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Unhastening Science
Temporal Demarcations in the 'Social Triangle'

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Abstract

What is so special about science? Taking up the old epistemological challenge, this article seeks to rephrase the question of scientific autonomy beyond conventional essentialist criteria of demarcation between science and society. The specificity of science is primarily sought in its studied 'lack of haste', its socially sanctioned withdrawal from the swift pace of everyday life and from 'faster' cultures such a politics and business. This 'unhastened' quality defines science's peculiar delaying tactics, which systematically slow down and objectify ordinary conversations, actions, and conflicts, attracting 'slow' personalities who read and write more and talk less than the 'fast cats' who are attracted to more decisionist, stress-driven and hasty cultures. Such a description, rather than claiming performative innocence, simultaneously expresses the ambition to strengthen what it characterizes, i.e. to liberate science from the stress and haste which are increasingly imposed upon it by the 'external' pressures and performance criteria of enterprise culture and political correctness, and by the growing impact of media publicity and the academic celebrity system. In this fashion, the article simultaneously advances a new factual description of the specificity of scientific practice and a new normative/political project to enhance scientific and intellectual autonomy.

Key words

■ autonomy ■ demarcation ■ science ■ social triangle ■ time economy

Well, we've got time, haven't we, Socrates?
(Plato, *Theaetetus*)

Self-Interested Science

Twenty-five years of irreverent thinking and thick empirical description have done much to dislodge the long-standing philosophical conviction that science

has a special, singularly compelling, and context-spanning rationality which legitimately dominates ordinary and local forms of reasoning (what used to be called 'common sense'). Increasingly also, science in the singular has come to be seen as bad shorthand for a vast plurality of practices which are fragmented across many disciplines, niches, paradigms, and approaches. More dramatically, science has come to be viewed as just one culture of rationality among others, 'just another story', one among a plurality of perspectives, information bases, and interpretive communities, none of which can lay claim to an overarching or foundational status. This unexceptional, down-to-earth character of scientific rationality has preferably been described in the metaphoric vocabulary of 'knowledge politics' (or 'knowledge-as-capital') which automatically highlights the salience of everyday *interests* deriving from the mundane competition for power, money, and prestige – which appears to rage equally fiercely within science as in the outside world. Whereas traditional approaches drew a sharp philosophical separation between cognitive and social dimensions, the new sceptical approaches conceive of the production of knowledge and the accumulation of power (or capital) as intimately interlaced and reciprocally determinant. This has had an immediate impact on framings of the classical problem of intellectual autonomy. At least, the demise of the venerable philosophical dichotomies which separated truth from interest, morality from politics, or values from facts signified that they were no longer thought capable of patrolling the Great Wall between science and society – which, as a result, has begun to crumble and collapse.

In this article, I intend to take this fundamental notion of knowledge politics (which erases some traditional distinctions) as a point of departure for making new distinctions which yield an alternative description of the idea of scientific autonomy. The first operation required is the installation of what might be called a 'knowledge–political continuum'. The heavily guarded, impassable boundary which is marked by essentialist criteria of truth, logic, and method, and which is shored up by Popperian and Mertonian values such as those of neutrality, disinterestedness, community and universalism, is replaced by a gradient of lesser distinctions, lower thresholds, weaker boundaries and unguarded crossings which range all the way from the micropolitics of knowledge to the macropolitics of government, passing through all kinds of practices and institutions which mix and mediate them. The second step is the introduction of a differential *time* dimension in addition to the traditional dimension of place, suggesting that scientific autonomy can be reinvented within this new framework of graded distinctions and permeable boundaries by attending to the specific effect of *deceleration* or *unhastening* which gradually distinguishes science from 'faster' practices such as politics, journalism, or economic management.

Before broaching this theme of temporality, let me first elucidate the gradualist topology of knowledge politics. This topology is meant to exclude two less attractive epistemological options, dutifully offering itself as a supervening third position. One of these focuses the classical quest for truth 'for its own sake', which requires science to jealously guard the autonomy and elevated neutrality of its special location (the 'ivory tower'). Contrary to such a view, I will (rather abruptly

and performatively) maintain that there 'can be no such thing' as a search for knowledge which is purely interest-free, curiosity-driven, or value-neutral, or a form of dialogue or discussion that can (or, for that matter, should) be liberated from power talk, interested negotiation, or strategic calculation. But I simultaneously want to distinguish this view from 'identitarian' theories which simply posit the coincidence of knowledge and power and tendentially collapse the realms of science and politics into a seamless web of relations where differentiations are no longer legible, where mobility and complexity are rampant, where all distinctions between inside and outside become fluid and evaporate, and where the ideas of autonomy and bounded practice therefore lose much of their meaning.

If autonomy can no longer be sustained in absolute terms, on the basis of the unique epistemological status of science, it can be more realistically described as an interactive and variable process: as the ever-precarious outcome of negotiations about flexible and shifting boundaries between science and society (Cozzens, 1990; Gieryn, 1983; 1995). It is a distributed and dynamic state which is as much a product of relatedness as of delineation (Fox Keller, 1985: 98), demanding incessant definitional performance in order to produce a stability which can only be contingent and provisional. A non-neutral, knowledge-political defence of scientific autonomy might therefore begin from the more promising notion of *self-interested science*, which finds itself incessantly negotiating the weak boundaries which separate the various institutional forms and locations of knowledge politics and 'big' politics. Self-interested science may serve as an appropriately demythified reformulation of the idea of the pursuit of knowledge 'for its own sake'; indexing both the need for its professional independence and the risks of corporatist insulation, monopolistic control of resources, and collective arrogance which are coincident with it. If science is (to be) 'nothing special', one might still defend its autonomy in the same sceptical and ambivalent mood in which one would support the relative independence of other ordinary occupations and communities of skill, including the professional conduct of politics.

Knowledge Politics and Time Economy

I have already begun to draft a continuum of weak demarcations (and weak autonomies) which exchanges the normative problem of how to specify universal and invariant criteria distinguishing science from non-science for a more descriptive problem of how to follow a variety of distinctions across a range of institutions which are not separated by a Great Divide but are more equally balanced across many small ones. Focusing upon the mixtures rather than the oppositions, this continuum follows the entire span from the extreme of 'blue sky' academic research to that of professional politics and state administration, detailing a complex range of mixed institutional logics which – travelling from the left- to the right-hand pole – may include university-based policy-oriented research,

academic administration, professional auditing boards, independent consultancy, science journalism, 'movement intellectuals', semi-statal funding agencies, research units attached to political parties, and research departments in governmental bureaucracies. A simplified British version of this positional continuum, which simultaneously articulates a gradient of occupational attitudes, psychological predilections and career-bound beliefs, roughly looks like Figure 1.

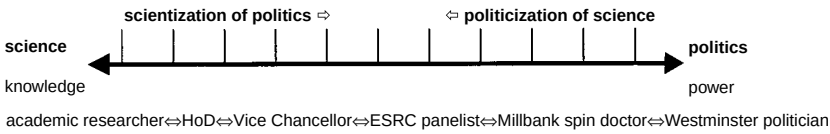

Figure 1 The knowledge–political continuum

Representations such as these, which would need much finer elaboration, begin to articulate a critical phenomenology of science-politics relations, the aim of which is to offer an ethnographically enriched picture of what scientists and politicians (in all their different role mixtures and combinations) 'actually do'.[1] That is, if we are also agreed that we can no longer count upon a strict philosophical separation between facts and values, and acknowledge that all such descriptions are performative and hence carry an inherent normative intent (Pels, 1990; 2000a). The positional continuum displays a different mixture of interests at each link in the chain between 'self-interested science' and 'big' professional politics. Between the extremes are located various thresholds, transit zones and liminal spaces through which individuals may pass in order to shift positions, either temporarily or permanently (e.g. academic intellectuals gaining high media profiles, or 'defecting' to posts in administration). Institutions may renegotiate their identities and displace their boundaries in competition with others (a dramatic example is offered by politicization drives in totalitarian regimes). Moreover, an incessant struggle rages (both discursive and physical) about the precise location of the boundaries and the height of the thresholds (e.g. scandals involving conflicts of interest, corruption and sleaze, political correctness, or abuse of power). As one travels from one pole in the direction of the other, jumping one or several institutional fences, atmospheric changes occur which build up incremental differences in the institutional logic or ethos of different occupational fields; pushing individual players to conform to the norms, rules, and habits of adjacent but different social games. The combined effect of these displacements is to proliferate weak autonomies across a multiplicity of intermediate occupational zones which act as buffers (but also as transit areas and trading zones), and which generate stronger forms of autonomy as institutional distances become more stretched. Instead of being transcendentally guaranteed by principles of right reason, universal logic and proper method, the autonomy of science is socially performed and pragmatically accomplished by continuous investments in the many lesser boundaries which incrementally separate it from the similarly complex and graded reality of politics.

