

Disciplinary Boundaries and Corporate Reports: A Survey of 30 Years of Annual Reporting Literature

ABSTRACT

Couched as an empirical response to Paolo Quattrone (2000), this paper is directed to the permanent problem of the rational study of corporate rationality. Having described research in accounting as fragmented, Quattrone called for an evolutionary perspective that would allow for historical shifts, for a reflexivity that would include the inevitable entanglement of analysts in what they study, and for a trans-disciplinary removal of intra- and inter-disciplinary boundaries. Although we agree with much of Quattrone's argument, we reach an opposite conclusion, by using an analytical survey of thirty years of research in corporate annual reports to make a case for narrowly disciplinary work. We reach that point through discussing the problems of intra- and inter-disciplinary unity in research, the puzzle of the role of 'economic man' in the study of annual reports, and the alternative to him in Science and Technology Studies (STS).

INTRODUCTION

The study of corporate annual reports and the questioning of disciplinary boundaries have both been features of social science in general and of research in accounting in particular over the last thirty years. In this paper we combine those two moments to make a case for the value of narrowly disciplinary activity. Analytically, we assume that the social sciences where organisations and corporations are studied are themselves organisational and corporate effects. On that basis, the practice of research should be expected to repeat on a smaller scale the patterns found in corporate and organisational activity more generally; that is, academic disciplines are fractals of the disciplined world studied in them. Empirically, we take our case material from a survey of studies of corporate annual reports. Structurally, we couch the paper as a response to Quattrone (2000), who described research in accounting as fragmented, ascribed this state to the effects of intra- and inter-disciplinary divisions, and prescribed their trans-disciplinary removal. Although we agree with his critical attention to that ‘economic man’ who embodies the methodological individualism in neoclassical economics and who strides through most of the other social sciences, we reverse his argument by cutting ‘economic man’ down to size.

We open the paper with a crucial tension in Quattrone’s paper. In querying methodological individualism, he also queried the unitary rationality attributed to ‘economic man’ as a calculating utility-maximizer. When he assumed, however, that fragmentation in research is pathological and looked to a trans-disciplinary perspective for a cure, he held out the promise of just such a unitary rationality, and then implicitly exemplified what he explicitly problematised. The study of corporate annual reports gives useful access to this tension between unity and diversity. After a note on the reports’ formal requirements, we find that study of them is indeed fragmented, and not only along disciplinary lines, but on theoretical, methodological, political and national grounds as well. At the same time, the field is still relatively unified, by the assumption of that ‘economic man’ whom Quattrone rightly saw as pervasive. In so far as ‘economic man’ is problematic, then, so too is that apparent unity. We note in particular that analysts of the reports typically slide from the individual agency assumed for ‘economic man’ to a collective scale, while retaining their individualist assumptions. Since this raises difficulties in how the authorship and readership of annual reports are conceptualised, findings in their study have to be splintered. Our survey, that is, moves from unity to fragmentation to unity and back to fragmentation.

To allow for what seems to be a permanent and necessary tension between the consensus and dissensus we have shown, we turn to another point which Quattrone raised but did not develop, the usefulness of science and technology studies (STS) in corporate and organisational research; here too essential tensions are at issue (e.g. Kuhn, 1959). After an introductory note

on STS, we then work our way back through the problematic unity of economic man and the problematic fragmentation of findings on corporate annual reports, with an approach which meets most of Quattrone's aims while remaining open to the benefits of intra- and inter-disciplinary work. On our assumption that research in the social sciences is a fractal of the social world analysed in them, we conclude that the permanently failing boundary work seen in the study of annual reports is a useful heuristic for understanding the corporations and organisations which produce them.

QUATTRONE ON INTRA-, INTER- AND TRANS-DISCIPLINARY RESEARCH

Quattrone took his point of departure in the observation that “accounting research and knowledge have splintered into many divergent and incommensurable perspectives, each with their own epistemologies” (2000: 130). He attributed this effect to intra-disciplinary treatments of accounting as a distinct field within a hierarchical ranking, ‘the Encyclopaedia,’ and to researchers’ inter-disciplinary adoption of approaches which leave that ranking undisturbed. ‘The Encyclopaedia’ was characterised by the classical model of ‘science’ and by the methodological individualism of its translation into social science. Quattrone located three related problems in accounting research on the basis of this diagnosis: fragmentation; the stressing of either individuals or contexts in organisational analysis, and thus the typical privileging of single perspectives among the many available; and a lack of self-critique in studies of the links between shifts in accounting theory and historical shifts in the world under study (2000: 136–7). To redress these difficulties, he drew on the ‘equilibration’ in Piaget’s genetic and constructivist epistemology to call for the removal of disciplinary boundaries. His ideal perspective would be trans-disciplinary (bringing a unity to the field), evolutionary (allowing for historical shifts), and reflexive (including the inevitable entanglement of analysts in what they study).

We sympathise with much of this, and particularly with Quattrone’s constructivist focus on the linked issues of ‘methodological individualism’ and ‘ontological gerrymandering.’ The first of these refers to the assumption of individual actors as units of analysis, and the second to appeals to the authority of one science or discipline to justify another; they are linked, for example, when the individualist ‘economic man’ is warranted through an individualist epistemology. But aspects of Quattrone’s approach to them call his conclusion into question. Thus when he assumed a unity which once prevailed in research but which now is lost, he evoked the Garden of Eden or the tower of Babel rather more than the evolutionary starting-point required by his argument. Whether or not the original sin was the attempt to build the hierarchical ‘Encyclopaedia,’ when he depicted the fragmentation of intra- and inter-disciplinary

work as pathological he in effect denied the process of speciation through environmental specialisation required for his argument. He then preempted the tension he set between parts and the whole, or between fragmentation and unity. A similar effect appears in his looking to an epistemology, however non-individualist, to ground his case for trans-disciplinarity. While he did grant that epistemology “is not a ‘superior’ form of knowledge but just a different one” (Quattrone, 2000: 141), when he used it to justify his argument, rather than the accounting research he studied, he preempted his call for reflexivity through a version of ontological gerrymandering. He then restored what he had usefully problematised: the hierarchical ranking given in epistemological distinctions between meta-theoretical, theoretical and practical ‘levels of knowledge’ (e.g. Quattrone, 2000: 146). These blocks in the evolutionary and reflexive moments of his argument recur in its third element, the call for a trans-disciplinary unity. When he read fragmentation in accounting research as pathological, he assumed the possibility of clear ground beyond the reflexive entanglements he identified, and thus implicitly restored the very dream of rational order he had problematised in ‘the Encyclopaedia.’

