

Hypercapitalism

An investigation into the relationship between language, new media, and social perceptions of value

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Statement of original authorship

This thesis is submitted to the Queensland University of Technology in fulfilment of the requirements for the Degree of Doctor of Philosophy.

The thesis represents my own work and contains no material which has been previously submitted for a degree or diploma at this university or any other institution, except where due acknowledgment is made.

Signature

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Date

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Notes on the structure and format of the thesis for readers

This thesis is by publication. Chapters 2-7 are either published, in press, or under review. The other materials presented here (Abstract, Introduction, Chapters 1 and 8) link and summarise the research to provide the reader with a coherent research narrative. Reference lists are provided for each separate section and publication rather than at the end of the thesis. Appendices for particular publications are presented as part of the publications rather than at the end of the thesis.

List of publications in order of presentation

Graham, P. (1999). Critical systems theory: A political economy of language, thought, and technology. Communication Research, 26 (4), 482-507.

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_____. (forthcoming). Time, space, and political economy: A history of hype and hypercapitalism. [MS under review for The Information Society].

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Publications in appendices:

McKenna, B. & _____. (2000). Technocratic Discourse: A primer. Journal of Technical Writing and Communication, 30, (3): 219-247.

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Abstract

Overall, this thesis purports to make two significant contributions to knowledge. The first is a foundational critique of political economy in the context of an emergent global knowledge economy. The second is a method for analysing evaluations in language. The relationships that give coherence to those two contributions are as follows. The widely-heralded emergence of a knowledge economy indicates that more intimate aspects of human activity have become exposed to commodification on a massive scale, specifically, activities associated with thought and language. Correspondingly, more abstract forms of value have developed as the products of thought and language have become dominant commodity forms. Historical investigation shows that value has moved from an objective category in political economy, pertaining to such substances as precious metals and land, to become situated today predominantly in “expert” expressions of language, or more precisely, their institutional contexts of production. These are now propagated and circulated on a global scale. Legal, political, and technological developments are key in the development of new, more abstract forms of labour and value, although the relationships connecting these are neither simple nor direct. They are, however, inseparably related in the trajectories that this thesis describes. Consequently they are dealt with inseparably throughout.

The first publication presented here (Chapter 2) is Critical Systems Theory: A political economy of language, thought, and technology. This paper presents the foundational social theory of the thesis; briefly outlines the historical trajectory of

value and its relationship with commodity forms; and, finally, demonstrates a method for analysing the ‘technocratic discourses’ of knowledge policy. The method was developed in collaboration with McKenna (McKenna and Graham, 2000, Appendix 2). Critical Systems Theory shows the complementarity and relevance of autopoiesis, critical discourse analysis (CDA), and aspects of Marx’s critical approach for understanding the nature of the currently emergent politico-economic system. It synthesises these social systemic perspectives to demonstrate that the ‘knowledge economy’, at least as it is currently construed in policy, is necessarily a political economy of language, thought, and technology. An Australian policy document is analysed to demonstrate the relationship between theory and method. The paper provides a critique that emphasises the considerable gap between the claims of policy and the social realities of ‘globalised’ humanity.

The second publication (Chapter 3) is Hypercapitalism: A political economy of informational idealism. This paper is more historically oriented and problematises the tenets of classical political economy in the context of a globally mediated knowledge economy. It emphasises the need to distinguish between the ‘things’ and ‘processes’ of political economy; between ‘phenomenological’ and ‘systemic’ aspects of capital as a system of social organisation. The paper highlights otherwise hidden convergences that are directly contingent upon the development, deployment, and use of new media. These convergences are: the increasingly abstract and alienated nature of economic value; the subsumption of all labour - material and intellectual - under commodity logic; and the conceptual convergence of formerly distinct spheres of analysis –the spheres of production, circulation, and consumption.

The paper identifies historical convergences in the social functions of media and language. It is a comprehensive historical statement of the problem addressed throughout the thesis—the linguistification of value; the increasingly mediated nature of language; and the increased significance of institutional mediations in the development of the former two trajectories.

The third publication (Chapter 4) is Time, space, new media, and political economy: A history of hype and hypercapitalism. This publication draws largely on Innis's (1951) approach to extend and embellish the theoretical argument outlined in Hypercapitalism (Chapter 3). In this paper, I present the elements of space and time as foundational to any understanding of political economy. I also present them as important concepts for understanding media, whether as content or as social technologies. A 'double dialectic' is elaborated that shows the close historical relation between time and myth, and between space and rationality. These relationships are also presented "upside-down"—myth is technology, and communication technologies appear firstly as myth; rationally calculated space is both an artefact of rational calculation and a speculative technique. Time and space are both expressed as numerically derived measurements of concrete, actually existing environments. I present the number system as a 'solvent' into which the disparate realms of time and space are synthetically but powerfully resolved, first in favour of time, then space.

In commercial media environments, time and space are sold according to the nature of the medium. Time and space are the basis of any economy, yet they remain

our most problematic concepts, especially when the products of media processes become dominant commodity forms. Because most of the inhabitable space on Earth is now largely used up by people, the emergent politico-economic system is oriented towards time-based commodities that exist only in some imagined future. Looked at differently, such time-based commodity-forms are probability spaces. Technical and legal languages are implicated as fundamental to the definition and legitimation of these kinds of commodities.

The fourth publication I present (Chapter 5) is Predication and propagation: A method for analysing evaluative meanings in technology policy. The paper synthesises the methods developed by Martin (2000) and Lemke (1998) for analysing evaluations in English. I present and demonstrate the synthesis of these methods using data from a 1.3 million-word corpus of technology policy documents collected from legislatures throughout the world. There is an emphasis in the method on distinguishing between the different construals of value for Substances and Processes, relating these interdependent aspects of language to time- and space-oriented construals of the world. I emphasise the need to understand what Lemke (1998) calls the phenomenon of ‘evaluative propagation’, and argue for the need to consider genre, media, and institutional aspects more explicitly when claiming intertextual and heteroglossic relations as the basis for attributing propagated evaluations.

A basic assertion of this paper is that the perceived Desirability of a process, person, circumstance, or thing is identical to its “value”. But the Desirability of

anything is a socially and thus historically conditioned attribution that requires significant amounts of institutional inculcation of other “types” of value – appropriateness, importance, beauty, power, and so on – for anything perceived to be of value, including expert dialects. The methodical synthesis is informed by critical discourse analysis (CDA) principles and sees evaluation as happening on at least four interdependent levels of abstraction. The method further elaborates the theoretical and historical aspects outlined in previous chapters to make explicit links between political economy, language, perceptions of value, and media.

The fifth publication of the thesis (Chapter 6) is Space: Irrealis objects in technology policy and their role in a new political economy. Here, drawing further on examples from the same corpus, I show how new spaces – social and geotechnical – are being prefigured in policy language for “enclosure” and colonisation in the new economy. Social space is the time-based product of human activity. Such activities are the major focus of the corpus: education, art, communication, imagination, “markets”, genetic engineering, software development, and so forth. However, there is a global geotechnical space, similar in character to land, sea, and airspace, currently being prefigured for privatisation and enclosure: global electromagnetic space. This aspect of space, presupposed and thus substantively absent from discussion in the policy corpus, has far more historical significance than the social space aspect which is foregrounded in earlier chapters, and in the corpus. It is this aspect – the global privatisation of “electrospace” – that marks the current period as historically unique, perhaps as unique as the periods during which feudalism and capitalism were first formalised, because it implies the privatisation of a major

foundation of twentieth century political power. By way of method, the paper foregrounds a functional aspect of language, a part of grammatical metaphor called process metaphor, to show how aspects of human activity are prefigured for mass commodification by the manipulation of irrealis spaces in policy language.

The final publication presented in the thesis (Chapter 7) is Space and cyberspace: On the enclosure of consciousness. This chapter frames the creation of cyberspace as the enclosure of consciousness, emphasising the spatial foundations of political economy especially in relation to human activity, which is its time element. It is a commonplace bias of every age to think of itself as historically unique. At some level, this is necessarily true for every moment in history. However, there are very few ages during which the relationships between great masses of people, and between them and their concrete spatial environments, are redefined on such a far-reaching and fundamental level as is the case today. The privatisation of global electrospace – perhaps – distinguishes the current era from others as historically unique, as some sort of turning point. The enclosures movement was another such age, as was the formal definition of the feudal system in Europe during the late twelfth century. These periods combined the legal formalisation of previously informal networks of social relations with the “legal” reallocation of concrete space. All are media-related phenomena; all turn on the power of political and legal languages; and all are characterised by profound changes in the relationships between people at very fundamental levels.

This chapter indicates that the material of the thesis, while treated as artefacts of capitalism in earlier chapters, are more artefacts of something much older, more perennial, and more fundamental to the human condition. Legal language and the right to define and formalise human relationships within specific spaces becomes entangled in media history and political economy, placing the phenomenon of the “knowledge economy” in a much broader historical context than that of industrial capitalism. In this respect, the final chapter raises more fundamental questions about our current period than its status as merely an extension of capitalism.

Keywords • Political economy • Hypercapitalism • Economic history • Media history • New media and society • Critical discourse analysis • Language and value

Introduction

Description of the research problem

The knowledge economy is widely assumed in policy circles and elsewhere to be the result of new media that facilitate the production and exchange of knowledge between people and groups of people on a global scale. Further, it is also assumed that the forms of social relatedness peculiar to nation-based industrial capitalism will dissolve into those more appropriate to a global knowledge economy. The nature of knowledge and its status as a commodity form immediately become problematic. Rather than retreat into epistemology, I accept the claims that knowledge can become a dominant commodity form; that a global economy can be built on such forms; and that our new media must, in some fundamental way, underpin the emergence of this new form of political economy.

At this point, if we accept the broadest claims made about the “new economy”, the problems of understanding a knowledge economy become analogous to the problems facing classical political economy: namely, to identify the historical differences in production, distribution, and consumption; circulation, exchange, and value that characterise the forms of social relatedness peculiar to a global knowledge economy as historically unique. As a “substance”, knowledge is ultimately ineffable. As a process, it is incredibly complex. Nevertheless, any knowledge economy based on the logic of commodity production must involve specific forms of labour, the products of which can be owned separately from the people that produce them. In other words, knowers and their knowledge must be separable and separated, and title in the products of conscious activity must be able to pass from person to person. New

property laws and new technologies are thus presupposed in the full development any knowledge economy—new laws to distinguish between the conscious activity of people and ownership in the products of that activity; new technologies for the production, distribution, circulation, and exchange of knowledge commodities.

It is here that the perceived value of knowledge becomes problematic. Since all people are also knowers, all are potential producers of knowledge commodities, that is, creators of value in a knowledge economy. How are knowledge, knowers, and ways of knowing to be valued? Who is to say what is valuable knowledge and what is not? How would they do it? The problem then becomes one of knowledge about the value of knowledge. Privileged ways of knowing are implicated and the research problem becomes fully blown: not only is the legal separation between knowers and their knowledge presupposed in a knowledge economy, but a separate existence for the value of knowledge must also be assumed. Here, knowers, ways of knowing, knowledge, and the value thereof become artificially separated “things”.

In historical isolation, the problem is intractable. It is an intrinsically historical problem that demands an intrinsically historical explanation, not only of how socially embedded persons would turn the very source of social cohesion into dominant and alienable commodity forms, but also of how certain people from certain social domains can claim – or are granted – the privilege to define what will count as valuable knowledge and which people will count as valued knowers. In the final analysis, privilege is an artefact of more or less formal relationships that are established historically within specific social and cultural contexts. That is to say, privilege is itself produced. Therefore the production and reproduction of privilege is

a focal point for the analysis of any knowledge economy. Moreover, relations of privilege are inherently bound up in, and defined by, specific modes of expression – specialist dialects – because knowing and knowledge are socially inaccessible by means other than some form of language (meant here in the broadest sense of the word).

To establish the historical significance of the knowledge economy, the research problem must therefore be formulated so as to grasp the relationship between language, privilege, and the perceived value of knowers and knowledge; to grasp the effects of new media and their relationship to changes in conceptions about the character of knowledge; and, since knowledge, new media, language, and value are perennial and dynamic influences in human societies, to identify what marks the current transition in social relations as historically significant or unique. The research problem is therefore formulated as an historical investigation into the relationship between language, new media, and social perceptions of value.

Overall objectives of the research

The primary objective of the research is theoretical. Specifically, the research sets out to describe the relationship between new media, language, and social perceptions of value. That is, the thesis purports to identify, describe, and analyse specific aspects of contemporary technology policy language that contribute to the emergence of new value systems within society, and how these value systems emerge and are propagated as new media become dominant in the production and exchange of meaning. In this respect, the theoretical objective is best described as the development of a political economy of language and new media.

Specific aims of the research

The specific aims of the research are as follows:

- to identify the relationship between value determination and policy language;
- to elaborate and demonstrate a method for analysing evaluations made in policy language;
- to critically examine the capacity of classical political economy's conceptual apparatus in the context of a knowledge economy under current circumstances;
- to identify and elaborate historical relationships between new media, language, and perceptions of value;
- to identify relationships and trends that characterise the current period as historically unique.

An account of research progress linking the presented papers

The research presented here progressed along four interdependent lines which are given coherence by the objectives outlined above: i) problematising the concept of a knowledge economy in the context of capitalist political economy; ii) historicising the phenomena that are claimed as the basis for an emergent knowledge economy; iii) identifying ways of critically analysing dominant language practices that are, to a large extent, shaping the development of a new form of political economy, especially in respect of value-relations; and, iv) critically examining the

capacity of classical political economy to identify the major trajectories of the current era.

The papers presented here are major “signposts” in a much larger body of work which has been published, accepted for publication, or submitted for review over the course of the research (see [Appendix 1, Related Publications](#)). The reader will note a distinct shift in the orientation of the research as it develops. It is a shift in understanding: initially, the current system is viewed as merely an extension of capitalism, operating on the logic of capital; later, the current period is viewed as transitional and ephemeral, precisely because of its place in a trajectory that is pre-capitalist in content. The initial questions posed here arose out of a fascination with the speculative excesses and hyperbolic claims that accompanied the emergence of new ICTs as influential media of communication. McKenna and I put forward an analytical perspective for engaging the ‘technocratic discourses’ of “globalisation” (McKenna and Graham, 2000), and a theoretical perspective based in autopoiesis for understanding the role of language in human social systems (Graham and McKenna, 2000).

These early efforts were in large part a response to what are characteristic trends in contemporary political economy: the phenomena of corporate “mega-mergers”; of “globalisation” in general; and the emergence of supranational “apolitical” legislative bodies, such as the International Monetary Fund (IMF). A direct outcome of massive corporate mergers (as exemplified by that between Time Warner and America On Line) has been to create socially owned corporate entities which are considered to be more powerful and valuable than whole nations. A glaring

paradox of such phenomena is that they require the endorsement of national legislatures for their legitimacy—they require governments to endorse the existence of a corporate ‘person’ larger and more powerful than the nations from which they have emerged. Therefore perceived qualitative and logical disjunctions drove early analysis and theoretical development in the direction of understanding the logical assumptions of policy makers on the one hand, and the theoretical limits to human organisations on the other. Both directions implicated language as a decisive aspect in the constitution and transformation of human social systems.

Up to this point, I had treated political economy as tangential and, at most, marginal to the analysis of contemporary developments, focusing rather on the communicative and social-systemic aspects of the phenomena associated with “globalisation”. The extent to which media industries appeared to be implicated in the propagation of globalist rhetoric, though, led me towards literature concerned with the political economy of media, and, in the first instance, Horkheimer and Adorno’s (1947/1998) critique of The Culture Industry. By way of positioning myself in the research, this piece was pivotal. As a “cultural labourer” in the media industries for some twenty years, I recognised in The Culture Industry a perspective that resonated with my own experiences and perceptions of media industries. It was necessary for my own understanding of Horkheimer and Adorno to read Marx’s critique of Capital (1976, 1978, 1981) which provides, of course, the major perspectival underpinnings for them. At this point, I began developing a notion of Hypercapitalism (Chapter 3).

I recognised in Marx a critical sensitivity to the language of political economy (Fairclough and Graham, forthcoming) and an affinity to what is now called, broadly, ‘self-organising’ systems theory (cf. Graham and McKenna, 2000). Critical Systems Theory (Chapter 2) shows the perceived complementarity of the three broad perspectives informing the research at its most fundamental level: a critical discourse analysis (CDA) approach underpinned by systemic functional linguistics (SFL); a theory of human social systems as living organisations, underpinned by autopoiesis; and Marx’s historical materialist critique of classical political economy. The synthesis of these perspectives presented in Critical Systems Theory is more demonstrative of theoretical affinities between these ostensibly diverse perspectives than it is definitive of the research project. Its strength is that it provides an interpretation of Marx that perhaps mitigates against more dogmatic, teleological, and dualist interpretations. A limiting aspect is that the paper situates current trends solely within the purview of industrial capitalism, even though the implications of the theoretical synthesis perhaps ought to have suggested otherwise. Critical Systems Theory marks the point at which the research orientation moves from a concern with systems theory and the logic of policy language towards a perspective more grounded in the problems of classical political economy, the values of policy language, and conceptions of value in general.

This becomes more apparent in Hypercapitalism (Chapter 3). This chapter situates the research problem in media history and capitalist political economy, emphasising the increasingly intimate aspects of humanity that have become commodified as the systemic logic of capital and its associated technologies have advanced. Here I advance the argument that human consciousness has become the

primary focus of global commodity production. A concomitant assertion of this chapter is that knowledge commodities – commodified aspects of thought and language – are as material as any other product of human activity, thus arguing against what I perceive to be a Cartesian dualism in much of the literature influenced by Marx, or otherwise “Marxist” literature: namely, the perceived split between language and thought on the one hand, and material existence on the other. I see this as an unhelpful and false distinction, especially in the context of what has become a form of political economy in which the most prevalent commodity forms are symbolic products of human imagination. Furthermore, there is no indication that Marx made such a separation.

Hypercapitalism problematises some of the fundamental categories in classical political economy in terms of their suitability for grasping the nature of the current system. It also shows that some of the more neglected aspects of Marx’s critique, especially those to do with the relationship between circulation time and value, can be of use in understanding the nature of current developments in socio-economic relationships. The role of media in political economy is further emphasised, and language is further implicated as a decisive factor in the determination of value and in the exercise of power. The close and intimate relations between perceptions of value, the expert dialects of technocratic power, or more importantly, the socio-historical contexts of their production, are put forward as the focus for a study of contemporary political economy. Historical and media aspects are again emphasised as important to understanding the genesis of political power and its expression as ‘sacred’ forms of knowledge, language, power, and value.

Time, space, and political economy (Chapter 4) extends the argument in Hypercapitalism. Drawing more directly on Innis's (e.g. 1950, 1951) work, it lays out the fundamental paradoxes that an historical materialist account of our current knowledge economy needs to consider: namely, the meaning of time and space as it is affected by media use. It becomes apparent that the phenomenon of the 'knowledge economy' is archaic in content, and intimately connected with the religious impulse. New media are historically repositioned as fundamental to understanding the history of knowledge monopolies, such as those exercised by the mediaeval church. The close connections between the character of specific media, their associated technologies of expression, and their suitability for emphasising the meaning of time at the expense of space in the case of particular media (and vice versa in the case of others) is shown in relation to recent communication technologies. This is exemplified in a brief history of electronic media, beginning with the telegraph.

The current system of networked digital media is biased towards disruptions in the social meaning of space by dint of its extreme prejudice against time and memory: conceptual time between people and places is abolished in terms of circulation time. And the circulation time of symbolic commodities is a core aspect of our new media in terms of political economy. According to the logic of capital, massive capital – capital welded to space – can be substituted by an increase in the circulation rate of money. The logic of a system oriented towards exchange-value therefore favours a mediated form of productive relationships that spans the entire planet, and which facilitates massive, continuous, light-speed transactions of symbolic commodities, such as money.

The meaning of time and space thus become problematic. The “knowledge economy” appears as the ultimate expression of a systemic bias towards the substitution of substantial production (constrained by space) for monetary circulation (constrained by time) wherever possible. Here, time-oriented symbolic commodities, such as debt and speculation, appear as the technical production and manipulation of probability spaces. The dominant forms of labour peculiar to such an economy – specialised conscious human activity – appears to lose its spatial aspect, its localised nature, and is expressed as amounts of time. Time, space, and political economy foregrounds the confused conceptual relationships between value, space, and time within a global knowledge economy and foregrounds the need to understand the specialised discourses that produce the financial abstractions which constitute the bulk of global economic activities, along with their legitimacy, and their perceived value.

Predication and propagation (Chapter 5) is a method for analysing values in the specialised language of technology policy. The method was developed over three separate studies. The first focused on a small amount of text from an Australian policy statement (see Chapter 2; McKenna and Graham, 2000). The findings that came from this study gave little insight into how to analyse values in policy, but they did provide grounds for suspecting that the strictly logical aspects of policy might not provide much insight into what was actually being expressed. These suspicions were borne out over some months as I carried out extensive close analyses of policy statements produced by, for example, the IMF (Slaughter and Swagel, 1997), the Organisation for Economic Cooperation and Development [OECD] (1998), the Australian Federal Government (National Office for the Information Economy

[NOIE], 1998), and the Queensland State Government (Queensland Department of Communication and Information, Local Government and Planning [QDCILGP], 1999). Even after analysing this much larger policy corpus, which was representative of current policy produced at supranational, national, state, and local levels of government, there was little more to be said about the content, assumptions, logico-, or lexico-grammar than that identified in the studies I conducted in cooperation with McKenna (McKenna and Graham, 2000).

These analyses were conducted at the same time that I was developing the theoretical work presented in chapters 2-4 of this thesis. It became clear that the policy statements were primarily axiological; that is, the value systems that policy authors both propagate and draw upon appear to provide the primary coherence for the texts. From a strictly logical perspective, the policy documents make very little sense for the most part. The axiological bias of policy was further emphasised to me when I tried to investigate the policy production process through a large corpus collected by researchers from the University of Vienna (Weiss and Wodak, in press). There appeared, for instance, to be a complete disjunction between the values expressed by individual policy authors in personal interviews and those that were expressed in the policy statements they produced. The values expressed in the policies are institutional values which are inherently constrained by the institutionalised rituals of production peculiar to the “specialist committee” project structure, an increasingly widespread organisational model for policy production (cf. Wodak, in press).

Rationale for choosing the technology policy corpus: Value determination and policy

Some rationale for a focus on the language of technology policy is necessary at this stage. As I have noted above, this research began with a fascination for the high levels of financial speculation that fuel what is called the “global economy”. I became further fascinated by the incredibly abstract nature of the commodities, such as credit derivatives, that are traded as dominant forms within this system. These commodities do not appear from nowhere, newly hatched, with a determinate value attached to them. They firstly require some stamp of legality, or official legitimacy, to be traded with any openness and to any great extent. This can only be established in legislation within the realm of policy production, both national and supranational. They then need to be accepted as formally legal commodities within the realms in which they are traded. That much is clear.

But our abstract commodities are traded in rarefied social networks that most people will never have access to, at least not directly. Consequently, the authors of the policy corpus are largely unconcerned with such complex and vague commodity forms. The overt function of the documents is to promote the use of new ICTs in every realm of conscious human activity. Anything that can be digitised and traded will be, at least according to the policy authors (see Chapters 5 and 6). Whether or not this becomes the case remains to be seen. But that is not the point. The point is that policy is the source of legality and formal legitimacy in most “advanced” contemporary societies. Policy is the basis upon which resources are allocated; upon which certain actors are designated as powerful and authoritative persons within given social domains; and upon which conceptions of the common weal are

developed, transformed, and enacted. One need not assume that the dictates of policy will be perfectly translated into action. However, policy is the discursive edifice that expresses the methods, means, modes, and principles by which power and economic resources are distributed throughout societies. It is in policy that relationships between people are formalised and given legal expression. The values expressed in policy are thus the values which inform decisions about the legal principles, methods, means, and modes by which people interact; by which legitimacy is distributed; by which resources are distributed; and by which political and legal power are delegated.

Predication and propagation is therefore a method developed with a particular sensitivity to the policy genre. The paper emphasises the need to distinguish between Substances and Processes; between spatially-oriented and time-based elements; between the “things” of policy and the unrealistic outcomes of Processes that causally relate these “things”; and between the factual, or propositional content and the (primarily) hortatory function of policy which is expressed in overt or implied proposals for particular sorts of action. Distinguishing between these aspects is difficult because of the highly condensed language peculiar to the contemporary policy genre, and because of social and institutional pressures on the genre that tend to present “instructions for action” as “matters of fact”.

The method is designed primarily to trace out and distinguish between evaluations made for Substances and those for Processes, and sees evaluations happening at four distinct levels of abstraction. Often, because of the condensed nature of policy language, the kinds of evaluations made are the sole means by which Substance-Process distinctions can be made. The method also emphasises the

historical nature of value, especially the axiological resources that institutions of power have developed over millennia. It relates these to mediation processes, seeing the evaluative resources of power as a) the most heavily mediated and inculcated evaluative resources we have, and b) resources that are overlaid historically upon each other by virtue of their institutionally and technologically mediated nature. The method is informed by the theoretical developments in chapters 2-4, and is designed with a specific sensitivity to the time and space elements, both of which invoke distinctly different evaluative resources corresponding to specific processes of mediation. In Predication and propagation, the relationships between the language of policy, mediation processes, and evaluative assumptions are drawn together to form the basis of the method.

Space (Chapter 6) is an analysis of the role of irrealis objects in technology policy.¹ This chapter marks a turning point in my thinking on current trends in political economy, identifying them as extensions of pre-capitalist trajectories. To this point, I had assumed that most of the policy language propounding the “newness” of the emergent political economy was little more than so much hyperbole informed by the interests of technology industry itself, and that this form of political economy was little more than an accelerated form of capitalist political economy. And in all probability, this is the case for the most part. However, and this is an important distinction, throughout history there have been a very few significant periods in which concrete geotechnical spaces (e.g. land, sea, and air, which exist

¹ ‘Irrealis’ means, roughly, ‘potential’. The difference between “realis” and “irrealis” can be roughly mapped onto the difference between “actual” and “potential”.

independent of human activity) have been fundamentally redefined and reallocated on a massive scale.

At such times, previously informal relationships within those spaces have been formalised; social relations have been entirely transformed; and whole qualitatively different and new epochs have emerged as a direct result. Examples include the formalisation of feudal relationships in late-twelfth century Europe, the enclosures movement that prefigured industrial capitalism, and the formalisation of radio spectrum ownership at the beginning of the twentieth century. All of these were closely related to the emergence of new media (the widespread availability of paper in the twelfth century; movable type in the fifteenth; and radio in the early twentieth). Our current period might well be a similarly significant period because of moves to “privatise” global electromagnetic spectrum and formalise many of the informal relationships that exist – potentially and actually – within that space.

The chapter highlights a functional aspect of language I have called process metaphor. It is a powerful and deceptively simple phenomenon that is used to present unreal states as concrete, material action in the here and now. While the analysis foregrounds the construction of digital utopias, relating these to previous practices in the exercise of power, the political economic aspect of concrete geotechnical space and its significance for historical transformation is ultimately foregrounded as characterising the current period as actually a world-historical turning point. Little in the way of detailed historical comparison was possible in the paper because of space constraints but I have covered this in much more detail elsewhere (see Appendix 1, Digital Dark Ages, The Ideological Context of Business, Contradictions).

Space is firstly concerned with identifying the kinds of activities that are being prefigured in the technology policy corpus for formal commodification within the “knowledge economy”. The analysis then looks outside the main corpus at the language of a group of technocrats concerned with the privatisation of global radio spectrum. Here, new media, language, perceptions of value, and transformations in political economy become ultimately entangled. What I have called Hypercapitalism in earlier papers now appears to be an ephemeral, transitional phase, as supranational legal and political institutions are developed, and their predominance more comprehensively established.

The final publication presented here, Space and Cyberspace (Chapter 7), draws together the main themes of the research to show their significance for understanding and analysing our emergent form of social relatedness. The paper takes the reorganisation of electrospace, briefly outlined in Chapter 6, as its point of departure and sets current global political relations in an historical comparison with the period during which feudal relations were formalised in Europe. Of course I draw no direct identity between the two periods, nor do I assert that the current period is in any way an historical “return” to feudalism. The point is merely to highlight the dynamics of an international association of elites whose expertise is primarily legalistic – and therefore linguistic – in nature; whose connections are grounded in institutions whose legal authority transcends all previous boundaries and forms of organisation; and who are operating in a global environment of social degradation and fragmentation at all levels of the social world.

The role of legal language is to codify policy in order to define the meaning of particular spaces and to regulate human behaviour within them. Current technology policy is directed towards the conscious aspects of human activity: art, language, music, education, financial exchanges, and practically all forms of interaction between people. The intrusiveness of current global legislation goes further to define the ownership of ‘well known marks’ – configurations of colours, letters, images, sounds – and the value that knowledge of them is worth to their “owners”. The genetic codes of whole nations are now being traded like so much sorghum. While ‘goods of the mind’ and the ‘essence of life’ have become the most talked about of new commodities, relations between people are the primary focus for production in the “knowledge economy”. Meanwhile, traditional forms of relatedness – family, neighbourhood, and nationhood – are being transformed, not only by people’s deployment and use of ICTs, but in the legal language produced by people who make international policy and international law. The implications are not at all clear. But the impetus of the current trajectory appears to be oriented towards the global enclosure, transformation, and commodification of social consciousness at every level of the human socio-biological world.

Chapter 1

An overview of the argument and a review of relevant literature

An overview of the argument and a review of relevant literature

Introduction

As capital progresses as a system of social relationships, more intimate and intricate facets of human activity have become formally commodified. They have been incorporated into the logic of commodity production as saleable aspects of human activity, or what is commonly called labour. This general tendency is exemplified in terms like “knowledge worker” and “knowledge economy”. Such terms presuppose forms of labour which can be bought and sold in order to produce commodified artefacts of conscious activity – or what I have called ‘knowledge commodities’ (see Chapters 2, 3). These, in turn, can be alienated from their source (conscious human activity), technologically objectified, and then traded within an emergent “global economy”. This emergent economy is organised primarily around the production of symbolic artefacts and is facilitated by new information and communication technologies (ICTs). With this progression, new and more abstract forms of value have developed that correspond to the newly-formalised “labours of abstraction” in the knowledge economy. Although there is a connection between these two historical trends – the commodification of more intimate aspects of human activity and the development of more abstract forms of value – it is, I argue, neither obvious nor direct. Rather, it is an expression of dialectical relationships between language; its processes of mediation; technological development in general; and the systemic social logics of production, reproduction, and transformation peculiar to specific periods in human history.

Put simply, I am concerned in this review with describing the linguistification of economic value; its movement from a category pertaining specifically to certain substances – for instance, precious metals, factories, or land – to a category that pertains entirely to the products of those who “legitimately” speak expert dialects (cf. Bourdieu, 1991; Fairclough and Graham, forthcoming; Chapter 3). Consequently, I am also concerned with developing suitable tools and categories for analysing these dialects, or more specifically, the value-assumptions that are embedded in them.

The historical shift in value-relations and concomitant perceptions of value – which, although interdependent, are not the same “thing” – has led to the situation of economic value in institutionalised expertise (cf. Bourdieu, 1991). This shift can be traced through the fragmenting and increasingly specialised disciplines of social sciences since the nineteenth century. But the trajectory cannot be understood by way of describing that disciplinary fragmentation. To explain it requires a return to the foundational categories and assumptions of political economy in order to question their relevance, and where they are found lacking in this respect, to propose new ways of grasping their meaning in the context of recent developments.

This is specifically so since the emergence of a new and dominant form of political economic organisation on a global scale (Jessop, 2000). Amongst its more salient characteristics are the importance of international and ‘global’ institutions, and the ways in which the actions of such institutions are integrated with national, regional and local scales; and more particularly, there is systemic emphasis on commodifying the most intimate aspects of human existence, including thought, language, attitudes, and opinions. The overall task of this thesis, then, is to identify

the foundational parameters of this emergent system of political economy, and to propose an analytical approach that operates at the most fundamental level of political economy: namely, the formation of value perceptions in human society. This review is oriented towards identifying the historical and philosophical imperatives of those foundational tasks. In the broadest sense, these foundations are organised around the abstract and concrete realities of space and time (meant here as plural and plastic concepts), the ownership and meaning of which are foundational to any form of political economy.

History, value, language, and theories of social change

The thesis title pre-empted an historical orientation in the word “new”. A comparative theory of social change is implied. This raises problems in the current intellectual climate of specialised “disciplines” within social science. Prior to the nineteenth century,

the theory of society ... was an integral part of philosophy or of those sciences (such as the economic or the juristic), the conceptual structure of which was to a large extent based upon specific philosophical doctrines. The intrinsic connection between philosophy and the theory of society ... formulates the pattern of all particular theories of social change occurring in the ancient world, in the middle ages, and on the commencement of modern times. One decisive result is the emphasis on the fact that social change cannot be interpreted within a particular social science, but must be understood within the social and natural totality of human life. (Marcuse and Neumann, 1942/1998, p. 95)

Not only can the many sub-disciplines of social science today be seen as “fractured” social theory, but as social theory fractured along the lines of specific aspects of value; or, as society evaluated, conceived of, and reconstrued according to certain categories and methods of measurement which are peculiar to the sub-disciplines of social science. Such measurements are presented as social facts, when in fact they are academic evaluations of a particular kind. A critical theory of the social, though, integrates these fractured aspects of social science, and thus must begin with an integrated understanding and formulation of value (Marx, 1973, p. 259). As I will show here, and in later chapters, “value” is a matter of the perceived desirability of a thing (Langworthy Taylor, 1895; Lasswell, 1941). But the perceived desirability of anything is socially, institutionally, linguistically, and technologically mediated and inculcated.

My approach to the research problem is informed largely by Marx’s critique of classical political economy (1873/1975; 1844/1975a, 1844/1975b, 1970, 1973, 1976, 1978, 1981; Marx and Engels, 1846/1972), which takes the notion of value as its starting point (Marx, 1973, chapt. 1, p. 259), and by the critical perspective of Adorno (1951/1974, 1964/1973, 1991; Horkheimer and Adorno 1944/1998; Jarvis 1998), who reinterprets Marx in the context of a thoroughly mediated society. The distinguishing feature of a Marxist approach is that it does not separate history or philosophy from method (Harvey, 1973, pp. 14-15). Nor, consequently, does such an approach separate perceptions of value from language, “fact”, and historical context (pp. 154-155). Focused as I am on the interrelationship between language, new media, and perceptions of value, operationalising a language-based perspective

informed by Marx becomes somewhat problematic in the context of twentieth century Marxist scholarship.

Critics of Marx suggest that he lacked a systematic 'theory of language' (e.g. Cook, 1982, p. 530; Lepschy, 1985). But that is to overlook the nature of nineteenth century scholarship altogether. While much attention has been directed towards understanding the historical and philosophical links between Kant, Hegel, and Marx (e.g. Adorno, 1973, 1994; Bloom, 1943; Cook, 1982; Hook, 1928a,b; Warminski, 1995), little attention has been given to the broader context in which these writers appear as pivotal figures in the history of western thought (Bloom, 1943; Fairclough and Graham, forthcoming). Their contributions cannot be understood without taking into account the pervasive influence of classical scholarship during that period (Bloom, 1943). Nor can we grasp the centrality of language critique to Marx's method without taking into account nineteenth century scholarship in general, and in particular, Marx's philosophical and juridical education in Germany at a time when Hegel's philosophy was considered to be a revolutionary intellectual force (cf. Bloom, 1943; Colletti, 1975, p. 46; Hook, 1928a, p. 114; Tucker, 1972, pp. xvii-xviii). An understanding of language was central to scholarship during the time Marx studied and wrote; it was in fact the foundation of scholarship (Adorno, 1973, p. 56, 1994, pp. 18-21, pp. 116-118; Cook, 1982, p. 530; Grote, 1872).

In the following section, I briefly outline some important linguistic aspects of Marx's critical method that are implied in the nineteenth-century context of his scholarship and which are also expressed overtly in his writing. I also show the relevance of such an approach to understanding the changes that are currently

happening on a global scale. In this context, I then outline the significance of new media – the means of production, distribution, exchange, and circulation of knowledge commodities – and their institutional origins for understanding value-relations. Then I detail the institutional fragmentation of value as a technical idea, thus laying categorical bases for a method suited to analysing value-relations and perceptions of value in the techno-globalist discourses of contemporary technology policy.

Endoxa, relata, and dialectic: Marx’s method of language critique

Fairclough and I (forthcoming) have detailed the relevance of Marx’s largely ignored critical linguistic method for comprehending the form of political economy which is currently emerging as a global system. Inherent in Marx’s method of language critique are assumptions about the relationship between time, space, language, value, and human relationships. In the following section, I outline what I see as the most relevant aspects of Marx’s critique for the study of an ‘informational’ political economy (Chapter 3). Marx’s method, especially in his early writings, is significant for understanding how language figures as political economy in the broadest sense. I am also concerned with putting forward the foundations of a relational and dynamic approach that considers language as a material social process, as a moment of the social production process—as an integral part of the processes that produce, reproduce, and transform human social organisations at every level (Fairclough and Graham, forthcoming; Chapter 3).

