics of the production of accounting standards. In their classic paper, Watts and Zimmerman (1979) position accounting theory as a set of "excuses" used by actors to justify accounting policies and outcomes which favor their interests. From this point of view, accounting numbers and policies have no inherent meaning other than providing a disciplinary constraint on management. They simply affect the expected cash flows of organizations, which are important to valuation models, by virtue of being embedded in contracts both formal (debt covenants) and informal. Given this contracting role, research suggests that significant actors, such as large corporations, will seek to advance their own economic interests via lobbying for desired accounting policy outcomes.

Although there is considerable internal diversity in this body of work, there are also some similarities because of what we call a shared *methodological reductionism*. First, agents are conceptualized as utility maximizers independently of accounting. This is partly because of the large scale nature of MBAR studies, and partly because something like income theory is regarded as just one "excuse" in the market for accounting policy choice. This assumption about independent agents contrasts with the "subjectivizing" role of accounting discussed below. Second, the reaction and price formation process is treated more or less as a black box, although analytical studies of price formation exist (Sunder, 1997). In this sense, MBAR and its variants are intentionally "behaviorally thin". Third, empirical results often exhibit weak or noisy evidence of market price reactivity, leading more critical commentators to suggest that this research tradition is primarily focused on

displaying methodological acuity (Hopwood, 2009b). We are agnostic on this critique and accept the trade-offs in different research traditions. However, it is undoubtedly the case that MBAR has contributed to a perceived gulf between policy and research discourses. The results of empirical studies have at best a very loose relationship with deliberations about accounting policy, partly because the former tend not to produce clear results, and partly because the latter tend not to be evidence based. However, some of the leading exponents of the MBAR school have ended up playing key roles in policy processes (Katherine Schipper, Mary Barth), and it is argued that this research tradition is an important resource for accounting policy-makers.

In this section, we have provided an overview of key vectors of change in the early formation of the field of accounting scholarship in a line of development from practical bookkeeping to the sophisticated research tradition of MBAR. Our reading is necessarily selective, but we suggest that the sociological insights into accounting developed by Weber were effectively de-coupled from developments in the accounting field as it acquired increased scholarly status. These insights remained at an abstract, macro-level until being rediscovered in the 1980s. At the same time, the practice of financial accounting became progressively more reflective about its role and function, and developed its own pedagogy. We have suggested how certain anomalies and problems of practice, not least a concern with the purpose of accounting in capital markets, challenged normative traditions of accounting thinking which in turn opened up a new spirit of empiricism in accounting research. We have also suggested how accounting scholarship, as it turned toward the social sciences, embraced economics and came to position itself as a region of a new sub-field—financial economics. Finally, we have argued that this second historical strand of development in accounting represents an anti-managerial and anti-organizational vector, something which may explain anecdotal observations about the tensions between departments of accounting and finance and other fields within business schools (Hopwood, 2009b).

Accounting and Organizations: Four Themes

In the previous sections, we have outlined two trajectories of accounting research—a behavioral turn culminating in a contingency-theoretical approach to the relation between accounting and organizations, and a market-based turn culminating in a similar approach to the relation between accounting and security prices. This suggests that there is no single overarching *logic of accounting*. Whereas the former positions accounting systems as being functionally shaped by contingent features of organizational environments, the latter explores the contingent impact of accounting numbers on market valuation practices. Each, therefore, differs in its primary orientation to management. The behavioral turn in accounting is also a turn *toward* the

managerial context. In contrast, the market-based turn in accounting points *away* from management and toward the relationship between accounting and capital markets. The main presumptions of accounting dependency are different in each body of work but they are structurally similar. In the remainder of this review, we seek to position another body of accounting scholarship which, in a variety of ways, is characterized by a series of critical reactions to both the behavioral and the market-based traditions.

In part, these reactions involve a change of optic and an increased appetite for organizational texture. In place of organizations viewed as contingent entities, and as accounting data points in capital markets, we see a focus on the interrelations among organizations and within the institutional field in which accounting operates, and which it shapes. This, in turn, requires greater attention to the roles of accounting as a frame of meaning for actors and sets of actors, capable of shaping their cognition and their actions, rather than being purely external to it (March, 1987). This requires a "thicker" and more endogenous approach to the relationship between accounting and institutions (Bozanic, Dirsmith, & Huddart, 2012), and draws attention to the rationales, such as efficiency, sustainability, and accountability, which motivate the production of accounting numbers. These rationales are typically not organization-specific; they have an institutional character and may emerge and circulate in institutional environments, become operational and be mobilized in alignment with the techniques of accounting. These techniques of accounting do not simply inform economic decision-making, but in many cases constitute the domain of economic activity itself, a process we refer to as *economization*. In what follows, we selectively reconstruct the relevant literature in terms of how it contributes to four overlapping thematic clusters: territorialization, mediation, adjudication, and subjectivizing.

Territorializing

Accounting is not simply *applied* to organizational activities. It is deeply involved in constituting the spaces in which it is active (Miller, 1992, 1994). We term this territorializing.[8] Accounting may focus on the performance of an actual physical space—say, a particular area of a factory floor (Miller & O'Leary, 1994a, 1994b)—or the space may be abstract in the form of a particular product line, a department, a legal entity or a collection of such entities. The constitution of these territories of accounting enables them and their respective performances to be reviewed, evaluated, and compared with other such spaces by senior managers, board members, regulators, or even in some instances (such as public services) by the general public. This means that territorializing is not confined to states and statehood. Territorializing is achieved by linking ideas of the market with the instruments of accounting, so as to allow

households, hospitals, schools, retired persons, or whatever to be constituted as accounting subjects obligated to calculate or be calculated.