To address those tensions in Quattrone’s argument, we treat as an empirical question what he claimed: that trans-disciplinarity is necessary on the grounds that intra- and inter-disciplinary research strategies “have been unable to establish a dialogue between different perspectives in accounting research” (Quattrone, 2000: 147). That move meets both his reflexive and evolutionary criteria, for it is drawn from practices in the field itself, and it rests on the assumption that in so far as modernity is evolutionary so too are the effects of it seen in accounting research. We take our empirical case-material from one sub-field in accounting research, the study of corporate annual reports. Our first step is to outline the formal requirements of the genre.

CORPORATE ANNUAL REPORTS: STARTING WITH A PROBLEMATIC UNITY

Like Quattrone, we start with unity. But while it is widely agreed that corporate annual reports comprise a relatively unified genre and that they are well worth studying, unity scarcely extends beyond that vague consensus. Since analysts disagree over such basic issues as the reliability and credibility of the reports, a unified focus in the sub-field is fuzzy from the start.

The requirement that listed companies in capitalist economies present annually audited accounts to the market and to their shareholders imposes a degree of uniformity on corporate practice and allows a degree of uniformity in corporate study. While such statutory information is a staple of the large and growing industry of financial analysis and advice offered to professional and institutional investors and to the growing numbers of small shareholders, a recent shift towards

continuous disclosure has made this use of the reports less important. In the interests of cost-saving and intelligibility, most regulators now permit companies to present abridged accounts. But the reports contain more than strictly financial data, and here too companies face statutory obligations. Under the typical Australian legislation, for example, each company must describe its operations, indicate any significant changes in its state of affairs, state its principal activities and any major changes in them, detail specific and material events arising between the end of the financial year and publication of the report which may affect future operations, foreshadow other developments, and, finally, outline its compliance with environmental regulation and with statutes on corporate governance. Although the presentation and design of annual reports have drawn some attention (e.g. Graves *et al.*, 1996; McKinstry, 1996; Preston *et al.*, 1996), most research has been directed to their textual components, and to the scope for discretion in fulfilment of those formal obligations.

The analytical value of annual reports has been widely noted and exploited. Given shifts in the provision and accessibility of information, companies may no longer use their reports, if they ever did, as a “key influencer” (Ind, 1997: 112). But as “the most publicized and visible document produced by publicly owned companies” (Henriques & Sadorsky, 1999: 91), or as “management’s unique opportunity to communicate directly with present and potential stockholders and creditors” (Tennyson *et al.*, 1990: 391), an annual report has particular advantages for a corporation. It is:

the one communication medium to outside parties over which corporate management has complete editorial control. It is therefore not subject to the risk of journalistic interpretation and distortions possible through press reporting (Guthrie & Parker, 1989: 344).

This is also an advantage for analysts, for the more that managers control the reports the more the reports allow unobtrusive access to corporate activity. Written for purposes other than academic study, a report is “like a projective test taken inadvertently” (Bowman, 1984: 63). Beside conveying factual information about a firm, reports also “communicate implicit beliefs about the organization and its relationships with the surrounding world” (Fiol, 1989: 278). They are useful in comparative analysis, since statutory requirements mean that they “provide fairly comparable sets of data for a broad sample of corporations” (Bettman & Weitz, 1983: 165). They are also suited to longitudinal study, since the annual report is the only form of corporate disclosure “that is institutionalized and provided on a regular basis year after year” (Buhr, 1998: 169). It is easy to see why so many analysts have found their study so appealing, for no other medium offers the same blend of consistency, accessibility and wide applicability. While that gives a degree of unity to the field, however, that is about as far as agreement reaches.

Analysts disagree even on the basic issue of the credibility of annual reports as sources of data on corporate activity. Some are optimistic. Bowman, for example, took the discussion in them as “a reasonable surrogate of real activity” (1984: 64). Bettman and Weitz suggested that this was structurally enforced when they noted that writers of the Letters to Shareholders commonly included in annual reports faced pressures to be accurate:

Although such letters are not formally audited, they are subject to a great deal of public scrutiny from stock analysts, shareholders and others. There could thus be severe consequences if obvious biases were shown in the causal reasoning presented (1983: 171).

Courtis added an ethical element in holding that beyond compliance with regulatory and auditing requirements, a report is credible because “it reflects the integrity of management in communicating objectively and comprehensively” (1995: 4). Other analysts are more sceptical. There is evidence, for example, that environmental disclosures in annual reports are at best weakly associated with other measures of environmental performance (e.g. Ingram & Frazier, 1980; Freedman & Wasley, 1990; Deegan & Rankin, 1995). Likewise, Steele (1982) noted the undue optimism of Chairmen’s non-quantified forecasts, Tennyson and his colleagues concluded that predictions in reports are accurate only about fifty percent of the time (1990: 393), and Fiol (1995) found that there may be no correlation between the reports and internal company documents. Rather than take them at face value, then, some analysts have read the reports as ‘strategic illusions’ (Salancik & Meindl, 1984), as ‘ideology’ (Macintosh, 1990), as ‘numerology’ (Lee, 1990), as ‘impression management’ (Neu *et al.*, 1998), or as ‘rhetoric’ (White & Hanson, 2000).

Since the generic unity of corporate annual reports is problematic in these ways, Quattrone’s diagnosis of ‘fragmentation’ seems immediately plausible. Any analyst of the reports could easily confirm Anderson and Epstein’s claim that the “most important conclusion that can be drawn from a review of prior studies is the conflicting evidence they provide” (1996: 13). We show in the next section that intra- and inter-disciplinary differences do produce conflict, and that sources of fragmentation also extend well beyond these effects.