Harvey (1973) notes the necessity, but also the difficulty, of understanding Marx’s unique use of language, especially where the concept of value is concerned:

Part of the difficulty posed by Marx's analysis lies in his highly original way of using words. ... Marx uses words in a relational and dialectic way. Use value and exchange have no use in and of themselves ... The term 'use value' can thus be applied to all manner of objects, activities and events in particular social and natural settings. It can refer to religious ideology, social institutions, work, language, commodities, recreation, and so on. It is even reasonable to consider the use value of the term "use value" (p. 154)

A further difficulty that arises from using an approach informed by Marx, especially in light of contemporary scholarship, is that the contemporary 'view of theory stems from an artificial separation of methodology from philosophy' (Harvey, 1973, p. 11). The pressure on scholars to separate and clarify the relationship between their theoretical and methodological approaches is, in the first place, 'a matter of convenience, but it is amazing how far convenience can lure' (p. 11):

From this separation flows a tendency to regard facts as separate from values, objects as independent of subjects, "things" as possessing an identity independent of human perception and action, and the "private" process of discovery as separate from the "public" process of communicating the result. (pp. 11-12)

Here, in Harvey's critique of disjunctions between fact and value, object and subject, philosophy and method – between the language of things and the language of processes – lies my rationale for using an approach informed by Marx's critique of political economy. The artificiality of such separations are in large part dissolved by understanding his critique of political economy as a critique of the language of political economists (cf. Fairclough and Graham, forthcoming; Harvey, pp. 154-155).

I refer elsewhere to the emergent “knowledge economy” as a political economy of ‘language, thought, and technology’ (Chapter 2). But to a large extent, this has always been the case (Marx and Engels, 1846/1972):

the class which is the ruling material force of society, is at the same time its ruling intellectual force. The class which has the means of material production at its disposal, has control at the same time over the means of mental production, so that thereby, generally speaking, the ideas of those who lack the means of mental production are subject to it. (Marx 1846/1972, p. 136)

Which is also to say the dominant discourses that define “value” in political economy are as much social situated products as the latest jet engine or mass-production factory, with identifiable (if not determinative) social contexts of production and very real social effects. The linguistification of value, and its division into conceptually and institutionally isolated “species” of value, is central to understanding the historical fragmentation of the social sciences into narrow and specialised disciplines (see below, Value as a technical idea). In a global social system dominated by the language of intellectually specialised elites (Saul, 1992, 1997), any contemporary political economy must engage with these discourses as political-economic products, as well as processes, conditions, and technologies of production (McKenna and Graham, 2000). In this sense, a critical engagement with the discourses of, by, and about contemporary political economy is political economic activity. My critique of policy language is an engagement with the value-assumptions that underpin such discourses. It is also an analysis of the social conditions in which these discourse-commodities are produced—it is an engagement, not merely with “words”, but with

the historically specific circumstances and conditions that make such discourses possible.

It is fundamental to my approach to avoid an artificial separation of theory from method. Such a separation will nevertheless become apparent in places, if only to meet the normative demands of contemporary scholarship, or because of my situation within contemporary scholarship. In any case, Marx makes quite clear that the relationship between investigation and presentation, between the method of analysis and presentation of findings, between thought and language, is problematic:

Of course the method of presentation must differ in form from that of inquiry. The latter has to appropriate the material in detail, to analyse its different forms of development and to track down their inner connection. Only after this work has been done can the real movement be appropriately presented. If this is done successfully, if the life of the subject-matter is reflected back in the ideas, then it may appear as if we have before us an a priori construction.

My dialectical method is, in its foundations, not only different from the Hegelian, but exactly opposite to it. For Hegel, the process of thinking, which even he transforms into an independent subject, under the name of ‘the Idea’, is the creator of the real world, and the real world is only the external appearance of the idea.

With me, the reverse is true: the ideal is nothing but the material world reflected in the mind of man and translated into forms of thought. (1976, p. 102)

So I have tried throughout the present work to foreground a dialectical method of analysis wherever possible, and to foreground the distinction between method and “theory” only wherever necessary.

Marx's method has come to be most readily identifiable with the term 'historical materialism' (cf. Jarvis, 1998, p. 98; Marx, 1976, pp. 100-103). But the deployment of that terminology has often fallen victim to the dualism it sets out to dispel: that between idealism and materialism, which is among the oldest of contentious divisions in human thought (Aristotle, 1999, p. 452). At the foundations of any form of political economy are conceptions about the definition, use, and meaning of space (geotechnical, social, and symbolic), time (the tempo and measurement of human activity), and value (Aristotle, 1962/1981, pp. 94-95; Garnham, 1991, pp. 45-53; Harvey, 1973, pp. 13, 22-32; Innis, 1942, 1944, 1950, 1951; Marx, 1973, pp. 100-108; Smith, 1776/1997, pp. 126-132).

With these elements foremost in mind, I now briefly outline the aspects of Marx's approach that situate his method of inquiry in the history of language critique (Fairclough and Graham, forthcoming). What emerges is 'his emphasis on the dialectical interconnectivity of language and other elements of the social ... [it is] a form of language critique which can do full justice to the social power of language' in the context of an emergent form of political economy 'without reducing social life to language' and without 'removing language from material existence' (Fairclough and Graham, forthcoming). Furthermore, realising the historical currents that shaped Marx's thought is to realise the necessity of an acute sensitivity to the significance of language, history, and the effects of social life to any study of political economy.

Marx, language, and philosophy

Abstraction and materialist political economy

Hegel substitutes the act of abstraction revolving within itself for these fixed abstractions; in so doing he has the merit, first of all, of having revealed the

source of all these inappropriate concepts which originally belonged to separate philosophers, of having combined them and of having created as the object of criticism the exhaustive range of abstraction rather than one particular abstraction. We shall later see why Hegel separates thought from the subject; but it is already clear that if man is not human, then the expression of his essential nature cannot be human, and therefore that thought itself could not be conceived as an expression of man's being, of man as a human and natural subject, with eyes, ears, etc., living in society, in the world, and in nature. – (Marx, 1844/1975a, p. 398)

While much is made of Feurbach's materialist influence on Marx, Colletti (1975) argues that to overstate Feurbach's influence is 'naïve' (p. 24). Marx was essentially Aristotelian in his approach, and was thoroughly familiar with Aristotle's thought, as well as that of the ancient Greeks in general (Fenves, 1986, p. 433). Feurbach's move, while clearly approved of by Marx, was merely another variation on 'one of the most profound and ancient themes in philosophical history, and recurs constantly in the debate between Idealism and Materialism' (Colletti, 1975, p. 24). We can comfortably assume that Marx was quite aware of the debate, well before Feurbach formulated his abstract materialist theses against the neo-Hegelian school (cf. Fenves, 1986).

Aristotle's formulation, as developed by the scholastics, remained intact until Hegel reshaped it. And it remained intact in one very specific sense. The scholastic tradition was concerned with the immutable and Universal attributes of isolated things – the Universal characteristics of objective, static material forms – regardless of whether one understands matter as being in flux or in stasis. Hegel's contribution was to add the dimension of time – History – and formulated a theory of abstraction that assumed antagonistic, antithetical, dynamic forces as the transforming impetus of history (Hook, 1928a, p. 117; McTaggart, 1893). In his critique of Hegelian abstraction, Marx develops many of the foundational concepts later deployed in his critique of political economy: alienation; conceptual fetishism; objectification and

reification; the labour process; labour as an all-embracing conception of human activity; and the primacy of material reality, including social reality, in determining consciousness—all of these aspects can be identified in incipient form in Marx's early engagement with Hegel's historically motivated Idealism (Marx, 1843/1975). However, to elucidate what would be recognisable as a method for the critical analysis of language, Marx's approach to the dialectic, another legacy of the ancient Greeks, needs consideration. Marx, Hegel, Kant, and all of the best-remembered scholastics (Makdisi, 1974) deployed dialectic argumentation as a way of challenging the "first principles" of knowledge about any given subject, with the purpose of formulating alternative ways of seeing.

Dialectics: Outlines of a method

Dialectics—literally: language as the organon of thought—would mean to attempt a critical rescue of the rhetorical element, a mutual approximation of thing and expression, to the point where the difference fades. Dialectics appropriates for the power of thought what historically seemed to be a flaw in thinking: its link with language, which nothing can wholly break [...]. Dialectics seeks to mediate between random views and unessential accuracy, to master this dilemma by way of the formal, logical dilemma. But dialectic inclines to content because content is not closed, not predetermined by a skeleton; it is a protest against mythology. - (Adorno, 1973, p. 56)

Marx cannot be understood without taking into account the contribution of classical scholarship to the development of dialectical methods (cf. Fenves, 1986; Hegel, 1807/1966, pp. 128-129; Makdisi, 1974; Randall, 1940). Throughout the early works of Marx (e.g. 1843/1975, 1844/1975a,b), through to the Grundrisse (1973), elements of a formal Aristotelian dialectical method are quite overt: "subjects and predicates"; "Ens", "genus", and "species"; "differentia and semblances"; "accidents and errors in language" and so on, pervade the texts.

As developed in the classical system, dialectical arguments have ‘for their province words and discourse; they are ... powers or accomplishments of discourse’ (Grote, 1872, p. 384). Dialectic focuses on Endoxa, ‘premises, propositions and problems’ which are ‘borrowed from some one among the varieties of accredited or authoritative opinions’ – from ‘a particular country’, ‘an intelligent majority’ or from ‘a particular school of philosophers or wise individuals’ (p. 383)—or, in the language of CDA, Endoxa are the ‘thematic patterns’ of a discourse community (cf. Fairclough, 1992; Graham and McKenna, 2000; Lemke, 1995, p. 42). Endoxa are found ‘exclusively in the regions of ... received opinions’, and dialectic proceeds upon the assumption that ‘[i]n every society there are floating beliefs, each carrying with it a certain measure of authority’ (Grote, 1872, pp. 385-386). Dialectical method assumes that the beliefs and their propositions common to a given community will often contradict each other. But they are an important focus for precisely for this reason—they form the basis of what we call “common sense”. Each individual, as they mature, ‘imbibes of these opinions and beliefs insensibly and without special or professional teaching’ (p. 385). Consequently, they ‘carry with them more or less authority, and it is from them that the reasonings of common life ... are supplied’ (p. 385).

Endoxic propositions carry with them an assumption of ‘probability’, precisely because of their status as authoritatively received or common opinion (Grote, 1872, pp. 389-390). Endoxa have ‘support from the mass of opinions and beliefs floating and carrying authority at the same time’, and dialectic ‘is carried on within this wide field of floating opinions’ (pp. 389-390). Dialectic ‘searches for a “counter syllogism” of which the conclusion is contradictory ... to the [Endoxic]

thesis itself' (p. 390). The method does not proceed from first principles. Rather, the purpose of deploying dialectic is to 'open a new road to the first principia of each separate science' (p. 391). In any case, first principles 'can never be scrutinized through the truths of the science itself, which presuppose them and are deduced from them' (p. 391, emphasis added). Such principles can only be challenged exogenously of the science itself, and dialectical argumentation is designed precisely for this purpose. Its most useful function is that of 'dissipating the false persuasions of knowledge' based on contradictory principles or taken-for-granted, commonsense beliefs and assumptions (p. 391).

Considered in the most comprehensive sense, all the dialectical categories 'are implicated and subordinated to Relation' (pp. 115-120). Relation, 'understood in the large sense which really belongs to it, ought to be considered as an Universal, comprehending and pervading all the Categories' (p. 120). Consequently, '[n]ew Relations may become predicable of a thing, without any change in the thing itself, but simply by changes in other things' (p. 122). So we see here a fundamentally relational and social theory of language, a theory of language in use that is drawn from 'common speech', and which is inalienably bound up with social consciousness and relationships in a world which is assumed to be wholly social and material in its determination. The relational aspect of dialectical categories (ad aliquid) is thus most important for my purposes here. But that is no selective contrivance. The relational

aspect of dialectic ‘not as one amongst many distinct Categories, but as implicated with all the Categories’ (Grote, 1872, p. 126).¹

And this primacy of the relational in classical dialectic can also be seen throughout Marx. The relational aspect of classical scholarship is organised around the concept of Relata (pp. 100-104). Relata are ‘said to be of other things, or are said to be in some manner towards something else’ (p. 100). Thus, Relata are ‘so designated in virtue of their relation to another Correlata; the master is master of a servant – the servant is servant of a master’ (p. 101; cf. also Hegel, 1807/1966, pp. 228-240). Therefore ‘the Relatum and its Correlate seem to be simul naturâ. If you suppress one of the pair, the other vanishes’ (Grote, 1872, p. 102).

There are four protocols for engaging in dialectic. The dialectician must:

- i) ‘have a large collection of propositions’ on the subject;
- ii) ‘study and discriminate the different senses in which the Terms of these proposition are used’;
- iii) ‘detect and note Differences’;
- iv) ‘investigate Resemblances’ (Grote, 1872, p. 401).

These protocols of dialectic are also common to what is called the ‘corpus linguistics’ approach to CDA (Fairclough, 1992, pp. 228-230). Propositions may be collected ‘out of written treatises as well as from personal enquiry’. If a proposition is ‘currently admitted as true in general or in most cases, it must be tendered ... as a universal principle’ (Grote, 1872, p. 401). In fact, ‘[a]ll propositions must be registered in the most general terms possible, and must then be resolved into their

¹ Aristotle’s categories were reduced, via a multitude of historical interpretations and revisions, to ‘four principle Categories – Substance, Quantity, Quality, and Relation’, yet ‘[e]ven these four cannot be kept clearly apart: the predicates which declare Quantity or Quality at the same time declare Relation; while the predicates of Relation must also imply the fundamentum either of Quantity or of Quality’ (Grote, 1872, p.

subordinate constitute particulars, as far as the process of subdivision can be carried' (p. 402). On the second protocol, terms must be investigated for 'Equivocation' because, often, they have different, double, or multiple meanings in common usage; their usage and therefore their predicates may differ vastly (p. 402). On the third and fourth protocols, terms must be studied for Differences and Resemblances because terms that seem closely allied may, because of their usage or equivocation, have vastly different meanings. Conversely, 'subjects of great apparent difference' may bear resemblance for precisely the same reason: context of usage; if the different meanings of terms are not known, then dialecticians 'cannot know clearly' what they are saying (p. 406). These protocols are also common to CDA.

The aim of dialectic is not to discover or prescribe truth, but rather to 'convict an opponent of inconsistency' (p. 385; cf. also Lemke, 1995). The method is designed to investigate the common meanings – the accepted assumptions, definitions, and understandings – of a given subject matter by way of investigating the received, authoritative statements about these. This is also in common with contemporary approaches to CDA (Lemke, 1995, p. 42). Dialectical method proceeds by laying out the doxa of, for instance, political economy, into its accepted propositions; differentiating between the various uses and meanings of these; and showing the relationships of these parts to the whole of the subject matter. The form of the dialectic that Marx deploys cannot be confused with the reductio ad absurdum carried on by the late-scholasticism of the counter-reformation (McKeon, 1928; Saul,

1992, 1997). Rather, it can be considered as an expression of centuries in the critical development of what we now know as “scientific method”:

From the beginning of the fourteenth century ... there set in a persistent and searching reconstruction of the Aristotelian tradition, which, when directed to the Physics, led by gradual stages to the mechanical and mathematical problems of the Galilean age, and when directed to the Logic led to the precise formulation of the method and structure of science acclaimed by all the seventeenth century scientists. (Randall, 1940, p. 180)

And, I might add, when directed to political economy, it led to the formulations of Smith and Marx, amongst others. The ‘free thinkers’ among the scholastics, particularly those in the school of Padua, developed through dialectic, a scientific method based on the ‘careful analysis of experience’ that ‘left their hands with a refinement and precision ... which the seventeenth century scientists who used it did not surpass in all their careful investigation of method’ (Randall, 1940, p. 178). Thus we find in general usage during Marx’s time a refined classical method—refined by centuries of application by the Paduan scholars in the first instance, and modified by the introduction of the time relation by Hegel later on.

Throughout Marx’s work, he is concerned with investigating ‘both consciousness and life and the “relation” between them’ (Warminski, 1995, p. 120). But Marx does not see language, consciousness, and life as separate “things”, even though they may be seen as different aspects of human activity. This can be seen most clearly in The German Ideology (1846/1972), wherein Marx and Engels describe ‘the language of real life’ as ‘the material activity and the material

intercourse of men [sic]’ (1846/1972, p. 118). For Marx, life, language, social activity, and consciousness are essential and inseparable aspects of humanity, which are socially produced in relations with the rest of nature. Specifying relations in terms of “subjects”, “predicates”, and so on is, for Marx, the act of asserting dynamic, causal, reciprocal, co-extensive, paratactic, and hypotactic relations amongst elements referred to in language and amongst the elements of human life itself, which is in the end nothing other than human activity, ‘the language of real life’ (p. 118).

Language, power, value, and mediation: Connections, disjunctions, and paradoxes

To develop the concept of capital it is necessary to begin not with labour but with value, and, precisely, with exchange value in an already developed movement of circulation. It is just as impossible to make the transition directly from labour to capital as it is to go from the different human races directly to the banker, or from nature to the steam engine. - **(Marx, 1973, p. 259)**

Labour was the first price, the original purchase money paid for all things. It was not by gold or silver, but by labour, that all the wealth of the world was originally purchased; and its value, to those who possess it, and who want to exchange it for some new productions, is precisely equal to the quantity of labour which it can enable them to command. Wealth, as Mr Hobbes says, is power. – **Smith (1776/1997, pp. 133-134 emphasis added)**

Using critical linguistic methods to analyse political economy assumes that language is one of its significant aspects. As Smith indicates, there appears to be some fundamental aspect of our current system in which the ownership of wealth and the power to control what people do are assumed to be somehow synonymous. That humans are always situated in relations of power is among the underpinning assumption of contemporary analysts working in the fields of systemic functional linguistics [SFL] (Halliday, 1978, 1993, 1994; Martin, 1998, 1999, 2000) and CDA (Fairclough, 1989, 1992, 2000; Lemke, 1995, 1998). Both CDA and SFL assume that the exercise and meaning of power, perceptions of value, and language practices are

inextricably intertwined: ‘Language makes power; power gets valued’ (Martin, 1998, p. 429).

Power, like Truth, is merely one “species” of value (see below, Value as a technical idea). ‘Wealth,’ according to Adam Smith, ‘is power’ (1776/1997, p. 133, emphasis added). If both Martin’s and Smith’s statements regarding the nature of power are true, and there is much empirical evidence to suggest that they are (Gal, 1989), then the problem of power must be partly buried in the relationship between these aspects of social life: ‘language makes power’; ‘wealth is power’. Restated, and assuming the identity between wealth and power is correct, then the relation is this: language makes wealth. But that cannot be the case in any simple relationship. There must be more to the relationship between language, wealth, and power because the number of people who engage in languaging on a daily basis without becoming the least bit wealthy or powerful far outweighs the number of those who do. Therefore, if language does make value, wealth, and power, then it must only be specific “types” of language that can produce such effects, which is to say: some “types” of language are more valuable and powerful than others. The question then appears to be one of social sanction: ‘Language – not money or force – provides legitimacy’ (Saul, 1992, p. 8). But shifting the problematic relationship between language, power, and value into the domain of legitimacy – another “type” of value – does not explain it.

How does one become a legitimate speaker endowed with the right to produce the meaning of value, wealth, and power? Central to this question lies the basis of self-valorising value in conditions of ‘hypercapitalism’ (Chapter 3). The very existence of our current system is underpinned by the confusing and circular

relationship between language, legitimacy, value, wealth, and power. And there is a further complication in the nature of the system. In the current system, speed and wealth are

totally linked concepts. And ... the history of the world is not only about the political economy of riches, that is, wealth, money, capital, but also about the political economy of speed. If time is money, as they say, then speed is power. (Virilio, 1999, in Armitage, 2000, p.35).

Marx long ago recognised that a relationship exists whereby ‘the velocity of turnover [circulation PG] ... substitutes for the volume of capital’ (1973, p. 519). To confound matters further, the main commodity forms traded today are forms of money, or more specifically, they are financial abstractions contrived in expert languages (Graham, 1998, Chapter 3; Saul, 1997). In hypercapitalism, the strange and perhaps contradictory set of relationships embedded in the logic of capital – those between circulation speed (the speed of mediation), wealth, legitimacy, power, language, and value – is fully expressed. These aspects seem inseparable from each other in the current system. Powerful and “sacred” dialects, which are rendered digital and propagated globally, as well as binary bits representing numerical measures of economic wealth, or money (which is itself a form of communication), circulate globally at the speed of light, increasing in value with each revolution (see Chapters 2, 3).

The confusion inherent in the globally mediated environment of digitised symbolic commodity trade is expressed in the words of the United States (US) Federal Communications Commissioner (FCC) Chrust (1999). He solves the problem

by dismissing outright the need to distinguish between types of data transferred digitally, regardless of what they are qualitatively, regardless of whether they are, for instance, pictures, words, music, or money: ‘I would say that if not already, in the very immediate future, it gets rather basic. Bits is bits. Voice is data. Data is voice. Video is data. They're all the same’ (Chrust, in FCC, 1999).

How do we analyse meaning in a multilingual, multimodal global media environment in which the hormonally charged ramblings of an anonymous teenage email romance are perceived by a United States Federal Communication Commissioner to be qualitatively indistinguishable from the command to launch a nuclear weapon, the transfer several billions of dollars, the propagation of child pornography, or a re-run of Gilligan’s Island? It is this very confusion about the nature of our new media that underscores the need to foreground language in the analysis of contemporary political economy. The whole contemporary system is ultimately dependent on global ‘mediation processes’ (Silverstone, 1999, p. 13). These processes are qualitatively peculiar to the currently “globalised” regime of deregulated trade; globally deregulated financial markets; a mass mediated, highly centralised global ‘culture industry’; and a network of global legislative institutions that make the “rules” of global trade (cf. Chapter 3; Fairclough and Graham, forthcoming; Horkheimer and Adorno, 1947/1998; McKenna and Graham, 2000).

The social environment specific to our highly-mediated global system is such that showing the increasing importance of language in determining social perceptions of value – at least and perhaps especially “economic” value – is a straightforward proposition: it is important because what follows directly from mediated

determinations is the allocation of resources – and hence the distribution of economic power – in contemporary society. Therefore, if valorised institutional dialects are the main determinants of economic value in contemporary society – and there is much to suggest that this is the case (cf. Bourdieu, 1991; Saul, 1997, chapt. 2; Chapters 2, 3) – then those dialects, and the conditions of their production and distribution, become the focal point of critical analyses for political economy. That is to say, any political economy in such a system must contain a significant element of critical language analysis, and it will focus to a large extent on the language produced within global institutions whose function it is to determine the “rules” and “nature” of economic value and the principles by which power is distributed within contemporary societies (cf. Fairclough and Graham, forthcoming).

In that sense, imperatives for grasping the emergent global system of political economy have come full circle to implicate something approximating Marx’s early method of critique (Fairclough and Graham, forthcoming). But it is not as simple as regurgitating the strict and structural forms of analyses which Marx’s work became once sufficiently hardened into various and conflicting dogmas: ‘historical materialism not a perennial philosophy or synchronic sociology. The object of historical materialism changes; historical materialism will also change’ (Jarvis, 1998, p. 51). Nor can a sociolinguistically oriented political economy draw an identity between money, language, value, and power:

To compare money with language is ... erroneous. Language does not transform ideas, so that the peculiarity of ideas is dissolved and their social character runs alongside them as a separate entity, like prices run alongside commodities. Ideas do not exist separately from language. Ideas which first have to be translated out of

their mother tongue into a foreign language in order to circulate, in order to become exchangeable, offer a somewhat better analogy; but the analogy lies not in language, but in the foreignness of language.

The exchangeability of all products, activities and relations with a third, *objective* entity which can be re-exchanged for everything without distinction – that is, the development of exchange values (and money relations) is identical with universal venality, corruption. Universal prostitution appears as a necessary phase in the development of the social character of personal talents, capacities, abilities, activities. More politely expressed: the universal relation of utility and use. (Marx, 1973, pp. 162-163)

Herein lies a further imperative for – and some difficulties associated with – any sociolinguistically informed critique of political economy, the foundations of which necessarily entail a theory of value. But as well as difficulties, Marx’s formulation of the non-identity between language and value also contains some keys to the problems it poses. First, conditions must allow language and the ideas it expresses to be appropriated, alienated, exclusively owned, commodified, and exchanged en masse. The current mass of electronic and institutional mediations, combined with the international regime of positive law concerning “intellectual property”, are increasingly designed with the express purpose of accomplishing all these the tasks on a global basis (Chapter 7).

The commodified artefacts of conscious activity – “knowledge work” – must also appear more and less valuable. That is, the value-character of their “foreignness” must be qualitatively established in some reconstrual of “ordinary” ideas which are

‘(mis)recognised’ as such—they must be seen as more valuable forms of less valued modes of conscious activity, of knowing (Bourdieu, 1991, chapt. 3). In that sense, meaning-making in institutions of power are under very specific aesthetic pressures: they must “look the part”. These institutional aesthetic pressures will be constrained by the processes of mediation peculiar to any such institution, the ultimate aim of which is to promote the institutional value systems, the institutionalised logic of systematic distinctions which are peculiar to any such organisation (Silverstone, 1999, pp. 12-13):

Therefore, in so far as ... media are ... central to this process of making distinctions and judgements; in so far as they do, precisely, mediate the dialectic between the classification that shapes experience and the experience which colours classification, then we must enquire into the consequences of such mediation (1999, p. 12).

Today, the power-function of regulating, mediating, producing, and reproducing the qualitative “foreignness” of conscious human activity – the institutionalisation of “distinction”, or “ways of knowing” – falls to supranational commercial and legislative institutions, their practices of mediation, and their technocratic discourses (McKenna and Graham, 2000). In any knowledge economy, apart from being given the appearance of value, the valorised artefacts of commodified language must also, as commodities, realise a price, an objective, quantitative measure which is exchangeable for ‘everything without distinction’ (Marx, 1973, p. 163). The conflation of name and number; quality and quantity; and image, sound, and values in the abstract realms of a “digitised” cyberspace gives rise to a symbolic environment in which all the exchangeable products of human consciousness can be

propagated and circulated on a global scale at the speed of light. This is the apotheosis of self-valorising value, in which massless, light-speed circulation substitutes for massive capital on a global basis, at least for a limited time.

On the importance of institutional mediations and mediated institutions

A further significant part of value relations that I will note here, and which is explained more fully in later chapters (Chapters 2, 4), is the relationship between the fragmenting trajectory of institutions associated with value-expertise and the emergence of new media. There is a barely indirect relationship between these two movements, and the dialectically related elements that constitute and connect them are also less than obvious or direct. Innis (1942, 1944, 1950, 1951) is most accurate, I think, in describing the most basic elements of the dialectical relationship between new media and value as organised around the social meaning of time and space. That is to say, some media are more suited to regulating meaning across large amounts of geographical and social space (paper and the internet, for example). Others are more suited to regulating the meaning of time within limited geographical and social spaces (oral technologies peculiar to mythology and clay tablets, for instance). Media are invariably oriented, or ‘biased’ in the words of Innis, towards emphasising the significance of either space or time (1951, chapt. 1). The impact of media-orientations upon cultural values with respect to changed perceptions of space and time cannot be understated (Innis, 1942, 1951; McLuhan, 1964; White, 1940, 1965, 1974).

Neither can developments in new media and their associated value-transformations be set aside from the institutional contexts within which, and from

which, media “revolutions” derive their impetus. Of course there is no single or homogeneous principle of change, whether institutional, social, technological, media-, or value-based (White, 1974). But there are clear relationships between socio-historical value systems peculiar to specific institutions – such as the Church during the middle ages, or the World Trade Organisation [WTO] today – and the media that such institutions use to organise their activities and propagate their value-rationales. The basis of the Church’s value system is its claim to represent the values of Christ and Christian living; the basis of the WTO’s value system is its claim to represent the values of free trade and its delegated right to legally ‘harmonise’ free-trade interests (Ruggiero, 1997). The claim of particular institutions to speak on behalf of extra-societal, abstract value systems that draw their legitimacy directly from the source of the value systems they claim to embody and which, at the same time, they champion and propagate is inseparable from the kinds of ‘knowledge monopolies’ (Innis, 1951) that such institutions exercise. Herein lies a further imperative to grasp institutional mediations, perhaps even to see institutions as media (cf. McLuhan, 1964, pp. 142-143). History provides some excellent examples of the deep and obscure connections between sacred institutions, the value systems from which they derive their power, their mediation processes, and the social impacts of the historical interplay of these elements with the social environments in which such institutions are embedded.

In the middle ages, the Church and its institutions of learning and law were responsible in the first instance for the widespread use of paper throughout Europe. But again, there is nothing so analytically simple as single-step causality. The technology of weaving was a decisive factor in this process (White, 1974, pp. 12-14). It is historically well-recognised that the copyist guilds of twelfth century Paris had

far-reaching influence throughout western Europe and western history (Bloch, 1940/1961, p. 108; Cawsey, 1999; Haskins, 1904; Innis, 1951; Makdisi, 1974; McKeon, 1928). But the socio-political effects of the guilds' activities – translating vernacular works into Latin so that they could be studied by church scholars throughout Europe, and subversively translating the bible into the vernacular so that it could be discussed more widely (Cawsey, 1999; Haskins, 1904) – would not have been possible without the widespread availability of paper, which in turn was a direct effect of the 'horizontal heddle-treadle loom' (White, 1974, p. 12). The invention of the loom dramatically boosted the production of linen rags from which paper was first made. In other words, 'the second impact of the spinning wheel was not on the textile industry but on the book business' (p. 12). Prior to the ready availability of paper the production of a large bible

took the skins of between two and three hundred sheep or calves. The preparation of parchment and vellum was arduous and the finished product expensive. [...] in 1280 at Bologna, paper was already six times cheaper than parchment ... Except for deluxe volumes, paper was increasingly used in making manuscripts. This meant that the wages of the scribe became by far the greatest cost in manufacturing a book. There was every incentive to experiment with mechanical means of writing and, when a method was found, to make the considerable capital investment needed to operate it. This was Gutenberg's accomplishment. Its presupposition was the spinning wheel. (White, 1974, pp. 12-13)

A result of the widespread availability of cheap paper was that the character of knowledge – geographical and institutional – took on a vastly different orientation during this period, one that profoundly changed, at a fundamental and enduring level,

the character of knowledge over space and time, as well as the meaning of space and time, throughout what is now called the West (Bloch, 1940/1961, chapt. VI; Graham and Hearn, 2000; White 1974).

Past and future spaces: tense, media, value, and value-changes

A focus on the relationship between new media and value presupposes some connection between forms of value and the distinct and qualitatively different social realms of meaning complexes that correspond to different forms of media, namely the realms of time and space. A fundamental assumption of this thesis is that, seen dynamically, social understandings of time and space, and social perceptions of value, are ultimately linked concepts (Chapters 3, 4; McLuhan, 1964, pp. 138-144). However, there is a problem with grasping and expressing the linkage. As Harvey (1973) notes, there is a distinct division between aspects of language that can describe the world in terms of substance and those that can describe the world in terms of space-time; or, between language used ‘to specify a set of properties’ for a particular thing [substance language], and the language used to locate a particular thing at a particular time and place [space-time language] (pp. 38-40). The confounding aspect is that ‘space itself can enter into either language but in different ways’ (p. 39). So can time. Spatial and temporal aspects are both necessarily properties of particular substances (Harvey, 1973, p. 41; cf. Aristotle, 1999, p. 439). Furthermore,

there are important differences between the time dimension which conveniently possesses direction and irreversibility and the spatial dimensions which do not

possess either of these properties and which may also be characterized by complex non-stationarities and awkward discontinuities. (Harvey, 1973, p. 43)

Thousands of years of intense and divisive argument show that the space-time-substance problem is not easily resolved or synthesised. Neither space nor time are qualitatively singular concepts. There are geographical, geometric, social, symbolic, and organic aspects to space, to name but a few (Bourdieu, 1998; Harvey, 1973, chapt. 1). Time – or better, temporality – happens on many scales and at many differing rates of significance where social and environmental changes and processes are concerned (Innis, 1944, 1951; Lemke, in press). The main problems of defining, delineating, and synthesising the antithetical but complementary concepts of time and space, substance and process, being and becoming, lie in their own source, which is language.

In language, the time dimension is most overtly realised in the tense system (Halliday, 1994, pp. 196-210). But there are other ways in which it is realised because time is an inherent property in the meaning of certain “Things” which are realised as nominals. Some examples of time-laden nominals include “opportunities”, “possibilities”, “risks”, “memory”, “the future”, “tomorrow”, “yesterday”, and so on. The subtle (and not-so-subtle) temporal orientation of irrealis objects such as these – whether past or future – raises problems for analysis. These problems are discussed more fully in Chapter 7. However, where the relationship between new media and value is concerned, the problem almost inevitably turns on future-oriented abstractions (Chapters 7, 8). That is because, in the first instance, new media extend people’s sociocognitive “reach”, either in terms of space or time or

both (cf. Chapter 2; Innis, 1951; McLuhan, 1964, chapt. 1). New media extend our ability to store, retrieve, and exchange information, goods, and money across ever-greater expanses of time or space, and sometimes both. They extend possibilities for the collective imagination. They extend possibilities for forms of human organisation. They extend the perceived possibilities for new ways of doing things, thus facilitating changes in the most fundamental perceptions of economic and cultural value-possibilities for whole societies (Innis, 1944). Possibilities, whether positively or negatively valued, are always and necessarily irrealis.

The future-oriented tendencies of language about new media are further emphasised when new media become objects of policy discourse. That is because, like the mediaeval sermon, the function of policy is ‘not historical but hortatory’ (Haskins, 1904, p. 2). That is, the generic purpose of policy is ‘to get people to do things’ (Muntigl, in press, p. 147), which is always functionally irrealis. In any period of history, genres of power – those that are developed and deployed to get people to do things – are naturally the most closely guarded by their institutional “owners”. The legitimate right to deploy them is most vigorously contested at times of institutional change and conflict (Cawsey, 1999; Graham and Hearn, 2000). This is especially the case between and within institutions of power (Bourdieu, 1991; Graham and Hearn, 2000). Thus, today, we see the genres of management being deployed in policy circles (*e.g.*, Department of Premier and the Cabinet, 2000) and the genres of policy being deployed by corporations (*e.g.*, BP Amoco p.l.c., 2000). Both management and policy are functionally hortatory practices; they are linguistic, sociocognitively oriented technologies designed to get people to do things. And what people do is, at least to some large extent, the ultimate source of value, regardless of which “species”

or “category” of value we are talking about. This is also a matter of time: ‘Since labour is motion, time is its natural measure’ (Marx, 1973, p. 205).

And value is unquestionably about what people do (which includes what we say and think). Where language is concerned, value-orientations are institutionally, and therefore generically, specific: different genres foreground different aspects of value, although their desired ends might be the same. For example, the genre of the sermon in twelfth century Paris foreground the values of Christianity, or more broadly, Divinity in Lasswell’s (1941) scheme. In contrast, the propaganda genres of Nazi Germany foreground national values, or, following Lasswell once again, Loyalty. These genres, although predicated upon on different aspects of value, might well be oriented to the same ends, inciting war for instance (and both indeed were). Thus while the specific “aspects” of value foregrounded in a given text will be genre-specific in most respects (Lemke, 1998, p. 38), the functional and rhetorical aspects of generic evaluations (evaluative patterns) cannot be derived from the “kinds” of evaluations foregrounded. That is to say, while the Desirability of almost anything can be propagated given the right environmental circumstances, especially the centralised control of mass media (see Chapter 3), there is an imperative to describe, not only the evaluations deployed in language, but also to distinguish between the ‘proposal’ (semantically hortatory) and ‘propositional’ (semantically fact-oriented) content of language (Halliday, 1994, p. 71). Put yet another way, a command to do something cannot be tested for truth, nor can a proposition that refers to the existence of an irrealis object. But a description of something past or present in the world can, at least as far as evidence permits, be tested for truth in various ways.

It is therefore necessary to distinguish between these two aspects of language—proposals and propositions—to see what it is that people are being asked, persuaded, expected, or commanded to do in language; what propositional bases these proposals are premised upon; and thus to see what sort of value-systems are buried within any given discourse, even where evaluations are rendered explicit. This can only be done by bringing historically specific action and its context into full contact with the analysis of hortatory language specific to these socio-historical contexts. This in turn requires a dialectical approach to sociolinguistic analysis, one that is concerned with the aspects of time and space in all their significance, as well as with the role of media in bringing groups of people into contact with each others' beliefs, values, perceptions, observations, and axioms across space and time, and the mediating role of powerful institutions that define value with all the legitimacy and confidence with which the Church once defined God. The significance and difficulty of doing so cannot be understated:

People are organized into cultures by the basic presuppositions—often unverbally shared—that they share: their axioms. They put their intelligence, energy, and money into what they corporately consider good. The results are as varied as the majestic pyramids of pharaonic Egypt, the sadistic games of the arenas of the Roman West, and the family-centering, but globally focused, television sets of the contemporary industrialized world. Medieval Europe came to believe that technological progress was part of God's will for man [*sic*]. The result was an increasing thrust of invention that has been extrapolated, without interruption or down-curve, into our present society. (White, 1974, p. 1)

In the following section I outline, as briefly as possible, a history of value as a technical idea, foregrounding the institutions, disciplines, and people that have defined “it”; the fault-lines along which value as an idea has fractured, and the role of media, language, and institutions in the linguistification of value.