The calculative practices of accounting play a crucial role here, making calculable and visible in a specific way what was previously incalculable. Crucially, the territorializing function of accounting can reframe a domain in such a way that it becomes amenable to narratives of market and economic rationality. Hopwood (1987) provides a foundational example of the role of accounting in the constitution of domains of economic action via the example of Josiah Wedgwood who was a producer of high-quality porcelain goods in the eighteenth century. Under conditions of hardship, Wedgwood needed to know his "cost" of production, but cost was a conceptual economic category and lacked a material operational basis for him. According to Hopwood, cost was not yet an organizational fact for Wedgewood; it needed to be created and operationalized. Only then could Wedgwood see his enterprise as a fully economic entity and subject it to further economic analysis. According to Hopwood, Wedgwood was trying to reveal something that we presume was already in existence—cost of goods to be sold. But in the process of using accounting to reveal cost, a new internal organizational economy had to be created (Hopwood, 1987).

Similarly, Hopwood (1992) analyses the early phases of reform in UK medical context of the late twentieth century and argues that: "The costs of patients, of diagnostic treatments and of disease categories remained the vaguest conceptual possibilities. They certainly were not facts" (Hopwood, 1992, p. 139). Pressures to make hospitals more efficient and cost conscious demanded new and more detailed accounting processes and systems. Indeed, to realize the abstract ideas of the emerging discipline of health economics, accounting reform played a decisive role in constituting hospitals as economic entities. According to Hopwood, economics exists at the ideational level and requires accounting to realize its aims, but in doing so it imposes an economic narrative or rationale on accounting practice: "economics does not reveal what is already there. Rather it provides a basis for the attribution of new meanings and roles to accounting . . ." (Hopwood, 1992, p. 141).

The territorial nature of accounting is revealed in this recursive, mutually constitutive or performative relationship between accounting practice and economic ideas. For Hopwood, economic ideas, such as decision-relevance or efficiency, are part of the institutionalized environment which mobilizes the craft of accounting and helps it to expand and effect organizational change. This, in turn, makes both actual organizations and markets constitute themselves in the image of economic ideas (Hopwood, 1992, p. 136). The analysis can be generalized to suggest how accounting plays a role in the production of organizational facts, which lead to demands for more accounting. Problems such as hospital costing (Chua, 1995), intangible asset management (Bukh, Larsen, & Mouritsen, 2001, Mouritsen, Larsen, & Bukh, 2001),

economic development (Neu, Ocampo Gomez, Graham, & Heincke, 2006, Neu, Siraz Rahaman, Everett, & Akindayomi, 2010), and carbon emission reduction (Mackenzie, 2009) show how accounting for new objects emerges from and defines managerial and political interest. This in turn leads to efforts to create new accounting and performance facts and their associated technical infrastructures.

Rose and Miller's (1992) distinction between programs and technologies which mutually realize each other is useful to characterize this emergence of accounting practice. Programs are essentially aspirational performance ideas, whereas technologies are the grounded basis for their realization. Territorializing occurs as programs mobilize technologies, which in turn shape those programs. This territorializing role should not be misunderstood as assuming the effectiveness of accounting in achieving economic or other aspired-for outcomes. Rather, reform programs and accounting technologies are more likely to be loosely coupled; the accounting means does not always realize the economic end (Bromley & Powell, 2012). The idea of territorializing draws attention to the ways in which accounting becomes elaborated in the name of economic ideas and constitutes organizational units as economic entities whose performance can then be judged to succeed, fail or be risky in isolation from system or society-wide issues (Kurunmäki, 1999; Power, 2009). In short, accounting constitutes entities and spaces in its own image.

Mediating

From the preceding section, it is clear that accounting is not a calculative practice which simply reveals the pre-existing economic nature of organizations. Accounting is also a *mediating* practice, meaning that it links up different actors with a common narrative and may constitute a network of relations within and beyond the boundaries of the enterprise. Burchell et al. (1985) draw attention to this mediating role in their classic paper on the rise and fall of an accounting reporting innovation, namely the experiment in "value-added" accounting in the UK in the 1970s. They show how the initiative to create a new reporting model was a contingent product of the convergence of three specific institutional arenas and their respective interests. The first arena was a debate within accounting about the quality of accounting standards. In 1975, the accounting authorities in the UK published *The Corporate Report* which proposed a statement of value added to show how productive surplus is shared between labor, capital, and the state. At the same time, there was a political-level debate about macro-economic management and the need to increase labor productivity. Third, industrial democracy was much discussed and this was the high point of trade union power. The period saw a number of non-standardized experiments at the organizational level with value-added statements to reflect these new plural "accountabilities".

This was not simply a technical or calculative innovation. In fact, the techniques of value-added accounting proved to be operationally problematic. Rather, unlike a conventional profit and loss account and balance sheet, value-added accounting was more significant for symbolizing organizations as the product of cooperative effort. And this symbolic role was powerful in mediating and linking the different interests at stake in the three arenas, at least temporarily, and allowed them all to have a common material accounting realization. Indeed, Burchell et al. (1985, p. 390) argue that, far from being technically standardized, value-added statements were highly ambiguous in their meaning and scope. Yet, while this ambiguity furthered means-end decoupling, it was nevertheless functional for its trans-arena appeal: "the very ambiguity of value added might, in other words, be implicated in its emergence and functioning".