FROM PROBLEMATIC UNITY TO FRAGMENTATION

The relative uniformity in what is required of annual reports is no guarantee of uniformity in their study. Rather, we hold that evidence in the field *has to be* conflicting, and that that would still be so if the reports’ reliability and credibility were agreed. Consistent evidence requires consistent questions, consistent methods and consistent criteria of plausibility, and since that combination is not found elsewhere in the social sciences it would be rash to expect it here. While the details of conflict over particular findings would be relevant in a narrowly focused

substantive study, we are more interested in this broad survey in the sources of inconsistency than in the inconsistencies as such. Adding to the intra- and inter-disciplinary divisions which Quattrone stressed, we argue that the varieties of national contexts, topics, theories, methods and political stances found in the analysis of annual reports all make conflicting evidence inevitable.

Annual reports have been analysed across a range of national contexts. To take only studies written in English, most of those we have already cited were of American corporations, but we can also note analyses from the UK (e.g. Dev, 1974; Lee & Tweedie, 1990; Bartlett & Chandler, 1997), Canada (e.g. Buhr, 1998), Hong Kong (Courtis, 1995), Finland (Niskala & Pretes, 1995), and Australia and New Zealand (e.g. Kabanoff & Holt, 1996; Palmer *et al.*, 1997; Wilmshurst & Frost, 2000). Although accounting standards and stockmarket listing rules are becoming increasingly global, enough national variation remains in what is required of annual reports to yield different emphases in these studies, even before cultural differences are included. Guthrie & Parker (1990) and Gamble *et al.* (1996) clearly showed that in their comparative surveys.

Analysts of annual reports have used them to illuminate a range of substantive topics in the study of corporations. The reports have been tested for reliability as sources of information for investors (e.g. Lee & Tweedie, 1990; Hines, 1982; Freedman & Jaggi, 1986; McConnell *et al.*, 1986; Epstein & Freedman, 1994; Nagy & Obenberger, 1994; Anderson & Epstein, 1996; Bartlett & Chandler, 1997). They are a focus in the study of 'environmental responsibility' (e.g. Wiseman, 1982; Freedman & Wasley, 1990; Owen, 1992; Freedman, 1993; Gamble *et al.*, 1995; Niskala & Pretes, 1995; Buhr, 1998; Henriques & Sadorsky, 1999), of 'ethical investment' (e.g. Harte *et al.*, 1991; Arnold & Hammond, 1994), and of 'corporate social responsibility' more generally (e.g. Rockness & Williams, 1988; Guthrie & Parker, 1989; Patten, 1991; Wolfe, 1991; Gray *et al.*, 1995; Milne & Adler, 1999). They have been used in studies of broad themes like corporate strategy (Bowman, 1978, 1984), organizational culture (Schein, 1984), managerial control, ideology and obfuscation (Neimark & Tinker, 1986; Macintosh, 1990; Courtis, 1998), constructions of class and gender (Tinker & Neimark, 1987), corporate reputation (Herremans *et al.*, 1993), and corporate identity (Ind, 1997). They have also been used to analyse such specific topics as occupational safety and health (Chan, 1979), managerial claims of success or attributions of blame for failure (Bettman & Weitz, 1983; Staw *et al.* 1983; Salancik & Meindl, 1984), implicit organizational beliefs (Fiol, 1989), managers' attentional patterns (D'Aveni & MacMillan, 1990; Abrahamson & Hambrick, 1997), the espoused values in organizations (Kabanoff & Holt, 1996), and downsizing (Palmer *et al.*, 1997).

As that range of topics already suggests, analysts of annual reports have also brought to bear a range of the theoretical positions developed in the social sciences. Although Ullmann (1985) could talk with some justice of data in the study of annual reports being in search of theory, much work in the field is either explicitly theorised or couched in theory-testing terms. Parker (1982), for example, applied mass communication theory, and Hines (1982) tested the 'efficient markets hypothesis.' Some writers have used agency theory (e.g. Abrahamson & Park, 1994), or its variant in the stakeholder theory which Ullmann invoked (e.g. Roberts, 1992; Henriques & Sadorsky, 1999). Others have turned to psycho-organizational theories to study 'strategic illusions' (Salancik & Meindl, 1984), collective cognition (Abrahamson & Hambrick, 1997), or 'impression management' (Neu *et al.*, 1998). Others have tested theories of legitimacy (Guthrie & Parker, 1989; Patten, 1991; Campbell, 2000; Wilmshurst & Frost, 2000), or of the related legitimation (Palmer *et al.*, 1997). Others again have adopted critical theory (Macintosh, 1990), or one or another version of Marxist political economy more generally (e.g. Tinker *et al.*, 1991; Gray *et al.*, 1995).

In using or testing that range of theories, analysts of annual reports have also used a range of social scientific methods. Content-analysis is the most common, but that includes many variants and leads to many developments or supplements (e.g. Wolfe, 1991; Jones & Shoemaker, 1994). Content-analysts have presented their findings in simple graphical form (e.g. Gray *et al.*, 1995), and have correlated them with secondary data (also drawn from a range of sources), either simply (e.g. McConnell *et al.*, 1986) or through multivariate or factor analysis (e.g. Roberts, 1992; Palmer *et al.*, 1997). Some writers have used such other textual methods as semiotics (e.g. Fiol, 1989). The use of surveys and questionnaires is common, directed to both firms (e.g. Lee & Tweedie, 1990; Harte *et al.*, 1991) and individual shareholders (e.g. Epstein & Pava, 1993; Epstein & Freedman, 1994; Anderson & Epstein, 1996). Many writers have used historical records (e.g. Arnold & Hammond, 1994; Buhr, 1998). Some have interviewed managers (e.g. Fiol, 1989). Overall, most of the standard methods in the social sciences have been used to study annual reports.