Value as a technical idea: a brief history

Value, as expressed in the language that people speak and write, is partial as well as partially overt: it is only a small part of a much larger set of relationships. Underneath these surface expressions lies historical infusions of conflicting and contradictory value-systems, a socio-historic substrate that is far more elusive than lexis or grammar. Social perceptions of value shape, and are shaped by, the normative practices of dominant institutions; those of particular groups of people; and, necessarily, those of specific individuals. The current tendency to reduce all values to an expression of price makes the crudest of value-statements possible: ‘Some people are more valuable than others’ (American Broadcasting Corporation, 1978, in Bagdikian, 1997, p. 114). It would appear that the concept of more and less valuable people has become as overtly institutionalised as the price system itself, thus giving rise to the most dramatic increase in slavery since the US slave trade was at its peak (Bales, 1999). It is from inside a globally mediated social system, in which the price system of money-values has come to dominate social perceptions of value on a global scale, that I attempt to trace the outlines of value as an idea—an idea that has been shaped by, and given social force through, the normative work of people and institutions delegated with the authority to define its meaning.

The reader will note the one-sidedness of such an approach to history. While I have traced out dominant trajectories in the development and fragmenting of value studies, I have left out much historical context, and practically all reference to particular personal histories for the people who have been key in developing different understandings of value. Apart from constraints of space and time, I have taken such

an approach for a number of reasons. First, I do not assume that the following history, in any significant way, captures the wider social dynamics from within which each fragmenting moment took its impetus. Rather, I have emphasised the contextual aspects of the media environment wherever appropriate, obviously for reasons to do with the express purpose of this thesis. Second, I assume that the disciplinary and institutional value-fragmentations I describe here were more or less violently contested moments, both by individuals within the fields concerned and, in many cases, by whole classes of people within the populations affected by shifting “official” conceptions of value. Finally, I assume that in the fragmentation and linguistification of value, the institutions and persons recognised as central to the historical trajectory I describe will, to misquote an Arab proverb, ‘resemble their own times’ more than they will their own “parents” (in Bloch, 1940/1961, p. 148).

Tracing the movement of value as an object of intellectual and institutional contention is of fourfold analytical importance to this thesis: i) it shows what kinds of values and related forms of expertise are and have been possible as a direct result of understandings about what value means; ii) it also shows that forms of value and forms of authority are entirely connected—perhaps even mutually defining; iii) it emphasises the institutional, and therefore institutionally mediated, nature of value; iv) it shows how mass media changed understandings of value systems and thus perceptions of value, world-wide.

Classical political economy: Liberalism and the rational death of God

The ‘Enlightenment’ drew its strength primarily from the evident progress of production, trade, and the economic and scientific rationality believed to be associated inevitably with both. And its greatest champions were the economically most progressive classes, those most directly involved in the tangible advances of the time: the mercantile circles and economically minded

landlords, financiers, scientifically-minded economic and social administrators, the educated middle class, manufacturers and entrepreneurs. – (Hobsbawm, 1962, p. 34)

Classical political economy was the first field in which “value” became a technical term’ (Langworthy Taylor, 1895, p. 414). Technicalisation notwithstanding, ‘[t]he idea connoted by the term “value” is intimately associated with the most remote experiences of the human race. Ever since it has been possible to predicate desirability of anything, have values existed’ (p. 414). That is my working definition of “value” in the broadest and most abstract terms possible: the predication of Desirability.

Prior to classical political economy, “economics” was merely part of a wider system of philosophical scholarship in the scholastic institutions of the Church (Neill, 1949). Here, as with the rest of social science, economics was ‘generally treated as a branch of ethics or of politics’ (Neill, 1949, p. 532; cf. also Aristotle, 1961/1987). The emergence of liberalism undermined the authority of the Church, first in the field of economic values, and soon thereafter in the field of moral values (Neill, 1949, pp. 532-534).

In both England and France, liberal formulations of political economy initially retained the expansive scope of the scholastic enterprise. Economics, morality, and science were melded into a ‘natural law of justice in its essence’ (Daire, 1846, in Neill, 1949, p. 535). Economics, the “moral economy”, and “civil society” shared an assumed identity because of historical conventions in social scholarship:

The Physiocrats, then, thought that they had discovered a new science, that it was an elucidation of natural law, and that its scope extended to all of man’s dealing with man and nature. It was therefore a moral science governing man’s social activity,

much the sort of thing that John Locke once hoped to achieve for ethics by applying to that subject the laws discovered by his friend Newton. (Neill, 1949, p. 537)

Destutt de Tracy is exemplary of the expansive character of late-eighteenth to early-nineteenth century political economy. He hoped for a literal ‘ideology’, a ‘science of ideas’ that would ‘establish a sound “theory of the moral and political sciences”’, and which embraced ‘grammar, logic, education, morality, and “finally the greatest of arts, for whose success all the others must cooperate, that of regulating society”’ (Kennedy, 1979, p. 355). It quickly became clear to vested interests that liberal political economy sought to supplant the authority of the Church—by replicating its authoritative grasp. The resultant attacks upon classical political economy’s expansive ambitions was a fragmenting of the “value sciences”.

This rapid fragmentation, most evident during the late-nineteenth century, coincides with the social and intellectual transition from a Newtonian age of “Natural Order”, in which an all-seeing God ruled over a clockwork Universe, to the unbridled Social Darwinism of the late nineteenth century in which the whole of life was viewed as a struggle for survival: ‘the Natural Order was for the eighteenth century what evolution became for the nineteenth, the common concept into which every generalisation was thrown’ (Ware, 1931, p. 619). Of course, the latter world view did not supplant the former. The assumptions of social Darwinism were merely overlaid upon those of the “Natural Order”, augmenting them and giving the “Order” a dynamic explanation: the “Natural Order” thus arose, not from the design of a clockmaker God, but from all-out, constant competition on the part of every living thing for the necessities of life (cf. Tylor, 1877; Ware, 1931).

Changes in the most basic assumptions about the nature of value closely resemble those of the whole intellectual enterprise. That is not surprising. The fragmenting of “value” scholarship into the myriad “disciplines” of social science is an artefact of intellectual specialisation and fragmentation in general. The close connection between theories of value and the rest of scholarship thus cannot be over-emphasised, if only because it appears to be so well-hidden in the obfuscating contemporary milieu of specialised, elite dialects (Saul, 1992, 1997). With this sense of institutionally generated separation in mind, we can see in historical discussions about value the various perennial antagonisms that have differentiated ways of understanding the world. More especially, we can see the antagonistic assumptions about how we come to understand our world in these arguments. These antagonisms can be generally grouped under subjective vs. objective; static vs. dynamic; exogenous vs. endogenous; and social vs. individual assumptions about the source, meaning, and nature of human understandings. These broadest and most basic assumptions are evident throughout the history of value as a technical idea, just as they are in assumptions about the social world as a whole.

The antagonism between objective and subjective aspects of value systems

From one perspective, ‘the historical evolution of the value debate became locked into a centuries old dialectical conflict between the objective and subjective

approaches' (Fogarty, 1996).² Once assumptions about objective and subjective value are examined, certain inherent assumptions become apparent. The assumptions of subjective value implicates people's activity as the source of value: subjective value is a measure of activity and is therefore time-based. Assumptions that value is an objective category implicates non-human "things" (gold or real estate for instance) as the bearers of value: it is therefore a measure of substance or space. If we assume that value is entirely objective, we must assume that value is external to what people are and do, or, that value is an extrinsic, a priori quality with an independent existence. Further, we must assume that value resides neither in social nor individual aspects of human activity—people are unnecessary for value to exist. Conversely, if we assume that value is entirely subjective, we must assume that no objective, a priori values can exist independently of humans, either as individuals or societies. Therefore value is entirely relative. So assumptions about objectivity and subjectivity have clear implications for the direction of the value debate in political economy, if not the substance thereof. And, for perhaps obvious reasons, the general direction of the debate has been towards an increasingly subjective account of value, or so it would seem.

The first elements of subjectivity in the modern theories of economic value enter at the end of the mercantilist era. The mercantilist theorists held an objective

² All theories of value contain subjective and objective aspects, but some, like those of the early mercantilists, and those of the later Austrian school, take up extreme positions along the subjective — objective cline. For clarity's sake, and noting the artificiality of the split, I understand subjective value to be value that is produced or conceived of as agentive, or active, whether in terms of cognitive, emotional, or outwardly physical human activity. Subjective value is value produced by human activity – labour – whether conceptually or in another act of production like, for instance, hunting. Objective value here means passive and essential value. Objective value is value that is conceived of as an essential part of a thing, circumstance, or process. This sort of value exists a priori and is conceived of as being independent of

view of value—it was an intrinsic property of precious metals (Locke, 1696). Furthermore, value and power were identical to the mercantilist economic mind (Viner, 1948). This was the period during which ‘the serviceability to power of economic warfare, the possibility of using military power to achieve immediate economic ends, and the possibilities of substituting economic power for military power’ were developed for the first time in an elaborate and systematic manner (Viner, 1948, p. 8). This was reflected in the prevailing attitudes to people and the world in general:

For, since the introduction of the new artillery of powder guns, &c., and the discovery of wealth in the Indies, &c. war is become rather an expense of money than men, and success attends those that can most and longest spend money: whence it is that prince’s [*sic*] armies in Europe are become more proportionable to their purses than to the number of their people; so that it uncontrollably follows that a foreign trade managed to best advantage, will make our country so strong and rich, that we may command the trade of the world, the riches of it, and consequently the world itself. (Bolingbroke, 1752, quoted in Viner, 1948).

Lord Bolingbroke’s statement captures the excesses of hard-line mercantilist hyperbole very neatly: people are merely an object of wealth; wealth was seen to exist externally to people and to whole nations. It is the single lever of power by which the whole world might be moved. Further, the intrinsic value of particular classes of people were immutable, and their purpose was seen to be collective:

human activity.

In this view, members of society did not interact with each other, but rather participated, one with another, in England's collective enterprise of selling surplus goods abroad. As in a company, the administration was formal. There was little of Adam Smith's awareness of individuals with personal motives working purposively on their own. Rather economic writers approached the problem of promoting national growth much as a factory foreman might view meeting a production quota. (Appleby, 1976, p. 501)

The social expression of the mercantilist mindset was quite straightforward:

The rich were expected to buy their luxuries, the poor to have enough to subsist [...] With such a model at the back of their heads, these writers elaborated schemes for putting the poor to work. Houses for the "orderly management of the poor" was a favorite theme. (Appleby, 1976, p. 501)

The possibility of rising levels of equality and wealth was 'unthought of, if not unthinkable' (1976, p. 501). Two readily identifiable pressures combined to bring the mercantilist worldview to an ostensible end: rising costs in maintaining a colonial military presence on the part of mercantilist nations (Graham, in press; Smith, 1776/1999, pp. 550-551) and the rising tide of a political and economic liberalism, which, not coincidentally, rose on a flood of printed paper (Thompson, 1980, chapt. 5). The popular values of liberalism were freedom and equality for all people and an increased emphasis on the rights of the individual (Appleby, 1976, p. 515).

Subjective value first enters mainstream economic thought with Adam Smith (1776/1997, 1776/1999) in England and the physiocratic school of France. This is the period in history where the dialectic between objective and subjective understandings

of value emerges in a formalised sense. The physiocrats, while accepting that human activity adds value in some way, assumed that value inhered primarily in ‘land and land rents’ (Hobsbawm, 1962, p. 26). The early English theorists of mercantilist manufacturing, eventually attacked and briefly superseded by Smith and his acolytes, assumed that labour acted as a catalyst to release the value which inhered objectively in raw materials and manufacturing equipment. This view led to some of the complexities that still remain for political economy to deal with:

Labour seems to be a very simple category. The notion of labour in this universal form, as labour in general, is ... extremely old. Nevertheless “labour” in this simplicity is economically considered just as modern a category as the relations which give rise to this modern abstraction. The Monetary System, for example, still regards wealth quite objectively as a thing existing independently in the shape of money. Compared with this standpoint, it was a substantial advance when the Manufacturing or Mercantile system transferred the source of wealth from the object to subjective activity —mercantile or industrial labour— but it still considered that only this circumscribed activity itself produced money. In contrast to this system, the Physiocrats assume that a specific form of labour —agriculture— creates wealth, and they see the object no longer in the guise of money, but as a product in general, as the result of universal labour ...

It was an immense advance when Adam Smith rejected all restrictions with regard to the activity that produces wealth – for him it was all labour as such, neither manufacturing, nor commercial, nor agricultural labour, but all types of labour. (Marx, 1970, p. 209)

In Smith (1776/1997, p. 100), an expression of purely subjective value emerges for the first time: ‘the wealth of nations’ is the work of people, and labour is the ‘original money paid for all things’ (p. 134).

Marx’s (1970, 1973, 1976, 1978, 1981) approach to value remains unique in political economy for its attempt to reconcile objective and subjective aspects of value without reducing the assumptions of one to the other in order to explain them. Surprisingly, Marx is often attributed as the author of the labour theory of value, but that is not at all accurate: ‘Labour is not the source of all wealth. Nature is just as much the source of use values (and it is surely of such that material wealth consists!) as labour, which itself is only the manifestation of a force of nature, human labour power’ (Marx, 1875/1972, p. 382). For the purposes of this thesis, Marx’s key comments about value are these:

Value ... does not have its description branded on its forehead; it rather transforms every product of labour into a social hieroglyphic. Later on, men try to decipher the hieroglyphic, to get behind the secret of their own social product: for the characteristic which objects of utility have of being values is as much men’s social product as is their language. The belated scientific discovery that the products of labour, in so far as they are values, are merely the material expressions of the human labour expended to produce them, marks an epoch in the history of mankind’s development, but by no means banishes the objectivity possessed by the social characteristics of labour. (1976, p. 167)

Here is a precise statement on the historical significance of social perceptions of value: new understandings about the source and nature of value change perceptions of what it means to be human. According to Marx, what we call “value” is the

product of interaction between subjective and objective aspects of our existence, mediated and refracted through the normative frameworks of the social world, and expressed as ‘social hieroglyphics’, as “things” socially imbued with a certain significance in relation to others. Humans, he argues, tend to obscure and objectify their interactions, with each other and with the rest of nature, where values are concerned, whether economic or otherwise:

The production of ideas, of conceptions, of consciousness, is at first directly interwoven with the material activity and the material intercourses of men, the language of real life. Conceiving, thinking, the mental intercourse of men, appear at this stage as the direct efflux of their material behaviour. The same applies to mental production as expressed in the language of politics, laws, morality, religion, metaphysics etc. of a people. Men are the producers of their conceptions, ideas, etc.—real, active men as they are conditioned by a definite development of their productive forces and the intercourse corresponding to these, up to its furthest form. Consciousness can never be anything else than conscious existence, and the existence of men is their actual life-process. If in all ideology men and their circumstances appear upside-down as in a camera obscura, this phenomenon arises just as much from their historical life-process as the inversion of objects on the retina does from their physical life-process. (Marx and Engels, 1846/1972, p. 118)

Marx and Engels extend the purview of political economy to include the production of all social phenomena, including individual and social consciousness (1846/1972, p. 122). Not since Marx (perhaps with the exception of some Frankfurt School writers) has any social science embraced such expansive aspects of the human condition: that is to say, as a social totality. Political economy became economics,

which in turn has become ‘a branch of higher accountancy’ because of its narrowed scope and an adherence to a perceived identity between value and price (Innis, 1944, p. 82).

Whilst it has never been equalled in political economy since Marx, the expansive scope of classical political economy was not abandoned all at once. Although the ‘utility curves’ of the Austrian school of economics (a staple of contemporary theories of price) appear as early as 1893 (Langworthy Taylor, 1895, pp. 428-429), the debate as to the source and nature of value, though increasingly narrow in scope, continued beyond what today is considered to be the “economic” field. For Marx, political economy is merely social activity viewed from a certain perspective (1981, p. 957). The classical categories of value, production, labour, commodities, and exchange formed the basis of Marx’s discussions. But in Marx they do not obscure political economy’s foundations: historically specific social interaction.

The triumph of price and individual psychology in economic theory

The tendency of political economy to offer an exhaustive, socially grounded account of value collapsed after the pressure applied by Marx to the very concept of value. Consequently, the journey towards a wholly subjective formulation of value has fairly much remained in dominance throughout the west since the late nineteenth century. The ‘Austrian school’ were the original authors of ‘subjective value theory’

(Bonar, 1888; Sweezy, 1934).³ Members of this school are also called ‘utility theorists’ because they explain exchange-value – or rather its epiphenomenon, price – in terms of use-value, or ‘utility’ (Langworthy Taylor, 1895; Sweezy, 1934). A corollary of, and indeed a catalyst for, this approach was the emergent discipline of psychology, with a heightened emphasis on psychological theories of pain, sacrifice, and pleasure being introduced into studies of value (e.g. Sweezy, 1934, p. 177). The main assumptions of subjective value theory are: i) that the focus for economic studies of value is the individual; ii) that the individual will always choose “correctly” in terms of his or her satisfaction, “correctly” not being understood here ‘ethically’, but rather ‘economically’ (Sweezy, 1934, p. 178); iii) that an individual ‘carries his pleasures and his exertions to the point where the margins of pleasure and of sacrifice correspond, so that the last increment of pleasure exactly repays the last dose of labor’ (Langworthy Taylor, 1895, p. 419), and; iv) that labour is always a measure of pain and sacrifice, and purchases are always an expression of the pleasurable satisfaction of desires (Langworthy Taylor, 1895; Sweezy, 1934).⁴

At this point in the development of political economy, the effects of social factors – along with all ethical and other apparently non-economic factors – are almost entirely elided. Nevertheless economic studies still claimed, and indeed continues to claim, to explain the actions of whole societies, along with the actions of the ‘ordinary mind’ (Sweezy, 1934, p. 179; cf. also Saul, 1997; Thurow, 1996). That

³ Karl Menger, Friedrich von Wieser, Eugen von Böhm-Bahtwerk (see Bonar, 1888 for a good overview of their initial impact). There were English, German, and French counterparts to this movement, but they have been eclipsed for the most part, thanks to successes by Hayek (1981) and Schumpeter (1909).

⁴ Janik and Toulmin (1973) provide a fascinating account of the close cultural and social setting in which these theorists were operating, and which facilitated the emergence of this discourse.

this school of economics has proven to be almost unerringly wrong for over a century has not dampened their enthusiasm for abstract, individualistic, mathematical “models” of society (Sherden, 1998; Saul, 1997). This branch of economics, from the outset, resembles the Physiocrats in levels of dogmatism and abstraction. Evidence contrary to theory was, and still is, dismissed as “irrational”. The answer? A purely Hegelian “so much the worse for the facts!”:

Professor Strigl’s basic device for freeing economics from the embarrassments of psychological and other kinds of empirical investigation is to be found in his distinction between the categories and the data of economic science. The categories are derived from the very fundamental fact of economics, or rather of economising, itself. Their validity is as general ... as any sort of human life we know about. From these categories, all the laws of pure economics can be deduced. (Sweezy, 1934, p. 180)

A reliance on deductive relationships between abstract categories, construed as immutable, a priori, universal economic laws produced an increasingly one-sided, reductionist “science”. Recognising the one-sidedness of the subjective value theorists, Schumpeter (1909), most notably amongst others, put forward a conception of ‘social value’, seemingly to dismiss its validity.

From objective-subjective to social-individual arguments about value

At this point, arguments about the nature of value in political economy, which were becoming increasingly entangled in the objective givenness of the assumed identity between price and value (the paradoxical result of subjective value theory!), become focused on the tension between social and individual. Schumpeter is clear

that his formulation has ‘nothing whatsoever to do with the great problems of individualism and collectivism’, and that his concerns are ‘purely methodological’ (1909, p. 213). In his investigation of social value as a concept, Schumpeter acknowledges that modern theory ‘never spoke of social, but only of individual value’ (1909, p. 213). But individualism, he argues, is the correct mode of economic investigation: ‘we have to start with the individual’ because the reasoning of marginal utility ‘cannot be directly applied to society as a whole’ (p. 215).

While Schumpeter concludes that social wants exist (such as the communal need for such things as ‘battleships’), social value, because it cannot by definition be subject to study through the methods of subjective value theory, is at best a useful metaphor. Again, the uncomfortable fact that individualistic theory does not and cannot explain socially derived phenomena is used to rationalise the ultimate invalidity of social theory tout court (1909, pp. 231-232). This is all the more significant because Schumpeter is recognised amongst his later followers as a superlative sociologist as well as an economist (Taylor, 1951). The circularity of subjective value theory (Sweezy, 1934), whether dogmatically individualistic or metaphorically social, along with its paradoxical focus on objectified abstract “things” (“price”, “demand”, “supply”), appears to escape the early Schumpeter and his latter day acolytes.

The circularity of subjective (or “marginal” or “utility”) value theory boils down to this: all values are the expressions of felt needs of some sort. These needs are measured against the pain of acquiring the means of their satisfaction and extinguishment. The resultant psychological predispositions of such interactions is

“value”, or to be precise, “marginal value”. Whereas people can feel needs, society, having no psychology, nervous system, etc, cannot. Thus, society can have no needs, and therefore no values. The intractable logical difficulty with the marginal value theory, then, is the problems created by an extremely subjective set of assumptions about value mixed with an extremely individualistic set of assumptions about the nature of society. If all values are expressions of individual needs, then society can have no needs and thus no values. Therefore, for subjective value theory (marginal utility), there can be no such thing as social value systems, even when they clearly exist. At this point, history and relations of production have disappeared from economic theory. Along with these have gone society, which now appears as a mere abstraction, as nothing more than the sum of subjective individual needs.

The semantic turn: Philosophers of value

The increasing emphasis on price and money in mainstream economics, well documented by Innis (1942, 1944, 1951), left somewhat of a problem for economics; it left a semantic residue. Smith, Ricardo, Marx, and the Physiocrats had all attempted, with varying degrees of success, to develop a science of society as a whole, recognising the very real effects of all those aspects which were later to be excluded from the determination and meaning of value in political economy. A decisive semantic struggle ensued over the scope and meaning of value, and of what was to be done with its residual semantic categories. To see the direction of value in a formal sense, it is worth looking to Perry (*e.g.* 1914, 1916), an exemplar of a philosophical school – the philosophers of subjective value – that emerged to fill the vacuum left by extremely narrow and subjective theories of value in political

economy. In a very real sense, the formalising of philosophies of value decisively pronounced the death of a generic concept of value in political economy, and in doing so, it consigns the residue of “uneconomic” values to other realms of enquiry. In 1916, economics and the philosophy of value meet formally for the first time in the Quarterly Journal of Economics, ostensibly to identify potential commonalities. The effect, it seems, is to define boundaries:

I am certainly not using the term “value” in the sense which has recently been conventionalised for purposes of economics [as “wealth”] — and do not mean to. That sense is purely technical ... As respects terms, the situation is simply this. The term “value” is a more general term than “worth” or “good.” Such a term is indispensable if we are to disengage a generic idea or principle from the overwhelming variety and confusion of our world of praise and disparagement. Consider the ways in which a single object such as a book may be praised or disparaged. ... These various properties “cheap,” “mendacious,” “ignorant,” “edifying” and “crude,” differ characteristically as a group, from such other properties as the book’s color, weight, and size. They are the terms in which the book may be estimated, the predicates of critical judgement that may be pronounced upon it. We need the term “value” as a term to apply to all the predicates of this group. We may then speak of economic values, moral values, cognitive values, religious values and aesthetic values as various species of one genus. It follows that we should no longer speak of economics, after the manner of von Weiser as “treating the entire sphere of value phenomena”; but as one of the group of value sciences, having certain peculiar varieties of value as its province, and enjoying critical competence or authority only in its own restricted terms. (Perry, 1916, pp. 445-446)

Perry is clear that these various ‘species’ of values do not exist in isolation from one another, and that the ‘fruitfulness of grouping them together lies in the fact that there are fundamental principles common to them all, and in the fact that they perpetually interact’ (p. 446). However, he argues that even though they are ‘all functions of life’, and have ‘both a common source and innumerable threads of cross-connection’, certain of them are nevertheless ‘mutually independent in that there is no constant relation between them, either in quantity or in sign’ (p. 446). This is self-evident to Perry because ‘the same object may possess positive value in one sense, and negative value in another’ (p. 446). For instance, a ‘drug may increase in price at the same time that it grows more injurious to health’ (p. 446). And, ‘if economic commendation implied ethical commendation and in the same proportion, we should be dealing with only one type of value; but in as much as what is commended economically may be condemned ethically, there are, evidently, as we say, two standards’ (p. 446).

Perry is also clearly aware of how significant the historical shift to a subjective view of value in economics is. But his enthusiasm comes at the price of a serious elision:

Economic theory has steadily grown more psychological. It has long abandoned the naïve view that economic value is an inherent property of gold and silver. More recently it has abandoned the view that economic value is a sort of stamp or coating that things acquire in the course of their production, whether by agriculture or any form of labor. (p. 447, emphasis added)

This leaves a single realm of investigation, a point of ‘widespread agreement’ among economists and philosophers of value, ‘namely that values arise and have their being in the realm of emotion, desire, and will’ (p. 448). Here, Perry’s elision, indeed that of the whole subjective school, becomes apparent: they elide the entire social production process, the entire network of activities and artefacts through which societies reproduce themselves from every perspective, and at every level: materially, socially, relationally, mentally, and economically (see Chapter 3). While these aspects appear to Perry as being somehow related to conceptions of value, they appear as aspects belonging to separate realms of inquiry: ‘the philosopher of value, like the economic theorist, must carry his distinctions and his laws back in the last analysis to the dynamic aspect of mind, to that part of man, individual and social, with which he feels and acts’ (Perry, 1916, p. 448). What Perry forestalls here, and it gets constantly suspended throughout the history of value in political economy, is that ‘that part of man [*sic*], individual and social, with which he feels and acts’, an individual’s realm of “emotion, desire, and will” is as much a social product as factories, cities, money, and language (Marx, 1846/1972, pp. 122-123).

That is neither a mechanical assertion of social predetermination nor an assertion of economic determinism. It is a rather simple statement of a self-evident, historical fact. Even the psychological touchstone of subjective value theorists, Sigmund Freud, would ‘scorn to distinguish between culture and civilization’:

Human civilization includes ... all the knowledge and capacity that men [*sic*] have acquired in order to control the forces of nature and extract its wealth for the satisfaction of human needs and ... all the regulations necessary in order to adjust

the relations of men to one another and especially the distribution of available wealth. (1928/1991, p. 184)

The conditions into which humans are born, including the categories of thought in widespread use; the social universe of education, work, values, culture, and beliefs; normative standards of behaviour including laws, and so on – as they appear in socially mediated reality, and as they are defined in language – precede each individual as much as they produce them, along with their dynamic and context-bound sets of values. Individuals can do no more than shape materials which they find ready to hand in the world, materials of varying levels of abstraction, and they can only do so with the stuff from which they are made (Marx and Engels, 1846/1972, pp. 118-122). These materials include, are motivated by, and result in, evaluations, or expressions of value.

Philosophical nuances aside, Perry's sojourn into political economy leads inexorably towards one conclusion: the necessity for a division of intellectual labour where value is concerned. After defining the juncture at which moral and economic values meet, he then explains why the economists ought not trouble themselves with moral issues. While Perry allows that 'the economist is welcome to discuss them', he argues that all issues of value not to do with the subjective determination of prices lie outside the sphere of political economy, including alternative models of distribution, production, and exchange, are best dealt with by 'philosophical ethics' (Perry, 1916, p. 485). Thus, 'the most valuable work of the economist will be in the more restricted field', and the "higher" and more "generic" values, those with moral consequences, ought to be left to the philosophical specialist (p. 485).

By 1916 psychological and subjective theories of value dominated political economy and moral philosophy. The movement achieved not only the intellectual separation of value studies into psycho-economic and philosophico-semantic disciplines, but also the hard distinction between the individual from society in mainstream political economy. I move now, briefly, to outline another major intellectual tradition of values that developed at the same time as economics withered into a pseudo-scientific study of price — the field of eugenic sociology.

“Normal” people: Statists, statistics, and the “intellectualisation” of inequality

Normativity is a strictly social and subjective category of value: it refers to a particular kind of social work done in institutions which has the effect of producing and reproducing certain ways and forms of being, seeing, speaking, and acting within those institutions. Normality, on the other hand, is a concept that first emerges in a technical form in the study of ‘eugenics’ (Hacking, 1996), meaning, literally, ‘good origins’ (Galton, 1904, p. 1). Eugenics was the invention of Francis Galton (e.g. 1873, 1887, 1890, 1901, 1904) and is notable as the first post-Enlightenment effort to institutionalise, quantify, and thus make scientific the money-value of specific “types” of people. At first, eugenics emerged from within the rupturing fields of economics, anthropology, statics (now statistics), biology, and in particular, their admixture with the evolutionary perspective elaborated in Darwin’s (1865) The Origin of The Species (Field, 1911, p. 4). Social Darwinism and ‘Evolutionary Philosophy’ combined in eugenics to become the foundations of late nineteenth century sociology (Ford, 1909; Galton, 1887; Spencer, 1876, in Tylor, 1877). It incorporated the strong Darwinism of the time, which was an enormous value-

disruption in itself, challenging, as it did, the creationist beliefs of the Church.

Sociology added interventionist aspects of biological control to social sciences and politics (Field, 1911; Galton, 1901, 1904; Hacking, 1996).

Galton's original framework seem perhaps crude and simplistic by today's standards:

The main thesis, that great ability is hereditary, is here substantially unaltered; supported, now, by abundant genealogical material, which nearly fills the book with pedigrees of judges, statesmen, the English peerage, commanders, literary men, men of science, poets, musicians, painters, divines, the senior classics of Cambridge, — even oarsmen and wrestlers, as examples of the ability of the muscles rather than of the mind. But if the theme is in the main the same, the manner of presentation is notably changed. Galton's characteristic originality of thought is reinforced by his equally characteristic attention to scrupulous precision of method. (Field, 1911, p. 6)

Despite the circularity of the theoretical origins, eugenic assumptions remain a pervasive influence today (Hacking, 1996).

Galton was firstly a student of statistics, an artefact of liberalism's adverse reaction to 'divine right and royal prerogative' (Ranney, 1976, p. 143):

This outlook was challenged in the late sixteenth and seventeenth century by what Greenleaf calls the theory of empiricism. This new way of looking at things was first advanced by Francis Bacon and later by James Harrington, Sir William Temple, and Sir William Petty. It was based on the inductive analysis of facts observed from both history and the experience of contemporary governments ...

As one of their principle tools the English empiricists developed “statistics” in the original meaning of the word. The point is worth noting briefly. The empiricists sought to foster what they called “statists” —that is, men who had wide personal experience in and knowledge of political affairs and had, as a result, gained skill in management. (Ranney, 1976, p. 143).

Statistics (then ‘statics’) was thus to be the statists’ rigorous collection and comparison of mathematically verifiable facts about society and its control —the tools for a science of social management (Ward, 1895).

Enthusiasm for eugenics, combined with the widely felt panic of fin de siecle imperialism throughout western Europe, prompted George Bernard Shaw to say ‘nothing but a eugenic religion can save our civilization from the fate that has overtaken all previous civilizations’ (1904, in Galton, 1904, p. 21). For liberal socialists, most notably the Fabianists, who believed that ‘the causes of science and socialism were inextricably linked’, eugenics provided a scientific sociological method through which the quality of ‘social stocks’ would be improved (Paul, 1984, p. 574; Galton, 1904).

Galton believed that ‘natural selection’ had failed in the case of the human race, mostly because human laws and sympathies led us to support an ever-growing under-class of poor, and therefore inferior, people who would continue to reproduce at a far greater rate than the rich, if only by sheer weight of numbers (Galton, 1901, p. 132). To illustrate the perfectly sealed and circular vacuum in which Galton operated, we might listen to how he speaks about the value of specific types of people, and how they are best determined:

Dr Farr calculated the value at its birth of a baby born of the wife of an Essex labourer, supposing it to be an average specimen of its class in length of life, in cost of maintenance while a child and in old age, and in earnings during youth and manhood. He capitalised with actuarial skill the prospective values at the time of birth, of the outgoings and the incoming, and on balancing the items found the newly born infant to be worth 5*l*. A similar process would conceivably bring out the money of value at birth of children destined when they grew up to fall into each of the several classes, and by a different method of appraisal to discover their moral and social worth. As regards the money value of men of the highest class, many found great industries, establish vast undertakings, increase the wealth of multitudes and amass large fortunes for themselves. Others, whether rich or poor, are the guides and light of the nation, raising its tone, enlightening the difficulties and imposing its ideals. The most gifted of these men, members of our yet undefined X class, would each be worth thousands of pounds to the nation at the moment of their birth. (1901, p. 132)

Galton and his five-shilling babies ought hardly be worth mentioning. And, were it not for the enormity and duration of the movement Galton inspired, he could be ignored. As it happened, though, eugenics underpinned dominant thought for the “left” and “right” in interventionist policy throughout the West until at least 1940 (Paul, 1984).⁵ This was most overtly the case between 1901 and 1940, at which time Hitler and his Third Reich, possessed of perverse notions of ‘race hygiene’, had

⁵ The eugenic mindset was so prevalent that H.G. Wells thought he ran the risk of being considered ‘a crank’ to suggest that criminals should perhaps be allowed to breed, and that Galton might not be seeing the whole picture (in Galton, 1904, p. 10).

developed a mechanical and systematic method for annihilating the least “valuable”, most “abnormal” and “burdensome” people in society.

The most significant contribution of the eugenics movement, at least so far as this thesis is concerned, was to inculcate the conception of objective, “value-free” Normality—the now mythical “normal person” became a socially ratified, empirically verifiable “fact” (Hacking, 1996, pp. 59-61). It was this concept, combined with more racially motivated literature of the day, that paved the way for “scientific” assumptions about the inherent inequality of whole classes, races, and “types” of people (Hacking, 1996; Graham, 1977; Paul, 1984). Notions of Normality became a part of Normative evaluations throughout whole societies. What happened as a consequence of such values being propagated en masse were the mass murders in Stalin’s USSR and Hitler’s Germany (Bullock, 1991). At the height of the eugenics movement, between 1934 and 1938, the predominance of actuarial statistics, combined with the economic emphasis on cost and price, pushed jurisprudence to place a precise figure on ‘the value of life’—Galton’s worldview had become quantified at law (Symmons, 1938).⁶

Social anthropology, sociolinguistics, and symbolic value

Another important contribution to the technical study of social perceptions of value can be found in social anthropology. Early ethnographic work by Mauss (1925/1990), Durkheim (1933/1960), and Malinowski (1921) on symbolic value

forms the basis of this school of thought (Firth, 1953; Hart, 2000, pp. 19-20). Social anthropology was developed as a conscious and critical response to Spencerian and Galtonian social Darwinism, and to the false individualism of subjective value theories in political economy (Hart, 2000, p. 186). As concrete as social anthropology's object might be, the study of values in this field has never been treated as unproblematic. Various contemporary perspectives, especially since the work of Kuhn (1962), claim new insight into the relativity of scientific values. But since at least 1908, it has been recognised that, both in the 'physical and natural sciences', perhaps moreso in the social sciences, there exists a slippery relationship (if any) between 'fact and value, or, more generally, science and value' (Urban, 1908, p. 291). Social science had always been somewhat more suspect to charges of privileging value judgements over facts because 'these sciences, or this part of science, unlike the physical sciences, contains value judgements or propositions as part of the very material of science itself' (p. 292). Of course, it has long been recognised that 'truth' is a certain form of value in itself (cf. Aristotle, 1999, pp. 4-5; Lemke, 1995, p. 43); that 'every attempt to describe truth value and to discriminate it from other values, must be a description of its nature'; and that 'truth and error are values belonging to the experience of judging' (Moore, 1908, p. 430; cf. also Lemke, 1998; Martin, 2000; Wittgenstein, 1929, in Janik and Toulmin, 1973, pp. 194-195).

These concerns about the relationship between the value judgements made by social researchers and what they "see" as concrete facts in cultures which are often

⁶ The eugenic worldview flourished during a time when the first electronic mass medium, the radio, became available. Public opinion and social values suddenly became the most valuable of all "commodities" (Chapter 3; Hobsbawm 1994: 142-5; cf. also Innis 1951, p. 188; Gallup, 1928; Creel, 1941; Bernays, 1928;

quite foreign to their own is very much a theoretical foundation of social anthropology; value is a fundamental aspect of the experience and formulation of social anthropology as a discipline, both theoretically and practically (Firth, 1953). Here, language, value, and action are acknowledged as inextricably joined: ‘Social anthropologists are, in general, concerned with social relations expressed in behaviour – verbal behaviour as well as non-verbal behaviour; words as well as acts’ (Firth, 1953, p. 146). For Firth, value is the determining element in human social relations, value is what gives social action meaning. Value is expressed in patterns of social ‘preference’ or ‘decision-taking’ (p. 146), and as a concept, value ‘gives reality to our structural concepts’ (p. 147): ‘[t]he preferences in social relations, their worthwhileness, the standards of judgement applied, give a context and meaning to social action. This is the field for the study of values’ (p. 146).