This early paper influenced forms of institutional analysis in accounting research, with scholars seeking to identify the external sources, the arenas, and networks, which influence accounting but which are also mediated by it. Accounting change and innovation was positioned as an endogenous "event" within a shifting institutional field populated by diverse logics (Lounsbury, 2008). Analyses of efforts to create new accountings for sustainability, or for business risk, reveal the linking potential of accounting, a potential which may expand its organizational territory, and is undoubtedly mediated by consultancies and the large firms (O'Dwyer, Owen, & Unerman, 2011). This is consistent with developments in both philosophy and sociology over recent decades, where the conjointness of representing and intervening (Hacking, 1983), and the interdependencies between programs and technologies (Miller & Rose, 2008; Rose & Miller, 1992), has been accorded so much attention. As the value-added study shows, accounting is of such interest because it is *both* agent and outcome, *both* idea and practice, in its mediating role, a role in which diverse arenas and levels can be linked (temporarily) together via accounting and mutually expand.

Relatedly, sociologists of science have shown how a machine operating in a social context contains within itself both a set of ideas that explain its physical operation, and a set of ideas that explain its social function. This embedding of physical and social ideas requires an active process of mutual adaptation of one set to the other. Put differently, the categories of a local scientific community can come to be interdefined with political and economic categories. Equally, a formulation such as "Moore's Law" can link science and the economy, by embedding within itself both a cost function and a technological trajectory (Miller & O'Leary, 2007). And, in the domain of healthcare, new management control practices can come to be framed and operationalized in terms of larger political ideas such as the "Modernizing Government" initiative, as well as in terms of localized concerns for service delivery. In a very different context, international auditing standards were articulated in the post-Soviet economic

reforms in such a way as to connect local audit practices with wider programs of market-oriented transition (Mennicken, 2008).

The mediating and connecting role of accounting does not imply that accounting is necessarily or always tightly coupled to economic ideals or to intended outcomes. For example, as discussed earlier, theories of decision-making and information economics have come to be applied to accounting, but this economic conception of accounting may be at odds with the way accounting is actually used in organizations (March, 1987), for example, in investment appraisal (Miller, 1991). Hopwood expresses this means-end decoupling thus:

> The relationship between accounting and economics is therefore a complex and uncertain one. One is not a simple reflection of the other. The present practice of the accounting craft cannot be deduced from economic conceptions of it and economic ideas for its change and reform, although often articulated, find it difficult to become entangled with a craft that appears to have independence from what are seen as its essential roles. (Hopwood, 1992, p. 130)

Finally, the mediating role of accounting does not assume that linkages are permanent. The value-added study counts as a form of failed or temporary emergence (Padget & Powell, 2012). Accounting practices are assemblies of components, often with very different ontologies, such as ideas and routines. Programmatic efforts to make organizations and nations more efficient, more sustainable, more socially responsible, more risk-aware often involve diverse actors seeking to translate these ideals into operational and visible performances. Yet, failure is the norm, failure which sets in train further reform and new efforts to account. Value-added failed to stabilize as an institutionalized form of accounting because the constituencies from which it drew its support, and for which it could provide representation, themselves changed. The mediating role of accounting is therefore more of a permanent process than a stable outcome.

Adjudicating

Perhaps the most intuitive contemporary function of accounting is that of performance measurement as a basis for evaluation and accountability. The constitution of territories or entities for accounting and the mediation of ideas and techniques, the linking of different actors, is indissociable from the allocation of responsibility. In this respect, we contend that accounting plays a fundamental adjudicating role in modern organizations, and the complex of accounting has multiplied both in response to institutional demands to know and measure performance and to evaluate agents. This adjudicating role can be a matter simply of making it possible to compare the performance of one organization

with another. Or it can be a more general phenomenon, such as the avalanche of mechanisms for seeking to achieve accountability and transparency which has so aptly been termed an "audit explosion" (Power, 1997a, 1997b). If accountability was once based on a variety of different practices, making organizations accountable today typically means making them "auditable", which in turn means appealing to the calculative infrastructure of accountancy to measure and compare performance (Espeland & Sauder, 2007; Power, 1997a, 1997b; Strathern, 2000). Since the mid-1990s, this proliferation of adjudicating has been renewed to embrace the notion of risk. Again, this is a matter of both internal organizational dynamics and procedures, and external processes for assessing the risks and the riskiness of individual organizations or sets of organizations. In the space of less than a decade, "risk" has become more or less ubiquitous, and today it seems unwise to undertake almost any activity without first having assessed its riskiness (Hood, Rothstein, & Baldwin, 2001; Miller, Kurunmäki, & O'Leary, 2008; Power, 2007). And, as Douglas (1992) instructs us, where there is risk, blame is never far behind.