As also suggested by the range of theories we mentioned above, analysts of annual reports have adopted a range of political positions. In so far as they recommend the reports as sources of information, either for management (e.g. Bowman, 1984) or for individual investors (e.g. Nagy & Obenberger, 1994), some seem to accept the processes of liberal-democratic capitalism. But despite the charge of 'political quietism' levelled against much work in the field (Tinker *et al.*, 1991), many analysts do present explicitly 'radical' accounts. The very framing of issues such as 'corporate social responsibility' and 'environmental responsibility' implies a politico-moral stance at odds with current arrangements.

This critical tendency is most evident in studies of accounting, of auditing, and of corporate

responses to social and environmental issues. But as Quattrone noted, intra-disciplinary divisions in accounting are deep, and these are matched by inter-disciplinary differences. A disciplinary gradient of emphasis appears in the study of annual reports. The critical advocacy in accounting (e.g. Macintosh, 1990; Owen, 1992) shades into the more detached analyses in administrative theory (e.g. D'Aveni & MacMillan, 1990), organizational theory (e.g. Abrahamson & Hambrick, 1997) and management theory (e.g. Fiol, 1995), and these in turn shade into the more applied treatments in financial analysis (e.g. Nagy & Obenberger, 1994), public relations (e.g. Marino, 1995) or policy-making (e.g. Walden & Schwartz, 1997). As Quattrone also stressed in his reflexive moment, disciplines are enmeshed in the processes studied within them, and this one field displays the variety of entanglements which follow from the results from different disciplines meeting the needs of different publics.

Given these disciplinary differences, and the range of national contexts, topics, theories, methods, and political emphases they variously reflect, conflicting results are inevitable in the study of annual reports. It would be vain to expect consistency. But although the 'fragmentation' which Quattrone found in accounting research at large is then evident in this one sub-field, the diagnosis of it as pathological is another question. Furthermore, the field is less divided than this first scanning of it suggests, for a degree of unity in disunity follows from the widespread adoption of rationally calculating individuals as units of analysis. As Quattrone noted in his discussion of 'methodological individualism,' however, that unity in turn is problematic. We examine it in the next section through the rationality of 'economic man.'

FROM FRAGMENTATION TO A PROBLEMATIC UNITY

'Economic man,' that rationally calculating and utility maximising individual who is axiomatic in neoclassical economics, is a unifying figure in the study of corporate annual reports. Even though versions of the many critiques developed over two centuries of social science do appear prominently in the field, variants of his univalent and individualist rationality are far more common. In so far as he is problematic, so too is the partial unity he suggests. We identify and examine difficulties in accounts of the 'agency' of the corporations issuing annual reports, difficulties which recur in the interrelated issues of how the 'authorship,' 'audience' and 'language' of the reports are understood.

Whatever unity the study of corporate annual reports commands has a worm of potential incoherence at its core: the routine treatment of corporations as 'agents' or as purposive actors belies the routine assumption of economic man and the methodological individualism it involves. This is an old problem, for analysts have striven to distinguish between corporal and

corporate selves ever since the concept of ‘legal person’ was applied to corporations in the thirteenth century (e.g. von Gierke, 1900; Coleman, 1990). Although Olson’s (1965) argument is widely accepted, that collective action is ‘paradoxical’ given the univalent rationality defining economic man, and although its implications have been reconciled with other aspects of corporate activity, few analysts of annual reports consider it. Even such an otherwise widely adopted approach as the ‘new institutionalism,’ for example, with its focus on institutions as independent variables, on cultural irrationality, and on structures that cannot be reduced to aggregates of individual actions (cf. DiMaggio & Powell, 1991; Carruthers, 1995), is scarcely mentioned in the field. Rather, analysts of the reports routinely gloss over the tension between their assumption that agency is an individual effect and their attributions of corporate agency.

Some writers do so by tacitly treating corporate outcomes as the sum of individual decisions. That was Abrahamson and Park’s (1994) approach, for example, when they used ‘agency theory’ to study the accounting for ‘bad news’ in annual reports. But as they implied when they described their results as managerial ‘concealment,’ their initial assumptions left them no option but to take managers as either conspiratorial or self-deluding. Of course, groups of managers and individuals among them may well be scheming cabalists and/or self-deceivers, but that is still a limited set of analytical choices. Ruling out from the start the possibility of emergent effects, or the chance that wholes may be more than the sum of their parts, Abrahamson and Park then in effect betrayed the rationality in their ‘agency theory’ by begging the question.

Another form of question-begging is more common. In an elision of scale, analysts frequently grant the presence of aggregate effects but do so by treating corporations as if they are individual agents, or as if they are economic men writ large, while retaining the at least implicit assumption of economic man’s distinctiveness. Guthrie and Parker typify this move, in their review of the legitimacy theory which they tested through annual reports:

This theory is based upon the notion that business operates in society via a social contract where it agrees to perform various socially desired actions in return for approval of its objectives, other rewards and its ultimate survival. It therefore needs to disclose enough social information for society to assess whether it is a good corporate citizen... (1989: 344).

The argument depends on ‘social contract’ and ‘citizen’ being read as more than metaphorical, but the liberal individualism implied in those concepts also requires the same assumptions of human nature as those underpinning economic man. That uneasy shift from an individual to a corporate scale is evident in most uses of psychological theories in the analysis of annual reports. It appears, for example, in the image of the ‘projective test’ with which Bowman (1984) justified attention to the reports, it is the basis of the use of attribution theory (Bettman & Weitz, 1983; Staw *et al.*, 1983; Salancik & Meindl, 1984), it recurs in studies of ‘attention’

(D'Aveni & MacMillan, 1990) and of 'cognition' (Abrahamson & Hambrick, 1997), and it is implied in 'impression management' (Neu *et al.*, 1998). Analysts do not usually problematise that sliding across scale. Bettman and Weitz came closer than most when they discussed their use of findings on self-serving attributions:

Given the robustness of these findings at the level of individual performance, one would hypothesize the following pattern in explanations given for corporate performance: reasons internal to the organization will be cited for favorable performance outcomes and external factors will be noted for unfavorable outcomes... (1983: 167).