It is time to fill out this phenomenology of science–politics relations by way of entering a minimal and 'naïve' description of practical differences which is no longer weighed down by such lofty principles of differentiation. Travelling from the intellectual to the political pole, one may, for example, witness a gradual decrease in the crucial activities of *reading* and *writing* (and hence of the incidence of silence and quietude), and a concomitant increase in *talking*, disputing and negotiating (and hence of the amount of noise, nervosity and haste). It is a crucially defining characteristic of any politician that he or she needs to *talk a lot*, and that their investment in reading and writing typically remains confined to newspapers, reports, summaries of reports, notes, briefings, and even briefer briefings. If scientists talk, they typically conduct the far *slower conversations* which turn upon a careful perusal of arguments which may have been proposed by partners who are far removed in time (e.g. quoting long-dead founding fathers) and/or space (polemicizing with disciplinary colleagues at the other end of the globe), and which follow the leisurely rhythm of written commentary and critique: the quiet exchange and unhastened turn-taking of articles and counter-articles, books and counter-books. Science is typically of the 'long breath', depending on long-term cycles of investment in human and material resources, whereas politics expects quicker returns within a much shorter time-span. Even in terms of the act of reading itself, the sheer *pace* of the exercise typically differs across the range of professional activities. Politicians (including academics in a more public or 'political' role) tend to speed diagonally through administrative memos and reports, which supposedly feed into other memos, oral summaries, or discursively presented decisions. In the intellectual mode, on the other hand, articles and books, particularly if they must fertilize the composition of other articles and books, often require a sustained effort of re-reading, rethinking and sense-making – a technique of deceleration which is equally characteristic of the act of writing itself, which requires a succession of versions and revisions before they are permitted to see the light of day. There is a specific delay in these objectifications (words 'staring back at you') and an endless deferral of the moment of decision, which is entirely out of place in the daily conduct of more speedy enterprises such as business or politics.[2]

Textual Tactics of Delay

As Goody and others have shown, there is an intimate link between the technology of writing (and especially the materiality of the text as objectified speech), the effect of unhastening or delay, and the ability to scrutinize discourse in a different, potentially more abstract, generalized, and critical way. Writing, by giving oral communication a semi-permanent form, enables one to stand back from and quietly study a static and rigid 'thing' rather than being swept along by the hectic immediacy and fleeting dynamics of face-to-face interaction. Reading and writing eliminate the typical redundancy of oral thought and speech; they force the mind into a slowed-down pattern that enables it to continually

reorganize itself and add precision, and in this sense affords more reflective and analytic habits of thinking and communication. Written speech is no longer tied to an occasion or a spokesperson; it becomes 'timeless', abstract, depersonalized, distanced from lived experience. Texts can be inspected in much greater detail, in their parts as well as wholes, backwards as well as forwards, out of context as well as in their setting. Evidently, their materiality and 'objectivity' also favour a more permanent storage of information, opening up a wider range of thought for the reading public and increasing the potentiality for cumulative knowledge and collective memorization. In this respect, there exists an originary and constitutive link between the technology of writing (as a technology of reflective delay) and the emergence of scientific rationality in the modern sense of this term (Goody, 1977: 11–12, 37, 44–5; 1987: 300; Ong, 1982: 39–41, 81–3; cf. Goody and Watt, 1968). Without wishing to subscribe to Goody's more sanguine conclusions about an intrinsic connection between literacy and rationality in its high-minded Enlightenment form (cf. Street, 1984: 44ff.; Finnegan, 1988), we may still secure the notion of the 'delay of writing' as a minimal criterion of distinction for a science which does no longer offer itself as a compulsory standard of excellence for all other traditions of thought.

Despite the recent avalanche of social interpretations, practising science (including social science) is still much more a matter of non-verbal, solitary (if not solipsistic) interaction with non-human objects (such as books, articles, protocols, instruments, machines, pen and paper, keyboard and screen) in the comparative stillness of one's study or laboratory than a matter of talking to and negotiating with other human subjects – which is the daily fare of politics and other 'verbomotor lifestyles' (cf. Ong, 1982: 68).[3] Incessant talk and high interaction imply that the politician is expected to be far more gregrarious and personable than the average academic, which also defines a range of differences in presentation, tone, bearing, attitude, and dress code. While the scientist typically talks a lot to him or herself, the politician routinely (and loudly) talks to many others (face-to-face, on the phone, or confronting large radio and television audiences), spending long hours in committee meetings and parliamentary sessions where the art of writing (brief notes and comments) is basically subservient to the production of more effective and authoritative public speech. While politicians speak as representatives of particular interest groups, constituencies, parties, and movements (or in their more ambitious moments, of the Nation or People at large), scientists primarily speak for themselves, for their research groups or departments, and their discoveries (which they can similarly inflate to represent Nature or Reality). Even within the academic field, more 'political' or 'entrepreneurial' functionaries such as Heads of Department and chairs of disciplinary and administrative committees talk (or phone) a lot more, write a lot less, and regularly mingle with many more people than their colleagues who do the teaching and engage in sustained research and reporting of research. Conversely, 'intellectuals' and 'professors' in the political class (a rapidly declining species) are often mistrusted or ridiculed because they are thought incapable of taking fast decisions, unnecessarily philosophize about principles, take time out to read or

even to write books, which confers upon them the 'unnatural' distinction of working long hours in sustained privacy and tranquillity. Even within the fast political field, the pace of life quickens during election periods or other crisis times, when politicians become even more short-termist, preferring to work towards the next poll rather than concerning themselves with long-term issues and the ultimate 'verdict of history' on their doings and failings.

Another relative difference which further delineates the time economies which gradually segregate academics from politicians concerns the selectivity and the level of attention to issues. While scientists are expected to concentrate on an few isolated topics for a long, sometimes extremely long period of time, politicians are ready to switch among topics and issues very rapidly. Their professional situation typically favours a broad but necessarily superficial sweep of knowledge about a plethora of subjects, while scientists reverse this logic by favouring a deep acquaintance with a highly selective and narrow set of discipline-driven questions (e.g. PhD students' solitary confinement in a detailed research topic for a three- or four-year period). In between these extreme positions, researchers employed in commercial consultancy, policy think tanks or scientific advisory panels of political parties (such as Demos or the Institute for Public Policy Research), while being allowed more time to conduct research on individual issues (a few weeks, a few months), are nevertheless expected to report to an agenda which is not self-selected but is normally dictated by their commercial or political commissioners. The weekly 'updating' television chat with the Prime Minister, which is a customary feature in several European democracies, typically involves a swift-paced ticking off of a whole cascade of current issues. Journalists who interview politicians on a regular basis in news and current affairs programmes tend to act as legitimate interpellators and 'partners in expertise' on all these different political topics; and the interpellated politicians are required to make up their minds very quickly, in conditions of uncertainty and stressful visibility, producing credible soundbites on any number of relevant issues that figure in the news.