The literature on the mechanics and effectiveness of performance measurement regimes, for individuals, units, organizations and even states, is extensive. However, we do not understand this role in terms of sovereign power or an agent who judges. This of course happens; parliamentary bodies use accounts to hold ministers and others to account; auditors make judgments about the quality of financial statements; analysts judge whether a company is worth investing in. Rather, our focus is on the adjudicatory qualities of accounting as such which make these activities possible. These qualities are the ways in which accounting classifies, counts, enumerates, summarizes, and compares. For example, the adjudicatory role of accounting in this sense is particularly interesting when organizations are under stress. At the limit, accounting can become a matter of pronouncing on the failings or even the ultimate failure of an entity. Across the course of the twentieth century, and in a far from linear manner, a calculative infrastructure for pronouncing on financial health has been formed that has acquired widespread social legitimacy, such that it is now considered to be required not only for corporations but also for public services (Kurunmäki & Miller, 2011, 2013; Miller & Power, 1995). We acknowledge that there are some obvious beneficiary agents in this development—professional groups and the large consulting firms who are agents of neo-liberal reform and corporate governance processes. Yet, even though these firms have shaped and promoted accounting knowledge in proprietorial ways, the reach of accounting is not only a function of their power, it has more to do with a style of thought which is widely diffused.

For example, the balance sheet, a fundamental component of accounting, is one of the most powerful institutions of our time, a complex legal-economic hybrid which frames organizational health and has become deeply embedded in regulatory and managerial practice. The balance sheet is the calculative

foundation for many of the accounting-based ratios which surround the modern firm and define it for both internal managerial and financial analytical purposes. Today we take measures of "return on capital", "leverage", "solvency", and "liquidity" very much for granted. While they are derived from financial statements, these ratios have a lengthy history and have today acquired an institutional life of their own (Kurunmäki & Miller, 2013). They circulate as abbreviated measures of economic performance and health across many different organizations and are used by financial analysts, credit-rating organizations, regulatory bodies, and others. We suggest that such ratios are powerful devices which do not so much represent organizational health as define the success and failure of organizations. And, as organizations feel the pressure of being compared to each other, of being made commensurable in terms of these ratios (Espeland & Stevens, 1998; Samiolo, 2012), they increasingly orient organizational action toward them.

Somewhat ironically, the interrelations among accounting, organizing, and economizing achieve particular strength at the moment of failure or exit from the market game. Hospitals, schools, and many other organizations have to be made into entities of a certain kind in order that they can be deemed insolvent. Yet, in contrast, the solvency problems of banks in 2009 served to highlight the non-autonomy of these entities and their embeddedness in societies which became ultimately responsible for their viability. In the former case, accounting is promoted to constitute the economic autonomy of hospitals; in the latter case accounting is regarded as having misrepresented the autonomy of banks, specifically the interconnectivity risk (Power, 2009). Each individual bank could be adjudicated in accounting terms as a separate enterprise managing its risks in a highly institutionalized and legitimate manner, but the dominance of this accounting entity concept was arguably the wrong one, focusing attention on the internal control structure of organizations rather than the unknown gaps and ties that linked them. Both cases show that entity choices are closely bound up with regimes for adjudicating performance. Both suggest that societies continue to invest heavily in accounting elaboration and rationalization regardless of functionality, because of the cultural imperative to adjudicate at the entity level.

The adjudicating role of accounting is not limited in its objects. There is no essential limit to the things or performances that can become part of accounting regimes. Experiments in "Green accounting" (Gray, 1992), "heritage asset accounting" (Barton, 2000), "carbon accounting" (Hopwood, 2009a) abound and demonstrate the variety of efforts to define and institutionalize new adjudicatory apparatuses in the name of different values. Equally, the form of accounting in its adjudicatory role is not limited to traditional accounting and costing practices. Ranking systems, cost-benefit analysis and risk registers can all be regarded as accounts of performance. Indeed, contemporary organizations are surrounded and permeated by forms of adjudicatory accounting

and evaluation—some self-produced and some produced by actors in their institutional environments. In short, accounting may be used by different groups for different purposes, but it only acquires this utility because of its inherently adjudicatory nature, its latent normativity. This is not simply a function of the visible power of large consulting firms or the state but becomes part of the self-reproduction of a much wider population of organization agents. It is to this that we now turn.

Subjectivizing

Accounting is a subjectivizing practice par excellence. Understood in this respect, scholars are less concerned with pronouncing on the effectiveness of accounting systems or their place in supporting decision-theoretic calculation. Rather, the emphasis is on how accounting presupposes and yet also brings into being a certain kind of self.[9] In parallel with the economization of organizations as accounting entities, the actors within such entities are projected as agents who make decisions and choices which are calculable and comparable. Accounting has played a decisive role here, inserting calculative technologies at the heart of that most private of domains—the individual and her choices or decisions—conferring new visibilities upon them and allowing comparisons with others and with financial norms. A century and more of attempts to assess individual performance, and to encourage individuals to assess their own performance, has resulted in the contemporary calculating self. Accounting more generally has become a profession that is defined in large part by its endeavor to exact responsibility from individuals rendered calculable and comparable (Cooper & Robson, 2006). While economics has fostered the generalization of the notion of choice and the marketization of social relations, it is accountancy that has produced a plethora of ways to actually calculate the financial returns attached to individual decisions, so as to seek to remedy deficits of rationality and responsibility on the part of subjects faced with a range of possible options.

Miller and O'Leary (1987) laid the ground for this kind of analysis with a study of the development of standard costing practices at the end of the nineteenth century and beginning of the twentieth century. This is the period when the organizational employee begins to become enmeshed in a web of standards, both for working and for personal conduct. At the programmatic or ideational level, management discourses pronounced on the need to reduce waste and increase efficiency. This was a matter for both individuals and nations. Scientific management and industrial psychology as vehicles for these ideals provided the conditions in which existing cost accounting practices came to be reconstructed. From this point of view, the techniques of standard costing also projected the normativity of efficiency ideals deep into organizations and became a basis for adjudicating on individual performance in controlling cost by monitoring deviation from imposed standards. Again, a certain kind of

economic actor-space is presupposed by accounting which becomes progressively real.