Although they did qualify their case by noting that studies of individuals may "provide insights" rather than be strictly applicable to corporations (Bettman & Weitz, 1983: 171), their hypotheses and insights would be more plausible if they did not accompany the shift of scale with an assumption of the primacy of individual agents. Unless that assumption is questioned, whatever other theory is used turns into a version of agency theory, and economic man rides again.

This slippage in the conceptualisation of companies has practical implications for the issues of the 'authorship' and 'readership' of annual reports. The question of their 'authorship' is especially acute, for there is "only anecdotal evidence" on who actually writes them (Abrahamson & Hambrick, 1997: 519), and the access to the writers' 'intentions' required of agency theory is problematic. Fiol in particular stressed the consequences:

All studies using the letters to shareholders contained in annual corporate reports, including this one, have a common limitation. Researchers do not know the authors of these documents and do not know much about the conditions under which they were written (1995: 532).

Analysts typically differ in their allowance for this widely acknowledged difficulty. Bowman, for example, held that:

although some people maintain that the prose in annual reports is written by public relations people, the truth is that the typical chief executive officer spends considerable time outlining the contents, sketching out much of it, and proofreading and changing most of it to his taste (1984: 63).

For him, then, and whatever the evidence for his 'truth,' the CEO was effectively the sole author. Salancik and Meindl similarly noted that while most firms employed public relations writers to produce letters to shareholders and annual reports, "what is written is generally taken as top management's account. A president of a firm could not easily disclaim the contents of a letter he signed and published" (1984: 243). Staw and his colleagues, however, gave a different emphasis:

the letters to shareholders ... are signed by the president or chief executive officer of the firm, but it is arguable that they are organizational rather than individual communications. As noted recently in a *Wall Street Journal* article, "The shareholders' letter bears only one or two signatures, but is generally a committee project. Public relations staffers or consultants, who often write the first draft, are aware that the copy has to be reviewed by the chief executive officer, the chief financial officer, the board of directors, and the legal department"(1983: 585).

On similar grounds, D'Aveni and MacMillan held that letters to shareholders are good indicators of major topics of organizational concern precisely because they are "the product of the inputs of many individuals" (1990: 640), and Abrahamson and Hambrick likewise claimed that if letters to shareholders are edited until they are acceptable to senior executives, then they reflect "some form of consensus among various managers in the upper echelons of organization" (1997: 519). With just what 'organizational communication' means left uncertain, however, this potentially useful stress on collective writing does not sit easily with the sustained assumptions of individual agency.

The readership of annual reports has been more widely studied, but it is as problematic as their authorship, and for similar reasons. Just as there is scant evidence on how they are written, so not enough is known about who reads them, about how readers understand their relation to writers, and about the outcome of their reading (e.g. Lee, 1990; Epstein & Pava, 1993; Anderson & Epstein, 1996). Again, analysts are typically divided on how to interpret what evidence is available. Although the reports are ostensibly and formally produced for shareholders, for example, Ind criticised them for a "focus on a perceived narrow idea of audience (shareholders)" (1997: 112). While the managers of 'ethical' mutual funds do appear to respond to that focus (e.g. Rockness & Williams, 1988; Harte *et al.*, 1991; Arnold & Hammond, 1994), individual investors may or may not (e.g. Epstein & Freedman, 1994; Nagy & Obenberger, 1994). There is certainly a gap between what these investors do and how they would be expected to react to the information in annual reports under the hypothesis of an efficient market (Hines 1982), and Freedman and Jaggi (1986) found scant association between the environmental disclosure in annual reports and individual investors' decision-making. Nor are investors the only potential readers. Wolfe noted "considerable evidence that [annual reports] target many different stakeholders" (1991: 288). Tennyson and his colleagues also stressed that broadly persuasive thrust when they took a report as "designed primarily to elicit response from its readers. This response may be to buy more stock, lend more money, refrain from selling currently held stock, or support management, etc." (1990: 391). Beyond shareholders, then, the readership may include financiers, consumers, suppliers, competitors, regulators, pressure groups, the press, the market, trade union officials, present and potential employees, and, vaguely, the community at large. As Tilt (1994) found in her study of environmental pressure groups, critics may be among the most avid readers. To study any one

of those 'groups' of readers is to re-encounter the puzzle of collective agency. That problem is especially acute with 'the community.' However corporate legitimacy is theorised, social consent is a precondition for both single companies and corporate activity in general; as Neu and his colleagues said, for example, "self-reporting of environmental information (usually in the annual report) pertaining to employee, community and customer interactions often has the effect of maintaining not only firm-specific but also system-wide legitimacy" (1998: 266). Yet how that effect is achieved is unclear. The reports' writers might even face an impossible task in deciding on their audience. "In the end", Bartlett and Chandler concluded from their survey of the literature, "it is unlikely that general purpose annual reports are ever going to satisfy the widely differing information needs of a large body of shareholders" (1997: 259), a point strengthened when the other potential readers of annual reports are included. Overall, then, there is considerable uncertainty in the field, first over who constitutes the readership of annual reports, and then over the sense which these readers make of them.

The conceptual difficulty of the agency of writers and readers and the practical difficulty of access to the writing of reports, to their writers' intentions or to their readers' interpretations and responses converge in the problem of how 'language' is to be understood. Many analysts have noted the complexities which it entails, for, unlike the issue of collective agency, the variant meanings of language in use have hardly been neglected in the field. Claims such as that reports have an "*essential* and significant social meaning" (Macintosh, 1990: 168, emphasis added), or that "[o]ne of the tenets of effective communication is that the messages received by readers are interpreted in the same way as that intended by the sender" (Curtis, 1995: 4), are exceptions proving the rule. Writers far more usually take meanings and interpretations as diverse and arguable. Thus while their most common method is some form of content-analysis, for its suitability in comparative and longitudinal study, they also routinely note its limits (cf. Wolfe, 1991; Jones & Shoemaker, 1994; Gray *et al.*, 1995). Some writers use 'triangulation' to allow for those limits, supporting their content-analyses with historical data and interviews (e.g. Buhr, 1998). Others link their content-analyses to the openness of metaphors (Palmer *et al.*, 1997), or of the Whorf-Sapir hypothesis (Abrahamson & Hambrick, 1997). When analysts use approaches other than content-analysis, as in Neimark and Tinker's (1986) dialectical social constructionism, Fiol's (1989) semiotics, or White and Hanson's (2000) rhetoric, they similarly invoke arational effects beyond strictly rational calculation.