By contrast, at the opposite end of this decisional continuum, academic researchers are extremely *slow* decision-makers, who endlessly ponder and prevaricate over what words to use in what particular context, preferring to keep silent rather than saying things they are not completely confident about.[4] Occupational accidents in science, such as the Cold Fusion episode or spoof discoveries of AIDS cures, are often traceable to journalistic or managerial pressures to decide the issue and go public before the time is ripe ('discovery through press conference') (Bucchi, 1998: 36ff.; Gieryn, 1999: 183ff.; Haslam and Bryman, 1994). Academics who closely identify with public or political causes, or who more generally wish to cut a public figure, preferring to write for newspapers or appear on radio and TV talk shows rather than publishing academic articles in journals 'which nobody ever reads', often incur the censure and displeasure of colleagues who accuse them of sacrificing their intellect to the seductions of publicity and the demands of the large audience at the other side of the screen. The novel habit of celebrity intellectuals to air their ideas in interviews is often interpreted (and dismissed) by their less famous (and more jealous) colleagues as a genuflection

for the 'quick fix', signifying an unfortunate intrusion of the habits of journalism and the logic of politics which denature the scientific field. The true scientist, they are told in Socratic fashion, has no ambition to persuade audiences as large as the politician's electorate, and is satisfied to converse with smaller circles of students and fellow professionals in a more quiet retreat. The true scientist loves the semi-private spaces of the academy, is not overly attracted by the glare of the spotlights and the nervous pace of public life, and fails to be seduced by the fame or notoriety which is the inevitable dowry of the public personality who continually operates in the vicinity of cameras and microphones.[5]

I wish to illustrate and further focus this incipient phenomenology of differences by briefly noting some typical patterns of interaction which occur at scientific meetings and conferences. Although embedded in the normal rhythm of academic professional life, such events nevertheless introduce a distinct spatio-temporality which effectively speeds up and 'publicizes' (and in this minimal sense: politicizes) the routines of everyday academic teaching and research. Conferences typically produce a Durkheimian collective effervescence by assembling a crowd of talking bodies in a liminal space (away from the home turf and ordinary discipline, which usually invites forms of festivity, tourism, and other escapades and transgressions) which is in some ways similar to what politicians experience as part of their everyday professional routine. A conference is a talking shop (a parliament), where real-time conversations are struck up against the background of the slow-paced ones which are conducted during the 'normal' duration of research and writing. They are about meeting people, establishing and renewing contacts, negotiating and striking deals, building up networks, and hence of affirming, maintaining, attacking or losing scientific reputations. They create situations of heightened fervour and tension which are suffused with the anxiety of having to perform to large(r) audiences that more or less immediately talk back. The 'natural' slowness of academic production also reasserts itself in the habit of presenters to take a long time (from 10 to 45 minutes) to talk without interruption to a *written-out* paper on which they have bestowed weeks or perhaps months of thoughtful preparation in the stillness of their study. In this sense, reading a scientific paper is very much a rehearsed performance and a 'coming out' experience rather than an improvised talk, while the ensuing conversation does not follow the noisy and haphazard pattern of public political debate, but requires the audience to hold its fire until official question time. Question-and-answer patterns themselves, which demonstrate the same civilized turn-taking which is embedded in the broader temporal economy, are not meant to prepare the assembly to take a vote, but rather to delay ready-made forms of consensus and to defer facile solutions or decisions. In spite of all such continuities, individual scientists nevertheless find themselves in a quasi-political 'cafeteria' situation, in which subjects of talk can vary widely and follow each other in rapid succession. They temporarily operate in an arena of interaction which is far more public, speedy, and permeated by power speech than the world they normally inhabit. The vast majority of academics, I suspect at least, would be horrified at the prospect of having to live permanently in such a public place and to such a hectic pace.

Science in the Social Triangle

What I have pencilled in so far is a rough sketch of a spatio-temporal continuum which, rather than being centrifugally suspended between two extremes which define an essential tension, is drawn sideways out 'from the middle' in order to proliferate smaller differences and more permeable thresholds which, while suggesting various interminglings between scientific and political practices, nevertheless succeed in keeping them at arm's length as relatively autonomous social timescapes. In contrast to the direct liaison which is suggested by classical conceptions of 'scientific politics' or 'partisan science', all connections are mediated ones, dampening all efforts at reciprocal invasion by the presence of many institutional hurdles which act as spatio-temporal filters. 'Social relevance' can hence never be an instantaneous product, but is only realizable by means of successive translations and mediations across an extended buffer zone. Even though they are no longer separable in terms of their natural gravitation towards an essential 'core' or 'logic' which is philosophically defined (the search for truth, the will to power), science and politics are nevertheless identifiable in terms of a gradient of contiguous distinctions which are pitched at a lower operational level. The high normativity of the traditional demarcative exercise is exchanged for the low normativity of defending their relative autonomy on the basis of such minimal specifications of time and place. The practical logic of scientific creativity requires a systematic deceleration of the speed of communicative interaction which can only be realized through a selective privatization of social relations and institutions.[6]

Before spelling out and further systematizing these weaker benchmarks for intellectual and scientific autonomy, I first intend to generalize and expand the horizontal spread of the knowledge–political continuum by marking out a third position, adding an 'economy' or 'market' pole to those of culture and the polity, and by drawing two similar continua which converge diagonally upon it from the scientific and political poles. This unlocks the ontology of what can be called the *social triangle* which, while admittedly straitjacketing the rich mosaic of social life, has nevertheless suggested itself in one or another form to many social analysts (as different as Marx, Habermas, Bell, Cohen and Arato, or Castells) as a useful classificatory starting point (see also Ágh, 1989; see Etzkowitz and Leydesdorff, 1997, on the closely affinitive model of the 'triple helix'). The aim of this triangular model is to find a new reconciliation between a liberal-modernist ontology of separation and demarcation and a postliberal or postmodernist ontology of boundary fusion and integration (Leydesdorff, 1995; Pels, 1993: 208ff.). I assume that social theory, in its confrontation with contemporary processes of differentiation and de-differentiation, no longer needs to choose between modernist purity and postmodern fluidity and flow, but can absorb both ontologies in a more encompassing view of how social reality is made up.

By angularly adding both a 'culture-commodity' (or 'culture-capital') continuum and a 'power-property' continuum to the already emplaced 'knowledge-political' one, and similarly differentiating them in terms of weak

boundaries, low thresholds, and a proliferation of differences (rather than the strong and singular divides which are installed by essentialist codes of Sovereignty or Property), the resultant triangle organizes a vision of a *trias societatis* which appropriately balances the mutual interpenetration of institutional principles or logics against the relative domanial autonomies which are nevertheless preserved across a great cascade of smaller demarcations. Currents of culturalization, which spill over from the cultural and scientific field, flow 'eastward' and 'southward' in order to inundate the polity and the economy (cf. the emergence of the designer economy and promotional culture; the aestheticization of consumption; the rise of an informational capitalism; the mediatization of politics; the rise of the entertainment industries and the celebrity system). Politicization drives emerge 'westward' and 'southward' from the right-hand pole to enter the domains of culture and the market (cf. the mixed or political economy of neocorporatist institutions; forms of 'sub-politics' in science, art, sports, health service and ecological activism). Processes of economization analogously rise from the 'south pole' to flow upwards into the cultural and political domains (cf. the commodification of sports; the commercialization of art and the diminishing status distinctions between 'high' and 'low' culture; corporate models in public bureaucracy; the entrepreneurial university). In this fashion, a political redefinition of science and culture (as 'nothing special') is readily combinable with a cultural, discursive, or symbolic view of politics and the state; a political theory of property and the market may sit well together with an economic interpretation of political governance; and notions about the culturalization (e.g. aestheticization and/or intellectualization) of economic life may be played against an 'economizing' view of culture and science. In all three domains and along the stretch of all three continua, the levelling effects of fragmentation, crossover and osmosis are offset and compensated for by the decoupling and buffering effects which guarantee the relative independence of culture, politics, and the economy beyond the steady flow of their triangular interweaving.[7]