The subjectivizing role of accounting does not in any way suggest that organizational agents are dupes. The calculating self is not an actor held in an iron cage and stripped of agency—quite the opposite. The spaces and territories of accounting are the spaces for the exercise of a certain kind of economic freedom. This is also a space in which multiple logics may compete for priority (Lounsbury, 2008) and agents will occupy different roles (Friedland & Alford, 1991). And yet the calculable self, in terms of the allocation of attention, cognition, and economic resource, is also an empirical phenomenon as agents react to efforts to account for and evaluate them (Espeland & Sauder, 2007). For example, the audit society is characterized not primarily by an expansion of auditors or even audits broadly understood to include different forms of evaluation and monitoring. It is essentially a society of *auditees*, organizational agents whose attention and working practices are shaped by the possibility of audit and the need to create trails of evidence of proper performance. Indeed, this is as true for auditors and audit committee members themselves as it is for those whom they audit (Bedard & Gendron, 2006; Pentland, 1993) and is associated with fundamental identity challenges in the field of professional services (Covaleski et al., 1998).

The Accounting Complex

The previous section has reviewed some of the key reference points in a large and growing body of work which posits accounting neither as a dependent variable, a mere reflex of the organizational environment with unintended behavioral effects, nor as an independent information stimulus to decision-making inside organizations and capital markets. Rather, accounting is understood as a productive force, perhaps the most powerful system of representation of social and economic life that exists today, one whose technical procedures and forms of calculation are necessarily entangled with institutional aspirations to realize a wide variety of economic ideals and goals (Chapman et al., 2009; Hopwood & Miller, 1994). This entanglement means that accounting practices recursively and repeatedly constitute economic spaces and entities, mediate ideas and instruments, link together different arenas and actors, provide the dominant narratives of performance evaluation, and constitute the economic selves who expend energy in attending to, and being oriented by, its practice.

This body of work also suggests a more open-ended and pluralistic understanding of accounting as a historically contingent family of practices which relates to the practice of management in many different ways. Even definitions of accounting are endogenous in this way. The *Oxford English Dictionary* defines accounting as the "process or art of keeping and verifying

accounts"—an evidently circular definition. The American Institute of Certified Public Accountants (AICPA) defines accounting as "the art of recording, classifying and summarizing in a significant manner and in terms of money, transactions and events which are in part at least, of a financial character, and interpreting the results thereof" (AICPA, 1953). These and other efforts at definition reflect projects by different groups to code and recode its essential nature, but it is a nature which defies and overflows such efforts. Within the academy, one significant institutionalized code is the distinction between *managerial* and *financial* accounting, respectively, between *internal* concerns with budgeting, cost analysis and investment appraisal, and the production of audited financial statements for *external* consumption by capital markets. Indeed, this distinction has emerged from the two schematic accounting intellectual histories given earlier. Yet, we should remember that the pedagogic and professional segmentation reflected in this coding is itself culturally embedded in Anglo-American traditions and is not globally uniform. In contrast, continental European traditions of business economics have operated with a more integrated conception of the accounting craft (Zambon, 1996).

Furthermore, scholars have drawn attention to the blurred boundaries and interaction between internal and external accounts. On the one hand, Johnson and Kaplan (1987) famously argued that managerial accounting "lost" its relevance precisely because it was in the thrall of external accounting forms and categories. On the other hand, in response to the banking crisis, there is increasing regulatory pressure for greater alignment between internal and external accounting forms, and for greater public disclosure of internal accounting metrics relevant to business models and strategy. The failure to represent risk adequately constitutes the latest in a long line of crises of accounting representation, suggesting the latent power of accounting is indissociable from its endemic failure and a dynamic of constant reform.

Therefore, the very idea of accounting is fluid, historically contingent, and constantly shifting. It currently embraces costing, budgeting, planning, auditing, financial management, and financial reporting. In recent years, it has expanded its boundaries to embrace issues in risk management, internal control reporting and corporate social responsibility (Mikes, 2011). And there are always pressures for new accountings for new objects of value; no doubt the going concern assumption for financial accounting will in the near future become a conduit for concerns about energy sustainability and climate change. Understanding how and why accounting practices change in response to shocks and institutional pressures, and how they in turn shape institutional outcomes, requires a shift in the conceptualization of accounting as an autonomous professionalized craft.

We draw in this review on Foucault's notion of *dispositif*, which we translate loosely as "complex",[10] to suggest that accounting practice is an assembly of very different elements: ideas, laws, bureaucratic instruments, spreadsheets,

reports, standards, and registers, not to mention accountants and other human agents. The idea of a complex is similar to that of a network—it is essentially relational. However, the atomistic elements of networks that are related to each other tend to be the same kind of thing, whereas a complex contains very different kinds of things. Hacking suggests a similar kind of ontological variation when he proposes a tripartite taxonomy for understanding the laboratory sciences: ideas, things, and marks (Hacking, 1992). Moreover, the components of the complex are co-constructed rather than given, or taken as pre-existing in the organizational environment.