To recapitulate our trajectory so far, we first noted that constraints on the production of corporate annual reports are relatively uniform. We then argued that despite that generic unity the results of studies of them are fragmented. But we went beyond the intra- and inter-disciplinary differences which Quattrone stressed to argue that diversity also inevitably followed from the range of national, theoretical, methodological and political perspectives

brought to the field. We next showed a relative uniformity within that disunity, in the common assumption of 'economic man.' This leads to the conceptual inconsistency, however, seen in the analytical sliding from the rational and individual agency of 'economic man' to corporate action. Many analysts have at least touched on the issue of collective agency, in stressing the difficulties which arise over the writing and reading of annual reports, and many have also stressed the arational effects of language in those processes; the individual and rational 'economic man' who enters the analyses then emerges from them as a collective 'linguistic person,' while insouciantly acting as if nothing has happened.

So throughout the preceding three sections we have retraced Quattrone's footsteps, on the smaller scale of the study of corporate annual reports. We agree with him on the limits of the methodological individualism of neoclassical economics which is commonly adopted in the field, we agree that reflexive attention to research is both necessary and fruitful, and we agree that research is fragmented. But we disagree that this state is pathological, and that a new trans-disciplinary perspective is then required. To develop that argument we turn to another theme which Quattrone raised but did not develop, the usefulness of science and technology studies (STS) in the analysis of corporations and organizations.

THE DISCIPLINARY AND THE TRANS-DISCIPLINARY: THE STUDY OF CORPORATE ANNUAL REPORTS AND STS

Quattrone had good reason to link disciplinary effects with his call for an evolutionary and reflexive perspective. Since the disciplines familiar now did emerge as one cluster of effects of the evolution of modernity variously studied in them, he rightly argued that disciplinary knowledge is always already entangled in more general processes. As we noted earlier, however, when he saw fragmentation in accounting research as pathological, he implied the possibility of clear ground beyond the reflexive loops he otherwise emphasised. That in turn meant that he did not make the most of the STS which he invoked briefly in 'ontological gerrymandering' and in asides on Kuhn and Latour, for that field is virtually constituted around responses to the inevitability of reflexive effects. We develop that connection in this section. After an introductory note on STS and its fit with the study of corporate annual reports, we use it to work our way back through the alternating unities and disunities we found in the study of corporate annual reports: first in the problematic unity of 'economic man;' then in the problematic disunity epitomised in disciplinary differences; and finally in a match between the generic unity of annual reports and the functioning of the social sciences. This yields a sense of the trans-disciplinary which depends on the value rather than the removal of intra- and inter-disciplinary boundaries.

Science and technology studies

STS is familiar enough in organizational and managerial analysis not to need detailed discussion here (e.g. Burrell & Morgan, 1979; Clegg, 1989; Czarniawska, 1997). The extended survey in Jasanoff *et al.* (1995) and Shapin's (1995) briefer review are still useful. For the moment, we need simply note that Quattrone was well justified in linking his reflexive project to it. Whatever unity can be imputed to the cross-disciplinary field of STS results from a shared empirical focus on science as practised, and writers in it routinely treat their own practice as subject in principle to the same constraints as those they identify in other sciences. Debates over the necessity for and problems in this reflexivity are constitutive of the field (e.g. Woolgar, 1988a; Ashmore, 1989; Lynch, 2000).

The refusal of analytical privilege which follows from this reflexivity means that to bring approaches in STS to accounting research need not entail that 'ontological gerrymandering' which Quattrone took as one symptom of 'the Encyclopaedia.' This refers to the common social scientific practice of:

making problematic the truth status of certain states of affairs selected for analysis and explanation, while backgrounding or minimizing the possibility that the same problems apply to assumptions upon which the analysis depends (Woolgar & Pawluch, 1985: 216).

Debarred from 'backgrounding' by its own logic, neither STS as a whole nor the sub-disciplines to which writers in it belong can be panaceas, and certainly not in strictly rational terms. Rather, the 'methodological horrors' of reflexivity (Woolgar, 1988b) recall that 'Cretan paradox' which St Paul identified when, in warning against 'idle talkers and deceivers,' he reported that a Cretan had said 'Cretans are always liars.' Not having St Paul's solution of faith, writers in STS work with the difficulty through favouring empirical attention to the 'how' of techno-scientific practice over claims to privilege. In that sense, STS is a strategy in research rather than a gerrymandered solution (cf. Lee & Hassard, 1999).

Moreover, the domains of science and technology and organizational accounting are not as distinct as a first glance might suggest. Like science, the corporate activity at issue in accounting research in general and in the study of annual reports in particular entails the production and dissemination of authoritative knowledge; like corporate activity, scientific knowledge is an organizational effect (e.g. Whitley, 1984; Fuchs, 1992; Law, 1994; Callon, 1998). Given that similarity, points at issue in one field should be expected to be relevant in the other. One of these is the rationality of 'economic man.'

STS and economic man

It is a routine finding in STS that in practice scientists do not follow the strictly rational rules in epistemological or methodological accounts of ‘scientific man.’ Although scientists do of course present their results as formally rational, that is a convention, a fiction, a retroscription of what is always a ‘mangle of practice’ (Pickering, 1995). Since ‘scientific man’ is ‘economic man’ in the laboratory, these studies then show alternatives, or supplements, to his strict rationality. When writers in STS argue that science is a communicative, practical and embodied achievement, they typically do so by showing that conflicting rationalities are in tension. As Latour summarised the issue, the networks of both nature-culture and scientific knowledge of them are “simultaneously real like nature, narrated like discourse, and collective like society” (1991a: 6, italics removed), and each element here implies a distinct form of rationality in interaction with that in each of the other two. Minimally, the formal and individual rationality which gives ‘scientific man’ access to the ‘real’ is in tension with both the collective rationality familiar in political action and the collective arationality seen in responses to shared symbols.