The metaphor of the social triangle (see Figure 2) hence evokes a repetitive pattern of institutional integration and differentiation which focuses a division of labour between three subsystems, action fields or social powers, which are not divided by any sharp ruptures, but retain their relative autonomy precisely because they are interconnected through broad transition zones. None of the three domains enjoys ontological primacy above any of the other; none of them is able to claim anything like a 'first' or 'last instance' determination; and none of them is in any sense reducible to any other. This horizontal model offers a contrast with the modernist logic of social differentiation, which is both enabled and contained by overarching factors such as a shared value consensus, an infrastructural economy, or a foundational polity, which are taken to articulate and guarantee the unity of the social whole. Such domanial parity effectively excludes any strong claim for the constitutive or totalizing nature of the economy on the part of Marxist or liberal theorists (e.g. the Thatcherite advocacy of 'enterprise culture');[8] for the totalization of political sovereignty as imagined by radical right-wing theorists (e.g. 'Conservative Revolution' intellectuals such as Freyer or

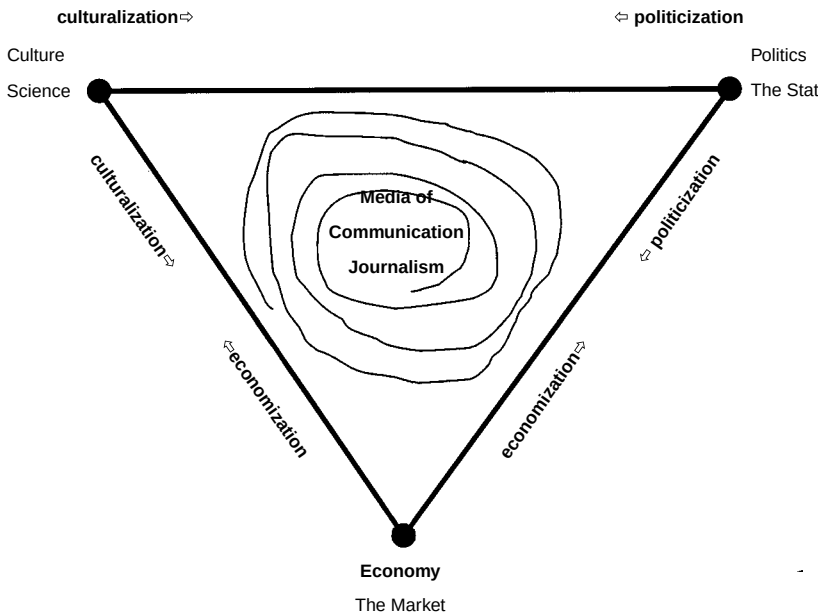

Figure 2 The social triangle

Schmitt); or alternatively, for the constitutive primacy of Culture, Reason, or Science (e.g. classical Enlightenment philosophy, varieties of scientific, intellectual or artistic socialism, sociologies of moral cohesion, Habermasian communication theory, or strands in cultural studies). In the economic sphere, this levelling syndrome entails a definitive rejection of the absolutist and exclusionary conception of private property and of foundationalist certainties about the productive primacy of the market. In the political sphere, it finally erodes the monolithic and centralist conception of state sovereignty, including socialist or communist variants which attempted to ordain central economic planning through state appropriation of the means of production. In the cultural sphere, one must relinquish the essentialist notions of truth, goodness and beauty which from time immemorial legislated a steep hierarchy between the auratic realm of the Spirit and the baser worlds of Power and Money.

In this fashion, all three domains are divested of their traditional ontological and foundational privileges, and are no longer thought capable of reconstituting the identity of the social whole.[9] The three regions are recast as structures without a centre whose meaning is no longer assured by any transcendental principle. This also calls an end to the eternal seduction of the *pars pro toto* gesture, through which parts are hypostatized into wholes and a particular subsystem is taken to define or represent the totality of social relationships. All totalizations remain partial and limited in scope: they never leave the particular domanial perspectives from which they are launched. Scientific accounts are no exception to this rule:

instead of claiming privileged access to social reality 'as such', they never leave the narrow viewpoint and interests of a separate subsystem (Luhmann, 1982: 341–4, 350ff.). The three powers and rationalities are thus similarly situated at 'ground floor' level, co-inhabiting a flat surface which does not permit the erection of infrastructure/superstructure hierarchies, and which enables them to nurture an agonistic cooperation on the basis of equal opportunity and equal interest. In this fashion, the idea of a balance of powers between economy, polity and culture represents a societal generalization or 'inflation' of the liberal principle of *trias politica* – and of the Kantian tripartite division of culture into the jurisdictions of truth, goodness, beauty – even though the equilibrium effect of these countervailing powers is not so much achieved by the splitting force of binary schematizations as by the proliferation of graded differences and passable frontiers.

The above considerations can be further systematized by adopting some considerations on the sociology of postmodernization and the 'dialectic of differentiation' which have been proposed by Crook et al. (1992). From Spencer via Durkheim and Weber to Parsons, Luhmann and Habermas, social theorists have typically conceived of societal progress in terms of advancing differentiation and specialization between distinct but functionally interdependent roles, functions, institutions, and subsystems; while the liberal political project has traditionally been engaged in purposively distancing the societal domains in time and space and in sharpening the boundaries between them.[10] The Modern Constitution, as Latour (1993) has described it, is a *purifying* constitution, which feeds upon policing dualisms in order to lend force and intensity to the liberal 'art of separation' (Walzer, 1984). Postmodernists such as Crook et al., on the other hand, maintain that, in the contemporary period, we are witnessing extensions and accelerations of this differentiation drive which 'aggravate' into forms of *hyper*-differentiation which also partly reverse its direction, because they proliferate distinctions to such a massive degree that entrenched demarcations begin to leak and steady boundaries are increasingly effaced. The 'dialectic of differentiation' implies that processes of hyperdifferentiation tend to collapse the distinctions and dichotomies of cultural modernity to such an extent that they paradoxically 'trip over' into forms of *de-differentiation* which loosen the structural anchorage of the various spheres and reduce if not abolish the formal distances between them.[11]

Cultural modernity reaches its limits when the proliferation of divisions effectively erodes the significance of distinctions between autonomous spheres; the multiplication of categorical boundaries *within* the various spheres facilitates the transgression of boundaries *between* them. In this way, postmodernization can be understood as an ironic extension-cum-reversal of the 'progress' of cultural modernity. For example, the hyperdifferentiation and hyper-rationalization of science produce a pluralist branching out of approaches, methods, schools, subject areas and research fronts which breaks up the formerly unified and separate disciplines, but which also tends to erase the boundaries between scientific and non-scientific forms of expertise. Hyper-rationalization corrodes the disciplinary structure of modern science, but simultaneously erodes the idea of a singular demarcation between science and society (Crook et al., 1992: 41, 209,

217). It may dialectically precipitate into forms of 'de-rationalization' if science loses its distinctive primacy and expert and lay cultures of rationality are put on a more equal footing. In analogous fashion, the postmodernization of *political* life is reflected in a progressive decentralization and devolution of an 'overloaded' state, a tendency of power to become multifaceted and so widely distributed across society that one can no longer identify a precise set of power loci (Crook et al.,1992: 37). Expanding the analogy with science, one could similarly emphasize the demise of the rationalist or 'scientific' aura of politics ('politics is ordinary'; 'Downing Street doesn't know everything'), the fragmentation and decentring of statal bureaucratic powers and their attendant relocation towards domains such as science, technology, the economy, and everyday life.[12] While the secularization of high scientific rationality turns upon the weakening and pluralization of a previously 'overloaded' conception of truth, the fragmentation of political powers is accompanied by the final destruction of the absolutist principle of sovereignty, as pioneered by early advocates of a pluralistic and associationist democracy such as Duguit and Hauriou (Hirst, 1994; Pels, 1998: 37–9, 47ff.). On this view, the state becomes one player among many in a more levelled playing field, in which 'high' political culture is brought closer to 'low' popular culture, and political knowledge is reconceived as more equally distributed between professional representatives and 'ordinary' citizens.