An application for the idea of an accounting complex is its potential in rethinking the relationship between accounting numbers and capital markets in terms of an inventory of interacting elements: actors such as analysts, the disclosure committees of firms, traders, accounting standard setters, and financial regulators, but also ideas, like that of market efficiency, and artifacts, like accounting standards. Naturally, accounting practices must be included, but so too must other forms of non-financial data and information sources which actors may use. Financial accounting may, as Ball and Brown (1968) suggested originally, be just one piece of information for markets among others. Another important element could be a valuation model, such as the CAPM together with supporting ideas, such as decision or user relevance (Young, 2006). MBAR itself as a dominant tradition of research is part of this complex of elements and its leading exponents have influenced accounting standard setters.

The notion of "complex" undoubtedly poses methodological issues of endogeneity and co-dependence, issues which make more reductive methodological approaches to change attractive in the first place (Padgett & Powell, 2012). The boundaries of a complex are also necessarily contentious, so it may be regarded as a problematic unit of analysis. Which relations are important in a complex; what is central and what is marginal? Yet the image of the mutually contingent position of accounting in organizations and capital markets, understood as a space of actors and ideas, can be fruitful. For example, on this broad view it comes as no surprise that there is a close fit between disclosed accounting numbers and analyst forecasts as the relationship has become institutionalized over time and Chief Financial Officers have become more market-oriented. We would expect directions of causality to be multiple and reversible in highly institutionalized relationships in which actors repeatedly align their practices in mutually supportive ways. Empirically, this is likely to be neither entirely tight nor loosely coupled.

The "fair value" debate in accounting, which was given heightened significance by the financial crisis, provides a further illustration of the notion of a complex, and how it aids the understanding of the role of accounting in the economization of organizational life. Fair values are essentially exit prices for assets and have played a role in financial accounting for many years. Officially

defined as "the price that would be received to sell an asset or paid to transfer a liability in an *orderly transaction* between *market participants* at the measurement date" (IASB, 2009), MBAR studies suggest that fair values have greater "market relevance" for investors in terms of influencing the formation of stock prices (Barth & Landsman, 1995). Advocates of fair value at the level of standard setting organizations like the International Accounting Standards Board (IASB) were attracted by the possibility of making financial accounting more based on "objective" market values rather than the "subjective" estimates of managers. This advocacy implicitly depended on a background consensus about core assumptions of financial economics which had come to the fore in efforts to write accounting rules for derivative financial instruments (FASB, 1998; IASB, 2004). It also depended on certain key agents in accounting policy debates who could both link ideas from the domain of financial economics to accounting issues and also make decisions.

In a functional sense, it is reasonable to account for such instruments in a manner aligned with their financial design. But the fair value accounting debate was not only a debate about a measurement method. It involved the promotion of a new *system of thought* for accounting, one which would accelerate the institutional transformation of the balance sheet, coding it as an economic rather than a legal instrument, as something which ought to reflect market value more closely (Power, 2010). However, this was highly controversial (Laux & Leuz, 2009; Plantin, Sapra, & Shin, 2004). Critics argued that fair value is a construct of the imagination which fundamentally depends on the assumptions of financial economics (Bromwich, 2007; Ronen, 2008). Marking asset values to market only makes clear sense in credible, liquid markets for trading assets. Modeled values where assets are highly specific and/or illiquid are themselves "subjective" values, despite efforts to link to benchmarks. Furthermore, the generalizability of the fair value approach was out of line with management business models for managing risk (hedging) in financial institutions, not least because there was no equivalent of the CAPM for the liability side of the balance sheet. In this respect, fair value accounting could be said to embody an *anti-managerial* logic.

Accounting will always be part of the environment in which security prices are formed, since it will be part of what affects the formation of beliefs by key actors like analysts and traders. However, as Sunder argues: "The process of belief and expectation formation is, perhaps, the most poorly understood part of economics" (1997, p. 102). We tentatively suggest a qualitative relationship between accounting conventions, valuation and market liquidity based on the experience of brand accounting in the UK in the early 1990s (Napier & Power, 1992; Power, 1992). In essence, a valuation method for brands acquired institutional credibility *because* it was used to capitalize an asset in the balance sheet. Capitalization in turn reinforced the "market" by influencing expectations of brand value and the market became more liquid. That the market

was short-lived does not damage the general argument. As in the case of value-added accounting discussed earlier, the event depended on economic conditions and the role of key actors in linking the fields of marketing and accounting.

The brand accounting episode suggests how we might read the fair value controversy, locating standardized and regulated accounting statements in a sociology of valuation in which valuation methodologies, as they come to be believed, used and generate network effects, constitute, and perform value. At one level, an asset with an entirely frozen or non-existent market might be rationally valued at zero. And yet, the application of a valuation model with its foundation in financial economics and its representation as an asset in the formal reporting process may be constitutive or performative, i.e. it may "kick-start" expectations which expand and diffuse and generate transactional liquidity. In short, the accounting complex is also a network through which beliefs about value circulate. Accounting is able to economize, to perform organizations as economic entities, precisely because there is an institutionalized trust in the kind of objectivity its produces (Porter, 1992), and this feeds belief formation and institutional cognition (Carruthers, 2010) until it is subject to the next challenge or shock. In essence, accounting value is a network concept but the network is invisible when the value is taken as "natural".