Firth’s conception of value, and of social anthropology tout court, is social and dynamic. Value helps to clarify ‘the theory of stability and change in social action’ (p. 147). As such, value is a foundational concept for social anthropology because the most important concern for anthropology is ‘getting an adequate theoretical basis for dynamic analysis’ (p. 147). It is worth noting that more recent sensitivities to the conceptual tensions between social structure, function, form, agency, and processes are not something unique to the current (2000) age. Firth emphasises that social anthropologists ‘must guard against reifying values, much as we should avoid reifying social structures’ (p. 147). Therefore, ‘the anthropologist’s notions of values may change in accordance with a changing climate of opinion’, and

Lasswell, 1927, 1941).

the anthropological ‘definition of values in its widest meaning is an operational one’ (p. 147). For these reasons, according to Firth, the anthropologist’s conception and ‘treatment of value tends to be broader in cultural scope, more realistic in illustration, and still fitted to a general social theory’ compared with other disciplines in the social sciences (p. 147).

The most broad semantic categories foregrounded by what Firth has to say about values are those of Normativity and Desirability (cf. Lemke, 1998). For Firth, value-systems are expressed in evaluative patterns (p. 148). Anthropological research sometimes makes the mistake of pushing values into ‘the realm of the irrational and the unconscious’, thus giving ‘no basis for any change in value judgements’ (p. 148). One way to avoid dismissing values in this way is to look at value in terms of ‘patterns’ which ‘prescribe and delineate the acceptable’ (p. 148). From this viewpoint, Desirability and Normativity are mutually conditioning aspects of value:

A pattern is not merely a systematic regular chain or modal form of behaviour. It also carries an invitation or command to reproduce the pattern as well as an exclusion and proscription of what is outside it and therefore unacceptable. By implication here is a most important aspect of value, namely its quality of being something wanted and felt to be proper to be wanted. (Firth, 1953, p. 148)

The classical distinction between use-values and exchange-values (cf. Aristotle, 1962/1981; Marx, 1976; Smith, 1776/1997) becomes problematic from the perspective of functionalist social anthropology, since preferences, or evaluative patterns, are seen to be firstly normative, social, and dynamic: exchange-value is a use-value, and vice versa, just as Marx argued. While social anthropology offers rich

insights into the socio-symbolic relations of society, and sophisticated perspective on the links between evaluation and social action, the scope of its early inquiries largely avoids the specific problems of mediation processes. This is in large part because of its concern with cultural forms that were seen and construed as ‘primitive’ (see e.g. Malinowski, 1921, for a critique of that assumption). Thus although the insights produced by social anthropology are relevant to this thesis in synthesis with other elements, they are derived from perspectives that largely ignore new media, or tend to see mediation processes as something else.⁷ This is all the more remarkable considering that when social anthropology was developing as a recognisable intellectual discipline, the world of electronic media was exploding. Evaluative patterns had already become a major commodity-form.

Propaganda and public opinion: “the dictatorship of palaver”

Propaganda is as old as public opinion and ideology. But its most sophisticated study had to wait for the radio to come into widespread use. While other figures, like George Creel (1941), George Gallup (1938) and Edward Bernays (1928, 1945), were co-pioneers in public opinion studies, Harold Lasswell (1927, 1941) remains, I think, the most sophisticated of the early propagandists. It is here in Lasswell’s early studies of mass propaganda techniques that a systematic, theoretically sophisticated study of the relationship between new media, language, and value emerges for the first time. For Lasswell,

⁷ This is now changing dramatically. See, for instance, the work of Boyer (in press, forthcoming) and Hart (2000).

Propaganda is the management of collective attitudes by the manipulation of significant symbols. The word attitude is taken to mean a tendency to act according to certain patterns of evaluation. The existence of an attitude is not a direct datum of experience, but an inference from science which have a conventionalised significance. ... The valuational patterns upon which this inference is founded may be primitive gestures of the face and body, or more sophisticated gestures of the pen and voice. Taken together, these objects which have a standard meaning in a group are called significant symbols. The elevated eyebrow, the clenched fist, the sharp voice, the pungent phrase, have their references established within the web of a particular culture. Such significant symbols are paraphernalia employed in expressing the attitudes, and they are also capable of being employed to reaffirm or redefine attitudes. (Lasswell, 1927, p. 627, italics added)

Lasswell has a clear grasp of the subtle tensions between the social and the individual, between objective and subjective aspects of value, and, drawing on the theory and methods of social anthropology, avoids all the vulgarities of extreme individualism or Hobbesian functionalism. The ‘collective attitude’ is not on a ‘plane apart from individual actions’ (p. 628). Rather, Lasswell sees ‘the collective attitude’ as a ‘pattern’ which designates ‘standard uniformities of conduct at a given time and place’ (p. 628). The ‘collective attitude’ is a ‘distribution of individual acts and not an indwelling spirit which has achieved transitory realization in the rough, coarse facts of the world of sense’ (p. 628). Lasswell differentiates between the techniques of attitude change by psychiatric means and by means of propaganda. The former is based on having ‘access to the individual’s private stock of meanings’, whereas the latter is based on ‘the standard meanings of the groups of which the individual is a

member' (p. 628). Once again, resonances with contemporary perspectives on CDA are quite overt in Lasswell.

His is no crude structuralist understanding of group behaviour. Lasswell sees that the individual moves through what are now known as multiple discourse communities (Lemke, 1995; Fairclough, 1992), and that each of these groups has its own peculiar attitudinal patterns for making evaluative meanings (cf. Lemke, 1995, p. 42). Lasswell is not seduced by the idea that any of the elements of propaganda are static entities. They are to be seen as ineffable: '[n]o propaganda fits tightly into its category of major emphasis, and it must be remembered that pigeon-holes are invented to serve convenience and not to satisfy yearnings for the immortal and the immutable' (p. 629). Propaganda may be positive or negative, but its object is always cultural values:

Every cultural group has its vested values ... An object toward which it is hoped to arouse hostility must be presented as a menace to as many of these values as possible. There are always ambitious hopes of increasing values, and the object must be made to appear as a stumbling block to their realization. There are patterns of right and wrong, and the object must be made to flout the good. There are standards of propriety, and the object must appear ridiculous and gauche. If the plan is to draw out positive attitudes toward an object, it must be presented, not as a menace and an obstruction, nor as despicable or absurd, but as a protector of our values, a champion of our dreams, and a model of virtue and propriety. (p. 630)

The means by which desirable or undesirable attitudes are organised towards the objects of propaganda are not "things", nor are they oriented towards 'the acceptance of an idea without reflection', nor are they even concrete "suggestions"; they are,

rather, the manipulation of ‘cultural material with a recognizable meaning’ (p. 631). Moreover, they are a ‘form of words’ (p. 631), whether ‘spoken, written, pictorial, or musical, and the number of stimulus carriers is infinite’ (p. 631).

Propaganda has become necessary, according to Lasswell, because of ‘technological changes’, especially the rise of literacy and the emergence of electronic communication, and because most of what could ‘formerly be done by violence and coercion must now be done by argument and persuasion’ (p. 631). The sum total of advanced technology, increased literacy, and the widespread ‘ventilation of opinions and the taking of votes’ is that ‘[d]emocracy has proclaimed the dictatorship of palaver, and the technique of dictating to the dictator is named propaganda’ (p. 631).

A singular and clear assumption – that mass propaganda has power over collective attitudes and values – is the single source of coherence linking the early propagandists’ writing. For Bernays (1928), more psychologically oriented in contrast to Lasswell, public opinion, ‘[l]ooked at from the broadest standpoint, is the power of the group to sway the larger public in its attitude’ (p. 958). Its technique is ‘the psychology of public persuasion’ (p. 959). But, he notes, the techniques of ‘sociology’ are just as important to propaganda (p. 961). The process of ‘manipulating public opinion’ begins with ‘statistics’ and ‘field-surveying’ (p. 961).

Bernays considers that ‘a circumstance or circumstances of dramatic moment’ are the events that change and establish the ‘functioning of given attitudes toward given subjects, such as religion, sex, race, morality, nationalism, internationalism, and so forth’ (p. 961). Whether the object is attitudes towards hats or attitudes

towards sexuality, Bernays believed that, in the ‘age of mass production’, there must be a corresponding ‘technique for the mass distribution of ideas’, and thus for the mass production of public opinion (p. 971).

Propaganda and the media environment: Lasswell’s categories

By 1941, Lasswell had, through a longitudinal, world-wide study of mass media messages, developed a system for categorising the values attributed to particular symbols. Such a system, he argues, ‘supply us with data about many of the missing links in the process of political and social development’ (Lasswell, 1941, p. 459). The term ‘symbols’, here, means construals of abstract entities with strong associations to cultural value systems, entities such as ‘Germany’ or ‘The Prime Minister’ or ‘Labour’ (pp. 460-461). It is worth enumerating a ‘representative—certainly not an exhaustive—list of standards’, or evaluative categories, developed by Lasswell (p. 460).

Some broad categories in Lasswell’s analytical approach

Lasswell’s categories for understanding mediated evaluations are worth mentioning for their expansiveness, as well as to highlight the hierarchical nature of evaluative meanings (see Chapter 5). This is evidenced in how Lasswell arranges construals of values, showing how evaluations can be evaluated. The broadest of Lasswell’s categories are Indulgence, a positive presentation of valued symbols when they are put ‘in a favorable light’; and Deprivation, a negative presentation of a valued symbol by its place ‘in an unfavorable setting’. Indulgences may be ‘positive-realized’ (‘a gain is realized for the symbol’); ‘negative-realized’ (‘a loss may be

avoided for the symbol'), 'positive-promised' ('gains promised for the future'), or negative-promised ('future losses will be avoided'). Deprivations may be 'positive-realized' ('actual losses sustained'), 'negative-realized' ('gains are blocked in the past'), 'positive-threatened' (losses 'may be referred to the future'), or negative-threatened ('blocked gains may be referred to the future) (p. 460).

The following broad categories of evaluators may also appear in positive or negative polarities:

1. Expediency (Strength): 'describes the position of the object of reference in regard to such values as safety, goods, respect (power and respect are sub-categories of deference)';

1a. Safety: the security 'of persons, groups or things';

1ab. Efficiency: the 'level of performance of a function';

1b. Power: 'control over important decisions ... measured according to the means of decision-making—fighting, diplomacy, voting...';

1bb. Efficiency of Power

1c. Goods: 'the volume and distribution of goods and services';

1cb. Efficiency of Goods

1d. Respect: the degree of esteem attributed to a symbol

1db. Efficiency of Respect

2. Morality (obligation to adhere to moral standards)

- 2a. Truth-Falsehood: ‘the obligation to refrain from the deliberate dissemination of falsehood’;
- 2b. Mercy-Atrocity: ‘makes use of a moral standard to justify acts, the obligation to refrain from inflicting unnecessary cruelty’;
- 2c. Heroism-Cowardice: ‘the obligation to act courageously’;
- 2d. Loyalty-Disloyalty: ‘the obligation to serve a common purpose’;
3. Propriety: ‘the obligation to learn a conventional code’
4. Divinity: ‘an obligation to abide by the Will of God’;
5. Legality: ‘the standard is to abide by law’
6. Beauty: the ‘standard is aesthetic’
7. Consistency: the ‘standards are logical relationships among proposition [*sic*]’;
8. Probability: ‘[p]robability of a statement with no imputation of falsification’;
9. Euphoria-Dysphoria: the ‘standard is agreeable or disagreeable subjective states’;
10. Omnibus: ‘Statements fusing many standards’ (pp. 460-462)

Many of the categories that Lasswell identifies here are found in the more recent sociolinguistic approaches of Martin (1998, 2000), Halliday (1994), and Lemke (1998). Many are not, and the differences are analytically important. I outline these differences and their significance in Chapter 5.

Time, space, and opinion polls: Making the monkey bars of direct democracy

In the propagandists' work we see, again, an emphasis on the relationship between social influences and individual psychology, and between objective and subjective sources and measures of value. We especially see an increasing emphasis on the role of language in value determination. Just as importantly, we increasingly see the importance of mass media in value determination. For the propagandists it seems that the objective social milieu is an extrinsic shaper of the subjective values of individual psychologies. We also see a strong emphasis on the relationship between perceptions of value, language, and media. Already, there is concern about the amounts of money being spent on US election campaigns (Poole, 1939, p. 371). But that is merely a quantitative aspect of a fundamentally qualitative change in the way value determinations are being effected in the public sphere.

For Poole, elections and opinion polls are ways of arriving at 'value judgements' (p. 371). Poole claims that 'there is a choice between divine and human judgement' and, having given God short shrift, we must now rely solely on human judgement (p. 372). Poole reduces the 'determination of values' by humans to two 'principles' of judgement, one based in 'the qualitative or heroic', the other, 'quantitative and statistical' (p. 372). These are significant differences because they correspond to distinct dimensions of social life: time and space. Judgements

by either the qualitative or quantitative principle may take place in two dimensions. These dimensions may be called conveniently time and space. The dimension of time is historical and its use opens up the store of human judgements found in the records of history and the enduring monuments of literature and art. The other

dimension is simply that which we are more accustomed to think of in this ordinary connection, running at right angles to time (p. 374, emphasis added).

Like Bernays (1945), Poole sees the possibility of what is now called “direct democracy” destroying representative government because of a tendency towards ‘laziness or moral cowardice’ on the part of ‘legislators and executive leaders’ (Poole, 1939, p. 374):

They are honestly disposed to believe that the “voice of the people” (that is a majority) is the voice of God or Truth; or, to state the matter less theologically, that in a human world the best value judgement is the judgement of the greatest number of humans on any given problem at any given time. This is the quantitative or statistical, as opposed to the solely qualitative, idea. We have come to be so committed to it in our political philosophy that the cost and fuss and noise of the elections and polls are taken for granted—even welcomed, as adornments of our political life, which perhaps they are. (p. 374).

The historical search for ‘judgements in the dimension of time’ is firstly based on ‘the qualitative or heroic principle’, a kind of “Gallup poll” taken in the dimension of time’ (p. 375). Thus, with the introduction of Gallup’s (1938) techniques, ‘value judgements in the domain of public affairs are come to, apparently, by an interesting, and rather reassuring, interaction and cross-control between the qualitative and quantitative principles operating in the two dimensions of time and space’ (Poole, 1939, p. 375, emphasis added). Here we see introduction of an attempted synthesis between static and dynamic categories of value by assessing human action from points of view that correspond to specific types of space-bound [synchronic] and time-bound [diachronic] value-judgements. We begin to see the emergence of a form

of consciousness that takes into account – or at the very least implies – the kinds of ‘bias’ inherent in media that Innis (1942, 1944, 1950, 1951) later specifies.

Gallup (1938) held no such conceptions of historical balance in terms of space and time where matters of judgement were concerned, preferring to think of democracy as a “hot” and reactive relationship between political action and ongoing measurements of public opinion:

James Bryce said that the next and final stage in our democracy would be reached if the will of the majority of citizens were to be ascertainable at all times.

With the development of the science of measuring public opinion, it can be stated with but few qualifications, that this stage in our democracy is rapidly being reached. It is now possible to ascertain, with a high degree of accuracy, the views of the people on all national issues. (Gallup, 1938, p. 9)

Clearly, the implications of manipulative activities in the public arena do not escape Gallup. The usefulness of polling is not to be confined to government or politics. It can be ‘equally useful in the field of social problems’ (p. 13), as if the two were entirely separate.

Once sufficient is known about specific attitudes – opinions about welfare, religious prejudice, venereal disease, and any problem of attitude whatsoever – they can be addressed ‘with equal success’ (pp. 13-14). Thus, ‘with many of our leading psychologists and social scientists’ interested in the problem of measuring public opinion, ‘it will not be long before the final stage in the development of our democracy, as described by Bryce, has been reached—that the will of the majority of citizens can be ascertained at all times’ (p. 14). Questions about the relationship

between the “facts” of public opinion, centralised control of media, and the quality of government and its organs appear to elude Gallup in his enthusiasm for an early end to the History of Democracy. These questions, muted and smudged over by Gallup’s methodological enthusiasms, were answered with a resounding blast from Western Europe, the shockwaves of which are still being felt today.

The product of total propaganda: Nazi Germany

No mention of propaganda, media, language, and values can exclude Nazi Germany. Germany is, if nothing else, an exemplar of the singular potential for concentrated use of mass media to effect the most profound shifts of values in a technologically massified society. For the Nazi propagandists, as for Bernays and Lasswell, propaganda is qualitatively distinct from advertising; it is a matter of moral obligation to the public, a value and public good in itself:

Political propaganda may not be confused with advertising. Advertising changes its target as needed. The Americans call it "ballyhoo." ... There is no thought of moral or national values. "Ballyhoo" is advertising at any price, with no moral content, no moral thought or responsibility In a political sense, it is incitement, distortion, and it is all immoral.

When we talk about the necessity of political propaganda, we seek powerful moral goals. We want to make our people a united nation that confidently and clearly understands National Socialism's policies, quickly and correctly. We cannot change our political principles as we would a consumer good, becoming random, irresponsible and immoral. We do not want to distort, confuse or incite, rather clarify, unify, and tell the truth. Political propaganda is the highest responsibility, it

is a moral duty, a national duty. We may never think there is too much of it, or that it is superfluous. (Wells, 1936)

Moral and national values are conflated in the Nazi doctrine, and mapped directly onto an heroic human form. This following is characteristic: 'For us, gold is not a measure of the value of money. Our foundation is German labor and confidence in the Führer' (Lange, in NSDAP, 1939). Attitude and value are also synonymous for the Nazi propagandists. These are testable aspects of human experience which are open to manipulation. Again, fin de siècle, End of History rhetoric resounds throughout:

The National Socialist worldview is an attitude, an attitude that must show a courageous face to the outside, but domestically be infused with camaraderie.

... world history today must be rewritten, and that we will do the rewriting. It would be a mistake to delegate the task to the teachers and professors who wrote previous histories, for they grew up under the old world and were educated in it. The 2000 year old Christian age is dying and a new national Socialist world under Adolf Hitler is being born. The youth are growing up in this new world. Our task is to serve these ideas and to lead the struggle. Then we will be able to look confidently into the future. (Rosenberg, 1939, in NSDAP, 1939).

The futuristic orientation of the Nazi regime is well documented. Ideas and leaders were to be served to this end. The paranoid values of 'negative eugenics' (e.g. Herbert, 1913; Wells, in Galton, 1911), social Darwinism, and the natural state of all-pervasive competition were propagated through film (Hippler, 1937); radio (Goebbels, 1933); printed materials, and by every means and medium available,

including cultural gatherings, mass marches, and even ‘stickers’; and especially through the spoken and written word (Stark, 1930; cf. also Bullock, 1991). Children were not to be excluded from the vicious logic that inheres in seeing our world as a manifestation of the competition of every living thing against every other living thing. A fifth-grade text-book ‘for young girls’ from the Nazi era is instructive here:

We have established that all creatures, plants as well as animals, are in a continual battle for survival. Plants crowd into the area they need to grow. Every plant that fails to secure enough room and light must necessarily die. Every animal that does not secure sufficient territory and guard it against other predators, or lacks the necessary strength and speed or caution and cleverness will fall prey to its enemies. The army of plant eaters threatens the plant kingdom. Plant eaters are prey for carnivores. The battle for existence is hard and unforgiving, but is the only way to maintain life. This struggle eliminates everything that is unfit for life, and selects everything that is able to survive. (Harm and Wiehle, 1942, p. 168)

A set of values and imperatives for action flow from such a falsely scientific understanding of life as a never-ending competition of every living thing against every other living thing. Appeals to fear; to immutable laws of nature; to subjective psychology; to doctrines of scarce resources; to eugenic sociology; to work; to “the future of the nation”; to racial “hygiene” and “hygiene” in general; to science, technology, and truth — this combination of appeals forms the evaluative blueprint for National Socialist propaganda. The comprehensive range of the Nazis’ appeals, combined with a centralised control of media, made its effects profound, widespread, and explosive. The objective was quite simple: to change the nation’s patterns of evaluation. The task of propaganda

is to free those who today still are rooted and anchored in the foreign ideas of liberalism and Marxism, to make them feel, think and act according to National Socialism, to bring them to the point where they judge and evaluate everything according to National Socialist principles. (Dietz, 1934)

The nation's patterns of evaluation were successfully manipulated by the Party, and the rest, as the saying goes, is history.

A brief summary

I leave my history of value here for the moment, hopefully having emphasised the extreme shift in the way value-determinations have been studied, understood, propagated, and enacted over the last three hundred years. The trajectory I have called the linguistification of value has become increasingly apparent, especially over the last century, and even more so during the last ten years (even though it was always the case, although perhaps to a less obvious extent). The interdependent nature and size of mass-mediated societies is now unequalled in history. As mass mediated societies become more thoroughly infused by mediation processes, the more value seems to shift into the realm of valorised dialects. Where money-values are concerned, this has never been more apparent. The “appearance” and “disappearance” of hundred of billions of dollars in money now turns on the words of a central bank governor, the sexual proclivities of the US president, on an intern-concubine's intention to speak before a grand jury, or merely on ‘market sentiment’ (cf. Adams, 1998; Adams, Alford, & Shanahan, 1997; Mullane, 1997; McFeatters, 1998). Thus political economy needs more than ever, not merely to acknowledge, but also to grasp the relationship between language, mediation, and perceptions of value,

precisely because value is a far broader concept than price with specific and recognisable outcomes. Furthermore, “it” is unquestionably conditioned by mediation processes, as exemplified by the superlative efforts of the Nazi regime.

The brief history of value I have outlined here shows the historical relationship between mediation processes, influential institutions, their language about value, and perceptions of value. It shows the linguistification of value over time. Value has shifted from being perceived of as a quality of an objective substance to being an outcome of dynamic processes variously mediated in forms and modalities of language, or more generally, meaning-making. Because value is produced by what people do, it is firstly time-based, even though it becomes manifest in certain substances (more and less ephemeral) that are attributed with value. The historical description given here, though, does not explain value transformations. It merely situates the present study in an ongoing historical process. A theory of value is – unquestionably – central to a critical theory of social change. As such, it cannot be situated solely in economics, psychology, sociology, anthropology, linguistics, or any other sub-discipline of social science. A theory of value is a theory of social change and social action, the basic assumption being that perceived values and action are inextricably related. With the historical linguistification of value, we can, perhaps, assume that definitions of value are first expressed in language, albeit partially and implicitly. We can also assume that the means of inculcation – mediation processes – are an intrinsic part of the process of production where perceptions of value are concerned: perceptions are, by definition, the object of media production processes.

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Chapter 2

Critical systems theory: A political economy of language, thought, and technology

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For the special issue

“Bridging established and emerging directions in communication research”

Abstract

An emergent form of political economy, facilitated by information and communication technologies (ICTs), is widely propagated as the apotheosis of unmitigated social, economic, and technological progress. Meanwhile, throughout the world, social degradation and economic inequality are increasing logarithmically. Valued categories of thought are, axiomatically, the basic commodities of the “knowledge economy”. Language is its means of exchange. This paper proposes a sociolinguistic method with which to critically engage the hyperbole of the “Information Age”. The method is grounded in a systemic social theory that synthesises aspects of autopoiesis and Marxist political economy. A trade policy statement is analysed to exemplify the sociolinguistically created aberrations that are today most often construed as social and political determinants.

Introduction

This special issue responds to a confluence of historically specific social and technological phenomena that not only presents new challenges for communication scholarship, but also places it at the centre of a new form of political economy: the so called “knowledge economy”¹. Language, by which I mean spoken, written, or signed words, is intrinsic to social acceptance of, and engagement with, the putatively immutable trend towards this new economy. Indeed, a central assertion of this paper is that language is as fundamental to the operation of a knowledge economy as it is to thought, identity, history, and human societies *tout court*. That language is fundamental to human societies is not a new assertion, but I restate its importance here to draw attention to the ahistorical assumptions which underpin the knowledge economy’s utopian propaganda, focus, and rationale.

Throughout the twentieth century, communication technologies have followed an historically seamless trajectory of convergence, both in terms of the technologies themselves, and in terms of the media monopolies that have manipulated them. Media that have hitherto operated within discrete social domains continue to converge within traditionally disparate contexts, thus dissolving perceived boundaries between them. Traditional workplaces, including farms, factories, and offices, make increasing use of ICTs. This network of technological infrastructures is increasingly dominated by the culture industries: mass media corporations whose influence spans the globe. The digital ‘convergence’ of

workplace technologies with those of the culture industries suggests that persons in the workplace are increasingly exposed to the proprietary intentions of transnational culture industries whose all-pervading influence now extends directly into the workplace, just as it does in the home.

An autopoietic-sociolinguistic understanding of social meaning making provides a critical understanding of the centrality of language to the human social condition at a period in history in which thought and language are the basic commodity forms of a “globalised” knowledge economy. From an autopoietic perspective, human knowledge is the product of a cognitive relationship between persons operating on and within social and physical environments. Where human knowledge and political economy are concerned, language is both a means of production and exchange. The basic commodity-form of the knowledge economy, then, may be defined as a cognitive distinction that can be exchanged between people in more or less valued forms of language. Ultimately, the knowledge-value of any particular distinction, or set of distinctions, is mediated by the language used to describe it. The role of language in human societies therefore contains its own imperative as the focus for communication research. This is especially so where the research must straddle traditionally divergent sub-disciplines of communication research as a consequence of increasingly blurred boundaries between the social contexts within which these sub-disciplines developed.

¹ Generally speaking, the terms *information economy* and *knowledge economy* are used interchangeably. For clarity, I use the term *knowledge economy* except when citing other sources.

The social contours of the emerging knowledge economy

In the comparatively well-developed countries of the Organisation for Economic Cooperation and Development (OECD), the use of ICTs in the workplace increased from 'less than a quarter of workers in the mid-1980s to between 40 to 56 per cent of workers by the mid-1990s' (OECD, 1998, p. 3). ICT usage is most common among '*high-skill* occupations such as administrative, managerial, and professional workers' (1998, pp. 3-4, original emphasis). But increasingly pervasive ICTs do not merely blur boundaries between the workplace and the home, they also blur the proprietary distinction between the public and private domains. Throughout developed countries, ICTs are used in the bulk of commercial transactions, including those made by automatic teller machines, credit card purchases, and point of sale transactions. Companies buy and sell the details of such transactions, thus commodifying individuals' purchasing habits, and rendering their 'absolute identities' as knowledge commodities (Basho, 1998).

The most monopolised and economically powerful position in the knowledge economy is occupied by the culture industry (Walker, 1999). Currently, it has a reach many times that of networked ICTs and is the most socially pervasive sector of the information economy (Walker, 1999; Wasko, in press). Murdoch's \$US 48 billion *News* network spans the earth, and is driven by entertainment in broadcast and cable television, newspaper, radio, film, and internet media networks (Deans, 1998). While Murdoch's network is indisputably big business, it is dwarfed by *Disney*: the total value of the entire South Korea Stock Exchange is now precisely half that of the stock value of the Disney Corporation (Walker, 1999). Both *News* and *Disney* are

multimedia *empires*. They control print, internet, television, film, and cable television interests throughout the world, and produce much of the proprietary content that occupies their “virtual” spaces (Deans, 1998; Wasko, forthcoming). But neither media monopolies nor ‘convergence’ are new phenomena. Throughout the twentieth century, media producers have continued to expand the diversity of their products while control of production has become increasingly centralised (Tetzlaff, 1991, p. 17).

The knowledge economy is most often described as the result of a revolution in communication technologies. Its public propaganda requires nations, businesses, and persons subordinate their purposes to the trajectory of these technologies. In response, nations throughout the world have, to greater and lesser degrees of enthusiasm, reverted to essentially neo-classical economic policies of liberal trade and deregulation. The result of such policy shifts has been increasing amounts of economic inequality and social dislocations (Bauman, 1998). These dislocations are most often explained away under the rubric of “globalisation”, a polysemic term which eludes comprehensible definition precisely because of its all-encompassing objective. Globalisation is often attributed as the “rational” basis for broad-based policy shifts by governments, businesses, and multilateral policy institutions alike. Typically, such institutions espouse the apparently immutable benefits of globalisation, triumphally ascribing it with the unmitigated virtues of social, political, economic, and technological progress. Such triumphalism, however, uncritically ignores evidence of the increasing inequalities and dislocations that accompany globalised capitalism.

To engage the triumphalisms of globalisation and its knowledge economy, I provide a sociolinguistic perspective that views human communities as living systems situated in historically specific relations of production and power. After elaborating the cohesiveness of the theory and method I outline here, I analyse a short text to demonstrate the paradoxical role that commodified thought and language plays in objectifying and obscuring relationships within society. The analysis focuses on the emerging, discursively constructed agents that are allowed, and often forced, to play determining roles in the public policies and propaganda of the “information age”. From the theoretical perspective I present here, the knowledge economy – precisely because its commodity-forms are exchanged through more and less valuable languages – may be seen as less a technologically determined phenomenon and more a political economy of language, thought, and technology.

Theoretical orientation: Producing commodities for the knowledge economy

In human social systems, a sociocognitive metabolism emerges because of the relationship between people and their material and social environments. Marx (1970) describes a ‘social metabolism ... which gives rise to definite social relations’ (pp. 51-52). Here, he specifically refers to the exchange of material commodities, socially useful things that derive exchange-value from their usefulness; the socially necessary labour time to produce these; and the social relations that this arrangement entails at any given point in history (1970, pp. 50-51; 1976, p. 125). Here, I disregard the material² commodities of the social metabolism – like, for instance, golf balls or

² *Material*, in this sense, might best be defined as *physico-chemically constituted*.

sausages – which have a tangible form that is relatively fixed over a period of time. Rather, I address the social metabolism of intangible, ephemeral, and abstract sociocognitive commodities of the knowledge economy: thought and language. In language, and with other sociocognitive artefacts like image and music, people render their environments socially meaningful. The sociocognitive metabolism, then, is the entire network of interactions and processes through which people produce socially significant, socially exchangeable meaning. While I acknowledge that humans make meaning with ‘every sort of object, event and action *in so far as it is endowed with significance, with symbolic value*’ (Lemke, 1995, p. 9, emphasis added), I argue that within this metabolism, the domain of language is the domain in which social perceptions of value and power are created and mediated (Lemke, 1998; Martin, 1997; Martin, 1999). With the advent of the knowledge economy, the immediacy of language, combined with its evaluative dimensions and accelerated propagation, the self-promoting value systems of knowledge commodities are free to act upon themselves, increasing their value at the speed of light in a globally integrated technological system of self-valorising commodities which are exchanged in more and less valued dialects of language.

Credit derivatives are exemplary of the knowledge economy’s most abstract and exclusive commodity forms. Put as simply as possible, they are a form of insurance on future or ‘notional’³ debt which is incurred, in most cases, only upon a verified “credit event” which may or may not trigger a valuation in a credit derivative. These financial sector commodities are exchanged without any clear

understanding or agreement about exactly *what* they are (Edwardes, 1998a, 1998b). Indeed, they are hard for people ‘without a Nobel Prize in mathematics’ to understand (Kohler, 1998). Nevertheless, trade in these pure abstractions generated \$US 20 billion dollars in 1996, twice as much in 1997, and is expected to exceed \$US 100 billion per year by 2001 (Edwardes, 1998a). Credit derivatives exemplify the commodity-forms of thought that sustain the knowledge economy, and the valorised social communities within which they are produced. By viewing thought and language as commodities, my intention is not to endorse their economic appropriation, but rather to draw attention to the fact that, with the advent of a knowledge economy, these artefacts *are* commodities. Indeed, concomitant with all-pervading ICTs in the West, the knowledge economy operates by commodifying ‘[e]very nook and cranny of social life’ (Robinson, 1996, in Kennedy, 1998), including birth, death, sex, identity, and opinion.

The historical trajectory of value and its relationship with commodity forms.

Value has played an increasingly objectifying role throughout the technologisation of societies. Marx argued that a commodity’s exchange-value is directly related to its social utility, or ‘use-value’, which ‘through its qualities satisfies human needs of whatever kind’ (1976, p. 125). While recognising the importance of the ‘production of ideas’ (1846/1972, pp. 118-119), Marx’s analysis of *Capital* (1970, 1976, 1978, 1981) focuses predominantly on material labour and commodities rather than ‘mental production’ (1976, p. 126). Nevertheless, he notes

³ Notional is meant quite literally. That is, it only exists in the form of a hypothetical possibility.

the quasi-religious relationships between them. The commodities of the knowledge economy can be compared with religious artefacts because, in the knowledge economy,

the products of the human brain appear as autonomous figures endowed with a life of their own, which enter into relations both with each other and with the human race. So it is in the world of commodities ... I call this the fetishism which attaches itself to the products of labour as soon as they are produced as commodities, and is therefore inseparable from the production of commodities (Marx, 1976, p. 165).

The diachronic transition from the concrete commodity-forms of Marx's day to the more abstract cultural commodities of late capitalism creates an increased

immediacy [that] takes the place of the mediated, exchange-value itself. If the commodity in general combines exchange-value and use value, then the pure use value, whose illusion the cultural goods must preserve in a completely capitalist society, must be replaced by pure exchange-value, which precisely in its capacity of exchange-value deceptively takes over the function of use value (Adorno, 1991, p. 34).

As communication technologies expose increasingly intimate aspects of human social relationships to commodification, exchange-value appears to play an increasingly powerful role in society. *Hypercapitalism* (Graham, 1999) is the evolutionary point in the trajectory of exchange societies at which 'thought becomes a commodity, and language the means of promoting that commodity' (Horkheimer & Adorno 1944/1998, pp. xi-xii). The primacy of exchange-value has advanced to the degree that our illusory system of economic value mediates social utility, rather than

vice-versa. In the knowledge economy, the products of the human imagination, including particular “types” of thought, the language used to convey these, and the perceived value of these two socially inseparable phenomena, *are* commodities.

An economy that is concerned with the exchange of more and less valuable forms of knowledge presupposes more and less valuable forms of language and vice versa: ‘[l]anguage makes power; power gets valued’ (Martin, 1998, p. 429).

Valorised dialects can, indeed, be presented and understood as values in and of themselves (Gal, 1989, pp. 350-355; Lemke, 1995, chap. 4; Martin, 1998). Today, such dialects include those used by scientists, mathematicians, economists, business administrators, politicians, technologists, and so on (cf. Martin, 1998). The dialects of power provide ‘access to material resources’ and are, unquestionably, materially produced, ‘socially embedded’ practices (Gal, 1989, p. 352) with a specific function in society (Martin, 1998). In being exchanged, the products of valorised dialects produce and reproduce specific, though not immutable, social relations. This a direct function of the sociocognitive metabolism and the social relations that sociocognitive exchanges both engender and entail. In the following section I therefore elucidate an autopoietic view of social systems and the role that language plays in constituting these systems.

Autopoiesis, sociolinguistics, and living systems

The organismic metaphor of a ‘social metabolism’ may suggest a Parsonian, functionalist view of society-as-organism (Douglas, 1973, p. 81). I assume the contrary. While societies may be defined as living systems, they are necessarily meta-organismic collections of complex, dynamically related processes, structures, and

participants with emergent properties and characteristics that are distinct from those of the organisms that constitute them. Human social systems, then, may be viewed as third-order⁴, meta-organismic, living systems. The presence of autopoietic organisation - or self-producing and reproducing processes - within a system is both necessary and sufficient to classify a system as living and vice versa (cf. Maturana & Varela, 1980, 1987; Varela, 1992). The importance of autopoiesis to the argument I present here lies in Maturana and Varela's assertion that human beings' autopoiesis is made possible within an interrelated network of social environments that are created, coordinated, and maintained in the domain of language (1980, pp. 107-108; 1987, pp. 230-231; Maturana, 1995).

Systemic cognition is an emergent property of any living system because of the need for continual distinctions to be made by a system between itself and its environment (Maturana & Varela, 1980, p. 9). Because human social and cognitive systems are constituted, coordinated, and maintained in the domain of language, and because language is a fundamentally social phenomenon, sociolinguistics provides the most appropriate analytical tools for understanding the systemic and *intrinsically creative* role of language in human social systems (Graham & McKenna, in press). This is because, to study the way knowledge is created by living systems, '[w]e are forced to discover "regions" that interweave in complex manners, and, in the case of humans, that extend beyond the strict confines of the body into the socio-linguistic register' (Varela, 1992, p. 14).

⁴ First-order living systems are unicellular. Second-order systems are meta-cellular organisms. Third-order systems are social systems of meta-cellular organisms (cf. Maturana & Varela, 1980, 1987).

The knowledge economy, then, conflates cognition (and recognition), the intrinsic property of any living system, with language, the ultimately coordinating, intrinsically creative social phenomenon in human societies. The human tendency to reify and anthropomorphise sociocognitive creations often leads us to see ourselves as being separate from, or alien to, the language that we live in and the distinctions that we make in language. Consequently,

we live existing in our language as if language were a symbolic system for referring to entities of different kinds that exist independently from what we do, and we treat even ourselves as if we existed outside language as independent entities that use language. ... The main consequence of our existing in language is that we cannot speak about what is outside it (Maturana, 1995).