Absence of Haste

One advantage of the model of the social triangle is that it locates the specific nature of professional knowledge production in chrono-political terms, referring to a specific temporal profile which can be contrasted with that of faster cultures for which time is money (and power) in a much more immediate and intensive way.[13] Surely, the primary condition for a successful working of the 'logic of scientific discovery' is absence of haste, or a systematic and critical deceleration of thought and action which sets science apart from the demands of urgency, immediacy, simultaneity, and publicity which are imposed by more 'speedy' practices. This gesture of *unhastening* the ever-increasing velocity of everyday life and professional cultures, which aims to unravel and reduce their astounding complexity, immediately goes with the pragmatic requisite of clearing a relatively bounded space, within which intellectuals and scientists can be rigorously selective about their topics and legitimately ignore the plethora of other issues that might clamour for their attention. This selectivity enables them to 'freeze frame', take things apart, focus on tiny details, and leisurely ponder on their broader significance; to slow down conversations and conflicts by means of quiet turn-takings and long communicative intervals (e.g. reading and writing rather than talking face-to-face); and more generally, to postpone decisions about what the world is like and what one should do about it.[14]

In this manner, the issue of autonomy and demarcation (what makes science special?) is respecified in terms of two minimal variables on the ontological axes

of time and space. Next to a sociology of spatial distancing we also need a 'chrono-sociology' or 'chronopolitics' which identifies how different institutional orders work to different clockspeeds and imply different rhythms of social interaction (cf. Adam, 1990, 1995; Giddens, 1987; Gurvitch, 1964; Virilio, 1986; Young and Schuller, 1988). In this connection, it is intriguing to notice that economic and financial management resemble politics in primarily staging an *oral* or *verbal* world, a world of endless and often agonizing talk (in face-to-face situations; through incessant phoning, mobile or otherwise; and increasingly through video conferencing) which considerably outpaces the slower tempo of exchange between academics and scientists.[15] Traditionally, indeed, *otium* or leisure as a condition of felicity for intellectual work has been set in contrast to *negotium*, or the speed of action and decision which is equally typical of market traders as it is of rhetoricians in the public marketplace. In the new economy, especially, one can trace the emergence of 'fast' managerial styles which are geared to maximum creativity in a permanent state of emergency; time is the forcing ground of this new regime of managerial governmentality, which must adapt to a general speed-up in the conduct of business (Thrift, 2002).

Reporting on research by Mintzberg, Stewart and others, Thrift has also recorded that senior managers spend between half and three-quarters of their time simply talking to people, whether 'live' or on the phone; and the evident purpose of their relentless travelling (long waits in airport lounges providing a ready occasion for even more mobile phoning) can only be that they are able to talk to people across long distances in situations of co-presence (Thrift, 1999: 154). In 'verbomotor' or rhetorical cultures such as these, material representations such as charts, graphs, memos or notes are primarily used to support discursive face-to-face communication, which reverses the logic and style of academic interaction where the primary purpose of speech (if it is not directed at students in ritualized classroom situations) is to inform subsequent writing, and where the *viva voce* exchange among professionals is occasioned by and grounded in the practice of reading and writing (the 'dead' letter). Habits of continuous travel and continuous meeting with people generalize a performance situation which is still an exceptional one for academics (cf. the scientific conference) which, as a result of the relative estrangement or unsociability which is imposed by their unhastened economy of time, do not normally possess the interpersonal skills and the *panache* in the presentation of self which are imperative in order to sustain negotiated relationships of trust primarily by means of talk and conversation.

Against this backdrop, it is evident that the de-differentiations of the social triangle, and particularly the logic of politicization and economization, exercise an accelerating effect upon the entire constellation, and especially upon the field of science and culture. The demarcations of the social triangle are further complicated and weakened by a prominent feature of modern information-dense and image-saturated societies: the 'switchboard' or 'short-circuit' function of the institutions of mass communication, which themselves are major energizers of further assimilation, and increasingly manage to impose their own fast tempo upon that of other, slower domains. Although not in any sense determinant 'in

the last instance', they are sufficiently emergent and powerful within the social triangle so as to permeate and restyle the other domains to the imperatives of popular culture and mass publicity (see Figure 2). In this configuration, the media are not simply allocated to the cultural domain but literally mediate between the different sectors, in a give-and-take which increasingly imposes an image-driven and publicitary logic upon all of them, and which tendentially softens the residual partitions between public and private spheres (Dahlgren, 2001: 85; Meyrowitz, 1985). In the cultural field, scientists, moralists, and artists are seduced to become 'media intellectuals' and cultural celebrities who are made to speak publicly (and under rigorous time constraints) about their ideas, ethical principles, or aesthetic imaginations (cf. Bourdieu, 1998b). In the political field, professional representatives are likewise progressively caught up in the maelstrom of mediatization and personalization, conniving and competing with political journalists in order to effectively broadcast their distinctive brand names and political styles (Corner and Pels, 2003; Scott and Street, 2000; Thompson, 2000). In the economy, CEOs and lesser managers are similarly 'coming out' as public personae (cf. Branson, Gates, Bezos), being sucked into the same celebrity system which, while originating from the entertainment industries, has inundated many other sectors of social life (cf. Marshall, 1997). The process of mediatization hence operates as a crucial vortex which draws the other spheres into the orbit of mass visibility and public accountability, imposing upon them a form of publicity which is crucially constrained by the media's own distinctive agenda, professional interests, and specific requisites of speed.

It has also been suggested that the impact of the mass media has the significant effect of rehabilitating oral and especially audiovisual culture with regard to written forms. Popular culture is often unfavourably contrasted with supposedly more 'rational' cultures (high science, high politics), precisely because it is seen as primarily oral and image-bound, and hence characterized by immediacy, embodiment, and sensation(alism), whereas more 'rational' traditions are seen as rooted in disembodied writing, information, facts, and intellectual argument (cf. Fiske, 1992; Dahlgren, 1992). Insofar as the parallel mediatization of science, politics and business turns up the level of intersystemic resonance and boosts convergence from all sides of the social triangle, this process clearly entails a reinvention of orality and (tele)visuality which dramatically speeds up the tempo of interaction and alters the forms of public address in all domains. The relative slowness of textual forms of representation, which involve a reading path extending over time, contrasts sharply with the sensual immediacy of information as visual image, restoring to some extent the spontaneous gestural richness and speed of unmediated face-to-face communication (Barthes, 1977; Sturken and Cartwright, 2001; cf. Goody, 1977: 44, 50). The universal visualization of culture in increasingly 'postliterate' societies, which is enhanced by the lightning speed of electronic communication, promotes a fast image economy and a visual literacy which undermine the prestige of the written word and reverse the century-long domination of print-based epistemology (Stafford, 1994: 281ff.).

In a social universe which is thus subjected to a logic of publicity and

intensifying acceleration, it is important to maintain the coexistence of differential time perspectives and time regimes and defend autonomous institutional niches which permit of a critical unhastening of thought and action (cf. Eriksen, 2001). If time is money, then speed is power, as Virilio has remarked; which implies that acceleration needs to be confronted as a major political phenomenon (cf. Armitage, 1999: 35). In a society of increasing speed, a critical phenomenology of the 'rat race' (Virilio's 'dromology') must not only insist upon analytic distinctions between different institutional timescapes and social 'speed lanes', but must simultaneously nurture a 'chronopolitics' which celebrates the relative 'inertia' of pockets of resistance and unhastening; it must simultaneously analyse the forces of acceleration and the forces that brake or diminish speed (Kellner, 1999). If science is legitimately outpaced by both politics and business, we still require a critical politics of deceleration which preserves its defining temporal rhythm and resist the 'stressing up' of scientific work as a result of the excessive infiltration of political, enterpreneurial, or journalistic deadlines. A pragmatic (rather than transcendental) defence of scientific autonomy must focus on the preservation of this unique socio-temporal order (which itself contains a plurality of times and places) in the face of the structural shrinkage of time which threatens to engulf it from more hasty cultures in the social triangle.