The background cultural authority of financial economics played a crucial role in the fair value accounting debate. But it had to be linked to accounting decision forums by specific agents (Morley, 2013). In effect, financial accounting became subject to the logic of financial economics, leading to a shift in its primary reference point from the management of internal costs and efficiency to the discipline of the capital market. This explains why the fair value debate seemed to generate such heat. As noted earlier, the purpose of financial accounting has been and remains contested. As accounting standard setters became disembedded from professional institutes and more autonomous and professional in their own right, they became more concerned about their relevance and about the seemingly weak relationship between specific accounting practices and markets (Perry & Nölke, 2006). Indeed, the evidence supplied by many MBAR studies is likely to have increased that insecurity with the exception of those supporting the perceived relevance of fair values. Fair value accounting was, therefore, attractive as a basis to re-engineer the role and purpose of accounting as some kind of "mirror of the market". The market, as accessed and revealed by the application of elements of financial economics, would be the foundation of accounting.

It is impossible to characterize the fair value debate solely *within* the MBAR research paradigm which investigates the decision/value relevance of fair values. This is especially so, since that paradigm is itself reflective of the institutional environment in which pressures for accounting change are played out. The rise of fair value measurement within accounting is itself an

epiphenomenon of the rise of financial economics as a body of practice and theory with a profoundly constitutive role for markets and organizations (Davis, 2009; Espeland & Hirsch, 1990; Mackenzie & Millo, 2003; Vollmer, Mennicken, & Preda, 2009; Whitley, 1986). In short, the fluid accounting complex of capital market actors, organizations and ideas about fair value accounting described above represents a phase in the economization of organizations which some refer to broadly as *financialization,* and which has been widely and critically analyzed by economic sociologists (Lounsbury & Hirsch, 2010). From this point of view, accounting is not to be characterized by a singular logic; it is not simply or self-evidently the tightly coupled realization of financialization, understood as the prioritization of financial economics as a way of knowing the firm and its position in markets. Rather, it had to be subjected itself to a process of financialization of its measurement basis. The fair value debate shows that there is no accounting logic as such, there is no accounting essence. Rather, in this review we have suggested that accounting is a variable *bearer* of potential institutional logics, providing the mechanism for their realization and expression at the organizational level.

In summary, the power of the accounting complex consists precisely in the capacity of its representations to become stabilized as "facts", to become part of the way organizations look at and intervene in themselves to sustain their identity and their external relationships as market actors. As we write this review, the mission or rationale of accounting seems to be changing once more, in favor of improving the capacity of accounting to represent business models and risk. Yet, we suggest that this is simply another stage in the life of the accounting complex and its eternal dialectic of failure and reform.

Conclusions

The core proposition of this essay is a simple one: we suggest that to understand the interrelated processes of organizing and economizing requires attention to accounting practices and ideas. As the economization of the economy, and of the social field more generally, is increasingly based on ever more forms of calculation and ever more intense use of calculation, and as different forms of accounting are increasingly diffused throughout society, scholars of organizations and management need to view accounting practices as central to their discipline rather than a merely technical and peripheral activity.

To address these issues, we have set out in this paper a highly schematic framework for understanding how accounting has come to play such a pivotal role in organizing and economizing. First, we have suggested that accounting is inherently *territorializing*, that it recursively constructs and presupposes the calculable spaces that actors inhabit within organizations and society, whether these are abstract spaces or physical spaces. Second, we have argued that accounting is a fundamentally *mediating* activity, much of what it does is to

link up distinct actors, aspirations, and arenas. Whether it is the linking of science and the economy through Moore's Law, the connecting of healthcare and political ideals through new costing systems and reimbursement mechanisms, the connecting of markets and the assessment of individual firm performance through particular valuation metrics for assets and liabilities, or simply the linking of the micro- and the macro-, the mediating role of accounting is fundamental to its roles in organizations and society. Third, we have proposed that accounting plays an *adjudicating* role in organizational, managerial, and regulatory processes. For accounting not only pronounces on and evaluates the performance of individuals and organizations, but it is also fundamental in determining cases of failing and failure (Kurunmäki & Miller, 2013). Fourth, we have suggested that accounting is a *subjectivizing* or individualizing practice par excellence. Subjectivizing here has a dual nature, it entails the possibility of subjecting an individual to control or regulation by another, but it also entails the presumption of an individual that is free to choose, indeed obliged to choose, albeit within parameters set by various financial calculations and norms. Viewed in this manner, accounting is not only a central practice in one of the core "conceits" of modern culture (Meyer & Jepperson, 2000), but it is also significant in shaping the preferences of the actors for whom it provides "information" (March, 1987).

We suggest that scholars of organization and management could usefully pay greater attention not only to accounting practices, but also to these four themes as a basis for addressing a number of longstanding social scientific concerns. For instance, the distinction between macro- and micro- has long frustrated researchers, with much research addressing one or the other, and much worrying about directionality. By emphasizing the mediating role of accounting in processes of organizing and economizing, we shift attention to the ways in which actors, aspirations, and arenas can be connected laterally or horizontally through accounting practices. We emphasize also that the "everyday doings" of those such as managers, social workers, doctors, teachers, or whoever are intrinsically linked to much broader societal processes of the economizing of social relations. The messy world of everyday life, whether in the office, in the factory, at school, in the hospital, or in financial markets, is fundamentally linked to the alliances of aspirations and associations that get worked up at aggregate level, whether through legislation or through more diffuse appeals to notions such as audit, performance assessment, efficiency, competitiveness, or whatever.