This allows a revisiting of the problem we noted in the study of annual reports, that when analysts assumed the individual and rational agency of ‘economic man’ they could not, or at least did not, conceptualise collective or organizational action. They were limited not only by their focus on one form of rationality and their exclusion of others, but also by the theory of a distinct ‘human nature’ which ‘economic man’ implies. Latour and his colleagues have particularly problematised that theory, in developing accounts of both nature/culture and knowledge of it which do not require an *a priori* privileging of the human. One of their starting-points was the observation that texts and artefacts are as necessary as human actors to the social life constructed through science and technology. Thus in comparing humans with other primates, Callon and Latour (1981) noted that human sociality required transcendence of the somatic effects and face-to-face interaction more usually taken as defining it. Although the action-at-a-distance enabling human sociality does require that humans be disciplined into predictability, it cannot be limited to that effect. Rather, social evolution entailed the spread of techno-social networks, where these are ‘heterogeneously engineered’ webs of ‘documents’ and ‘devices’ as well as of ‘docile bodies’ (Law, 1986). Documents, texts, are ‘immutable mobiles’ in the emergence of networks; they are delegates from one network to others (e.g. Latour, 1987: 21–62). Devices, or technological artifacts and organizational structures, stabilise some interactive possibilities and exclude others; they are society made durable (Latour, 1991b). In these terms, the human and the social are seen as emergent effects of heterogeneous engineering, ‘agency’ is one outcome among others, and the agentic self is itself a network. When its corporal limits are transcended through textual/linguistic effects and through material artifacts, it is as much a ‘hybrid *collectif*’ as any other centre of calculation (Callon & Law,

1995, 1997). The line between individual and human subjects, on the one hand, and collective and/or non-human subjects, on the other, disappears. While a corporal self and a corporation differ in scale, they are then open to analysis in identical terms.

That redresses the common, almost routine, conceptual slippage in the study of annual reports, between the assumption that only ‘economic man’ could be an agent and the attribution of agency to corporations. We should stress that when we make that claim we are not denying human or individual agency. We are claiming, however, that a shift of emphasis, from the ontologically gerrymandering axiom of individual agency in the model of ‘economic man’ to the treatment of agency as emergent along the lines of STS, clears a potential incoherence in the study of corporate annual reports. Although it does not solve the problems in the field, since the practicalities of *how* all the collectivities involved in the writing and reading of annual reports achieve their effects remain as empirical questions, it does remove a block in the approach to the problems. In that case, it can even be said to be more ‘rational’ than the assumption of rationality. It also opens the way to a fresh look at the collective action seen in disciplinary differences.

Rationality and the disciplinary

When we surveyed studies of corporate annual reports we did find the conflicting findings expected from Quattrone’s diagnosis of ‘fragmentation,’ and we agreed that intra- and inter-disciplinary differences were sources of dispute. Whether such conflicts are pathological, however, or whether they are evolutionary effects, are separate questions. As we noted above, to posit a trans-disciplinary unity is to dream of a sanctuary beyond reflexive loops. If these are inevitable, then room needs to be found for them in any approach to the disciplinary.

Foucault’s (1975) account of ‘discipline’ and Kuhn’s (1970) of ‘paradigms’ are standard points of departure in studies of disciplinary knowledge. In STS, Law (1986), for example, drew on Foucault for his ‘docile bodies,’ and the same move is familiar in accounting research (e.g. Hoskin & Macve 1986, 1993). The ‘disciplinary matrix’ which Kuhn (1974) proposed as a replacement for his overly ambiguous ‘paradigm’ is less well known. This matrix comprised the three moments of ‘symbolic generalizations,’ ‘models’ and ‘exemplars.’ Denoting routinely used and formally logical expressions, ‘symbolic generalizations’ had a dual effect, since an equation like $f=ma$ both recursively defined its elements and implied acceptance of logico-mathematical argument. ‘Models’ provided a group with preferred analogies, as in the effects of light being taken as either waves or particles. ‘Exemplars,’ finally, were lived as concrete problem-solutions learned in daily practice (Kuhn, 1974: 297–8). The ‘disciplinary matrix’ then entails the same tension between formal rationality and the cultural rationalities of language and

of life as we found in the alternative to ‘economic/scientific man’ in STS. As Geertz said when he read Foucault’s and Kuhn’s work in his own anthropological terms, the study of those cultural rationalities entailed an ethnographic “unpacking of performed meaning” or a “practical epistemology” (1983a: 29). This yields access to disciplines as “ways of being in the world, to invoke a Heideggerian formula, forms of life, to use a Wittgensteinian, or varieties of noetic experience, to adapt a Jamesian” (Geertz, 1983b: 155). As with the tension Latour set between real, narrated and collective rationalities, the rationality of any discipline’s symbolic generalizations emerges amid the way of life given in different concrete problem-solutions being lived as common sense and in distinctively analogical vocabularies.

That does make communication across disciplinary boundaries problematic. To understand a particular disciplinary knowledge requires an understanding of the language of that discipline, that requires familiarity with the ‘heroic myths’ and ‘disciplinary heroes’ of the discipline’s formation and development which suffuse the language (cf. Becher, 1989), and that in turn requires a sustained and intensive disciplining which is difficult to repeat. As any practitioner can attest, furthermore, that inter-disciplinary effect recurs on an intra- disciplinary scale; to join a discipline is always to be acculturated in a particular sub-discipline or speciality. When contact across disciplinary and sub-disciplinary boundaries is necessarily incomplete, conflicting outcomes are inevitable. Yet although this inconsistency might appear bewildering to outsiders, and even be a source of contempt for the social sciences in general, practitioners habitually make sense of it. The cross-citational webs typical of studies of corporate annual reports, for example, show that writers routinely use work resting on disciplinary assumptions other than their own, and that is before their national, political, theoretical and methodological differences are taken into account. In this practical epistemology, then, they refute the claim that analysts “have been unable to establish a dialogue between different perspectives in accounting research” (Quattrone, 2000: 147). Rather, their unceasing dialogue shows them as *bricoleurs* who use whatever they can find, regardless of its disciplinary provenance, and translate it in terms of the analogical models and concrete problem-solutions familiar to their particular disciplinary audiences.