In this fashion, a critical phenomenology of unhastening immediately entangles facts with values. The description of weak differences within the social triangle is clearly not a neutrally distanced rendering of reality but performatively acts upon it, and therefore deliberately extends into a normative and political project. It gives expression to the 'postliberal' ambition to protect the different domanial autonomies and authorities, not through the absolutist force of principled demarcations, but through the proliferation of indirect connections, low thresholds and weak connections which enable a variety of mediations to occur across a cascade of institutional distances. In the long trajectories between science and politics and science and the market, these low thresholds function as ever so many 'speed hurdles' which progressively brake the swift velocities of politicization and economization. The characterization of science as a relatively unhastened practice similarly mingles description and evaluation and therefore has a similarly performative intent. It immediately feeds the ambition to realize what it describes, i.e. to liberate science from the stress and haste which are increasingly imposed upon it by 'external' gearshifts of a political, economic, or mediatic nature.

Of course, this generic picture should not detract from important variations in institutional dynamics *inside* the three domains, which are also internally articulated in terms of social speed (see note 2). The 'time wars' (Rifkin, 1987) which rage along the knowledge–political continuum and within the social triangle as a whole are replicated and enhanced by internal academic conflicts which resemble the venerable contest (which Kant already described in typically essentialist and missionary terms), between the 'higher' (and faster, because politically correct and user-relevant) faculties of theology, medicine and law, and the 'lower' (and slower, but ultimately sovereign and legislative) faculty of philosophy (Kant, 1992). Bourdieu has similarly distinguished between faculties or

disciplines which are 'temporally dominant' and those who are oriented more towards scientific research, adding that 'nothing better sums up the set of oppositions established between those situated at the two poles of the university field than the structure of their time-economy' (1988: 62, 64, 98–9). Indeed, in the current climate of entrepreneurialism, a new 'contest of the faculties' is emerging which pits the faster technosciences, which are more user-oriented and market-driven (biotechnology, business and management studies, new materials science, information systems, intellectual property law), against smaller brokers and slower earners (such as philosophy, the humanities, the social sciences) which 'lag behind' in a timescape which is increasingly stressed up by the spread of managerial auditing and academic capitalism (Slaughter and Leslie, 1997).

However, this does not imply that standards and incentives such as user relevance, managerial efficiency, cost effectiveness, or audit accountability (or even those of political correctness and the culture of enterprise) should be extradited from the official order of science, because these criteria clearly co-determine the success of the knowledge–political hybrids which have emerged as bridgeheads between so-called pure and more applied and policy-commited forms of research. It is not a matter of objecting in principle to the infiltration of economic and political metaphors, workstyles, and criteria of excellence in science.[16]But it is necessary to install speed limiting devices at regular intervals which brake the pace of the hasty cultures (both on the inside and the outside), freeing areas of stillness within which research and reflection may proceed more slowly and complacently. The pressures of globalization, the morality of publish or perish, the imperatives of academic entrepreneurship and self-generated funding, the competition for promotional image and education market share, the growing salience of the intellectual celebrity system, the relentless machinery of research and teaching assessments, the endless administrative restructurings, and the resultant hypertrophy of academic leadership and management (lots of talk in endless meetings, no time for writing) together produce a threatening acceleration which undermines the weak boundaries of science and turns the tempo and habitus of the fast decision-makers into an infrastructural routine. However, as both Plato and Nietzsche were aware, we need time in order to develop 'untimely' considerations. Or varying Konrád's (1990) title: scientific autonomy is indispendable for making slow observations in a fast time.

Notes

1 The discrepancy between 'doing' and 'saying' constitutes a foundational trope of all 'ideology critique' and a fundamental problem of all spokespersonship. In my interpretation, however, the classical rift between self-consciousness and observed practice does little else but polarize *two sayings*: what actors themselves say they are doing and *what I, the critical observer*, says they are 'actually' doing – an imposition which is immediately reified in terms of a 'really existing' paradox. See more extensively Pels (2000a: 14–15, 21–5). We should hence be careful not to mistake this critical phenomenology for a method of liberating 'objective' facts.

2 I should apologize at this point for cavalierly disregarding all differences in velocity between *forms of* political and economic decision-making, and more generally, between the systems of politics and business themselves. Political or bureaucratic procedures (such as citizen participation initiatives, legal procedures, or administrative planning trajectories) are capable of seriously arresting and frustrating economic initiatives (e.g. by project developers). Juridical procedures are often resorted to both within and outside of politics as effective mechanisms of deceleration. Within the economic field, it is especially the financial and speculative markets (see the utter nervosity of the stockjobber) and the high-tech and dotcom companies that whip up the pace of circulation. For an interesting perspective on the 'uneasy dialogue' between speed and democracy, see Chesneaux (2000). In highlighting the close association between speed and totalitarianism, Virilio's 'dromology' similarly implies an argument for the critical slowdown of the pace of politics, which has succumbed to the logic of potential catastrophe and must regain the time and space of deliberation and discussion which is identified as its essential work (cf. Kellner, 1999: 107). Santiso (2000) interestingly thematizes the temporal conflict between 'political sluggishness' and 'economic speed' in terms of contemporary drives for entrepreneurialism and privatization.

3 Milton and other ethnographers report that members of misnamed 'primitive' peoples such as Brazilian Indians, the Ituri of Zaire, and Australian Aboriginals incessantly talk to one another, indicating the crucial importance of the oral transmission of culture; compare the silence and privacy of reading in our own culture (Wood, 1993: 44). Ong submits that 'writing is a solipsistic enterprise. I write a book which I hope will be read by hundreds of thousands of people, and that is why I must isolate myself from everyone' (1982: 101). Goody describes a typical academic workday as consisting primarily of reading, typing, and writing memos, during which virtually the only oral communication is voice-to-voice on the phone rather than face-to-face (Goody, 1987: 299–300). This slow circuit of objectification is intimately tied to specific materialities: thinking is impossible without reading books, holding a pen to paper, typing on a keyboard and looking at a screen, correcting printouts, and, finally, reading one's own article or book. Texts emerge from an intense visual (and silent) interaction between an object and a thinking mind, slowly taking shape through a circuit of revisions and fine-tunings; thinking is therefore inconceivable without this remarkable object-attention and this pragmatic (rather than epistemological) practice of reification.

4 The knowledge–political continuum is hence also a *decisionistic* continuum, across which of course the objects, nature, and especially the pace of decisions 'decisively' differ. In this light, Habermas's 'ideal speech situation' is not a situation in which truth and power or knowledge and decision should be kept divorced in principled fashion, but a situation in which decisions can be postponed a little while longer, for example, because one decides to 'wait' for others who so far lack a voice in the discussion. The ideal speech situation is therefore not so much ideal because its linguistic deep structure is oriented towards communicative consensus, but because it enables a critical unhastening of the tempo of communication.

5 The Socratic dialogues already offer strong suggestions that philosophizing is not only linked to a specific form of *agoraphobia*, but also to a specific *deceleration* of the tempo of communicative interaction, but they immediately bury these pragmatic spatio-temporal conditions in a fundamentalist truth discourse. In Plato's *Theaetetus*, philosophers and political rhetoricians are, for example, contrasted as free men to slaves, precisely because the former have all the time in the world (see the epigraph

to this article), whereas the latter are always in a hurry, as a result of which their speech acquires a 'tensionful and neurotic' character (e.g. Plato, 1987: 172c–173a; cf. Bourdieu, 1998a: 128–9). Could the 'stammering' for which Callicles reproaches the Socratic philosophers not be a deliberate attempt *to try to think and speak more slowly* than sophists and political demagogues? (e.g. Plato, 1994: 484d, e; 486b).