While noting that others may be more preoccupied with directionality and at least implied causality, we suggest that this focus on the mediating roles of accounting can enhance our understanding of the "how" of organizing and economizing. Equally, we suggest, this can help us appreciate the multiplicity of components that make up organizational life. Not just formal structures of course, which scholars of management have long realized. Not just

instruments or devices, as some of the recent work in the sociology of finance might imply. But, as we have argued above, a complex or assemblage of very different elements: ideas, laws, bureaucratic instruments, spreadsheets, reports, standards, rankings, and registers, not to mention accountants and other human agents. While this emphasis on multiplicity has similarity to the notion of a network, the important point in our notion of a complex is that the components that are connected are very different kinds of things, and they are often co-constructed rather than existing in a relation of exteriority to each other. Similarly, our focus here on territorializing, the recursive construction of the calculable spaces that actors inhabit within organizations and society, encourages us to explore how and to what extent accounting practices travel. Some, we suggest, travel "light" and can therefore diffuse fairly readily, while others are too bulky or heavy to travel easily.[11] Taken together, we suggest that greater attention to the roles of the accounting complex in territorializing, mediating, adjudicating, and subjectivizing can fruitfully extend the domain of management and organizational analysis.

We have examined such issues in this paper by reviewing two distinct streams of accounting literature, albeit in a selective manner and oriented to understanding the pervasive and latent power of accounting, rather than focusing on specific agents such as the profession or the large service firms. To this end, we constructed two intellectual histories of accounting which, we suggest, help us to understand how and why accounting *representations* and metrics are simultaneously *interventions* which shape people, processes, and organizations. In particular, we have reviewed the scholarship which suggests that accounting is not just a matter of technical calculation and information provision for decision-making, but also a vehicle for the realization of economic ideas and the economization of the enterprise.

Our two converging intellectual histories are idiosyncratic, but not overly so. One deals with growth of scholarly interest in organizations which gave rise to a behavioral turn in accounting research. The other deals with the emergence of so-called normative accounting theorizing from practical roots, and how this was "revolutionized" by an empirical turn utilizing the methods of analytical economics. Both these intellectual histories begin with the sociologist Weber's observations about the importance of accounting for society, but this is progressively lost from view. This review can be read as an attempt to reconnect his original insights to accounting scholarship, and to draw attention to a body of work where this is evident.

More generally, we have argued that the claimed functionality of accounting should never be taken at face value. Indeed, the officially declared functions and aspired-to outcomes of accounting are better understood as ideas which mobilize accounting, and have themselves a complex history of formation. Liberated from presumptions of functionality, scholars of organization and management can usefully pay attention to the shifting complex of related elements in which

accounting practice is grounded, and through which it operates. By following its consequences and the complexes within which it is put to work, we may thereby understand the real, rather than the assumed, functions of accounting.

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Endnotes

1. This is particularly the case since the collapse of the Soviet Union. Also, it is worth noting that prior to the current and conjoint marketization and economization of so much of social life, there were attempts to "economize" organizations without appeal to the notion of markets, and in fact in direct opposition to them (Mennicken, 2008).
2. It is important to note that this review does not extend to a consideration of the Italian tradition of *Economia Aziendale*, the German tradition of *Betriebswirtschaftslehre*, the Swedish tradition of *Företagsekonomi*, or the Japanese tradition of "accountics". Each of these merits consideration in their own right, and there is indeed a growing body of work considering the contours and emergence of these different traditions. See, for instance: Alexander and Servalli (2011); Jönsson (1996); Julve (1998); Napier (1996); Suzuki (2007a, 2007b); Vigano (1998); von Colbe (1996); Zambon (1996); Zan (1994).
3. We use the term "complex" here, as we consider that it aptly describes the phenomenon we describe, while not carrying with it excess hermeneutic baggage (Rose, 1985). We use it to describe the ensemble of heterogeneous elements and their interrelations that we address, which has been variously labeled as a "constellation" (Burchell et al., 1985), an "ensemble" (Miller & O'Leary, 1994a), an "assemblage" (Miller & O'Leary, 1994b) and of course a "network" by many management scholars. See Mennicken and Miller (2012) for a more extended discussion of these categories.
4. See Chapman, Cooper, & Miller (2009) for a related discussion of these issues. Some bibliographic details are worth noting here. Weber, *The Protestant Ethic and the Spirit of Capitalism*, first published in German as a two-part article in 1904–5, was translated into English and published in 1930. *The Theory of Social and Economic Organization*, a translation of Part I of *Wirtschaft und Gesellschaft*, was published in 1947. It is also interesting to note that Karl Polanyi's *The Great Transformation*, a book which hints strongly at the need for a sociology of the market and of finance, was published in 1944.
5. Gavetti et al. (2012) provide a very helpful "map" of distinct strands or developments within management and strategy research, something that is less easy to do for accounting research given its rather more diffused influence.

6. It is interesting to note that Wildavsky was a member of the editorial board of *Accounting, Organizations and Society* at the outset, and that he contributed a significant review essay to the inaugural issue.
7. See, for instance, Brunsson (1985, 1989); Djelic and Sahlin-Andersson (2006); Sahlin and Wedlin (2008).
8. See Elden (2007) for a related discussion of the notion of territorializing. Also, for a stronger and somewhat different way of addressing the process of economizing, see Mulkay, Pinch, and Ashmore (1987) and Pinch, Mulkay, and Ashmore (1989).
9. There are important linkages here between transformations in accounting, and shifting conceptions of the identity and role of managers. For instance, Barnard (1938) helped fuse the notion of decision-making and the concept of the executive, something that accounting pedagogy and textbooks assimilated in the 1950s and 1960s.
10. See Note 3.
11. On this point, see, for instance, Kurunmäki and Miller (2006); Mennicken (2008); and Miller and Rose (2010).

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