By conflating cognition, language, and political economy, the knowledge economy allows the sociocognitive, sociolinguistic creations of expert dialects to operate as reified abstractions that can be appropriated, bought, deployed, and sold within the proprietary domains of the knowledge economy's infrastructure. That is, by providing the technical means to produce a global system of self-valorising abstractions, including credit derivatives, call warrants, roubles, and baht, the globalised technological infrastructure of the knowledge economy facilitates the global propagation of thought, value, and power, which is ultimately packaged and sold in language. Now, more than ever, 'language *is* practical consciousness' (Marx & Engels, 1846/1972, p. 122, original emphasis). Thus, the knowledge economy can also be seen as the form of political economy in which identity itself becomes a product, because the environment of language also provides the resources with which humans constitute their self-descriptions. Human social systems also maintain their

identity in language. It is the means by which communities ‘build solidarity, patrol and extend their boundaries, and perpetuate themselves in the life of a general culture’ (Killingsworth & Gilbertson, in McKenna, 1997, p. 191). Thus, a sociolinguistic analysis of human social systems is consistent with the fundamental tenets of autopoiesis, and it can confront the complexities of the knowledge economy.

Autopoiesis and sociolinguistics

To maintain consistency with the systemic framework I have outlined above, I employ an analytical framework based in the sociolinguistic field of ‘critical discourse⁵ analysis’ (Fairclough, 1989, chaps. 5-6; 1992, chap. 1; 1995, chaps. 2, 5; Gee, 1992, p. 115; Gee & Lankshear, 1995; Halliday, 1978, pp. 113-114; Lemke, 1995, chaps. 1-4; McKenna, 1997, 1999; McKenna & Graham, 1999; van Dijk, 1994). Critical discourse analysis treats social systems as ‘discourse’ or ‘speech’ communities (Gal, 1989; Lemke, 1995, p. 41). Sociolinguistic practices, including the way members of a speech community define and describe themselves and the environments they inhabit, define the boundaries of a given community, its relationships with its environment, and the attitudes of the community towards these. Critical discourse analysis recognises that ‘[e]ach community, each discourse

⁵ In this section concerning sociolinguistics, I use the terms *discourse* and *language* interchangeably. I do so realising that *discourse* is a contested term. I define *discourse analysis* as the analysis of ‘extended samples of spoken or written text’ for the purpose of understanding how language is used in particular social contexts to produce, reproduce, maintain, and change social structures and practices (Fairclough, 1992, p. 3, chap. 3).

tradition, has its own canons of intertextuality⁶, its own principles and customs regarding which texts are most relevant to the interpretation of any one text' (Lemke, 1995, p. 41). A corollary to this perspective is that the basic unit of analysis for meaning cannot be words or "signs", but rather, the thematic diversity of language practices becomes the focus for sociolinguistics, and the most basic level of analysis becomes the clause.

Method, data, and analysis

My chosen sociolinguistic method, which can only briefly outline here, draws from various approaches to sociolinguistic analysis that have their disciplinary roots in social anthropology (e.g. Bourdieu, 1984, 1993; Emerson & Holquist, 1986; Holquist, 1981; Gal, 1989; Halliday, 1978, 1994; Lemke, 1995, 1998; Martin, 1997, 1998, 1999; McKenna, 1999). Lemke describes the basis of the method most succinctly. It focuses on three interdependent aspects of language: *presentational, orientational, and organisational*.

Presentational

The *presentational* aspects of language are the ways language is used within a particular community to construe things in the natural or social domains by their 'explicit descriptions as participants, processes, relations and circumstances standing in particular semantic relations to one another' (Lemke, 1995, p. 41). *Presentational* refers to the actual words that a community typically uses to describe aspects of its

⁶ Lemke (1995, p. 22) refers here to Bakhtin's (in Emerson & Holmquist, 1986) 'heteroglossia': That is, the

world and the semantic relations between these. For instance, the terms ‘political and economic management’, ‘globalisation’, and ‘economic sovereignty’ can be semantically related in many different ways. How these are arranged will, to varying degrees, reveal the discursive traditions of the speaker’s discourse community:

Globalisation brings in its wake many difficult issues of *political and economic management*. Some see it challenging *economic sovereignty*. It creates winners and losers. (Department of Foreign Affairs and Trade [DFAT], 1997, p. 21).

Contrast this with:

Sound *political and economic management* can mitigate the effects of *globalisation* and ensure that the nation’s *economic sovereignty* is not threatened, and that social inequalities are minimised.

While each of these statements belong to the genre of public policy statements and share a similar lexis, both make implicit assumptions about the Participants (in this case, *political and economic management*, *globalisation*, *economic sovereignty*); Processes (the verbs that link these); Relations (the heteroglossic, or intertextual “voices”, in the text); and the Circumstances in which the “action” takes place. These assumptions become more apparent when the orientational aspects of language are considered.

range of ‘social voices’ from which a discourse community traditionally chooses in interpreting and describing its world (cf. also Fairclough, 1992, chap. 4).

Oriental

The *orientational* aspects of community's language refers to how the community uses language to orient itself attitudinally to others, and to the presentational content of its own language (Lemke, 1995, p. 41). The orientational aspects of the sentences contrasted above highlights the different evaluative dimensions of each text. In the DFAT text, *globalisation brings effects in its wake*. The text reveals an evaluation for inevitability and immutability in terms of globalisation's trajectory. It orients the reader to see globalisation as an immutable force that impacts on policy and even dictates the fate of persons [*it creates winners and losers*]. The second text, which I have manufactured for the purposes of demonstrating these aspects of language, orients the reader to see globalisation as being subordinate to policy management, implying that rational, conscious decisions can influence outcomes in society. The orientational dimension of language is the dimension in which attitudes and evaluations are realised (Lemke, 1998).

Organisational

The *organisational* aspects of language reveals how a community constructs 'relations between elements of the discourse itself' (Lemke, 1995, p. 41). The organisational elements of a text create thematic cohesion across long stretches of text and often reinforces elements of a discourse community's thematic formation about a given aspect of their discursive universe. For instance, in the DFAT text, the following two sentences reinforce the three I have listed above:

The power of national governments may become more circumscribed in the future but the nation state is far from dead, and sovereignty is still cherished. This is unlikely to change over the next fifteen years (DFAT, p. 21).

These five sentences achieve organisational coherence around a specific, though unstated, theme, which is also a proposition and an assumption: *Globalisation is more powerful than national governments*. The purpose of the DFAT text is to explain the effects of globalisation and the communications revolution. It relates a series of non-human Participants with each other through a series of propositions. Agentless propositions (those in which humans do not act) that use identifiers, or defining relational Processes (verbs), often allow the *Token* (that which stands for what is to be defined by the relational verb) to reverse its position with the *Value* (that which defines the Token). For example, in the following proposition, the Token and Value can shift to either side of the relational Process without raising too much alarm in the reader: [1] *The impact of globalisation* <Token> *restricts* <Process> *national trade policy* <Value>. When the *Token* and *Value* are reversed around the Process, the statement still makes “sense”: [2] *National trade policy* <Token> *restricts* <Process> *the impact of globalisation* <Value>. Despite being linguistically interchangeable, which is partly due to the way these terms collapse many items and processes into a single entity, the two Token/Value positions construe contested ideologies and discursive traditions: [1] indicates neo-classical assumptions about the primacy of trade; [2] indicates conservative assumptions about the primacy of national policy regimes. In the DFAT text, which I analyse further below, a neo-classic intertextual thematic formation (ITF) provides organisational coherence for the text.

A method for autopoietic-sociolinguistic analysis

The method I describe here entails knowledge of a community's discourse traditions. It proceeds on the assumption that, within a given discourse community or social system, intertextually constituted '*thematic patterns* ... recur from text to text in slightly different wordings, but [are] recognisably the same, and can be mapped onto a generic semantic pattern that is the same for all' texts about a particular theme (Lemke, 1995, p. 42, original emphasis). These intertextual thematic formations, or ITFs, form the organisational foundation of the analysis. Because I assume that social cognition and identity is maintained and coordinated in language, the data collection method begins with an analysis of systemically produced themes of description, propositions and proposals, about itself or aspects of the world that concern it. The statements (propositions and proposals) produced by a discourse community about a particular subject are firstly analysed thematically and historically in order to assess the way the community traditionally construes its world, its attitudes to its own and others' discourses, the way it relates the elements of its discourse to each other, and how these have change throughout the history of the community. Once recurring propositions about a given subject are distilled into thematic patterns, attitudinal coherence between systemically and individually produced propositions within a given social system about a given subject can be assessed. These can then be analysed at the semantic level to determine the lexico-grammatical features of particular social entity, including those concerning value. To briefly demonstrate the method, I investigate an exemplar of 'technocratic discourse' that characterises the current international policy community's stance on technology, communication, and globalisation.

Applying the analytical method

The analysis that follows focuses on a small amount of text produced by DFAT (1997, pp. 18-21) that exemplifies policy and “research” statements by national and international legislative assemblies about technology, globalisation, and the implications of these for social and economic policy. It is organised around a recurring ITF in policy statements about technology and globalisation which can be identified in texts produced by the Organisation for Economic Cooperation and Development (OECD); the International Monetary Fund (IMF); the Whitehouse; the Joint Standing Committee on Treaties (JSCT), an Australian Federal Government body; the National Office for the Information Economy (NOIE); the World Trade Organisation (WTO); and DFAT (McKenna & Graham, 1999). The ITF concerning the role of technology in globalised society forms the following semantically circular ITF. The underlined words, which are linguistic condensations, are often allowed to act in policy statements as anthropomorphs and, in many cases, as deities:

Communication Technologies revolutionise the way Businesses operate because they facilitate Global Trade (or International Trade, International Business Activity, or Global Markets). Financial Sector (or the Services Sector) growth, which is integral to Economic Growth, depends on Free Trade (or Open Markets, Trade Liberalisation, or A Liberal Trading Environment). Free Trade is achieved through Deregulation (or Reform). Free Trade creates jobs, freedom, and prosperity and thus is good. Financial Sector growth is facilitated and accelerated by improved Communication Technologies (sometimes called The Communications Revolution). Because communication technologies are revolutionising Global Trade, and because Free Trade is desirable and beneficial, Globalisation, which is characterised and

facilitated by Free Trade, Communication Technology, and Deregulation, is both inevitable and desirable. Therefore national regulatory regimes are anachronistic and must be reformed or removed.

Unfortunately, Globalisation and national regulatory Reforms cause short term “social dislocations” (which is a technocratic euphemism for structural unemployment, poverty, and social degradation). While these dislocations are inevitably offset by long-term gains for the whole Economy, this is not always obvious to “the public” (who are always distinct from Business and government and usually construed as uninformed). It can make them suspicious about Free Trade and Globalisation. But because it creates jobs prosperity and freedom, Free Trade is the cure for the social dislocations caused by Globalisation. Therefore, Deregulation (free trade or trade liberalisation) must be vigorously pursued if the full benefits of Communication Technologies are to be achieved (McKenna & Graham, 1999).

Each of the propositions in this technocratic ITF, all of which depend on the actions of non-human agents, are virtually interchangeable in terms of mutual causality for two reasons: firstly because they form an impenetrable circle of reasoning. Therefore, the order in which the propositions appear in any given text is irrelevant, since each can be causally related with any of the others across a long enough stretch of text. Secondly, these non-human agents, which I will call Actors here, are highly-compressed, sociolinguistically created and reified, nominalised abstractions, and thus may be made to interact with each other in almost any way that the technocratic author sees fit.

In the National Interest...

In The National Interest (DFAT, 1997) provides an excellent example of the technocratic ITF I describe above. It is a section entitled *Globalisation and the communications revolution* (pp. 18-21). The purpose of the four-page, 50 paragraph, 900-word text is, apparently, to explain globalisation, the ‘communications revolution’, and their combined effects on foreign and trade policy for Australia for the next fifteen years. For the sake of brevity, I will limit the analysis to the first six sentences of the passage. Even in this short passage, the technocratic features of DFAT’s discourse become apparent. Sentences are numbered in [square brackets]; Actors are underlined; and nominals, including nominal groups (see below), are marked in **bold**:

[1] Globalisation has characterised **the latter part of the twentieth century** and will continue into **the twenty-first**. [2] **A defining feature of globalisation is the way in which business operates: firms increasingly organise **their activities** on a **global scale**, forming **production chains**, including **services inputs**, that cross **many countries** and greatly increase **global flows of trade and investment**. [3] Globalisation is not new, nor is it just **an economic phenomenon**: it has important **political and social dimensions**. [4] It is driven by many factors, of which technology, the related mobility of people, goods and ideas, and a liberal trading environment are perhaps the most important.**

[5] The increasingly global activity of firms has **implications** for **trade and policy**. [6] It reinforces **the importance of open markets** and focuses **attention** on **national regulatory structures as potential obstacles to the efficient allocation of resources** through **international trade and investment** (DFAT, 1997, p. 18).

The ITF that pervades international trade policy statements provides organisational coherence for the DFAT text: the familiar relationships of the ITF “normalise” this passage in terms of it making “sense”. By analysing its presentational and attitudinal aspects, the contours of the technocratic, neo-classic ideology that underpins DFAT’s statement become apparent.

Presentational

The key to understanding how DFAT’s technocratic discourse works is to understand the way its linguistic condensations work and how these are allowed to interact with one another. Linguistic condensation, or nominalisation, can collapse a multitude of themes, Participants, Processes, and Circumstances into a single word, like *globalisation*; or into a nominal group, like *the increasingly global activity of firms*. Once these nominals are created, the author is free to relate them semantically in any way he or she sees fit: that is, they may be cast as Processes, Participants, and/or Circumstances. In the above text, *Globalisation* is cast, simultaneously, as a Process and a Participant: *Globalisation ... will continue into the twenty-first (century)*; and as a Circumstance: *Globalisation has characterised the latter part of the twentieth century*. Because globalisation is a nominalised process, it is able to dominate the behaviour of the verbs in sentence [1] *has characterised* and *will continue*. The effect of this is to render its multiple roles as Participant, Process, and Circumstance transparent within the sentence. In sentence [3], globalisation appears as a multi-dimensional Thing. In essence, sentence [3] says that globalisation affects every aspect of society: political, economic, and social. Furthermore, it has done so for some unspecified amount of time.

The most significant aspect of DFAT's use of nominals is not the myriad themes and processes they collapse, but how they are related to each other semantically. The text does not explain globalisation; it valorises Free Trade. It does this by drawing intertextually on the circular logic of the ITF that provides organisational coherence for the text. This becomes most clear in sentences [4], [5], and [6]. In sentence [4], the passively voiced *is driven* is the central Process. The nominalised elements that comprise the *driving factors* of globalisation are *technology, the related mobility of people, goods and ideas, and a liberal trading environment*. Each of these is devoid of human agency. While people are mentioned in the nominal group, *the mobility of people*, they are subordinated to the nominalised *mobility*. People appear (*of people*) as an adjectival phrase for *mobility*, which, in turn, is subordinated to the trajectory of technology.

Goods and ideas (tout court) - examples of which might be, respectively, cheese puffs and daydreams - are also condensed into a single *factor* that *drives* globalisation. No further explanation as to why this might be the case is forthcoming. *Trade liberalisation*, the process by which a liberal trading environment is created, is also named as a driving factor of globalisation. Here, the author achieves two significant causal subordinations: globalisation is causally subordinated to *trade liberalisation* (trade liberalisation causes globalisation), and *the mobility of people* is causally subordinated to *technology*. Sentences [5] and [6] complete the circularity of the argument. In sentence [2], we are told that globalisation is defined by business operating internationally which, in turn, creates increased international trade. Sentence [5] sets the reader up for the ideological component that is to follow by making *policy* one of the *implications* of international business activity. Apart from

this rhetorical strategy, the sentence is semantically redundant. The thing that implies (*has implications for*) effects on trade and policy is an abstract Process that contains an essential part of its own definition: *the increasingly global activity of firms has implications for trade*: in other words, international trade has implications for trade.

Sentence [6] delivers the ideological *coup de grâce*. The reader was set up for this in sentence [5]; now here it is. The *policy implications* we inevitably encounter are clearly consistent with the neo-classic ITF that has underpinned Australian governments and international policy proponents since the early- to mid-1980s. The anaphoric nominals in the text, *globalisation, global activity of firms, liberal trading environment*, are conflated with *trade* and *policy* by ambiguous use of the pronoun *It*. Of course, if the antecedent of *It* is assumed to be the *global activity of firms*, then the sentence is, again, causally circular [the global activity of firms [*It*] *reinforces the importance of open markets*, which, of course, constitute a liberal trading environment, which in turn facilitates the global activity of firms]. *It* can also be read as standing for any of the other nominalised Actors in the text thus far (since this is only sentence six): *technology, globalisation, the increasingly global activity of firms, a liberal trading environment*. If it does, in any case, then each of these become constitutive of the phenomenon being described. Thus the constituent elements of the text are definitively closed to other possibilities without ever mentioning what the text renders *inactive*.

Having semantically closed off the potential for debate, which was already largely achieved by linguistic condensation, the text continues on its own terms, leaving us with four incontestable propositions which are revealed by translating

sentence [6] using ‘congruent’ structure: that is, the way in which meanings are typically realised in everyday language (Martin, 1999, p. 36). Translated to congruent structure, sentence [6] says:

The global activity of firms reinforces the importance of open markets. It also draws attention to national regulatory structures. National regulatory structures are potential obstacles to international trade and investment. If left unfettered, international trade and investment allocate resources efficiently.

Sentence [6] performs its 29-word feat of semantic terrorism using only two Processes (*reinforces* and *focuses*). These two Processes relate three complex, highly-compressed, nominal groups that condense highly-contestable concepts, propositions, and processes. In the first statement of fact, sentence [6] proposes that, because firms operate within an international trading environment, open markets are important. This begs the question: to whom are they important and why? Secondly, the global activity of firms *focuses attention* (a material Process performing a behavioural, anthropomorphising function, and which suggests an attentive entity) on *national regulatory structures....* There is no human agency here, but the sentence conveys the easily disputed proposition that national regulatory structures are an unerring hindrance to international trade. This is where the text’s ideological underpinning is converted into policy imperatives. And, it is all done *ex animo*, without a human being in sight, because it rests upon the “given” that unregulated trade and investment allocate resources efficiently. I leave the presentational analysis here with every assurance to the reader that the text becomes no more lucid or logical as it proceeds towards its inevitable conclusion: that free trade needs to be pursued as a

matter of policy so that the full benefits of technology and globalisation can be realised.

Orientational

The interdependence of the presentational, orientational, and organisational aspects of language are apparent in this analysis. The DFAT text orients both itself and the reader to the linguistic relationships of power inscribed in the ITF that provides organisational coherence for the knowledge economy's institutionalised propaganda. Essentially, the DFAT text construes people as powerless and invisible in the face of its linguistically animated, globally operative social determinants: technology, globalisation, and free trade. In fact, individuals, it would appear from DFAT's text, have no part to play in the processes that affect them. The attitudinal stance of the latter-day technocratic author is paradoxical in this respect. Neo-classical economics, as conceived by Adam Smith, David Ricardo, and more recently espoused by Friedman and Friedman (1980) and Hayek (1980), bases its claim to legitimacy on the "democratic" doctrine of "rational choice". It does so on behalf of the "perfectly rational" individuals it professes to describe. But in DFAT's neo-classic universe, the individual has no choice whatsoever, she must defer to the trajectories of technology, globalisation, and free trade, all of whom have become nominally activated anthropomorphs, and in some cases, immutable deities.

Talking technology: Hype, Hell, and Hypercapitalism

The widely-propagated language that espouses the unqualified benefits of technological progress most clearly marks it as ideological: the reality it describes does not exist except as pure description. Most institutional perspectives on

technology, at least in developed countries, ignore the negative or exclusionary consequences of technologised society. The NOIE, an Australian Federal government body, exemplifies such techno-utopian language, which is most readily identified by its dissociative relationship with reality:

We can all choose to participate at our own pace, in our own time, in our own homes, in a truly global economy, a global society. *In the global information economy, no one, no market, no information—nothing we may need or want—is beyond reach.* The information economy opens up to us unprecedented convenience, flexibility, and choice about how Australians will live, learn, work, create, buy and sell (1998, p. 4, emphasis added).

When measured empirically against the *realities* of the ‘global society’, the NOIE’s language is easily dismissed as utopian fantasy. If there is a global knowledge economy, then its constituency’s access to the technological means of engagement is definitively inequitable. Indeed, access to the *most basic* social infrastructure remains highly restricted. If the world’s population consisted of 1,000 people,

650 would lack a telephone at home. 500 would never have used a telephone. 500 would have to walk two hours to the nearest telephone. 335 would be illiterate. 333 would lack access to safe, clean drinking water. 330 would be children. 70 would own automobiles. Ten would have a college degree. *Only one would own a computer* (Irving, 1998, emphasis added).

Rather than being a force for democracy and equality, communication technology’s most significant effect has been to expedite an increasing volume of

currency transfers and to aid the international organising capabilities, and therefore the geographical reach, of transnational corporations (Graham, 1998). Economic activity within the digital realm is mostly constituted by the \$US 1.3 trillion-per-day⁷ global trade in currency (Saul, 1997; Thurow, 1996). In 1995, the entire annual global trade in tangible goods generated \$US 3.7 trillion (Saul, 1997; Thurow, 1996). In other words, currency speculation generates at least 100 times the entire value of global trade in tangible goods. Meanwhile, large sections of humanity, *hundreds of millions of people*, are relegated to a living hell (cf. Bauman, 1998; Castells, 1998, chapt. 2, esp., pp. 145-165).

Many developing and developed nations have suffered economic collapse as a consequence of hyper-speculation. Latin America, East Asia, and Central Europe all endure ongoing social and economic crises largely as a result of ‘casino’ capitalism (Bagwell, 1999a). Increasingly pervasive technologies combined with transnational demands for diminishing labour costs are directly attributed with increasing levels of global unemployment and underemployment, which are now at historically unprecedented levels (International Labor Organisation [ILO], 1998, 1999). Children are in demand as ‘sexual commodities’ in the ‘booming’ global sex industry (Castells, 1998, pp. 154-157). The proliferation of ICTs within the more wealthy countries of the world is propelling the child sex industry, which is flourishing in developing and developed nations alike (p. 156). At the end of the twentieth century, demands for ever-cheaper labour combined with children’s use-value as sexual commodities is having the unthinkable effect of *increasing* child slavery (pp. 152-

⁷ This is a conservative estimate.

156). While institutional champions of the knowledge economy argue that social degradation is merely ‘coincidental’ with the ascendancy of hypercapitalism (e.g. Slaughter & Swagel, 1997), there are clear systemic links between globalised capitalism and the destruction of lives throughout the world, ‘from sub-Saharan Africa to the United States of America’ (Castells, 1998, p. 159).

Faced with evidence of economic inequality and social degradation on the one hand, and the mass-mediated hyperbole propounding the incontestable, ultimately democratising effects of communication technologies on the other, critical language research must engage the technological rationality that underpins the knowledge economy’s propaganda to understand how language is used to maintain and reproduce a system that is definitively exclusive and inequitable. In the following paragraphs, I address four key terms of the ‘knowledge economy’ to show how the most widely-propagated concepts of this putative economy are evidence, not of substantial social progress, but of an intellectualised, fashionable ideology - fashioned and commodified in language - that serves to reinforce a system that has become, more than ever, ‘a predator of its own people’ (Castells, 1998, p. 162).

Interactive

We are often told that a distinguishing characteristic of new communication technologies is that they are *interactive*. The general understanding of interactive media is that people can interact with certain electronically mediated content such as CD-Roms, web pages, internet games, and so forth, but not with others – television and radio programs for instance. The notion of interactivity, then, appears to be a conceptual device for distinguishing between broadcast media and computer

mediated content. From the theoretical perspective I present here, *life itself*, meaning-making included, is definitively and *necessarily* interactive: the day you or I cease to interact with our world will be the day our friends and family begin to make final arrangements for our remains, or at least for our comfortable accommodation. Just as people on the internet ‘browse’ the pages of a site by activating textual or image-based links, people browse libraries, turn the pages of a book, change television channels, or indeed, merely look around at the scenery. A person negotiating the contents of a web page or a CD-Rom cannot change the content, just as a person reading a book cannot change its content. From the perspective of interactivity, the sociocognitive contents of a web page, a book, or a movie are metabolised no differently from each other: meaning is created *in* interaction because *all meaning-making is an interactive process*. Interactivity, then, is a somewhat misleading term for a kind of technological interface that has little to do with the *process* of meaning-making which is solely and wholly interactive, even if it entails a person interacting with their own descriptions about the world or themselves or whatever.

Multimedia

The term ‘multimedia’ is also misleading. It merely situates the embeddedness of language in a specific material context, a perspective that has been addressed by conscientious language scholars since well before the Christian era, as have the aesthetic trappings of communication design (Grote, 1872, pp. 1-67). Like the term *interactive*, *multimedia* is more about interface than meaning-making itself. Meaning-making has always, quite necessarily, been multimediated and “multimodal”. However, regardless of the multiple technologies, or media, through

which humans exchange meaning, language remains the only human process that can discuss and coordinate its own meaning and social significance, as well as that of other socially significant artefacts. While images and music can intertextually incorporate and reconfigure preceding material to make new meaning, their capacity to recursively regulate their *own* meaning is limited to the production process: image and music are, themselves, communication technologies. As with all human artefacts, they are endowed with social significance in language. Images cannot explain their own meaning. And, just as music cannot explain what it means; the medium on, or with which a text is written cannot explain the meaning of the text it carries. While I acknowledge that images, music, sounds, and media do have an effect on how language is perceived, and indeed, music, images, and sounds can often express aspects of human experience that language perhaps cannot, I maintain that their social *value* is ultimately subject to the language used to describe them in any given social context.

The crucial aspect of any particular medium for critical language is how its materiality affects or limits the meaning potential of language by the way language is used within it, and how language shapes the social significance - the socially perceived value - of the medium and its content. Despite claims to the contrary, the medium is not the message. Whilst the meaning of a medium *can* be interpreted, as may the meaning of a sausage or a golf ball, a medium remains merely a medium, an ultimately passive thoroughfare for some content or other. Its meaning and value is continually contested and negotiated in language. Thus, *multimedia* is a term more suited to the advertising propaganda designed for selling computer technology than it is to the study of meaning-making.

Convergence

The latest buzzword to explain the trajectory of digital technologies is *convergence*. The word ‘convergence’ is given to mean that the culture industries, the internets, and the telecommunications networks, once they are completely digitised, will form a seamless, globally integrated network of “interactive”, “multimedia” communication technologies. In respect of the knowledge economy, communication technology is a passive prosthetic rather than an initiating source of wealth. This is because human knowledge is a product of a *fundamentally communicative system of interactions*: society. Here, the implications for convergence become apparent: it means increasing concentrations of control in a communicative, economically driven system of heavily monopolised media organisations in a society which is firstly communicative. Any excitement about “convergence”, an historically seamless process, can be attributed to the increasingly monopolised control of a technological apparatus that thrives on its own self-aggrandising propaganda. In this respect, *convergence* has much in common with the much-touted but poorly-explained concept of globalisation.

Globalisation

Communication technologies and neo-classic notions of “free trade” play the main facilitating roles in the literature that attempts to explain the apparently immutable trajectory of globalisation, which is more a sociolinguistic aberration than a meaningful phenomenon. Because of the organisational advantages provided by communication technologies, and its collocation with free trade, globalisation is assumed by its protagonists to provide increasing amounts of ‘freedom’, ‘wealth’,

and ‘choice’. To date, the material effects of globalisation, for most people, have been precisely the opposite. While its proponents wryly concede that globalisation has its ‘adjustment costs’, and inevitably ‘creates winners and losers’, they assert that such costs are far outweighed by far the benefits of globalisation which are ‘so clearly proved by the theory of comparative advantage’ (JSCT, 1999, p. 11). As in all ideology, abstract theory dictates that to which reality refuses to accede.

My criticisms of “globalisation”, especially when framed by aspects of Marxism, would seem all the less credible were it not the case that George Soros, an exemplar of speculative success, predicts ‘the imminent disintegration of the global capitalist system’ because of its ‘inherent instability’ (Soros, 1999, in Hartcher, 1999). This is Soros; not Marx, and ‘he’s a man who ought to know, having earned billions from such speculation’ (Schroeder, 1999, in Bagwell, 1999b). Of course, ‘[w]here speculation ends - in real life - there, real, positive science begins: the representation of the practical activity, of the practical process’ by which humans produce and reproduce the historically specific conditions in which they live (Marx, 1846/1972, p. 119).

This is critical theory’s focus. If there is a global society, it is definitively inequitable. If there is a knowledge economy, then it is an exclusive economy in which illusions are produced, appropriated, valorised, and exchanged in a technologically mediated, globally integrated system of technologies. This system of communication, in turn, propagates the ideological language which sustains it. The ultimately mediating, ultimately coordinating communicative environment for human

social systems is language. The much-valued language of knowledge, and therefore of power, is a language that requires constant critique.

Conclusions

The theoretical and analytical perspective I have outlined here highlights the inseparable relatedness of language, thought, identity, history, and society. Each of these factors interdependently creates the circumstances of instantiation for each of the others. Language is the processual, socially interactive phenomenon that coordinates, contests, describes, creates, and exchanges the sociocognitive understandings which emerge from each instance of humanity, and which mediates the production and reproduction of the social systems within which these occur. Social systems are, in turn, the environment in which humans flourish, albeit to widely varying degrees of satisfaction and success. Language is an empirical and constitutive process. It facilitates the socially shared distinctions by which we come to know and describe our world, our societies, and ourselves. At a time in history when little, if anything, in Western society remains outside the technological apparatus that expedites increasing concentrations of communicative and economic power, critical language studies must try to understand and thereby challenge the meaning of the medium and the degree to which it operates as a dominating influence on social consciousness. Language, by its very nature, is the only means we have to address these critical issues.

By putting forward my critique of techno-hyperbole, I risk being labelled as a Luddite or a technophobe. To the contrary, I enjoy the benefits of computer technologies, they are useful tools. I do not criticise technologies, and I acknowledge

my privilege in having access to them. Rather, I criticise the obfuscating propaganda that communication technology's global sales team uses, and the social system that currently comes pre-packaged with technologised 'globalisation' as a non-optional, concomitant extra. It is my hope that this paper, and this special issue, will extend the capacity for critical language scholarship to engage the techno-deterministic hyperbole of the "Information Age".

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Chapter 3

Hypercapitalism: A political economy of informational idealism.

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Hypercapitalism: A political economy of informational idealism

ABSTRACT In this this paper I identify specific historical trajectories that are directly contingent upon the deployment and use of new media, but which are actually hidden by a focus on the purely technological. They are: the increasingly abstract and alienated nature of economic value; the subsumption of all labour - material and intellectual - under systemic capital; and the convergence of formerly distinct spheres of analysis –the spheres of production, circulation, and consumption. This paper examines the implications of the knowledge economy from an historical materialist perspective. I synthesise the systemic views of Marx (1846/1972, 1875/1972 1970 1973 1976 1978 1981), Adorno (1951/1974 1964/1973 1991; Horkheimer and Adorno 1944/1998; Jarvis 1998), and Bourdieu (1991 1998) to argue for a language-focused approach to new media research and suggest aspects of Marxist thought which might be useful in researching emergent socio-technical domains. I also identify specific categories in the Marxist tradition which may no longer be analytically useful for researching the effects of new media.

KEYWORDS hypercapitalism • Marx • Adorno • knowledge economy •

Introduction: New media, value, capital, and other “things”

Today’s information and communication technologies (ICTs) are most easily viewed as a collection of interconnected, objective “things” that constitute the new and emerging techno-social domains. But I am advancing an argument here as to why research into new media might set aside, as far as possible, the “things” that comprise technical infrastructure to focus on the social *processes* that are conditional upon, and conditioned by, the presence and use of these new things. Most especially, I argue for a focus on language that people produce *about* these things, and about the ideas, artefacts, and social circumstances evident in language. Silverstone (1999: 10) argues that ‘[r]evolutions are usually more rhetorical than real’, and this is a central assumption of the argument I present here: I assume that the “information revolution”, along with its “knowledge economy”, is a mostly obfuscating rhetorical construct of language produced by literate, language-related societies. This is most obvious when one considers that, ‘since language evolves out of the impact between the material and the conscious modes of being, it follows that as material conditions change the forms given by language to consciousness also change’ (Halliday 1993: 8).

Material conditions *have* changed, most conspicuously in terms of our new media, their uses, their pervasiveness, and their effects. While the notion of a “knowledge economy” would appear to be new, its wide currency serves to highlight the intimate relationships between the nature of knowledge and new media throughout human history. At a more abstract level, the notion of a knowledge economy also highlights the progressive ‘technologisation’ of language and its

contextual counterpart, the progressive ‘institutionalisation’ of valorised ways of speaking and knowing (cf. Bourdieu 1991; Fairclough 1992: 215-8; Iedema 1999; Lemke 1995: 58-65). In fact, institutionalised knowledges, and the ‘knowledge monopolies’ that pertain to these, have been fundamental to social organisation throughout human history (Innis 1951: 4-32). Our current form of social organisation is called “capitalism” and its organising principle is the idea that capital, which is most usually considered to be various configurations of productive “things”, is the generative source of value. But that is quite a misleading conception.

Marx shows, quite clearly, that ‘capital is not a thing, it is a definite social relation of production pertaining to a particular historical social formation, which simply takes the form of a thing and gives this thing a specific social character’ (1981: 953). This is a point not lost on Bourdieu, who emphasises the need to avoid a ‘substantialist reading’ of the term “capital” (1991: 67-8; 1998: 3). Nevertheless, mainstream economic thought has treated capital, since well before Marx’s time, as various sorts of “things”: plant and equipment, linen and cotton, money, golf balls, and so on (Marx 1976: 169). To avoid confusing these two distinctly different conceptions of capital, I shall distinguish between capital as a specific form of social relations, hereafter *systemic capital*, and capital as a collection of ‘self-valorising things’ that are deployed in pursuit of surplus value (1976: 255), which I will call *phenomenological capital*.

History, language, new media, and society

“You all remember,” said the controller, in his strong deep voice, “you all remember, I suppose, that beautiful and inspired saying of Our Ford’s: History is bunk. History,” he repeated slowly, “is bunk.” **Aldous Huxley - Brave New World**

The main contribution to knowledge about new media that I wish to make in this paper is to identify specific historical trajectories that are directly contingent upon the deployment and use of new media, but which are actually hidden by a focus on the purely technological. They are: the increasingly abstract and alienated nature of economic value; the subsumption of all labour - material and intellectual - under systemic capital; and the convergence of formerly distinct spheres of analysis –the spheres of production, circulation, and consumption. Each of these trajectories is interdependent with the others, and so cannot be considered separately. Nevertheless, I will outline the parameters of these trajectories, realising that as my argument progresses, their parameters become blurred as I synthesise the social implications of their relatedness. They become blurred because the trajectories I identify appear to be contingent upon a broader, more invisible, more important convergence: a convergence in the social functions of new media and language.

Increasingly abstract value: alienating value from its source

Political economists of all stripes have long argued that value is at least partly a function of what people *do*; that economic value and human activity are in some way related (Langholm 1998: 118-35). However, the relationship between value and various aspects of what we now tend to call “labour” has been a contentious matter

throughout history (1998: 118-35). The central tenets of the polemic reach back into history as far as Aristotle and beyond (*e.g.* Aristotle 1962/1981: 88-9). In the classical period of political economy, labour was largely considered to be a factor in the production of material commodities, linen and cotton for instance, which are themselves considered to be the bearers of particular ‘use-values’ (Marx 1973: 177). Because of their use-values, commodities can be turned into ‘exchange-values’ which are ‘*ideally* transformed into money, not only in the head of the individual but in the conception [of value] held by society’ (Marx 1973: 187). Money can then be transformed back into phenomenological capital, the means of producing more commodities (Marx 1976: 187). This is the process of ‘self-valorization’, whereby particular “things” - the means of production - appear to increase their value on behalf of their owners in a seemingly autonomously manner (1976: 255). Marx caused much controversy by identifying contradictions in the very *notion* of “labour” itself (*e.g.* 1875/1972: 383), while identifying human interaction with nature as the generative source of *all* values rather than as merely a factor in the production process.¹ The polemic surrounding the relationship between labour, capital, and value continues, albeit in increasingly muted terms.

Meanwhile, especially since the ascendancy of digital ICTs, the monetary system of exchange appears to have taken on an autonomous trajectory and existence; it appears to have become an end in itself. From one perspective, it may

¹ Marx’s comments have often been misconstrued in this respect: ‘Labour is *not the source* of all wealth. Nature is just as much a source of use values ... as labour, which itself is only the manifestation of a force of nature, human labour power’ (Marx 1846/1972: 382). Marx’s critique has to do more with the normative status of such categories as “labour”, which can only exist in capitalist relations, *i.e.* while the potential and actual efforts of people are perceived of as a category of “things” to be bought and sold.

look as if the ‘creation of wealth’ is ‘finally emancipating itself from the old, constraining and vexing connections with making things, processing materials, creating jobs and managing people’ (Bauman 1998: 44). But Bauman refers to a global system of wealth constituted largely by speculative exchanges in which ‘the *illusion* of wealth’ is created in ‘a global system of self-valorising abstractions’ (Graham 1999: 489, emphasis added). Today, this system of financial sector abstractions ostensibly refers to nothing other than itself. It derives its conception as a system of “wealth creation” purely by virtue of the experts who concoct the abstractions upon which this global financial system thrives (Graham 1999: 486) –it thrives on massive amounts of unproductive, ‘parasitic’ speculation (Kennedy 1998). Its most enthusiastic advocates are now attempting to impose this system upon the entire planet, and more disturbingly, upon its future (Miller Michalski and Stevens 1998: 26-32). This massive and parasitic system of speculation includes trade in the most abstract of commodities, such as ‘credit derivatives, call warrants, roubles, and baht’ (Graham 1999: 499). Currency speculation alone ‘generates at least 100 times the entire value of global trade in tangible goods’ (1999: 499). But financial “commodities” have no intrinsic use-value whatsoever. They generate “value” only as long as they are continuously exchanged.