6 Cf. also Bourdieu's critical analysis of 'fast thinking' and the intellectual 'fast food' which is served up by thinkers who are seduced by the swift velocities of the media and the background logic of commercialization (Bourdieu, 1998b). See also his general analysis of the 'scholastic disposition' and 'free time' as conditions of existence of all scholarly fields (1998a: 128–9; 2000, *passim*).

7 Such a both/and or balancing model appears to accommodate recent conceptualizations of the 'cultural economy', while advocating a notion about demarcation which does not fall back upon 'Kantian' essentialist arguments (cf. Ray and Sayer, 1999; du Gay and Pryke, 2002). The issue of the performativity of economics and the cultural constitution of markets is further pursued by Callon (1998), whose views are recently debated in a special issue of *Economy and Society* (Barry and Slater, 2002). Cf. also Steinmetz (1999) for a variety of approaches to the state/culture nexus after the 'cultural turn'. And completing the triangle, see Pels (1998) for a general discussion of 'political economy' in terms of the historical demarcations and fusions between the discourses of property and power.

8 This includes the boxes-within-boxes schema as proposed by Bourdieu, which still depends on a last instance model of economic determination (cf. Bourdieu, 1993: 38).

9 On the ontological primacy question, see Pels (1993: 214ff.; 1998: *passim*).

10 The Kantian doctrine of the three spheres of culture (knowledge, morality, and aesthetics) was generalized and received a sociological twist in Weber's articulation of autonomous 'value spheres' (such as religion, the economy, the polity, the aesthetic, the erotic and the intellectual realms), each of which answered to its own indigenous logic and its autonomous norms and laws (cf. Brubaker, 1984: 69ff; Crook et al., 1992: 8ff., 47–8; Whimster and Lash, 1987: 9–12). Whereas the Kantian threefold division of culture still singled out Reason as the privileged element which remained 'in charge' of and unified the others (while also supervising the broader demarcation between culture and society), Weber's contrasting view was that the value spheres stood in irreconcilable conflict with each other (Weber, 1991: 123, 147), and that there was no ultimate sphere which could arbitrate between their conflicting obligations and demands.

11 Postmodernity as de-differentiation is also thematized in Lash (1990); Urry (1990: 82); Featherstone (1991); Lash and Urry (1994); Etzkowitz and Leydesdorff (1997); Etzkowitz et al. (1998); Beck (1997: 27); Ritzer (1999: 132ff.); Ray and Sayer (1999).

12 Cf. Beck's (1992; 1997) conception of 'sub-politics' or Giddens's (1991) notion of 'life politics'.

13 The intimate connection between time and power is illustrated by the irritating fact that 'very important persons', who 'cannot waste their time', are always in a hurry and always arrive late, forcing 'ordinary people' to wait for them (Bourdieu, 2000: 224, 226, 228; cf. also Adam, 1990: 121–5; Schwartz, 1974).

14 See Pels (2000: 193ff.) for a pragmatic approach to social distances or 'orders of estrangement', which introduce a routinized 'stalling' or 'halting' of the ordinary flow of events and thereby stretch the reflexivity of everyday action into a methodical form of life. Such a pragmatic linkage between cultural fermentation and distanciation in

time (unhastening) and space (de-centring or estrangement) establishes minimal, relative, and contextually sensitive conditions for intellectual autonomy which are not fixed by the unconditional sublimity of an epistemology of truth. The much-glorified 'methodical doubt' of science is not produced by a sublimating ascetic, but results from a pragmatic resolve to provisionally postpone a specific intellectual decision. Everyone knows that there is an immediate and inverse relationship between doubt and speed of action; science does not aim for certainty but for *un*certainty and hence the *in*capacity to act.

15 In the present context, it is pertinent that Latour distinguishes between scientists and politicians by noting that the former have laboratories at their disposal while the latter do not. This enables scientists to experiment and multiply mistakes before 'coming out' with their propositions. Despite the fact that Latour refuses to separate the interior world of science from its social 'exterior', he therefore implicitly calculates the existence of a place apart in which one is able to capitalize on intellectual effects of unhastening. Even more significant is his attention to *inscriptions* as the typical product of such decelerated interaction (e.g. Latour, 1983). However, it seems that Latour's 'political' analysis of scientific fact production too readily identifies the practical materiality of inscription with the inevitability of epistemological reification. Although facts are of course solidified by being written down, the *way in which* they are written down (e.g. as mirrors of nature, or as reflexive instances of circular reasoning, cf. Pels, 2000b) permit of critical differences which do matter if one wishes to discriminate between bad forms of reasoning and better ones.

16 Strictly speaking, of course, the admission of political and economic metaphors as descriptors of scientific practice may by itself generate effects of acceleration, while the charm of the older imagery of the 'ivory tower' was precisely to preserve the idea of reflective stillness. Acknowledgement of the epistemological salience of intellectual competition, scientific power play, and interests in reputational distinction, however, can very well be balanced by a political argument for deceleration which imposes specific speed restrictions which are enforced by institutional and technological immobilizers. In this view, science is a form of politics or economics continued by the *slower* means of observation, experiment, calculation, reading, and writing. Its specificity is put at risk when it is deflected towards the faster stakes of publicity, celebrity, profit-making, or managerial/political power.

References

Adam, Barbara (1990) *Time and Social Theory*. Cambridge: Polity Press.

—— (1995) *Timewatch: The Social Analysis of Time*. Cambridge: Polity Press.

Ágh, Attila (1989) 'The "Triangle Model" of Society and Beyond', in V. Gáthy (ed.) *State and Civil Society: Relationships in Flux*. Budapest: Institute of Sociology of the Hungarian Academy of Sciences.

Armitage, John (1999) 'Paul Virilio: An Introduction', in John Armitage (ed.) *Paul Virilio: From Modernism to Hypermodernism and Beyond*. London: Sage.

Barry, Andrew and Slater, Don, eds (2002) 'The Technological Economy', *Economy and Society* 31(2) (special issue).

Barthes, Roland (1977) *Image, Music, Text*. London: Collins.

Beck, Ulrich (1992) *Risk Society*. London: Sage.

—— (1997) *The Reinvention of Politics*. Cambridge: Polity Press.