In these textually ethnographic terms, the explicitly disciplinary and sub-disciplinary study of corporate annual reports then appears as always already implicitly trans-disciplinary. That lets us take the next step back through our case, and link this messy transdisciplinarity to the problematic unity of the corporate annual report as a genre.

The trans-disciplinary and the world understudy

In his diagnosis of accounting research, Quattrone noted that one outcome of the hierarchical

ranking of knowledge in 'the Encyclopaedia' was the distinction between meta-theoretical, theoretical and practical 'levels of knowledge' (2000: 135–7). Both he and writers in STS emphasised that the reflexive imbrication of any analysis in what is analysed makes these distinctions problematic. If the practice of study is necessarily entangled in what is studied, then it makes more sense to talk of 'epistemic flattening' rather than to invoke epistemological hierarchies (cf. Lynch & Bogen, 1997). That in turn means that the practice of research into corporate annual reports is informative of corporate activity.

The field as a whole, in all the multi-disciplinary variety we have emphasised, is like an international *entrepot*, where some common language is necessary (cf. Lowy, 1992). Without that, analysts from one discipline would be unable to use results from other disciplines, analysts of one issue to deploy findings from other issues, and analysts using one theory to invoke the outcomes of other theories. In this economic metaphor, economic man comes into his own, as the middle-man scurrying between importers and exporters. The language of his strict rationality is then not a hierarchically superior universal but a pragmatic and epistemically flat *lingua franca*. In so far as it is necessary for intra- and inter-disciplinary exchange, such as that seen in the study of corporate annual reports, it is also necessarily a pidgin. Now, however flexible a pidgin is, it cannot convey all the nuances of the distinct languages it bridges, and the same is true for inter-subdisciplinary and inter-disciplinary usage. The pidgin of economic man's language of rationality cannot include the rich complexities coded into specifically disciplinary languages. Since to abandon those traditions would be too high a price to pay for inter-disciplinary cooperation, this alternative of cutting economic man down to size is preferable. This in turn means that more can be gained from strengthening disciplinary differences than from weakening or removing them. The more distinct and complex that individual disciplines are, the richer the rationalised pidgin that can emerge from the selective, partial and opportunistic enrolment from across disciplinary boundaries which is so characteristic of practice in the social sciences. That is, the strength of disciplinary boundary work is its permanently failing character.

On the reflexive logic and on the 'epistemic flattening' we have followed from Quattrone and STS, furthermore, that effect should recur in the world studied in the social sciences. If the *bricolage* and the use of a rationalised pidgin which analysts of corporate annual reports display in their own practice are fractals of organizational activity more generally, then the image of the *entrepot* is more than a metaphor. Like disciplinary analysts, corporate practitioners bring to the marketplace a knowledge shaped through particular analogical models and particular concrete problem solutions, and communicate there through symbolic generalizations which are necessarily stunted in translation. Their partners for exchange in the marketplace are so diverse that their adoption of the pidgin of economic man is more a symbol of their willingness to

participate and a guarantee of at least a partial understanding than an imposition of uniformity. Since corporate practitioners face more disparate readerships than do academic analysts, those effects found in the intra-, inter- and pragmatically trans-disciplinary study of corporate annual reports apply *a fortiori* to the production and dissemination of the reports and to the activity reported in them.

CONCLUSION

Corporate annual reports are interesting in themselves, and since their analysis is a subfield both in accounting research in particular and across the social sciences more generally they are also a useful focus for a study of disciplinary activity. Since the results of research into them are diverse and even contradictory, and since this is consistent with Quattrone's (2000) diagnosis of fragmentation in accounting research, we couched this survey of the field as an empirical response to his call for a constructivist, evolutionary, reflexive and trans-disciplinary perspective which would restore a lost unity. Our reading moved through alternating layers of unity and disunity. Although annual reports do have the generic sameness ensured by their fulfilment of regulatory requirements, the disciplinary differences brought to their study, and political, theoretical, methodological and national differences as well, mean that evidence on them is as fragmented as Quattrone suggested. A degree of uniformity is still evident, however, in the common invocation of that rationalised and rationalising 'economic man' whom Quattrone had treated under 'methodological individualism.' That in turn generates further fragmentation, through conceptual slippage. We pointed especially to the widespread assumption, on one hand, that only individual human subjects can be agents, and to the widespread attribution, on the other, of agency to the non-human and collective subjects of corporations.

Thus far, then, we had agreed with Quattrone, for the fragmentation in this one subfield of accounting research did match his diagnosis of the field as a whole. We disagreed, however, that this state was pathological, suspecting that Quattrone belied his call for reflexivity by looking for safe ground beyond the complexity he had described. To develop that point, we introduced the science and technology studies which are cognate to studies of economic-organizational activity, and used them to work our way back through the layers of unity and disunity. STS yields a sense of agency which clears the blockage of methodological individualism, and an approach to different rationalities in tension which shows that disciplinary differences are more an advantage than a hindrance. Once economic man is cut down to size, his rationalised language appears as a pidgin allowing members of different disciplines to communicate - which, *contra* Quattrone, they do constantly - while retaining the complexity of their distinct disciplinary usage. Since richer disciplinary language in turn

enriches the pidgin, this is more a case for strengthening disciplinary boundaries than for removing them. Finally, we argued that the study of corporate annual reports was already already reflexive, in that analysts display in their own disciplinary practice what corporate practitioners display in their activities.

Now, this empirical and analytical review of corporate annual reports and their intra-, inter- and trans-disciplinary study is also programmatic. We aim to use the strategy from STS which we have outlined here in our own research, on the writing and reading of annual reports specifically and on the emergence of corporate rationality more generally. For the moment, we have shown one way to enrol the existing strengths of economic man and of disciplinary boundaries in an approach to the permanent problem of the rationalisation of corporate rationality.

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