Today, the “globalised” financial system of exchange values quite overtly mediates social perceptions of the relationships between space, time, power, and persons. So much so that it has become a commonplace to see nation states compared with particular individuals or corporations, based entirely on their comparative levels of “paper” wealth (cf. Barlow 1998; Friedman 1999; Walker 1999). In propagating such grossly distorted illusions, people’s perceptions, rather than concrete “things”,

appear to be the primary objects of production in developed countries today. This trajectory is made possible by an advancing technological facility for people to commodify increasingly intimate aspects of social life, combined with the intrinsically human nature and functions of language and thought. I explain the convergence of technology and language more fully after outlining two other significant trajectories.

The formal and real subsumption of all material and intellectual labour

At the earliest stages of capitalist development, the labour process of systemic capital was mostly concerned with producing concrete commodities, cotton and linen for instance, with the emphasis of the commodity production system being upon physical aspects of labour power (Marx 1976: 1043). But industrialists quickly realised that the advantages of scale that the use of industrial technology (constant capital) offered were at the same time hampered by the amount of labour (variable capital) that increasingly massive amounts of machinery required (Marx 1976: 922-3: 1051-55). Consequently, systemic capital has tended to ‘increase constant capital at the expense of variable’ (1976: 1051). As a matter of course, then, ‘the acceleration of technological innovation is a corollary of the systematic application of science to production’ (Mandel 1975: 248).

The development and diffusion of technology within capital has tended towards an emphasis on its ability to firstly appropriate and commodify, and later to replace, increasingly intricate and intimate aspects of human labour power. Systemic capital firstly concerns itself with raw, “physical” labour power. Then, the division of labour engendered by the application of technology to production ‘gradually

transforms the worker's operations into more mechanical ones, so that at a certain point a mechanism can step in to take their place' (Marx 1973: 703). Consequently, '[i]nvention becomes a business, and the application of science to direct production itself becomes a prospect which determines and solicits it' (1973: 704).

Mandel (1975: 249) identifies the years between 1919-1939 as the period during which all 'intellectual labour' is subsumed under systemic capital (1975: 249-50). In the same period, management became 'scientific management' (Dixon 1996: 36). Einstein theoretically fused time and space. Ford began mass-producing motor cars. Electronic mass media - 'the culture industry' - became a world-shaping influence (Horkheimer & Adorno 1947/1998; Innis 1951: 188-9). The contemporary rhetoric surrounding the nascent radio and film industries has a recognisable tone today:

We want a radio that reaches the people, a radio that works for the people, a radio that is an intermediary between the government and the nation, a radio that also reaches across our borders to give the world a picture of our life and our work. ... The purpose of radio is to teach, entertain and support people, not to gradually harm the intellectual and cultural life of the nation. (Goebbels, 1933)

Thus, "the culture and intellectual life of the nation" suddenly found themselves within the purview of systemic capital's immediate processes of production, even if only by spurious negation. By the time Horkheimer and Adorno (1947/1998) had completed their bleak appraisal of 'the culture industry', centralised electronic media had been deployed to incite and coordinate the most massive, immediate, and destructive exercise in propaganda the world had ever seen: World War II. Hitler,

Roosevelt, and Churchill used the radio to equal effect. At the same time, research into public opinion, a 'child of America in the 1930s', turned knowledge about public opinion into the most valuable of all commodities (Hobsbawm 1994: 142-5; cf. also Innis 1951: 188). The point at which opinion becomes commodified is the point at which 'thought inevitably becomes a commodity, and language the means of promoting that commodity' (Horkheimer & Adorno 1944/1998: xi-xii).

Systemic capital has steadily increased its pervasiveness, and 'free time' has become more and more a 'shadowy continuation of labour', a complex space of economically productive 'pseudo-activities' (Adorno 1991: 168). In hypercapitalism, economically "productive" activities can now consume the entire waking life of people. A simple example of how this is achieved can be seen in the frenzied advertising clamour for corporate "space" in the minds of individuals. Advertising not only generates economic value in the process of its production, it ideally creates value in its consumption by producing a predisposition in people to purchase a specific brand, product, or service (Samarajiva 1996: 137). Advertising is an obvious example of how human thought is objectified, produced, and commodified, and it clearly reflects the dual nature of communication technologies as 'both objects to be consumed and the facilitators, through their status as media, of consumption' (Silverstone and Haddon 1996: 65). But because the theoretical separation of material and mental processes is patently false, it is quite legitimate to argue that 'production regulates consumption in the process of mental life, just as it does in that of material life' (Adorno 1991: 169).

And the theoretical division between material and intellectual labour *is* false (Schiller 1996: 20-1). I am neither attempting ‘to grapple with the theoretical status of intellectuals’ here (1996: 20), nor am I attempting to abolish the distinction out of hand. But a none too close inspection reveals that ‘the apparent leading difference between “intellectual” and “manual” work’ is that it serves to sustain ‘a spurious means of social distinction’ (Schiller 1996: 20-1). This has been the case throughout recorded history (Horkheimer & Adorno 1947/1998: 20; Marx 1846/1972: 130-43). Indeed, the apocryphal idea that labour of *any* kind could be conducted without intellectual engagement gives lie to the idea that labour can be divided neatly into “intellectual” and “manual” categories (Schiller 1996: 20; cf. also Weber 1930: 63)². Intellectual processes are material processes, and the ‘labour of representation’, whether by writing, speaking, painting, or whatever, is a material process of production that results in the materialisation of meaning (Bourdieu 1991: 164).

Hence I use the term “labour” in the broadest possible sense. That is, while Marx pays most attention to physical labour power, he sees that labour is ‘the entire productive activity of man [*sic*], through which his metabolic interchange with nature is mediated’ (Marx 1981: 954). This necessarily includes mental production and the production of language and social consciousness (Marx 1846/1972: 122-125). I use the term *production*, then, to refer to the entire network of activities by which societies produce and reproduce themselves as particular forms of social organisation. Production is, axiomatically, a socially necessary process because a

² ‘The ability of mental concentration, as well as the absolutely essential feeling of obligation to one’s job, are here most often combined with a strict economy which calculates the possibility of high earnings, and a cool self-control and frugality which enormously increase performance’ (Weber 1930: 63).

‘society can no more cease to produce than it can cease to consume. When viewed, therefore, as a connected whole ... every social process of production is at the same time a process of reproduction’ (Marx 1976: 711). Thus I define the *social production process* as the entire network of activities and artefacts with which societies reproduce themselves from every perspective, and at every level: materially, socially, relationally, mentally, *and* economically. Such expansive, all-embracing conceptions of “labour” and “production” may seem far too broad to be of any use. Nevertheless, they merely reflect the trajectory of systemic capital as it extends its processes of commodification to include everything from ‘goods of the mind’ to the very ‘essence of life’ itself (Barlow 1998: 5-9).

Production, consumption, circulation: Their analytical convergence³

In a technologically mediated global economy, the largest sector of which produces abstract financial instruments designed to be continually exchanged but never “consumed”, questions about precisely *what* is being produced and consumed, and by whom, become quite difficult to answer. A knowledge economy implies that the production of particular mental predispositions has become a central focus for globalised productive processes. In a system with such a singular and abstract focus, production, consumption, and circulation become an inseparable whole, and “value creation” becomes an immediate, continuous process that unites the formerly separable spheres of production, consumption, and circulation (Barlow 1998).

³ I owe the following insights to Peter Jones of Sheffield University who helpfully criticised an earlier draft of this paper.

Thus there can be no distinct analytical usefulness in separating these spheres within hypercapitalist political economy because the boundaries - conceptual, physical, and temporal - between them are dissolved by new media's ubiquity; by the work habits engendered by new media; and by the mass, and more importantly, the immediacy of hypercapitalist exchanges. Although Marx treats these spheres as analytically separate (1976: 1019-49), and differentiates between 'productive' and 'unproductive' labour (1976: 1043-45), he sees that from one perspective it is possible that 'the entire time of the worker is taken up by capital' (1976: 1002-4). But he gives little credence to such a view, perhaps because of the pre-eminence of "material" commodities which were the main objects of the labour process at the time he wrote.⁴

Marx defines the sphere of consumption as the sphere in which the 'means of subsistence' are consumed (1976: 1004). Since they disappear from circulation after being consumed, the means of subsistence 'form no part of the *physical elements* in which capital manifests itself in the *immediate process of production*' (1976: 1004). But today, trade in means of subsistence, in tangible goods, constitutes a miniscule percentage of global exchanges (Graham 1998).⁵ Marx views the relationship between the spheres of production and consumption as being mediated in the sphere of circulation (exchange) because this is the sphere in which labour is purchased

⁴ There is also the issue of the massive amounts of infrastructure being built at that time - railroads, telegraphs, the Panama Canal - all of which consumed *enormous* amounts of labour (Graham in press; Hobsbawm 1975: 40-65).

⁵ The bulk of exchanges today are speculative financial transactions. At a conservative estimate, they constitute more than 98 percent of global "trade". Over one-third of the remainder, roughly 1.3 trillion dollars per year, is taken up in arms sales and so cannot be counted either as subsistence or "luxury" goods (Graham 1998 1999).

(1976: 302). However, this leads him to see that once exchange-value had ‘acquired a definite, independent, *form*, distinct, albeit ideally, from its use value’ (1976: 955), and when ‘all produce necessarily assumes the form of the commodity and hence all producers are necessarily commodity producers’, then ‘use-value is universally mediated by exchange-value’ (1976: 951). And this is what has happened: hypercapitalist production processes have commodified and industrialised almost every conceivable aspect of human social life, including life, birth, death, sex, and thought.

Once knowledge commodities are produced, they are not necessarily removed from circulation after they are exchanged and “consumed”. In the process of consuming informational products, the consumer’s reproductive process is oriented, not towards physical reconstitution, or subsistence, as is often the case with “material” consumption, but towards reproducing themselves in the ‘descriptive domain’ of human cognition, the domain in which self-identity is constituted (Graham 1999: 488; Graham and McKenna, in press; Maturana and Varela 1980 1987: 231). Thus the commodities of the information economy can be a source of self-identity ‘when and if social actors internalize them, and construct their meaning around this internalization’ (Castells 1997: 7; cf. also Silverstone and Haddon 1996: 62-5). But this is not a two-step process. The exchange and consumption of knowledge is immediate –knowledge is produced at the same time it circulates and is exchanged. Furthermore, knowledge exchanges immediately produce new knowledge, as well as forming the foundations for the production of even more knowledge. Thus production, circulation, and consumption become analytically inseparable.

First synthesis: Value-alienation, knowledge, and valorised language

The three trends I have outlined above are exemplified in the popular notion of a “knowledge economy”, even if it only exists as a fanciful, imagined possible future, or as high-tech speculation on an unprecedented scale. Axiomatically, knowledge commodities - commodified forms of thought and language - are fundamental to the operation of a knowledge economy. As such, they highlight the centrality of language to human societies, and its immediacy in terms of exchange. That is because knowledge commodities are necessarily exchanged in one sort of language or another.⁶ To be of value, knowledge commodities need to be technologically stored, harnessed, exchanged, and circulated. Moreover, they need to be recognised as valuable and significant “things”. This is an historically recognisable function of new media. New media have played consistent roles throughout human history. They are the means by which specific groups of people have produced, maintained, manipulated, and eventually destroyed historically specific forms of “knowledge economies”, or rather ‘knowledge monopolies’ (Innis 1951: chapt 1).

Neither knowledge commodities, knowledge monopolies, nor the specialised groups of people who produce them, are new features of human society. Specialised language and thought have, to the best of historical knowledge, always been at the centre of social, political, economic, *and* technological developments within human

⁶ For the sake of convenience, I use the term *language* here in the broadest sense. I include computer languages, images, symbols, and sounds by which meaning may be exchanged. I recognise that a more formal definition of language would separate these forms of communication into various categorical subsets (cf. Graham, 1999; Graham & McKenna in press).

societies (cf. Bourdieu 1991; Castells 1996: chapt 1; Hobsbawm, 1998; Innis 1950, 1951; Marx 1846/1972: 139). Historically, knowledge specialists have included priests, philosophers, technocrats, bureaucrats, scientists, scribes, and so on (cf. Bourdieu 1991; Fairclough 1992: 216; Innis 1951; Lemke 1995: 60-1; Martin 1998: 429).

What *is* new about hypercapitalism, what makes it different from past forms of social organisation, is that today's new media facilitate the almost immediate production, consumption, distribution, and exchange of valued categories of thought and language - knowledge commodities - on a planet-wide scale with a mass and immediacy that is historically unprecedented. Further, thought and language have themselves become the primary objects of production, distribution, and exchange within this emergent system (Graham 1999: 487). But that is merely to say that a knowledge economy must, self-evidently, be communicative in nature; its commodities must be the products of conscious distinctions between various aspects of human socio-material environments; and these distinctions, to be exchanged with any political or economic efficacy, must be exchanged in more and less valued forms of language, which are necessarily the products of more or less valued social relationships (cf. Bourdieu 1991; Gal 1989: 349-52; Graham 1999: 486-88; Schiller 1996: 21).

At the most fundamental level, knowledge production is a continuous process of 'sociocognitive exchanges' between people and their social and material environments (Graham 1999: 485-6). Knowledge is the production of new meaning, and any instance of meaning-making is 'a sociological event, ... through which the

meanings that constitute the social system are *exchanged*' (Halliday 1978: 139). Thus, the process of sociocognitive exchange, meaningful interaction itself, is at the same time a process of production and consumption which is implicated at the very heart of social relations: '[w]here human knowledge and political economy are concerned, language is both a means of production and exchange' (Graham 1999: 483). Axiomatically, 'production is simultaneously consumption' and vice versa, and both production and consumption are necessarily material processes of exchange (Marx 1970: 195-6).

Consumption and production of knowledge commodities, then, are quite necessarily processes of destruction and reproduction. But unlike the more "concrete" commodity-forms that have dominated previous eras, the commodities of the knowledge economy are not destroyed once they are consumed, even if they are materially produced *and* consumed. One cannot destroy information merely by "consuming" it (fire, eternal monopoly, and digital disasters notwithstanding). Once "consumed", though, a particular knowledge commodity ceases to be an immediately informing "substance" for a given person: its functional utility *as* knowledge is destroyed. However, once informed, people can then reproduce, reconfigure, and redistribute their knowledge in an infinitely complex cycle of social interactions and exchanges. "Consumers" of knowledge are simultaneously its producers. Language is its means of exchange.

A corollary to all this, considering the 'division of intellectual labour' (Jarvis 1998: 87-88) that knowledges of varying value entails, is that certain dialects are more readily commodified than others: valuable knowledge is *necessarily* the product

of valorised language and vice versa. When seen as such, the intrinsically political nature of language (Lemke 1995) converges with its economic and *fundamentally empirical* aspects. Marx identified the nature of valorised dialects - knowledge commodities - more than 150 years ago:

The production of ideas, of conceptions, of consciousness, is at first directly interwoven with the material activity and the material intercourses of men [*sic*], the language of real life ... The same applies to mental production as expressed in the language of politics, laws, morality, religion, metaphysics etc. of a people. Men are the producers of their conceptions, ideas, etc. ... Consciousness can never be anything else than conscious existence, and the existence of men is their *actual life-process*. (Marx1846/1972: 118 emphasis added).

Here Marx identifies the inherently obfuscating nature of valorised dialects: they are fundamental to our way of knowing the world, to social consciousness itself. The socially significant status of the people who embody valorised dialects, practitioners of politics, law, and so on, causes them to appear as fetishised, objectified “things”. Thus their nature as “products” of specific social circumstances, and of the relations, assumptions, and ideological traditions, that pertain to these, often remain hidden.

At any given time in history, dominant interests give their ‘ideas the form of universality, and represent them as the only rational, universally valid ones’ (1847/1972: 138). Consequently, dominant ideas, which are necessarily embodied by specific individuals, appear as expertly objectified “things” within a system of self-valorising things. That is why

the class which is the ruling *material* force of society, is at the same time its ruling *intellectual* force. The class which has the means of material production at its disposal, has control at the same time over the means of mental production, so that thereby, generally speaking, the ideas of those who lack the means of mental production are subject to it (Marx 1846/1972: 136).

In this respect, any historically specific “knowledge economy” is essentially an ‘identity economy’ (Hearn and Rooney 1999). That is because knowledge of the world is identical to one’s understanding of the world, and, consequently, to understanding one’s self in relation to the epistemological universe of dominant ideas, in any given field of society. In hypercapitalism, ideas and their associated value system are circulated and propagated at the speed of light within the digital realm of new media. Systemic capital ‘by its nature drives beyond every spatial barrier. Thus the creation of the physical conditions of exchange - the annihilation of space by time - becomes an extraordinary necessity for it’ (Marx 1973: 524; cf. also Innis 1951: chapt. 1). In short, systemic capital becomes more “productive” as circulation time - the transformation of money into commodities and back again - decreases (Marx 1973: 524-549). Today, the dominant *ideal* is exchange value itself –hence the idealistic notion of a knowledge economy. A knowledge economy is the apotheosis of an exchange system which has become an end in itself.

Capital, labour, language, new media, and social consciousness

Phenomenological capital embodies labour which has finished its work, or, ‘dead labour’ (Marx 1976: 342). The purpose of systemic capital is to extract surplus value from the living labour it appropriates (1976: 302). Consequently, systemic

capital 'is a perpetual pumping machine for surplus labour' (Marx 1981: 961), whereas phenomenological capital is 'dead labour which, vampire-like, lives only by sucking living labour, and lives the more, the more labour it sucks' (Marx 1976: 342). In a knowledge economy, products of the human mind become, simultaneously, the source of surplus-value, means of production, and object of production. As systemic capital progresses as a form of social organisation, it becomes increasingly technologised. A corollary to this is that

[t]he more thoroughly developed the means of production and its associated division of labour, the less living labour can set its own goals: the less, indeed, living labour is living. The shift in the proportion of constant and variable capital is extended into the proportion of living and dead elements in individuals (Jarvis 1998: 71).

This is not meant to be construed as some 'pat phrase' about the 'mechanisation' of people, as if they were 'something static which, through an "influence" from outside ... suffer certain deformations' (Adorno 1951/1974: 229). It is, rather, the result of existing in social conditions in which people appear in language as "things", as, for instance, in the ultimately objectifying terms 'human capital' and 'labour market' (e.g. Latham 1998: 46-7). It is only when the process 'by which labour is first transformed into a commodity' has thoroughly infused the consciousness of individuals, thus objectifying 'each of their impulses as formally commensurable variations of the exchange relationship', that social beings *themselves* are perceived as phenomenological capital: they become categorically objectified in language –they become categorically 'dead' (1951/1974: 229). Such objectifying processes are an intrinsic function of language (Halliday 1993: 10).

But “labour”, living or dead, is not a matter of its content *or* form. Rather, its definition *as* “labour” is a matter of its place within systemic capital’s epistemological universe.⁷ To exemplify this assertion, it is worth considering the way Marx distinguishes between unproductive labour - that which people do by their very nature, and which falls outside systemic capital’s sphere of appropriation - and productive labour, labour that can be appropriated by systemic capital in pursuit of surplus value. These distinctions extend to the production of knowledge, art, and what has become known as the “services sector” (1976: 1043-5):

A schoolmaster who instructs others is not a productive worker. But a schoolmaster who works for wages in an institution along with others, using his [*sic*] own labour to increase the money of the entrepreneur who owns the knowledge-mongering institution, is a productive worker. But for the most part, work of this sort of work has scarcely reached the stage of being subsumed even formally under capital, and belongs essentially to a transitional stage. (1976: 1044).

Here we see the implications of what a knowledge economy entails. The objects of systemic capital’s technology have changed. They have moved from being primarily an instrument for the ‘domination of nature’ (Adorno 1991: 61), seen as “external” to human societies, to being more concerned with manipulating human nature itself, in particular, human consciousness. This begins with the commodification of human interaction, with the *products* of language, which are products of a particular kind.

⁷ The ontologisms that have plagued the social sciences in recent times are mostly unhelpful for precisely this reason: they restrict themselves to merely describing what *is* (Adorno 1964/1973). Such approaches can offer no alternative to what exists.

Language, by its very nature, provides the means by which social and material reality is ordered for each individual. Language is also, unquestionably, a material and social product:

Language is not a superstructure on a base; it is a product of the *conscious* and the *material* impacting on each other – of the contradiction between our material being and our conscious being, as antithetic realms of experience. Hence language has the power to shape our consciousness; and it does so for each human child, by providing the theory that he or she uses to interpret and to manipulate their environment.

(Halliday 1993: 8)

That is why ‘language *is* practical consciousness’ (Marx1846/1972: 122) and why, quite literally, perception, language, meaning, consciousness, and consequently, knowledge and identity, have been progressively dragged into systemic capital and subsumed under its sphere of appropriation (Graham 1999: 488-9). If we are to understand the effects of new media, we must understand their relationship to, and impact upon language, because new media and language are converging in their social roles.

Second synthesis: The functional convergence of language and new media

Language, knowledge, power, and new media are historically inseparable.

They emerge together as the very beginnings of recorded history itself:

When language enters history its masters are priests and sorcerers. Whoever harms the symbols is, in the name of the supernatural powers, subject to their earthly counterparts, whose representatives are the chosen organs of society. (Horkheimer & Adorno 1947/1998: 20)

Like the commodities that formed the basis of previous forms of systemic capital, knowledge commodities are ‘self-valorizing’ (Marx 1976: 255): the more widely and quickly they are circulated, the more they appear to accrue value independently of the people who produce them. The difficulty in “seeing” knowledge commodities *as* commodities is that they become manifest only as ephemeral “things”, as specific instances of ‘technologised’ meaning making (Fairclough 1992; Iedema 1999); or, as instantiations of ‘the *labour of enunciation* which is necessary to externalize the inwardness, to name the unnamed and to give the beginnings of objectification to pre-verbal and pre-reflexive dispositions’ (Bourdieu 1991: 129). Thus, knowledge commodities cannot really exist as discreet “things”. Rather, they are the continuous products of social interaction, the public expressions of thought, knowledge, power, and emotion. And as socially situated “things”, they have different values for different people (Bourdieu 1991 1998).

The ‘labour of representation’ is like any other form of labour: a socio-historically conditioned process, the value of which is also established through and within socially and historically conditioned contexts, through the institutionally contextualised *processes* by which ‘symbolic power’ is enacted, realised, and (mis)recognised as such (Bourdieu 1991: 164). Thus, the objective bearers of “authorised” knowledge become fetishised, valorised, and self-valorising the more their knowledge gains socially recognised authority.

Assuming as I do that “official” knowledge is power, the value system of a knowledge economy can be viewed as an overt expression of the power system specific to the society in which particular knowledge commodities are produced and

exchanged. That is to say, in any given social situation, particular persons are endowed with the social significance of legitimate “expertise”. They are recognised as “expert” producers of knowledge (Bourdieu 1991: chapt. 4). This phenomenon is, literally, as old as history itself. An historical investigation shows that the trajectory of new media, and the socially validated knowledges associated with these, have interdependent characteristics and effects. Innis notes that ‘sudden extensions of communication [media] are reflected in cultural disturbances’ (Innis 1951: 31). For instance, in France prior to Gutenberg’s press, ‘[m]onopolies of knowledge controlled by monasteries were followed by monopolies of knowledge controlled by copyist guilds in the large cities’, the results of which included ‘the growth of trade and of cities, the rise of vernaculars, ... the increasing importance of lawyers, [and] the concept of space in nationalism’ (1951: 53). The historical effects of Gutenberg’s press itself are well evidenced in the rapid decline of centralised power in the Roman Catholic church, and in the eventual demise of European monarchies (Graham in press).

Each new medium throughout history has had quite specific ‘implications for the character of knowledge’ throughout its dominance (Innis 1951: 3-4). The result has been that ‘a monopoly or an oligopoly of knowledge’, and therefore power, has formed around the specific institutions that have regulated access to new media, and to the most valued, sacrosanct forms of knowledge specific to these (1951: 3-4):

The imposition of a sharp divide between sacred and profane knowledge, which underlies the claims of all groups of specialists seeking to secure a monopoly of knowledge or sacred practice by constituting others as profane, thus takes on an original form: it is omnipresent, dividing each word against itself, as it were, by

making it signify that it does not signify what it appears to signify, by inscribing within it ... the distance which separates the 'authentic' from the 'vulgar' or 'naïve' sense. (Bourdieu 1991: 145)

Consequently, at the very time knowledge commodities become “visible”, their social character, their status within the hierarchy of “authentic” knowledge, along with their immediacy as forms of technologised language, renders the social source of their status as valuable commodities *invisible*. Indeed, they may not appear as artefacts of knowledge, but as reified artefacts of socially sanctioned power: as specific people. At the same time, the value system associated with specific forms of knowledge becomes reified, abstract, and increasingly alienated from its source, precisely because the value attributed to knowledge of particular kinds appears to be “attached” to particular people, embodied by them as it were. As Bourdieu notes, ‘the profit of distinction, procured by any use of the legitimate language, derives from the totality of the social universe and the relations of domination that give structure to it’ (1991: 73). But the very fact that socially significant power is embodied by particular “legitimised” people gives rise to the illusion that symbolic profit ‘appears to be based on the qualities of the person alone’ (1991: 73). This hides the institutionalised nature and generative logic of symbolic power (1991: 73).

The paradoxical fetishisms that cleave to persons who have a recognisable and institutionally legitimised mastery of valorised dialects, along with the social sanction of the “sacred” institutions within which these knowledges are produced, is also a cumulative function of technologised language. Historically, language has tended towards “thinginess”, towards objectification (Halliday 1993). In the first

instance, the historical ‘shift into the written medium’ transformed embodied discourses into static “things”, ‘and the abstractions - the written symbols and their arrangements - are transformations of processes into things’ (Halliday 1993: 10).

Written language, the first materially enduring communication technology (Innis 1951: 33), transforms ‘processes into *things* [which are then] construed as commodities; they take on value, and can be drawn up and itemized into lists’ (Halliday 1993: 10). Here we see the role that technology plays in alienating value from its source: by separating thought from its embodied thinker, writing forms the generative and organising principle of the physical alienation - the literal objectification - of language, thought, and value. Writing is the historical source of the seamless trajectory that propagates objectified forms of thought. A direct consequence of this is the illusion that

we live existing in our language as if language were a symbolic system for referring to entities of different kinds that exist independently from what we do, and we treat even ourselves as if we existed outside language as independent entities that use language (Maturana 1995).

Similarly, our symbolic system of economic values - money - now appears as something external to us. It appears as an objective system which expands its power independently of what we do. That is because, like language, ‘money is an ideal measure, which has no limits other than those of the imagination’ (Marx 1973: 190). The money system, like language, arises

from the mutual influence of conscious individuals on one another, but [it is] neither located in their consciousness, nor subsumed under them as a whole. Their own

collisions with one another produce an *alien* social power standing above them,
[and] produce their mutual interaction as a process and power independent of them.
(1973: 196-7)

These historically entrenched contradictions, which are also inherent in technologised forms of language and thought, have never been so exposed as in the presence of a putative knowledge economy. It is a system in which technologised forms of thought and language, value and money, appear as independent forces of nature itself. This, too, is a function of human history.

The historical industrialisation of language and its relation to other industries

What is often ignored in accounts of systemic capital's development is that its herald was the first mechanically mass-produced products: books and pamphlets (Innis 1951: 139). In other words, the industrial revolution and the emergence of systemic capital as a recognisable form of social relations *followed* the "information revolution" that Gutenberg sparked almost 350 years before the industrial revolution was fully realised (Graham in press; cf. also Weber 1930/1992: 44-5). After millennia of technologisation, objective technologies and technologised language have converged to the point at which

[l]anguage is no longer just a mode of social control; it is also the [direct] mode of control over physical systems and processes.

The immediate impact here is the technologising of language itself. Here we have a direct line of evolution from the printing press to the computer, via the telephone, typewriter and tape recorder. (Halliday 1993: 68)

I would add to this Innis's (1950 1951) insights that show an historical tapestry - historical overlays of ICTs, one on top of the other - from oral traditions and writing, to the original mixing of these in ancient Greece, to the first electronic media. Of course, we must include boats, trains, the telegraph, radio, and television –anything that has affected modes of social communication, organisation, and control, especially means and modes of communication *distribution* (Innis 1950 1951; Marx 1973: 524). Today's new media conflate the processes of production, exchange, and distribution of self-valorising language and thought within a massive, quasi-spatial domain of globally interconnected “things”, and they do so at the speed of light. Alongside this self valorising system of knowledge commodities is its arbiter, partner, and facilitator –the system of symbolic values that constitute the globalised system of monetary exchange.

A history of ICTs is also a history of knowledge monopolies being built and destroyed. Corresponding to this history is a history of social controls and subsequent revolutions against these. In short, the history of ICTs is a history of the most fundamental and violent changes in social relations (Innis 1951: 31-2). It is also a history of how people preserve and exchange language, knowledge, and power at temporal and spatial distances. Each major historical advance in ICTs has corresponded to identifiable social ruptures as new ways of “technologising”, exchanging, and thus propagating knowledge - sacred and profane -become available to specific groups of people (Innis 1950 1951).

Languages, technologies, and societies, and the people who create, constitute, inhabit, and deploy these, each mediate changes in the others' circumstances of

production and reproduction. This necessarily includes the production and reproduction of conscious experience, an inalienably material process. Conscious experience, in turn, shapes, and is shaped by, other socio-materially embedded actions (Halliday 1993; Marx, 1846/1972: 123-4). Historical changes in the interdependent factors that comprise society bear the marks of the historical conditions within which they become manifest. Language is no exception:

[T]he particular mix that characterises the elaborated tertiary styles of the Eurasian world languages, from Japanese and Chinese at one end of the continent to English, French and Spanish at the other, is the result of layering, one on top of another, of all these various “moments” in their history through which experience has been ongoingly reconstrued in successively more abstract and objectified terms. (Halliday 1993: 11)

Technological advances, of all kinds, can also be seen to be “layered” upon preceding innovations. For instance,

[e]lectricity was the central force of the second [industrial] revolution, in spite of other extraordinary developments in chemicals, steel, the internal combustion engine, telegraphy and telephony. This is because only through electrical generation and distribution were all the other fields able to develop their applications and be connected to each other. (Castells 1996: 38-9)

This historical overlaying of techniques or “modes” of expression, and their integration with objective technologies, forms a retrospectively perceptible pattern. But this implies neither a linear nor deterministic view of technological development: ‘the pattern is a helical oneMixed modes engender mixed genres’ (Halliday

1993: 68). In the ‘field of power’⁸ (Bourdieu 1998: 34), these ‘mixed genres’ are historical manifestations of technologically reconciled social antagonisms and power struggles that have been acted out within and between specific social domains throughout history: the mixed genres to which Halliday refers are the result of historical overlays of technologised meaning, objectified and technologically reconciled forms of social antagonism, one upon the other (cf. Fairclough 1992: 158; Iedema 1999; Innis 1950 1951).

The abstract convergence of technology, language, and specialised thought has quite specific and concrete implications. According to Coates (1998), within the next twenty-five years in ‘World 1’, ‘[n]o aspect of the human being, whether physical, mental, intellectual, social, psychological or physiological, will be beyond practical manipulation and change, all of which will be made possible and practical through technology’ (1998: 41)⁹. Coates assumes that, by this time, knowledge *about* people will converge with the technological means to apply that knowledge. As a result,

[b]rain technologies will go well beyond disease, offering relief for the person who is short-tempered the person who has no sense of humour, the person who is overly emotional. And relief from these conditions will find a substantial market. Beyond that will be the possibility and later the practice of enhancing people's cognitive

⁸ ‘The field of power (which should not be confused with the political field) is not a field like the others. It is the space of relations of force between the different kinds of capital or, more precisely, between the agents who possess a sufficient amount of one of the different types of capital to be in a position to dominate the corresponding field’ (Bourdieu 1998: 34).

⁹ “World 1” is what the Organisation for Economic Cooperation and Development (OECD) calls the wealthiest sectors of the world’s wealthiest countries (Coates 1998: 34).

processes, enabling them to think more clearly, to have a better command of arithmetic, to have a better memory for faces, to be more generous and loving, or to be less prideful or slothful. (1998: 42)

An historical heteroglot of privileged social voices is evident in this statement by Coates: we hear the fluent voice of the economically minded technocrat (technological *relief from these conditions will find a market*); priestly pronouncements and predictions upon at least five of the “seven deadly sins” (by my estimation he has covered pride, sloth, envy, anger, greed, and implicitly, lust); the condescending and banal platitudes of patriarchy prescribing what are, and will be, considered as “valuable” qualities for a person to have (*a better command of arithmetic; a better memory for faces*, etc). In short, Coates’s statement collapses millennia of technologised thought, and the power and value systems which inhere in these.

Such is the legacy of a literate society. Meaning can be ‘made manifest and progressively “technologised”’ (Iedema 1999: 1). In being technologised, meaning moves from ‘temporal kinds of meaning making, such as talk and gesture, towards increasingly durable kinds of meaning making such as printed reports, designs, and buildings’ (1999: 1). Each step away from embodied and ephemeral meaning making that the technologising process takes manifests itself in a less negotiable, more ‘technologised’ form: a report is less negotiable than a meeting; an architectural design is more negotiable than a building, and so on (Iedema 1999). Similarly, casual conjecture is far more negotiable than the “facts” of technologised orthodoxy. By the same systemic logic, not all ways of knowing share similar importance. The logic of

a system historically based on more and less valuable and valid knowledges presupposes an intrinsic assumption of inequality between social contexts of knowledge production, and so between individual persons: it presupposes *an economy of access to privileged knowledge*. Herein lies the challenge for critical research into new media: creating egalitarian access, not merely to knowledge, but also to privilege. Paradoxically, egalitarian access to privilege immediately abolishes privilege as a category.

Today, systemic capital's contradictions are exemplified in the post-Fordist maxim: 'I think therefore I produce' (Castells 1998: 359). Here, in the knowledge worker's ontological motto, Castells highlights the paradox of hypercapitalism's knowledge economy: it would seem that anyone with the capacity for thought and language, and with access to the technological means of production, would instantly qualify as a potentially "valuable" producer of knowledge. This is clearly not the case. Thus hypercapitalism offers an opportunity to view some of the most fundamental contradictions inherent in the logic of systemic capital's social relations—the basic, seemingly objective, seemingly immutable inequality of people. In addressing this issue from an historical materialist perspective, I must reassert that, although they are apparently ephemeral, thought and language, and more importantly, *the perceived value of their socially situated context of production*, are as much a material product and a producer of specific material social relationships as are golf balls or mass-produced motor cars (Adorno 1991: 99; Bourdieu 1991; Gal 1989: 352; Graham 1999: 483; Marx 1846/1972: 123-4).

Third synthesis: History, language, new media, and society

Language defines social realities, and it defines the value systems which shape the way we live. New media have specific and profound effects that are never quite recognisable, before, during, or perhaps even after their mass diffusion and deployment. Relations and modes of production are delineated and defined in people's language, and that is why language provides an important, if not a vital focus for research into the effects of new media. But that is no simple matter.

Language practices

cannot be understood *outside of* their historical contexts; but neither can they be *derived* from these contexts by any simple relation ... language is at the same time a part of reality, a shaper of reality, and a metaphor for reality. (Halliday 1993: 8)

Technologised language is like any other historically significant human achievement. It contains traces of its past within its present which, in turn, contains the seeds of all possible futures within in its present form. It contains the sediments of history within its formal and informal instantiations. It delineates myriad aspects of the world from each other, and gives social life to thought across generations and across continents. The material artefacts of language - for example, recorded speech, the written word, video recordings, and so on - appear as technologised forms of thought, alienated artefacts of social interaction which, once alienated from the thinker, appear as objectified, historical resources of varying value for making *more* socially significant

meaning.¹⁰ In this respect, technologised language can be viewed as intrinsic to both systemic *and* phenomenological capital; as means of production and reproduction; as arbiter of distribution and exchange; and as product and producer of social relations – all at the same time. When viewed as such, technologised language becomes technologised symbolic capital; valorised artefacts of privileged social interaction.

The point at which language, thought, and technology converge in their mass and immediacy, at the same time being collectively deployed in controlling technological, physical, *and* social systems, is also the point at which knowledge *about* these systems becomes the most valuable knowledge of all. In such conditions, an individual's *mind* takes on the qualities of the commodity-fetish. It simultaneously appears as an in-itself value and as an artefact which can be construed as if it were external to the person who “uses” it:

If some nerdy kid can go from zero to being worth 45 billion dollars in 25 years on nothing but the power of his mind — defeating the most powerful corporation of his time and now actually competing with whole nation states for control of the future — it is obvious that scale and economic momentum have lost a lot of their formerly fearsome credibility. (Barlow 1998: 12)

Here, the hegemony of the currently dominant neoliberal, neoeugenic logic becomes manifest as Barlow renders the nation-state and individual as commensurable “things” - conceptually fungible with each other - based entirely on the logic of an

¹⁰ Perhaps this is why it seems so strange to people when they hear their own voice on tape for the first time. Such a widespread, unsettling phenomenon cannot be passed off as surprise at hearing a “new” voice for the first time. It is the shock of the most intimate alienation.

illusory, seemingly *alien* value system. The reified, apparently autonomous system of money takes on a distorting and determining role for Barlow. He renders nation-state and moneyed individual as qualitatively identical, based solely on accumulated amounts of symbolic, imaginary wealth.