Bourdieu, Pierre (1988) *Homo Academicus*. Cambridge: Polity Press.
—— (1993) *The Field of Cultural Production*. Cambridge: Polity Press.
—— (1998a) *Practical Reason: On the Theory of Action*. Cambridge: Polity Press.
—— (1998b) *On Television and Journalism*. London: Pluto Press.
—— (2000) *Pascalian Meditations*. Cambridge: Polity Press.
Brubaker, Rogers (1984) *The Limits of Rationality*. London: Allen & Unwin.
Bucchi, Massimiano (1998) *Science and the Media: Alternative Routes in Scientific Communication*. London: Routledge.
Callon, Michel, ed. (1998) *The Laws of the Markets*. Oxford: Blackwell.
Chesneaux, Jean (2000) 'Speed and Democracy: An Uneasy Dialogue', in Marc Bessin and Giovanni Gasparini (eds) 'Symposium: Speed and Social Life', *Social Science Information* 39(2) and 39(3).
Corner, John and Pels, Dick, eds (2003, forthcoming) *Media and the Restyling of Politics: Consumerism, Celebrity, and Cynicism*. London: Sage.
Cozzens, Susan (1990) 'Autonomy and Power in Science', in Susan Cozzens and Tom Gieryn (eds) *Theories of Science in Society*. Bloomington, IN: Indiana University Press.
Crook, Stephen, Pakulski, Jan and Waters, Malcolm (1992) *Postmodernization: Change in Advanced Societies*. London: Sage.
Dahlgren, Peter (1992) 'Introduction', in Peter Dahlgren and Colin Sparks (eds) *Journalism and Popular Culture*. London: Sage.
—— (2001) 'The Transformation of Democracy?' in Barrie Axford and Richard Huggins (eds) *New Media and Politics*. London: Sage.
du Gay, Paul and Pryke, Michael, eds (2002) *Cultural Economy: Cultural Analysis and Commercial Life*. London: Sage.
Eriksen, Thomas H. (2001) *Tyranny of the Moment: Fast and Slow Time in the Information Age*. London: Pluto Press.
Etzkowitz, Henry and Leydesdorff, Loet, eds (1997) *Universities in the Global Economy: A Triple Helix of University–Industry–Government Relations*. London: Pinter.
Etzkowitz, Henry, Webster, Andrew and Healey, Peter, eds (1998) *Capitalizing Knowledge: New Intersections of Industry and Academia*. Albany, NY: SUNY Press.
Finnegan, Ruth (1988) *Literacy and Orality: Studies in the Technology of Communication*. Oxford: Blackwell.
Fiske, John (1992) 'Popularity and the Politics of Information', in Peter Dahlgren and Colin Sparks (eds) *Journalism and Popular Culture*. London: Sage.
Fox Keller, Evelyn (1985) *Reflections on Gender and Science*. New Haven, CT: Yale University Press.
Giddens, Anthony (1987) *Social Theory and Modern Sociology*. Cambridge: Polity Press.
—— (1991) *Modernity and Self-Identity*. Cambridge: Polity Press.
Gieryn, Tom (1983) 'Boundary-Work and the Demarcation of Science from Non-Science: Strains and Interests in Professional Ideologies of Scientists', *American Sociological Review* 48: 781–95.
—— (1995) 'Boundaries of Science', in Sheila Jasanoff, Gerry E. Markle, Jan C. Petersen and Trevor Pinch (eds) *Handbook of Science and Technology Studies*. London: Sage.
—— (1999) *Cultural Boundaries of Science: Credibility on the Line*. Chicago: University of Chicago Press.
Goody, Jack (1977) *The Domestication of the Savage Mind*. Cambridge: CUP.
—— (1987) *The Interface between the Written and the Oral*. Cambridge: CUP.
Goody, Jack and Watt, Ian (1968) 'The Consequences of Literacy', in Jack Goody (ed.) *Literacy in Traditional Societies*. Cambridge: Cambridge University Press.

Gurvitch, Georges (1964) *The Spectrum of Social Time*. Dordrecht: Reidel.
Haslam, Cheryl and Bryman, Alan, eds (1994) *Social Scientists Meet the Media*. London: Routledge.
Hirst, Paul (1994) *Associative Democracy*. Cambridge: Polity Press.
Kant, Immanuel (1992) *The Conflict of the Faculties*. Lincoln, NE: University of Nebraska Press.
Kellner, Douglas (1999) 'Virilio, War and Technology: Some Critical Reflections', in John Armitage (ed.) *Paul Virilio: From Modernism to Hypermodernism and Beyond*. London: Sage.
Konrád, George (1990) *Langzame opmerkingen in een snelle tijd*. Amsterdam: Van Gennep.
Lash, Scott (1990) *Sociology of Postmodernism*. London: Routledge.
Lash, Scott and Urry, John (1994) *Economies of Sign and Space*. London: Sage.
Latour, Bruno (1983) 'Give Me a Laboratory and I Will Raise the World', in Karin Knorr and Michael Mulkay (eds) *Science Observed*. London: Sage.
—— (1993) *We Have Never Been Modern*. Cambridge, MA: Harvard University Press.
Leydesdorff, Loet (1995) 'The Triple Helix as a Social Achievement: Evolutionary Origins and Consequences of Triadic Communications', *EASST Review* 14(1): 70–3.
Luhmann, Niklas (1982) *The Differentation of Society*. New York: Columbia University Press.
Marshall, P. David (1997) *Celebrity and Power: Fame in Contemporary Culture*. Minneapolis, MN: University of Minnesota Press.
Meyrowitz, Joshua (1985) *No Sense of Place: The Impact of Electronic Media on Social Behavior*. New York: Oxford University Press.
Ong, Walter J. (1982) *Literacy and Orality: The Technologization of the World*. London: Methuen.
Pels, Dick (1990) 'De natuurlijke saamhorigheid van feiten en waarden', *Kennis & Methode* 14(1): 14–43.
—— (1993) *Het democratisch verschil: Jacques de Kadt en de nieuwe elite*. Amsterdam: Van Gennep.
—— (1998) *Property and Power in Social Theory: A Study in Intellectual Rivalry*. London: Routledge.
—— (2000a) *The Intellectual as Stranger: Studies in Spokespersonship*. London: Routledge.
—— (2000b) 'Reflexivity: One Step Up', *Theory, Culture & Society* 17(3): 1–25.
Plato (1987) *The Last Days of Socrates*. Harmondsworth: Penguin Books.
—— (1994) *Gorgias*. Oxford: Oxford University Press.
Ray, Larry and Sayer, Andrew, eds (1999) *Culture and Economy after the Cultural Turn*. London: Sage.
Rifkin, Jeremy (1987) *Time Wars*. New York: Henry Holt.
Ritzer, G. (1999) *Enchanting a Disenchanted World*. London: Sage.
Santiso, Javier (2000) 'Political Sluggishness and Economic Speed: A Latin American Perspective', in Marc Bessin and Giovanni Gasparini (eds) 'Symposium: Speed and Social Life', *Social Science Information* 39(2) and 39(3).
Schwartz, Bernard (1974) 'Waiting, Exchange, and Power: The Distribution of Time in Social Systems', *American Journal of Sociology* 79: 841–70.
Scott, John and Street, John (2000) 'From Media Politics to E-Protest: The Use of Popular Culture and New Media in Parties and Social Movements', *Information, Communication and Society* 3(2): 215–40.

Slaughter, Sheila and Leslie, Larry L. (1997) *Academic Capitalism: Politics, Policies and the Entrepreneurial University*. Baltimore, MD: Johns Hopkins University Press.
Stafford, Barbara (1994) *Artful Science*. Cambridge, MA: MIT Press.
Steinmetz, George, ed. (1999) *State/Culture: State Formation after the Cultural Turn*. Ithaca, NY: Cornell University Press.
Street, B.V. (1984) *Literacy in Theory and Practice*. Cambridge: CUP.
Sturken, Marita and Cartwright, Lisa (2001) *Practices of Looking: An Introduction to Visual Culture*. Oxford: Oxford University Press.
Thompson, John (2000) *Political Scandal*. Cambridge: Polity Press.
Thrift, Nigel (1999) 'Capitalism's Cultural Turn', in Larry Ray and Andrew Sayer (eds) *Culture and Economy after the Cultural Turn*. London: Sage.
—— (2002) 'Performing Cultures in the New Economy', in Paul du Gay and Michael Pryke (eds) *Cultural Economy: Cultural Analysis and Commercial Life*. London: Sage.
Urry, John (1990) *The Tourist Gaze*. London: Sage.
Virilio, Paul (1986) *Speed and Politics: An Essay on Dromology*. New York: Semiotext(e).
Walzer, Michael (1984) 'Liberalism and the Art of Separation', *Political Theory* 12(3): 315–30.
Weber, Max (1991) *From Max Weber: Essays in Sociology*, ed. Hans Gerth and C. Wright Mills. London: Routledge.
Whimster, Sam and Lash, Scott (1987) 'Introduction', in Scott Lash and Sam Whimster (eds) *Max Weber: Rationality and Modernity*. London: Allen & Unwin.
Wood, Denis (1993) *The Power of Maps*. London: Routledge.
Young, Michael and Schuller, Toby, eds (1988) *The Rhythms of Society*. London: Routledge.

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