Barlow's display of circular, aggressive logic is a recognisable feature of today's techno-globalist language (Graham 1998 1999). Barlow refers to economic power on an historically unequalled scale, wielded by a single individual, Bill Gates, to show that where nation-states are concerned, 'scale and economic momentum' have lost their ability to 'control' the future! But if anyone were naïve enough to believe that Gates rose to "power" single-handedly, by deploying "nothing but the power of his mind", then some commentary from Friedman (1999) might help to illuminate an important aspect of the social context within which Gates has achieved his success:

The hidden hand of the market will never work without a hidden fist – McDonald's cannot flourish without McDonnell Douglas, the builder of the F-15. And the hidden fist that keeps the world safe for Silicon Valley's technologies is called the United States Army, Air Force, Navy and Marine Corps. "Good ideas and technologies need a strong power that promotes those ideas by example and protects those ideas by winning on the battlefield," says the foreign policy historian Robert Kagan.
(Friedman 1999: 84)

Knowledge, power, value, and language are, as ever, interdependent, mutually conditioning "things" in the knowledge economy –in a very literal sense. Dialects of power provide 'access to material resources' and are, unquestionably, materially

produced, socially embedded practices (Gal 1989: 352). In being produced and exchanged, the products of valorised dialects - like the material products of industrialised society - produce and reproduce specific, though not immutable, social relationships (Fairclough 1989 1992; Graham 1999; Lemke 1995: chapt. 4). In short, knowledge commodities - because of symbolic weight attributed to their contexts of production - have a fully fungible relationship with the language by which they are exchanged. More visibly, they have a fungible relationship with money –the illusory and mysterious system of exchange value which can apparently render relationships between all “things” - even the nation state and the individual - rational and equivalent (cf. Horkheimer & Adorno, 1947/1998, pp. 10-17). As ever, ‘[l]anguage makes power; power gets valued’ (Martin 1998: 429).

Conclusions

Those who wish for egalitarian change and assume that it is inherent in new media may be sorely disappointed. The possibility for egalitarian change lies in our ability to promote a groundshift in perceptions about what we are and do, collectively and individually, as social, languaging, conscious people. Language is a material social practice with real, material effects. Currently, the system of money is being enthroned at the expense of perceptions about what human societies are. Language is also a commodity and a technology, or at least it has become increasingly commodified and technologised within the realms of new *and* “old” media. I have argued here for a focus on language in research into the social effects of new media precisely because this would appear to be the only way to assess changing perceptions and social relations in respect of our increasingly mediated social

environments. These perceptions are conditioned by the way we talk about and deploy new media, and by the way language and new media appear to be converging in their social roles.

I have also outlined some of the contradictions and hidden trajectories inherent in hypercapitalism. What becomes apparent is that systemic capital's valorisation process operates in a processual manner within and upon human relationships. This is not a new finding, but it is one that has been increasingly ignored in recent times. Historical materialism is analytically based in the specificity of existing material conditions. Such a method, in the face of hypercapitalism and its knowledge economy, needs to eschew, reinvent, or further refine theoretical distinctions within political economy. Terms such as material and non-material production; productive and unproductive labour; production and consumption; forces and relations of production; base and superstructure; social capital; and, perhaps even politics, society, and economy, have all been useful theoretical and analytical distinctions in earlier historical materialist studies of political economy.

But now they may need to be redefined or dispensed with altogether. Because of hypercapitalism's immediacy, which is a function of its pervasiveness, its circulation speed, and its ephemeral commodity-forms, such distinctions appear to be more obfuscatory than explanatory. Under conditions of hypercapitalism, forces and relations of production; base and superstructure; the valorisation process; material and non-material production; and production and consumption are ultimately entangled in each other because of the immediacy and pervasiveness of the social and

technical domains within which they operate, and because of their intimate involvement with language and thought.

While Marx noted that the means of communication were intrinsic to circulation time, and therefore to the valorisation process, he largely ignores communication technologies in his overarching assumption that material commodities would remain of primary importance in creating value. This may yet prove to be the case. But under hypercapitalism, the illusion of value has taken on a grossly distorting role, even, or perhaps *especially*, where utility is concerned. The role of value has become inverted, and social utility now appears to be mediated by a mute, brutal, and illusory value system which is increasingly alienated from its source. Value is mediated, legitimised, and defined in language. It is used to appropriate and commodify increasingly intimate aspects of humanity. Thus, to engage hypercapitalism as the object of effective critique requires careful consideration of the fact that human perception has become capital's primary object of production. Paradoxically, to engage hypercapitalism's contradictions, critical inquiry into new media, like systemic capital itself, must focus on social relationships rather than objective "things". In doing so, it constantly risks subverting its own intention and thus can never be finished.

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Chapter 4

Time, space, new media, and political economy

A history of hype and Hypercapitalism

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Time, space, new media, and political economy

A history of hype and hypercapitalism

Abstract

Having commodified, consumed, and inhabited much of the useful space on earth, the emphasis for dominant commercial institutions in developed countries today is upon commodifying temporal abstractions, most specifically those pertaining to some imagined future. These imaginary future commodities exist only in the minds of specific people. Nevertheless they are traded in enormous quantities, making up the largest part of what has come to be called “the global economy”. Such a path raises insuperable paradoxes of materiality, social and economic stability, social equality, and indeed of rationality. In this paper I show two distinct historical trajectories that appear to operate dialectically and diachronically. Their interaction, I assert, underpins the currently dominant form of political economy, hypercapitalism. These dialectics involve an intricate, and to a large extent unpredictable, interplay between time, space, mythology, and rationality. To exemplify my argument, I draw upon current and historical evidence in political economy, and present this within a theoretical framework synthesised from the work of Theodor Adorno, Harold Innis, and Karl Marx.

In the past five years Jules Vernian impressions of radio and radio broadcasting have been driven into people's minds by the active publicity man with his circus ballyhooing about the romance of radio and the wonders of the wireless. The press agent has convinced many of us that there is practically nothing the radio cannot do, all the way from communicating with Mars and transmitting millions of kilowatts of electrical energy thousands of miles without wires to giving a college education to the nation and keeping wayward husbands at home

- Marshall Beuick, 1927¹

Introduction

Historically speaking, innovations in communication technologies have invariably coincided with ruptures in social relations. That is neither a new, contentious, nor surprising statement. That communication technologies and social relations have mutually determinative and constraining effects upon each other is also axiomatic. What *is* surprising about the age we are living through is the apparent amazement with which theorists and researchers, from many disciplines, view the effects that advances in information and communication technologies (ICTs) are having within our societies.

ICTs, from the written word onwards, have played consistent roles throughout human history: the preservation of knowledge, the creation of knowledge monopolies, the maintenance and expansion of centralised power, and the eventual demise of these.² The role that ICTs play today is no different. Now we are seeing the continuation of these historically recurrent effects, albeit rebadged in the most up-to-date technical jargon. While each new communication technology, like each

¹ Marshall D. Beuick, "The Limited Social Effects of Radio Broadcasting," *American Journal of Sociology*, 32, no. 4 (Jan., 1927): 615-622.

² See Harold A. Innis, *The Bias of Communication*. (Toronto: Toronto University Press, 1951), and Harold A. Innis, *Empire and Communications*. (Toronto: Toronto University Press, 1950).

dominant faith, has its historically unique form and content, their intended purpose remains consistent throughout history: that of social control. But that is clearly not their sole effect; their actual world-historical consequences are an entirely different matter from the intentions of their designers. And my comparison of communication technologies with historically dominant faiths is more than merely a rhetorical flourish. The two are historically inseparable. Each successive faith has had its unique forms of ICT, and each new communication technology can be identified with the emergence of new faiths. That is the focus of this paper.

Time and space in political economy: Circulation time and abstract commodities

This is the nature of capital, of production founded on capital, that circulation time becomes a determinant moment for labour time, for the creation of value. The independence of labour time is thereby negated, and the production process is itself posited as determined by exchange, so that immediate production is socially linked to it and dependent on this link – not only as a material moment, but also as an economic moment, a determinant characteristic form.

- Karl Marx.³

In works of political economy, it is customary to begin with an investigation of commodity production. But since this has been dealt with at length elsewhere, at least as it pertains to what is called the knowledge economy,⁴ I begin by focusing on circulation, the economic sphere most apparently relevant to new ICTs and their effects. Circulation is a matter of time *and* space, inseparably so. But where today's ICTs are concerned, circulation is limited to the circulation of information, a recent

³ Karl Marx, *Grundrisse: Foundations of the Critique of Political Economy (Rough Draft)* (London: Penguin, 1973): 628.

⁴ Philip Graham, "Hypercapitalism: A political economy of informational idealism," *New Media and Society*, 2, no. 2 (2000): 131-156.

and significant historical development. Prior to electricity and the telegraph, the circulation time of communication was limited to the fastest means of transport.⁵ As such, goods, news, people, and ideas travelled together throughout most of history. The invention of the telegraph changed this, and for the first time, select people in select places could communicate over vast distances in the time it took for electrical impulses to be encoded, decoded, and delivered. Communication and transport became physically and functionally separate, but space and time had taken a conceptual step towards each other.

In this alienating movement, we see historical indications about the functional trajectory of communication technologies. Writing meant that a person's thought could be construed as material "things", as something with an existence separate from their thinker.⁶ As societies and technologies co-evolved⁷, more sophisticated means of production, reproduction, and transport facilitated communication across much vaster spaces, enabling empires and organisations to exert their influence, albeit over increasingly shorter periods of time.⁸ With each historical breakthrough in transport, media durability, and media transportability, high levels of financial speculation become manifest. This is most evident in recent history with the emergence of the bullionist and mercantilist economies of the seventeenth century. Stories brought home by Dutch traders about the riches of the orient, combined with

⁵ *Ibid.*

⁶ Michael A. K. Halliday, "Language in a changing world", R. B. Baldauf, Jr (Ed), *Occasional paper number 13*, (Applied linguistics association of Australia: Deakin, ACT, Australia, 1993): 10.

⁷ Greg Hearn, Tom Mandeville, and David Anthony, *The Communication Superhighway* (Sydney: Allen & Unwin, 1998): chapt. 7.

⁸ Innis, 1951, 64-5.

the emergence of a new credit system in Holland, gave way to “tulipmania”. At the peak of the tulip craze, between 1634 and 1637, one tulip bulb could buy three houses in Amsterdam.⁹ The unsustainable levels of speculation quickly put Holland into a bankruptcy from which it has never fully recovered.¹⁰

As physical space continued to give way to improvements in navigation and chronology - accurate measurements of space and time, the perfection of which were directly attributable to Newton’s genius - South America offered its El Dorado to the British mercantile imagination in the form of maritime narratives –rumours. Unfortunately, a nasty war with Spain, who at that time controlled the South Pacific, prevented the British from capitalising on the promise of South American gold. The war with Spain, mercantile economics, and colonial expansionism had taken its toll on the British public purse. Following the French lead, the British government decided to relieve themselves of their national debt by “privatising” it and allowing a franchise to sell shares in the debt to members of the public. In doing so, they initiated the first of the many massive joint-stock swindles which continue to this day. People had begun speculating *en masse* by trading paper promises of shares in future wealth. In 1720, the South Sea Bubble burst.

⁹ Lester C. Thurow, *The future of capitalism: How today’s economic forces will shape tomorrow’s world* (St Leonards, Australia: Allen & Unwin, 1996): 220-221. See also Alberta Hyma, “Calvinism and Capitalism in the Netherlands, 1555-1700,” *The Journal of Modern History*, 10, no. 3 (Sep. 1938): 321-343 for a discussion about the influence of the banks on the Dutch Calvinists, and consequently on large sections of the upper middle classes.

With the South Sea bubble, a recognisable phenomenon emerged. The directors of the South Sea company had secured a mercantile monopoly with exclusive rights to trade in South America and throughout ‘all the south seas’. They made a proposal, sweetened with bribes for the appropriate officials, to assume the entire national debt of Britain in return for the right to sell shares in it to the public.¹¹ This is the historical point at which hype and public perception enter as commodities, as valuable “products”. By deploying hype and manipulating opinion,

[t]he Company immediately starts to drive up the price through artificial means; these largely take the form of new subscriptions combined with the circulation of pro-trade-with-Spain stories designed to give the impression that the stock could only go higher.¹²

Public hysteria and gullibility, fuelled by the prospects of fast money, rose to absurd levels. The frenzied pitch that speculation reached became evident upon the issue of an enterprise with an especially vague purpose statement. It was announced, namelessly, as ‘A company for carrying on an undertaking of great advantage, but nobody to know what it is’.¹³ The prospectus for the company stated that

¹⁰ While many, like Thurow 1996, see tulipmania as an example of irrational speculation, an alternative view can be found in Peter M. Garber, “Tulipmania,” *The Journal of Political Economy*, 97, no. 3 (June 1989): 535-560. Garber presumes the ‘impossibility of distinguishing empirically between hypotheses that asset price dynamics are driven by a rational speculative bubble and that researchers have not adequately measured the future market fundamentals anticipated by market participants’ (557). Herein we see the circular dogmatism of neo-classical assumptions about political economy. The claim that Holland never recovered from the tulip crash is based on its subsequent failure to maintain the “world-power” status it enjoyed prior to the crash. By other standards, Holland enjoys a flourishing economy.

¹¹ David McNeil *et al.*, *The Bubble Project*, (1997), (URL consulted July 1998: <http://is.dal.ca/~dmcneil/bubble.html>).

¹² *Ibid.*

¹³ *Ibid.*

the required capital was half a million, in five thousand shares of 100 pounds each, deposit 2 pounds per share. Each subscriber, paying his [or her] deposit, was entitled to 100 pounds per annum per share. How this immense profit was to be obtained, [the proposer] did not condescend to inform [the buyers] at that time, but promised that in a month full particulars should be duly announced, and a call made for the remaining 98 pounds of the subscription. Next morning, at nine o'clock, this great man opened an office in Cornhill. Crowds of people beset his door, and when he shut up at three o'clock, he found that no less than one thousand shares had been subscribed for, and the deposits paid. He was thus, in five hours, the winner of 2000 pounds. He was philosophical enough to be contented with his venture, and set off the same evening for the Continent. He was never heard of again. ¹⁴

It is an historical commonplace that breakthroughs in ICT are followed by periods highly irrational, unwarranted speculation.

The hype, scepticism and bewilderment associated with the Internet –concerns about new forms of crime, adjustment in social mores, and redefinition of business practices –mirror precisely the hopes, fears and misunderstandings inspired by the telegraph. Indeed they are to be expected. They are the direct consequences of human nature, rather than technology. ¹⁵

The speculative confusions surrounding the telegraph are historically sandwiched by similar phenomena that appear to be contingent upon advances in communication technology, including transport:

¹⁴ Angus Mackay, 1814, in McNeil *et al.* 1997

In the 1850s, the railroad was widely expected to greatly increase the efficiency of communications and commerce. It did, but not enough to justify the prices of railroad stocks which grew to enormous speculative heights before collapsing on 24 August 1857. Radio in the 1920s also promised to create a revolution in the economics of communications and commerce. Indeed, an entirely new industry grew out of the invention. Euphoria over the promising new technology came to an abrupt end in October 1929. Even stock in RCA, the only company that had successfully built a profitable business from radio, lost 97% of its value between 1929 and 1933.

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Speculation, communication, electricity, and *news* joined forces in the person of Julius Reuter (1816-1890). Reuter thought that telegraphy would transform the *meaning* of news.¹⁷ It did. It also encouraged banks to start sending money electronically, small amounts at first –\$100 at the very most.¹⁸ But today, trillions swirl around the globe on a daily basis, not as a mere aid or adjunct to facilitate business – as were the first electronic funds transfers – but as a freestanding business in itself. Significantly, a large part of the infrastructure for global currency trade and general financial speculation is owned (and naturally promoted) by the Reuters news organisation. So it is no surprise that today the most prolific, publicised, and valorised sector of hypercapitalist economy is the trade in currency and stocks.

¹⁵ Tom Standage, *The Victorian Internet: The Remarkable Story of the Telegraph and the Nineteenth Century's Online Pioneers* (London: Phoenix, 1998/1999): 199.

¹⁶ iTulip, *Background*, (URL consulted April 30, 1999: <http://www.itulip.com/background.html>): Newton, MA: Osborn Capital.

¹⁷ Eric Hobsbawm, *The age of Capital: 1848-1875* (London: Abacus, 1975): 77.

¹⁸ Standage, 1998, 112-4.

The most abstract of today's new financial "products" are credit derivatives. Put as simply as possible, credit derivatives are a form of insurance on notional capital which is a form of future debt raised against the collateral possibility of future commodities coming into existence. They are hard for people 'without a Nobel Prize in mathematics' to understand.¹⁹ Nevertheless, trade in these pure abstractions generated \$US 20 billion dollars in 1996, twice as much in 1997, and is expected to exceed \$US 100 billion per year by 2001.²⁰ Credit derivatives exemplify the commodity-forms that sustain the "new" economy. They are numerical probabilities that refer to the future which have been objectified and thus commodified. Simultaneously, they are in fact an attempt to reduce the unpredictability of the future –they are designed to grasp, appropriate, and *limit* future possibilities.

Today, the ongoing, serial collapses of whole economies can be directly attributed to financial speculation and manufactured illusions of wealth, mostly in the form of debt in its manifold, abstracted forms.²¹ The most recent collapses in East Asia, South America, and Eastern Europe are all the result of speculative excesses compounded by hyperinflated currency markets and the tendency of the financial sector to conjure abstraction upon abstraction, dub these "new products", and send them into circulation around the globe at the speed of light.²²

¹⁹ Alan Kohler, "Lessons of history forgotten," *The Australian Financial Review*, 60, September 26-27 1998.

²⁰ Warren Edwardes, *Credit derivatives folly*, (URL consulted Dec 5, 1998: <http://people.delphi.com/riskmanage/credit.htm>) London: Delphi Risk Management.

²¹ c.f. Graham 1999; Paul Hellyer, *Let's start a war – On mediocrity* (URL consulted April 27 1999: <http://dove.mtx.net.au/~hermann/hellyer.htm>) Toronto: Canadian Action Party; John Ralston Saul, *The Unconscious Civilisation* (Maryborough, Victoria, 1997).

²² Graham, 1999, 2000; Philip Graham, "Globalist fallacies, fictions, and facts: The MAI and neo-classic ideology," *Australian Rationalist*, 46 (April 1998): 15-21.

The dialectic of space, time, and number: A history of a conceptual alienation,
convergence, and inversion

Space has a material existence independent of what humans think and do, whereas number systems, like languages, are the product of specifically human activities.²³ In its most formal sense, time is a system of numbers, and so is the numerical measurement of space. In number, space and time become commensurable. Greek geometry, perfected by Euclid in about 300 B.C., emerged from a concern with the relationship between space, time, and number.²⁴ From that point onwards, the ultimately abstract system of numbers pushed the concept of space ever closer to that of time, to the point at which Einstein theoretically fused the two.²⁵ Here, number emerges from history alone and triumphant, as a separate and independent system for measuring the relationship between space and time, a numerical system which emerged from the realities that gave meaning to the concept of numbers in the first place. That is no accident. Whenever time challenged number in relation to space, when equations describing space would not work out because of mathematical descriptions of time, the reality of space was mathematically manipulated to compensate –such as in the concept of eternal and uniform space, for instance. And when the reverse happened, when space became a numerical problem in relation to time, such far-reaching abstractions as eternal *time* became necessary inclusions. But the fundamental laws of number have remained constant throughout.

²³ Innis, 1951, 92.

²⁴ *Ibid.*, 110.

²⁵ Graham, 2000, 136

In the abstract universe of numbers, anything that ‘cannot be counted and measured, ceases to exist’.²⁶

So it is no surprise, then, that in vulgar political economy, problems are reduced to ones of space, time, and number – respectively, land, labour, and capital. Of course number dominates at every turn, purely by dint of historical weight and reliable explanatory power. Historical triumphs notwithstanding, the relationship between capital, land, and labour, the ‘holy trinity’ of vulgar political economy, ‘is like that of lawyer’s fees, beetroot, and music’.²⁷ They are qualitatively antithetical phenomena that gain little in the way of explanatory power from being reduced to numerical expression, just as the experience of commuting to work in heavy traffic gains scant edification by being explained in terms of Einstein’s relativity. Number cannot explain its source, nor can it describe the nature of the particular qualities it expresses.

Where new media are concerned, the *meaning* of time and space becomes problematic. Apart from the problems associated with new media that Innis²⁸ identifies - specifically, those of religion, empire, and knowledge monopolies, to which I return shortly - there remains other more challenging paradoxes that the emerging crop of ICTs highlight very well. Advertising provides a simple example of the paradoxical relationship between the meaning of time and space as it pertains to new media.

²⁶ Theodor W. Adorno, *Minima Moralia: Reflections from damaged life*, trans. E.F.N. Jephcott (London: NLB, 1951/1974): 47.

²⁷ Karl Marx, *Capital: A critique of political economy*, Vol. 3, trans. David Fernbach, (London: Penguin, 1981), 953.

Advertising became an influential force in newspapers, both in the US and Britain²⁹ beginning in the late 18th century. Newspaper advertising is purchased in quantities of unambiguous space –by the page for instance. Its “reach” is measured by the number of papers sold on any given day. Thus newspapers offer a clear means of working out precise measurements of precisely how much physical space a given advertisement occupies, of how many acres of advertising a “full page” constitutes on any given day in any given paper. Not that that is any indication of the success or otherwise of advertising, because the cognitive space it *really* occupies, in terms of its meaning, effectiveness, recall, and so on, is an abstract space within people’s consciousness that can only be measured indirectly, and even then imperfectly.

When the radio enters as an influential medium, advertising begins to be purchased in quantities of time. During the first seven years of radio broadcasting in the United States, listenership grew from ‘a mere handful to over six and a half million people’.³⁰ By 1934, broadcaster numbers had grown to 598, including foreign language stations, and regional and national networks. By 1931, ‘time sales to advertisers totalled slightly in excess of seventy million dollars’.³¹ Space appears not to be a problematic issue in radio advertising. Time is what is sold. Nevertheless, the problem of exactly what was entailed in the *spatial* dimensions of radio emerged even prior to its becoming an influential broadcast medium:

²⁸ Innis 1950 1951.

²⁹ Harold A. Innis, “The newspaper in economic development, *Journal of Economic History*”, 2, Issue supplement: “The Tasks of Economic History”, (December, 1942): 1-33. For a history of the effects of advertising and government policy on the newspaper industry in Britain, see: Raymond Williams, *Communications* 3rd Edn. (Harmondsworth, England, 1976), Chapt. 2.

³⁰ Herman S. Hettinger, “The Future of Radio as an Advertising Medium”, *Journal of Business of the University of Chicago*, 7, no. 4 (October, 1934): 283-95.

Writing on “Air as Raw Material” in the *Annals of the American Academy* for March, 1924, Walter S. Rogers, American adviser to the Peace conference in Paris, said that one of the serious problems in dealing with the subject of international electrical communications was the question of who owns the right to use space for communication purposes ...

Of course air has nothing to do with the matter, whether as raw material or otherwise. Nothing is property unless it can be reduced to possession and exclusively occupied and held. The newspapers of Washington D.C., called attention, some few years ago, to the purchase of space overlying a lot of ground by the owner of a tall building adjoining, in order to secure the right to the perpetual use of whatever light and air might fill that space. Air drifts in and out with every zephyr, and light passes through at the rate of 186,000 miles per second.

The purchaser can only own so much of them as he can use. What he here bought was something more imponderable than light. In economics it is known as land, or natural resources; in everyday English it is space.³²

So, from at least one perspective, radio is an occupation and commodification of physical, though abstract, space. From another, its is ‘communication between the announcer and each individual listener, not between one person and massed

³¹ *Ibid.*, 285.

³² William W. Childs, “Problems in the Radio Industry, *The American Economic Review*”, 14, no. 3 (September, 1924): 520-23. Wallace goes on to say that ‘[i]t is a faulty analysis which discovers some new kind of property in the possibilities revealed by science. Property in real estate is not only exclusive, but inclusive –it embraces all possibilities. A scientific interloper has no more right to start an injurious or offensive commotion among electric or radio vibrations within my space than [sic] he has to drive a horse and cart through it or set off a ton of dynamite”. *Ibid.*, 521.

millions'.³³ Selling radio time is the selling of several amounts of qualitatively different kinds of abstract space all at once, the most important of which is *access* to the descriptive space constituted within - and produced by - the activity of human cognition.³⁴

Television poses similar problems in terms of defining what aspects of time and space it occupies. While television advertisements are sold by the second, receivers vary in price according to screen size. But on the internet, advertising becomes another matter altogether. Space and time are once again dissolved into number. Numbers, in the form of "namespaces", and hits thereon, become the contested space in the information age: advertisers are currently competing for numbers of numbers, which of course can only be expressed as other numbers. When interested enthusiasts attempt to deviate from quantity to describe the internet environment, the effect is most usually banal, hopelessly metaphysical, or outright vicious. For example, Mr Burns, the CEO of Xerox Australia in 1998, tells us that 'Australians spent 130 million hours browsing the internet in 1997, double the number of the previous year ... at the same time, the number of hours watching television fell by 470 million hours to 15.5 billion hours'.³⁵ Burns's understanding of

³³ Hettinger, 1934, 290. I take Hettinger to mean this in a figurative rather than a literal sense. Already, Hitler and Goebbels had begun to use the radio to mobilise and coordinate the physical and conscious activities of Germany's millions. This was well known in the US and elsewhere. See, for example, C.G. Fenwick, "The use of the Radio as an Instrument of Foreign Propaganda", *American Journal of International Law*, 32, no. 2 (April, 1938): 339-43, and Josef Goebbels "The radio as the eight great power" (R. Bytwerk, Trans.), Text of a speech delivered at the opening of the 10th German Radio Exposition, (URL consulted September 15, 1999 from the World Wide Web: <http://www.calvin.edu/academic/cas/gpa/goeb56.htm>): Calvin University.

³⁴ For a more detailed description of the concept of space I am using here, see Philip Graham and Bernard McKenna, "A theoretical and analytical synthesis of autopoiesis and sociolinguistics for the study of organisational communication, *Social Semiotics*" 10, no. 1, (2000): 41-59.

³⁵ Quoted in P. Witts, "The Net Effect", 32, *The Australian*, (August 4, 1998).

people and their interests requires that he abstract from number to describe people's intellectual activities as qualitatively cattle-like: 'The behaviour is typically like foraging for food. The consumer clicks on a site, but if they don't find what they want quickly, they move on to the next site or paddock. We are developing a formula of predictability and then we can change their behaviour, modify it'.³⁶

This is a clear qualitative leap away from concerns with returns on investment in abstract space and time –it is direct psychological aggression. The importance of the newly developed techno-psychological space is evidenced by the US Department of Defence's (DOD) recently tabled *Information Operations Doctrine* which classifies 'cyberspace', along with 'air, land, and sea', as a 'battlespace'.³⁷

The Information Operations doctrine "moves information operations from an ad hoc process and institutionalizes it." The individual services already had taken steps to formalize their information operations, Kuehl said, and the new doctrine brings these operations into the joint realm ... The doctrine published by the chiefs takes warfare to a new dimension with the "ultimate target human decision-making."³⁸

Here, in numerically derived abstract space and time, the US military defines a quasi-spatial system, the ultimate aim of which is to manipulate the human decision making process. It is a space that is now defended by the most expensive and technologically intense organisation on earth: the US Military. Having officially

³⁶ *Ibid.*

³⁷ Bob Brewin, "DOD recognizes info warfare as key battlefield", *Federal Computer Week*, (1998, December 2), (URL consulted December 11, 1998: <http://www.fcw.com/pubs/fcw/1998/1130/web-infowar-12-2-98.html>) Washington: US Government.

³⁸ *Ibid.*

identified and defined the space in which ‘information operations’ take place, the military has effectively objectified and institutionalised the spatial ontology of ITC exchanges by committing to patrol and defend the “territory” in which they are produced and effectively take place. In this respect, it may be said that communication between people, the basis of societies, has been raised to the status and significance formerly enjoyed only by nation-states. The system developed to describe space and time has itself *become* a form of space and time.

Space and rationality; time and mythology: a uniquely human dialectic

The measurement of space and time - and for that matter space *in* time - is description by numerical ratios, description by the exercise of human rationality. Human emotion cannot be measured by the same means, nor can emotion measure in the same way, despite exhortations to the contrary. Nor can number usually rouse people’s passions in the same way that music, personal intimacy, poetry, and religion do.³⁹ Number is a technology for highly abstract definitions, the equivalents of which, in everyday language, are much longer than their equational counterparts, and they are always tautological by definition. Nevertheless, particular forms of rationality throughout history, as qualitatively distinct as they are from what we call religion, appear to develop quasi-religious dimensions. That tendency is what Max Horkheimer and Theodor Adorno called *The Dialectic of Enlightenment*.⁴⁰

³⁹ I am excepting those rare individuals for whom mathematics and its associated fields give visceral pleasure.

⁴⁰ Max Horkheimer and Theodor Adorno, *The Dialectic of Enlightenment*, John Cumming trans., (New York: Continuum, 1947/1998).

Innis also recognised a similar trajectory, although he viewed it somewhat differently, as a trajectory having more to do with the bias of the medium towards control over the meaning over space and time, and thus over the activities of people occupying particular spaces and times:

A medium of communication has an important influence on the dissemination of knowledge over space and time and it becomes necessary to study its characteristics in order to appraise its influence in its cultural setting. According to its characteristics it may be better suited to the dissemination of knowledge over time than over space, particularly if the medium is heavy and durable and not suited to transportation, or to the dissemination of knowledge over space than over time, particularly if the medium is light and easily transported. The relative emphasis on time or space will imply a bias of significance to the culture in which it is imbedded.⁴¹

But Innis did not merely focus on the medium as a collection of physical things, he also put forward a more important and subtle understanding of the various forms of signification as technologies in themselves, like money for example:

The price system with its sterilizing power has destroyed ideologies and broken up irreconcilable minorities by compelling them to name their price. Unrestrained, it has destroyed its own ideology since it too has its price. In a sense religion is an

⁴¹ Innis, 1951, 33.

effort to organize irrationality and as such appears in all large-scale organizations of knowledge.⁴²

Since recorded history, mythology and rationality – together in dialectical unity, always appealing to different aspects of human nature – have been deployed to organise the meaning of time and space in human societies. The predominance of symbol and myth emphasise the domination of time by particular groups, whereas the predominance of number and rationality emphasise the domination of space.

Horkheimer and Adorno recognised the same recurring phenomena: a dialectic of rationality and mythology, the one with an emphasis on space, the other on time:

Before, the fetishes [of religion] were subject to the law of equivalence. Now equivalence itself has become a fetish. ...

The doctrine of the priests was symbolic in the sense that in it sign and image were one. Just as hieroglyphs bear witness, so the word too originally had a pictorial function, which was transferred to myths. Like magical rites, myths signify self-repetitive nature, which is the core of the symbolic: a state of being or a process that is presented as eternal, because it incessantly becomes actual once more by being realized in symbolic form.⁴³

Today, the system of monetary exchange, the system that gives substance to the sphere of circulation, has become a symbolically constituted object of mythological proportions. It incessantly appears as eternal and omnipresent in nature, precisely

⁴² Harold A. Innis, "On the Economic Significance of Culture", *Journal of Economic History*, 4, Issue Supplement: "The Tasks of Economic History", (December, 1944): 80-97.

because of its circulatory function. In doing so, it creates two illusions: first, one of universal equivalence, by which money represents the measure of all things, including various symbolic species of itself (eg. Pounds Sterling, Dollars, and Yen, as well as the myriad forms of exchangeable debt, insurance notes, and so on); and, second, the equivalence of time and space as expressed by a numerical system:

The frequency with which capital can repeat the production process, self-realization, in a given amount of time, evidently depends on the speed with which this space of time is run through, or on its duration ... The velocity of turnover therefore - the remaining conditions of production being held constant - substitutes for the *volume* of capital.⁴⁴

In such a system, human activity also becomes merely an element in the space-time continuum: 'the magnitude of labour appears as an amount of space; but expressed in motion, it is measurable only in time'.⁴⁵ And time, of course, is money. Thus the

tendency to find mental satisfaction in measuring everything by a fixed rational standard, and the way it takes for granted that everything can be related to everything else, certainly receives from the apparently objective value of money, and the universal possibility of exchange which this involves, a strong psychological impulse to become a fixed habit of thought ...⁴⁶

⁴³ Horkheimer and Adorno, 1947/1998, 17.

⁴⁴ Marx, 1973, 518. Marx later called the self-realization process "self-valorisation" because with each cycle, capital appears to increase its value independently.

⁴⁵ *Ibid.*, 321.

⁴⁶ Innis, 1944, 82. Innis's syntax is difficult here: reads "... certainly receives [...] a strong psychological impulse to become a fixed habit of thought".

The speed of monetary circulation in hypercapitalism is equivalent to the speed of light, and the system spans the physical space of our planet. In Einstein's system, it would, indeed, by definition must, have zero mass: no substance whatsoever. But new ICTs and the spatio-temporal biases of our symbolic history have combined to give the appearance of a *universal*, concrete substance to the money system, which is nonetheless a product of imagination. While it is still 'possible to believe that God is not a mathematician as some philosophers would have us believe',⁴⁷ this is becoming harder as the cacophony of speculative, monetarist rationalism rises to a deafening pitch. The monetary exchange system has enclosed *all* physical space on earth. It appears everywhere as if from nowhere. It lays claim to the future because of its link with our past. In this sense, it has become truly God-like, at least in the eyes of its most fervent acolytes.

The mass production and propagation of myth

So today the monetary system of exchange has become as powerful a force for social organisation as language itself, perhaps moreso. Its organising logic is hypnotic, numbing, and impenetrable.⁴⁸ With a minimum of slippage, one might easily be fooled into thinking that money *is* a language of its own. But such a seemingly massive system of qualitatively homogenous promises - however expedient - can only be analysed in terms of itself. Thus, the exchange system easily insinuates itself everywhere, precisely because of its impenetrable, circular, and self-

⁴⁷ Ibid., 84

referential logic. Simultaneously, it obscures itself from its source: human imagination. Once this source is sufficiently obscured, it seems to take on an objective form, independent of people, history, and circumstance. Once again this system has reached its mythological apotheosis because, as in religion, ‘products of the human brain appear as autonomous figures endowed with a life of their own, which enter into relations both with each other and with the human race’.⁴⁹

The sheer velocity of hypercapitalist exchange facilitates the most extraordinary phenomena, not the least of which is the mass propagation of speculative ideology. Speculation is merely a way of trading in non-existent phenomena which will potentially exist in some imagined future, whether it be the possibility of future cows, or the future possibility of death and disaster. In itself, speculation about the future has been part of the human condition since debt became a decisive force in Draconian Greece. Speculation in Greece began with free people risking their own freedom - their own lives - for money in the hope that things would get better for them in the future. A great majority of them lost the gamble. We might call this first-order speculation, a personal claim against one’s own future welfare expressed in the form of indebtedness to another person. In such an expression, we see the human capacity for imagination and statistical probability at work: the debtor imagines a future in which she or he will most probably be better off. On the other hand, sheer desperation can drive a person to mortgage their life. In either case,

⁴⁸ That is not an exaggeration. Any study of money and its meaning immediately confronts enormous difficulties. Such debates have been steadily elided in mainstream economics since about 1916, apart from Innis’s critique, and more recently that of Saul, 1997.

⁴⁹ Karl Marx, *Capital: Capital: A critique of political economy*, Vol. 1, Ben Fowkes Trans., (London: Penguin, 1976: 165).

though, it is what we will call first-order debt: an agreement between two people about some future happening.

Second-order speculation abstracts from the first and adds a layer of conceptual complexity to it. This happens when a debt is sold or exchanged for some similar conceptual abstraction, like money for instance. This has two immediate effects. First, it gives a more alienated and objective character to the debt, insofar as such an exchange, which is originally an agreement between two people or between a person and an institution, is viewed and treated as if it existed independently of the parties who made the original agreement. Second, it adds another level of probability to the debt, which is already an expression of two individuals' probabilistic views of the future. While it is not necessarily the case, the sale and purchase of debt will usually entail further expectations about some future state of affairs, and more importantly, of the *value* of this state. Put plainly, someone who buys debt usually expects to profit in some way. Such profits are doubly derived from beliefs and expectations about the future.

Either at or above this level of abstraction, the conceptual aspects of speculation become daunting, if not entirely absurd and oppressive. For instance, when speculation becomes socialised, as it is in the concept of "the national debt", and when it becomes further distanced from the individual in space and time, it becomes conceptually incomprehensible. Even though its probabilistic nature may be grasped by the shorthand mathematics of econometrics, its conceptual characteristics are ultimately incomprehensible.

When governments set policy based on such outrageous abstractions, the policy cannot help but to ignore actually existing states of affairs. Instead, policy becomes the servant of institutionalised probabilities: not for the first time in history, whole nations have become enslaved to the *idea* of debt, socialised abstract beliefs about the future forecast and calculated in number.⁵⁰ Once again, number becomes the determining agent that dominates massive amounts of space and enormous numbers of people over decades, and in some cases, centuries of time. As an intergenerational expression of debt, number spans space *and* time.

The most oppressive modern forms of debt emerge with the notion of “futures” in the nineteenth century. These forms first become most ubiquitous and damaging with the widespread use of the telegraph by speculators.⁵¹ The remarkable thing about futures is that, as in their original incarnation, they contain a promise by the commodity producer to provide a certain quantity of goods at a certain price, months or years in advance of the produce existing. But the future bill of sale, or “option”, is never binding on either party. In fact the buyer never takes delivery of the commodities and no goods ever change hands. It is only the prospective possibility of goods at a certain price some time in the future that is traded.⁵² Stevens quotes an 1887 edition of the *Mark Lane Express* to exemplify grievances about futures trading: ‘these contracts (futures) are framed to allow of differences in value at a certain date or within a certain time being paid or received, the commodity itself

⁵⁰ For an excellent history of these recurrent phenomena, see John Ralston Saul, *Voltaire's Bastards: The Dictatorship of Reason in the West*, (London: Penguin, 1992).

⁵¹ Albert C. Stevens, “‘Futures’ in the Wheat Market”, *Quarterly Journal of Economics*, 2, no.1 (October, 1887), 37-63.

never being intended to pass from one party to the other. The seller does not possess it. The buyer does not expect to receive it'.⁵³ The exchange system once again dominates the fate of persons. Time - the future - becomes the probabilistic commodity.

The public debate over futures continued into the twentieth century. But by 1917, intense political lobbying by banks, merchant groups, and traders on Wall Street had all but silenced debate. As early as 1895, policy makers were asking how the world of commodity production could ever have survived without the beneficial acts of futures speculators:

The establishment of this future price for the delivery of a commodity is the great service of speculation. We are wont to think of speculation as beneficial chiefly through holding back supplies in times of plenty for use in less prosperous times. This is indeed an important service, but it is no longer performed directly by the speculators. Since the production and distribution of commodities, as to both time and place follow their probable values according to the most enlightened opinion of the most competent men. We may, then, sum up the function of speculation in produce as follows: It directs the production and distribution of commodities into the most advantageous channels, by establishing, at any particular moment, relative prices for different commodities deliverable at different times and places.⁵⁴

⁵² *Ibid.*, 38.

⁵³ *Ibid.*

⁵⁴ Henry C. Emery, "Legislation Against Futures", *Political Science Quarterly*, 10, no. 1 (March, 1895), 62-86.

The same hollow rhetoric is familiar in today's globalist political "thought": let the market decide. But "market" here means price, and price is actively manipulated by the speculative actions of a specialist, elite class of financial "experts". Their expertise is in numerical, probabilistic models of the future, based on debts held against the future, the proper temporal domain of debt. The collateral for this kind of debt is the future well-being of millions.⁵⁵ Since Emery praised the "beneficial" activities of speculators, abstraction has been piled upon abstraction. Futures were supplemented by notional capital: money lent against the potential future referents of futures: "pretend" money loaned against the future possibility of cattle, cotton, and grain. To ensure the validity of these tradeable debts in imaginary money, insurance notes were invented, issued, and immediately traded. Future time, space, and life was further enclosed. In exercising probabilistic, intergenerationally transmissible liens against the future, the ideal effect is to limit possibilities for substantial social systemic change in the future. The result is that, today, the most widely propagated myths are manipulated to control the meaning of the future rather than the past.

Ideology, idealism, social time, and social space

The logic of technologically mediated exchange is the logic of alienation: it is the logic of thought alienated from its thinker, and of value alienated from human activity. Today, it has become the dominant logic of consumption and production; creation and destruction. It is manifested in the notion of the "knowledge economy", something that has always existed in any case. Exchange-value – money – has

⁵⁵ Graham, 1999.

become the fundamental use-value, the abstract definition of success and social inclusion.⁵⁶ It is the means of self-production and reproduction – physical, psychological, and social – for each and every human subject to its logic. This should provide some clues to the trajectory of the capitalist form of society: it evolves by extending its processes of appropriation, alienation, and production from raw nature to the most intimate aspects of human social life. It reaches into the future at the expense of the present. It appropriates social space by occupying it, and colonises and appropriates social time by placing double- and triple-mortgages on the future. And it does so just as Innis suggests: by the creation and manipulation of knowledge monopolies, and by the mass propagation of myth posing as rationality, myth posing as knowledge.

The quasi-spatial domains created in the space between ICTs is the arena in which the knowledge economy's social relations of production are constituted, *and its knowledge commodities are wholly social in their source, significance, and impact*. This is a fact largely obscured by the massive, monolithic, and impersonal system of exchange that confronts individuals like an independent force. The current state of hypercapitalism is the evolutionary point in capitalist development at which alienated forms of thought are commodities, at which the products of human imagination dominate perceptions of the social and the individual.

This is the perfection of capital's paradoxes, the ideal of an illusory system of exchange-values, the product of imagination burdened with nothing substantive,

⁵⁶ *Ibid.*

rigidified into the sole source of social utility and inclusion. Under hypercapitalism, pure exchange-value becomes the object of the production process. Marx had extrapolated this logic to its illogical conclusion:

the rule of person over person now becomes the universal rule of the *thing* over the *person*, the product of the producer. Just as the *equivalent*, value, contained the determination of the alienation of private property, so now we see that *money* is the sensuous, corporeal existence of that *alienation*.⁵⁷

The most abstract and intimate social relations of hypercapitalism are, today, the system's primary source, means, and object of production. Identity is both a commodity and a by-product of hypercapitalist production. As a result, societies continue to disintegrate under the social pressures 'engendered and amplified by the logic of competition of everyone against everyone'.⁵⁸ Desire for, and identification with increasingly abstract commodities underpins this logic: '... the felt need for a thing is the most obvious, irrefutable proof that the thing is part of *my* essence, that its being is for me and that its *property* is the property, the peculiar quality peculiar to my essence'.⁵⁹ And so exchange-value, the numerical system of universal human equivalence, has become the ultimate force in social space.

⁵⁷ Karl Marx, "Excerpts from James Mill's Elements of Political Economy", In R. Livingstone & G. Benton Trans., *Karl Marx: Early writings* (London: Penguin, 1844/1975: 259-278): 270.

⁵⁸ Pierre Bourdieu, *Practical reason: On the theory of action* (London: Polity, 1998): 27.

⁵⁹ Marx, 1844/1975, 267.

The double dialectics of mythology and rationality

Since recorded history, mythologies and rationalities have redounded against each other in violent, cyclical social upheavals, each reaching in turn for dominion over its specific domain: respectively, time and space. Mythologies, mostly in the form of organised religions, have historically sought control over the meaning of time, and thus over time itself. Rationalities, from those of Pythagoras to those of Poincaré, have sought control over the meaning of space. Yet even the most astute thinkers remain confounded by the current rise in fundamentalisms and nationalisms.⁶⁰ But these ought not present us with any surprise whatsoever.

Since mechanisation, and even moreso since electrification, societies, mythologies, and rationalities have collapsed into increasingly violent fluctuations between attempts to understand, define, and control space and time. This is clear in the monstrous upheavals of the twentieth century. As in ancient Greece, in seventeenth century Europe, the literate mind found freedom from the constraints of time by rationally dominating space. In the twentieth century, the literate mind gave birth to the thought that would abolish theoretical distinctions between these two conceptually and physically contested terrains of social control. At a single stroke, Einstein spatialised time and temporalised space. Then, with the introduction of Heisenberg's quantum uncertainty, God suddenly emerged from between the cracks of a mathematical rationality pushed to its ultimate limits. Religion, ever the adaptive

⁶⁰ See Manuel Castells, *The Information Age: Economy, Society and Culture (Vol. II): The Power of Identity* (London: Blackwell, 1997).

appropriator and alienating force for intellect, embraced the new rationality precisely because of its metaphysical implications.

Enter the culture industry, centre stage. As space and time collapsed into the theoretical potpourri of quantum physics, the culture industry showed the populations of the developed world that linear reality and narrative myth, *containing both space and time*, could be alienated from its historical origins, mechanically reproduced, and distributed *en masse*. The spatial contours of the Church and Town Hall inevitably became anachronistic. Community became alienated from itself. This is never so cynically highlighted on the auspicious and dreadful occasions when the terminology of “the international community” is invoked. The democratic process became pure entertainment, and vice versa.⁶¹ From the early 1980s onwards, the dialectic of mythology, rationality, and social identity collapsed under the illogical burden of relativised space and time, long ago alienated from their original source, and now subsumed in the knowledge economy. Today, this trajectory is manifested in “globalisation”, the “knowledge economy”, and “virtual reality”, the holy trinity of technophilic religion. Their ideological manifestations are fundamentalisms of every type: religious, linguistic ethno-nationalist, economic, and political. Their social realities are unerringly repressive, inequitable, and violent. That is because the mechanisms of social control – alienated thought and value – and the conceptual dominions over which they rule – time and space – are conflated in the global network of new media that are increasingly controlled by dominant economic interests. As the dialectics of space and time, mythology and rationality, and

speculation and illusion redound against each other at logarithmically increasing speeds, they conflate alienated thought and value, rigidifying them into concrete “things” that now appear to be more powerful in their seemingly objective existence than at any other time in human history.

Mythology and new media: Concluding remarks

Since thought and language were torn asunder and apparently rendered independent of one another in the written word, ostensibly independent, “objective” thought has spread through space and time, largely at the direction of those who control the most valued medium of the day. These media have been manipulated to produce, control, reproduce, and destroy particular social configurations. Spontaneous language, though, is a different phenomenon altogether. It is the socio-biological glue of society which is, as far as we know, unique to humanity *and is vastly different from writing*.⁶² Herein lies the potential for human advancement, and the possibility for humanity to escape from the destructive dialectics that I have outlined here. Humanity can reclaim social space in language, which is the source of social space. Language can fill social time with substance rather than idealism, it can negotiate meaning. Number cannot.

The social weight of millennia immersed in and controlled by sacred texts has conditioned us to view language and thought as separate things. We often view language as encoded thought, no different from the technology of writing, as no more

⁶¹ Neil Postman, *Amusing Ourselves to Death* (London: Methuen, 1985).

substantial than words on the screen of a computer. To compound this illusory inversion, we have, especially since the “democratising” trajectory of literacy wrought by the printing press, traditionally viewed technology as the highest expression of our humanity. We are yet to recognise the implicit terrorism of this illusion, and so continue to be hypnotised by our own gaze whenever we are exposed to the latest development in our technologies, which necessarily reflect aspects of ourselves.⁶³ Adorno argues that ‘the primitively narcissistic aspect of identification [is] an act of *devouring*, of making the beloved object part of oneself’:⁶⁴ we identify with our technologies and they devour us, our time, and our social space.

Trapped in the trajectory of a literate society, we continue to alienate our ideas about ourselves *from* ourselves. We continue to imagine that the products of our imagination are objective “things” which have an existence independent of human activity. Mythology is the result. The technohype of ICT is mythology’s latest manifestation. Mythological illusions inevitably lead to speculation on the intrinsic power of our ideas, and these are reflected in the forms of speculation that have plagued societies throughout history. Just as Xerxes, equipped with half an alphabet and an army of “immortals”, rolled the dice on Persia and lost against the orality and embodied myth of ancient Greece, the sociopathic financial herds of Wall Street, and legions of distracted, disorganised “day traders”, gamble the reified (and the very real) futures of whole generations and whole nations in the pursuit of the “perfect

⁶² cf. Humberto Maturana and Francesco Varela, *The tree of knowledge* (Boston, MA: Shambalah, 1987): 231; Graham, 2000; Graham and McKenna, 2000.

⁶³ Marshall McLuhan, *Understanding Media: The Extensions of Man* (London: Routledge, 1964/1997).

competition”, namely, the one they win, and in which the winner takes all. The vicious circularity of spatio-temporal dialectics, the dialectics of rationality and myth, space and time, is underpinned by the logic of the system upon which it is built: the alienated thoughts of the literate mind and the alienated value of human life.

⁶⁴ Theodor W. Adorno *The Culture Industry: Selected Essays on Mass Culture* (London: Routledge, 1991): 120.

Chapter 5

Predication and propagation

A method for analysing evaluative meanings in technology policy

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TEXT

Abstract

In this paper I outline and demonstrate a synthesis of the methods developed by Lemke (1998) and Martin (2000) for analysing evaluations in English. I demonstrate the synthesis using examples from a 1.3 million word technology policy corpus drawn from institutions at the local, state, national, and supranational levels. Lemke's (1998) critical model is organised around the broad 'evaluative dimensions' that are deployed to evaluate propositions and proposals in English. Martin's (2000) model is organised with a more overtly systemic-functional orientation around the concept of 'encoded feeling'. In applying both these models at different times, and whilst recognising their usefulness and complementarity, I found specific limitations that led me to work towards a synthesis of the two approaches. I also argue for the need to consider, genre, media, and institutional aspects more explicitly when claiming intertextual and heteroglossic relations as the basis for inferred evaluations. A basic assertion of this paper is that the perceived Desirability of a process, person, circumstance, or thing is identical to its "value". But the Desirability of anything is a socially and thus historically conditioned attribution that requires significant amounts of institutional inculcation of other "types" of value – appropriateness, importance, beauty, power, and so on. I therefore propose a method informed by critical discourse analysis (CDA) that sees evaluation as happening on at least four interdependent levels of abstraction.

Predication and propagation

A method for analysing evaluative meanings in technology policy

The idea connoted by the term “value” is intimately associated with the most remote experiences of the human race. Ever since it has been possible to predicate desirability of anything, have values existed. - **(Langworthy Taylor, 1895, p. 414).**

Labor in the full sense is in fact tied to desire, which it in turn negates: it satisfies the needs of human beings on all levels, helps them in their difficulties, reproduces human life, and demands sacrifices of them in return. Even in its intellectual form, labor provides a longer arm with which to procure the means of life; it is the principle of the domination of nature, which has become autonomous and thereby alienated from knowledge of itself. - **(Adorno, 1994, p. 22)**

Introduction

Four immediate problems face evaluative analyses of contemporary technology policy. The first is the characteristic tendency of policy authors to rely on extremely abstract, nominalised processes and ‘thematic condensation’ to convey meaning (cf. Halliday and Martin, 1993, p. 21; Lemke, 1995, pp. 59-65; McKenna and Graham, 2000). The second is in the nature of policy itself. It is essentially hortatory; its primary function is ‘to get people to do things’ (Muntigl, in press, p. 147). The third is that once technology and its social effects becomes a primary object of policy, they are necessarily set in some significant relation to the proposed outcomes of policy. That is, technology and its effects are presumed to be a significant social force, which can lead to the personification of technology as an active, conscious Agent (Graham, 1999, 2000; McKenna and Graham, 2000). The fourth problem is that to operationalise the hortatory function of policy requires that a set of express or implied proposals be formulated by its authors. But contemporary policy authors cannot explicitly command their constituencies to act such and such a way, as if by royal decree or divine authority. They are driven by technocratic

institutional conventions to “rationalise” their hortatory proposals with “facts”, or propositions. Consequently the hortatory content of contemporary policy is often implied in, disguised as, rationalised by, or buried under piles of ostensibly “value-free”, “objective”, pseudo-scientific statements of fact (Lemke, 1995, pp. 60-61; McKenna and Graham, 2000), most of which must also be oriented towards the future. I argue here that the “displacement” between the propositions of technology policy and the proposals thereof, between statements of fact and imperatives for action, is for the most part mediated and given coherence by evaluative syntaxes that must be inferred from “outside” the logico-grammar of policy texts.

These problematic aspects of policy introduce the need to make some basic distinctions. Because the hortatory objective of policy is necessarily unrealis, time and tense, especially in the interplay between propositions, proposals, and their constitutive elements become problematic. There is no point in trying ‘to get people to do things’ in the past; the explicit and implicit proposals of policy can only ever be future-oriented (cf. Lemke, 1998, p. 36). For the same reasons, the propositions of policy are similarly oriented, primarily concerning themselves with describing future states and circumstances (Graham, forthcoming). That presents problems for the empirico-rationally oriented language of policy experts. Overt statements of prophecy are more suited to the pre-modern discourses of religion, and are thus treated with suspicion. Therefore technology policy authors usually describe the future as if it were past or present. That is achieved either by complex combinations of tense and modality, by construing unrealis objects as actual and existing (e.g. “opportunities”, “threats”, “risks”, “possibilities”, and so on), or by a combination of both.

To highlight these aspects, I emphasise the need to distinguish between Substance and Process “languages”. There is a distinct disjunction between aspects of language that can describe the world in terms of Substances and those that can describe the world in terms of Processes (Harvey, 1973, pp. 38-40). Moreover, ‘there are important differences between the time dimension which conveniently possesses direction and irreversibility and the spatial dimensions which do not possess either of these properties’ (Harvey, 1973, p. 43). Different standards and aspects of value pertain to these distinct aspects of language. Therefore I emphasise the different “types” of evaluations made in policy language that are peculiar to Substances [realised as Thing-relationships] and those that are peculiar to Processes [realised as Causal-relationships]. These disjunctions can be further confounded by the fact that ‘space itself can enter into either language but in different ways’ (p. 39). So can time. Spatial and temporal aspects are necessarily properties of any particularised Substance (Harvey, 1973, p. 41; cf. Aristotle, 1998, p. 439), and Substances are necessarily constituents of Processes.

Substances can include particular people or groups of people sometimes. They are defined, explicitly or intertextually, as having attributes that relate them to other Substances within particular conceptual (or ideational) spaces: geographical, social, aesthetic, scientifico-taxonomic, and so on. In Process language, the time element – movement, action, and change – is foregrounded. Substances, as well as other Processes, are set in various relationships to one another over more and less specific “amounts” of time, with causational and functional effects of varying “value”. These two aspects of language are thus typically marked by quite different types of evaluative resources in language, but are nevertheless ultimately

interdependent and ultimately inseparable.¹ Consequently, to pull the two apart and analyse them in complete independence from one another would be synthetic, impractical, and probably unhelpful. My approach is to recognise that both Substance and Process aspects of language are necessarily present in sustained evaluations of any kind. The method I present here is oriented towards understanding how the two “interact”. I have organised the simultaneous separateness and interdependence of these two broad aspects of evaluation around the terms predication and propagation.

Predication and propagation

The main difference between analysing evaluations in language from predication and propagation perspectives is firstly the grammatical level at which analyses are conducted. Lexical resources deployed in evaluative predication inscribe or attribute a Substance in the text with particular attributes. From the perspective of ‘evaluative propagation’, we are interested in seeing evaluations that are foregrounded over the whole course of a text, and more importantly, how these evaluations provide coherence for the text (Lemke, 1998, pp. 49-53).

Substances are defined by their attributes, their predicates. In a more concrete register, we would expect to see Substances described within propositions through the deployment of what Halliday (1994) calls relational processes (or verbs in latinate grammar) (pp. 124-129). Similarly, what I am calling Processes here would be

¹ Those readers used to Systemic Functional Linguistic [SFL] terminology will note a practical problem for describing evaluations in these terms. Halliday uses the term “Process” as a rough equivalent of the latinate grammatical term, “verb” (Halliday, 1994, pp. 106-107). For the distinctions I am trying to describe here, it must be noted that processes (or verbs) are used in both “kinds” of language. For reasons of clarity, I will use the term process with a lower case “p” to denote a “verb”, and with an upper case “P” to denote a

realised in concrete terms in the deployment of material and abstract-material verbs (Halliday, 1994, 109-112). In the following, relatively concrete example, knowing is expressed as a Substance:

[1] Knowledge is <a strategic resource in the digital society> (sweden~1: 385).

Knowledge is attributed with valuable characteristics at a particular time-space; it is given a particular type of economic value within the digital society. The construal is organised around a relational-attributive process [is] in what Halliday calls a Token^Value [Tok^Val] construction (1994, pp. 124-139), and a fairly explicit evaluation is made for the Token in such a construction: it can be a Thing that carries certain attributes, a Thing that is identified as fitting a certain hierarchical space within a particular taxonomic order, or a Thing that shares identity with some other Thing (pp. 124-139).²

Process language foregrounds change over time as a result of interaction.

Action happens and something changes, as in the following example which, again, is a relatively concrete example from the corpus:

[2] The government has adopted a whole of government approach to the application of information technology and telecommunications, **to ensure** consistency, cost effectiveness, interoperability and transparency within government. (noie1: 7391)

Here we can begin to see the difference between Substance-based and Process-based evaluations. Different “types” and methods of evaluation are foregrounded. They are

reference to Process language.

operationalised in different ways and at different levels of abstraction. In [1], a direct evaluation is being made for knowledge within a particular socio-historic circumstance. We see that strategic, as an epithet of resource, makes the quite explicit evaluation that knowledge is a Desirable commodity in the digital society. In [2], an abstract Agent [The government] has done something that will supposedly lead to all sorts of Desirable outcomes [consistency, cost effectiveness, interoperability and transparency]. In the first instance, the authors explicitly evaluate a particular Substance [knowledge]; in the second, the evaluation is propagated for the outcomes of a particular Process [adopting a whole of government approach], the value of which need to be inferred intertextually.

In Process language, then, evaluations are generally propagated at a different level of abstraction. There is also a more overt tendency towards a reliance on intertextual knowledge of a value system (or axiology), and a tendency for the range of evaluations to narrow or “focus” as a stretch of text gets longer and more complex. Unlike language that defines Substances, evaluations made in Process language must often be inferred (unless the action is explicitly evaluated). In text [2], the Australian Government has done something with particular outcomes in mind. The authors rely on assumptions that whatever produces consistency, interoperability, cost effectiveness, and transparency will be perceived as Desirable and Important

² The identifying and attributive functions are a complex cline (R. Iedema, personal correspondence, May, 2000): the Thing, once enough of its attributes have been elaborated, may take on an identity, either taxonomically or essentially, while a proposition that claims identity may also be socio-functionally attributive and evaluative (cf. also Aristotle, 1998, pp. 26-27; Fairclough and Graham, forthcoming; Grote, 1872, p. 90; McKenna and Graham, 2000).

(perhaps Necessary) outcomes for any action on the part of government (see fig. 1 below).

In other words, evaluations for Desirability and Importance are propagated for and from within the value-system upon which the authors intertextually draw when they construe action and its outcomes. The value system that is being produced and reproduced in this instance is not an explicit “part” of the text, even though it provides much of its coherence. Another aspect worth noting is the mixture of proposal and proposition operationalised in [2], especially in terms of the time and tense elements. First there is a description of something the government has already done [it has adopted a particular approach to information technology]. Then we are told why the government has done what it has. These reasons are future-oriented: [to ensure certain Desirable outcomes]. But the future orientation is elided where the outcomes are concerned. That gives the impression that the stated outcomes are inevitable, which in turn elides the need for an explicit evaluation for Warrantability: to ensure construes the outcomes as if they were the unquestionable result of the government’s action.

The examples in [1] and [2] are relatively concrete examples from the corpus. But because of the heavy reliance on grammatical metaphor in technocratic discourse, and because the purpose of policy is to translate words into actions, we cannot strictly delimit Substance or Process realisations along the lines of proposals or propositions (cf. Halliday and Martin, 1993; McKenna and Graham, 2000). Often the two are functionally “collapsed” into each other. Take, for instance, the following

example from Norway. It demonstrates how Substance and Process aspects can get metaphorically blurred in mixtures of propositional and hortatory functions:

[3] It is important **to see** the administration **as** a whole, with interaction between levels and across sector boundaries. (Norway1: 3038)

In [3], the administration is clearly being treated as a Substance and assigned attributes by the policy authors: it is a coherent whole. The propositional claim is for the Importance of seeing the administration as such. Whether or not the administration is an integrated whole is not up for argument. This is an exhortation – a proposal – that stresses the need to see (or understand or treat or conceptualise) the administration as a whole. Speakers and writers of technical languages have developed resources for construing Processes as Substances. That much is clear (Halliday, 1993, p. 10; Halliday and Martin, 1993). But they also have well-developed resources for recasting verbs as functionally metaphorical, as ‘process metaphor’ (McKenna and Graham, 2000, pp. 230-231). In the above example, the ‘phrasal verb’ see ... as (Halliday, 1994, 207-210) appears to function primarily as a mental process. But it also made to perform an identifying function within the submerged proposition that claims wholeness for the administration. It also performs an abstract-material function by suggesting that people “treat” the administration as a whole. So although distinctions between Substance and Process are possible, the grammatically metaphorical resources that facilitate contemporary technocratic expression often make such distinctions difficult. The kinds of evaluations that policy authors make can also help us make the distinctions.

Taken together, predication and propagation can be used to comprehend and organise evaluations made across longer stretches of text. Consider the following highlighted predications made in a text from Hong Kong:

[4] As economic activity has globalised, particularly in the financial and services sectors, a few major cities - world cities - have become vital centres for managing and co-ordinating economic activity on a global basis. Furthermore, successful world cities appear to share a number of common characteristics. First, world cities have a distinctive economic structure and exert a level of influence which is far greater than their size might suggest. This is because they have developed tremendous strengths in internationally oriented service industries and other high-level corporate service functions, which generate significant levels of added value as well as good employment opportunities. (hongkvis: 5,235)

The predications highlighted in [4] are of a specific order: they fall under the broad, fuzzy semantic category of Importance. They are the attributes of world cities and their institutions. They are major, vital, successful, distinctive, high-level, internationally oriented, influential centres that operate on a global basis because of their tremendous strength in significant areas. In other words, they are Important because they perform Necessary and Powerful functions that affect the whole of humanity. Here in this secondary set of attributions that do not appear explicitly in the text, we see the effects of evaluative propagation. The relations between predicates of particular elements in the text propagate evaluations of a more abstract and broad order. They do so within, across, and beyond the propositional content of the text. Following, the propositional content in [4], which claims truth or Warrantability about relationships between elements in the text, is enclosed in [square brackets]. The verbs at the centre of truth claims are italicised:

[4] As [economic activity has globalised], particularly in the financial and services sectors, [a few major cities - world cities - have become vital centres for managing

and co-ordinating economic activity on a global basis]. Furthermore, [successful world cities appear to share a number of common characteristics]. First, [world cities have a distinctive economic structure and exert a level of influence which is far greater than their size might suggest]. This is because [they have developed tremendous strengths in internationally oriented service industries and other high-level corporate service functions, which generate significant levels of added value as well as good employment opportunities. (hongkvis: 5,235)

The major claim put forward here is that world cities control and organise [manage and coordinate] global economic activities because of their distinctive economic structures. For this reason they are Powerful, and therefore Important, if not Necessary. Or, to rephrase the evaluative propagation here in the broadest possible terms: World cities are very Important because they control global economic activity (cf. Lemke, 1998). Although they clearly participate in Important Processes, their aspect as Substance is foregrounded at the expense of their existence as a network of dynamic, time-bound relationships, i.e., as the expression of Processes.

Prior to continuing with an exposition of the method, I now very briefly outline the methods developed by Lemke (1998) and Martin (2000), the complementary relationship that I see between them, and some difficulties and limitations that I found when applying them in isolation from each other.

An overview of two methods and their complementarity

Martin (2000) defines three broad classes of resources for analysing appraisal in texts: ‘affect’, ‘judgement’, and ‘appreciation’ (see fig. 1).

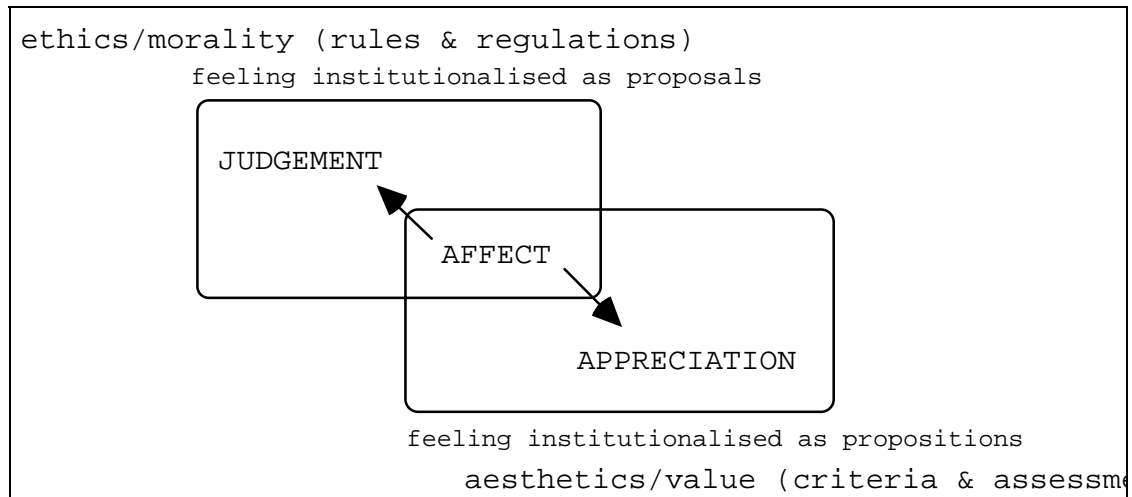


Figure 1: Affect, judgement, and appreciation (from Martin, 2000, p. 147)

These broad categories for resources describe appraisals made for elements that appear in text. However, when further grammaticalised across longer stretches of text, more and less explicit appraisals take part in a “syntax” of values that propagate other values, the most abstract and exhaustive of which is Desirability (mediated, of course, by the historically and institutionally specific value-dictates of any genre).³ Propagated values are those realised beyond the level of the elements in the text. These appear to be hierarchically organised, syllogistic, multi-dimensional, and fall under the broad categories identified in Lemke (1998). These are listed in figure 2 below:

Evaluative Dimension	Positive degree	Negative degree
[D] Desirability/Inclination	It is <i>wonderful</i> that John is coming	It is <i>horrible</i> that John is coming
[W] Warrantability/Probability	It is <i>certain</i> that John is coming	It is <i>unlikely</i> that John will come
[N] Normativity/Appropriateness	It is <i>essential</i> that John comes	It is <i>inappropriate</i> that John comes

³ For instance, the Desirability of a courtroom witness is mediated by assessments for Warrantability/Credibility: Truth is the institutional ‘standard’ that is at stake (see Lasswell, 1941). Many other examples could be derived from genres such as refereed journal articles, newspaper editorials (Lemke, 1998), a third-grade English essay, and so on. In other words, what is Desirable is mediated by institutional and generic norms (Appropriateness) (see, e.g., Firth, 1953).

[U] Usuality/Expectability	It is <i>normal</i> that John is coming	It is <i>unusual</i> that John is coming
[I] Importance/Significance	It is <i>important</i> that John comes	It is <i>irrelevant</i> whether John comes
[C] Comprehensibility/Obviousness	It is <i>obvious</i> that John will come	It is <i>mysterious</i> that John is coming
[H] Humorousness/Seriousness	It is <i>hilarious</i> that John will be there	It is <i>serious</i> that John is coming
[A] Ability/Difficulty [proposals]	It is <i>easy</i> for John to come	It is <i>difficult</i> for John to come
[Ut] Utility/Usefulness [proposals]	It is <i>useful</i> for John to come	It is <i>useless</i> for John to come

Figure 2: Evaluative resources for proposals and propositions (adapted from Lemke, 1998, p. 37)

More dimensions are available for evaluating proposals than propositions (cf. Lemke, 1998, p. 46). Propositions will not sensibly carry evaluations for Ability, for instance, and the only attributes that a proposition can carry are evaluations along one or more of the first seven dimensions listed above in fig. 1 (Lemke, 1998). I have added another category to those identified by Lemke—that of Utility, or Usefulness, which is perhaps specific to policy proposals (realised in the corpus as: ‘it is instructive to ...’; ‘it is prudent to ...’; ‘it is advisable to ...’; ‘it is useful to ...’; and so on).⁴ I have also included Ability/Difficulty in the grid because it is an evaluation specific to policy proposals that appears in the corpus as the second most frequent explicit evaluation for proposals after Importance and Necessity (which in the context of the policy corpus tends most frequently towards Importance rather than Normativity).⁵

An engagement with Lemke’s resources

After applying Lemke’s (1998) model to a corpus drawn from an Australian union dispute, I found that across long stretches of texts the evaluative dimensions detailed by Lemke’s model interacted in very complex ways. Lemke describes

⁴ While it is conceivable that Usefulness could evaluate a proposition (“It is very Useful that John is coming”), no such instances appear in the present corpus.

similar phenomena in the newspaper editorial corpus he investigates when presenting the model (1998, pp. 47-49). A predictable aspect was that overall evaluations for Desirability and Importance of particular propositions propagated where “the truth of the matter”, the Warrantability of a particular proposition was at stake. This was the case both in written and spoken language about the (very few) ‘intertextual thematic formations’ (ITFs) that were at the centre of the dispute (Lemke, 1995, p. 42). The unpredictable aspect was that the dimensions of Desirability and/or Importance propagated across the top of, or were scaffolded by, or emerged from, evaluative interplay between positive and negative dimensions of all the broadest propositional evaluative dimensions, including degrees of Desirability and Importance themselves, seemingly in any “order” and polarity whatsoever. The ‘patterns of evaluation’ (Firth, 1953) evident in the scaffolding, though, implied an hierarchical arrangement of evaluative dimensions, with Desirability and Importance at the “top”. The dimensions that are foregrounded in any given field would appear to be genre-specific, although Desirability would seem to be the most highly-elaborated of all (Lemke, 1998, p. 38). In any case, Desirability is most probably definitive of “what value is”, either as an evaluation for space-bound Substances or for outcomes of time-bound, causal Processes (cf. Firth, 1953; Langworthy Taylor, 1895; Perry, 1916; Lasswell, 1941; Lemke, 1995, p. 38).

Here is a fragment from the union dispute corpus that exemplifies the complexity of evaluative dimensional interplay that I encountered. It should be noted

⁵ It may be that the category of Usefulness is more evident in policy because of demands upon the authors to reconcile conflicting interests according to utilitarian values.

that to derive the kinds of evaluations identified in this fragment, I had to identify and draw heavily on the heteroglossic resources of the group, and assume that the nominals here are implicitly “loaded” with “pre-evaluated” propositional content.

This is a function of thematic condensation because

what is a proposition at one point in a text readily becomes “condensed” ... as a participant at another, and participants (especially abstract nominals) are often meant to be correspondingly “expanded” by the reader into implied propositions through reference to some known intertext, as well as through reference to the immediate co-text. (Lemke, 1998, p. 43)

It would seem that what holds for ‘thematic condensation’ (e.g. Lemke, 1995, pp. 60-61) also holds for evaluative condensation. For instance, in the following passage, I can say with all certainty that the nominal element Sandline industrial mercenaries is loaded with a ready-evaluated proposition in the form of “it is very un-Desirable, un-Usual, and in-Appropriate that Sandline industrial mercenaries have been hired to put down a strike by an Australian union” (cf. Lemke, 1998, pp. 45-46). The method I used in this instance included unpacking the nominals in the light of co-textual, intertextual, and historical knowledge about the dispute, the discourse community, and the culture in which it is embedded to see what propositions and evaluations have been collapsed into what is, after all, a string of nominals.

Elements that are intertextually loaded with propositional evaluations in this way are MARKED IN SMALL CAPS, and evaluative dimensions are marked [in square brackets] according to the categories in fig. 2:

[5] The PLOT thickens [D:H]. SANDLINE industrial mercenaries [D:U:N], SAS COMMANDOS [D:U:N], Canberra CONSPIRACIES [D:U:N], Victorian GOVERNMENT PRISON SHIELDS [D:U] and body guards, a phalanx of LAWYERS [D], SHELF COMPANIES [D:U] and COWBOY [D:H] operators, FARMERS IN SUITS [U:H], a MYSTERIOUS JUNK BOND KING [D:U:C] with a penchant for MAO MEMORABILIA [D:U] and one DESPERATE [D:U] man – one MERCHANT BANKER [D] now stevedoring boss – CHRIS CORRIGAN [I] (MUA, 1998, in Graham, 1998).

The evaluative chain propagates, overall, an evaluation of un-Desirability for the antagonists of the union. It does so mainly across the dimensions of un-Usuality and, to a lesser degree, in-Appropriateness. But these evaluative meanings are carried along all other evaluative dimensions identified by Lemke, even that of Humorousness.⁶ The evaluations for un-Desirability and un-Usuality draw heavily on intertextual resources. For instance, the un-Desirable, un-Usual, in-Appropriate element, SANDLINE, refers to a transnational company that came to public prominence in Australia after the Papua-New Guinean Government illegally hired its mercenaries in order to defeat Bouganville rebels. The “Affair” caused international outrage and the company was eventually expelled from New-Guinea under internal and international political pressure.

The intertextual and heteroglossic evaluative salience of SANDLINE highlights the ‘pervasive tendency for metaphorical transfer among the evaluative semantic dimensions’ (Lemke, 1998). As an evaluative condensation, SANDLINE acts as a

⁶ Humour is realised here through highly intertextual, culturally specific resources which I have no time to go into.

‘gateway’ which is on the border ‘between lexical and grammatical metaphor’ (1998, p. 47). It “opens” the way for un-Desirability and un-Usuality to propagate and amplify along the dimensions of:

- Warrantability: There is a PLOT because this un-Usual group of people are associated with one another against the MUA;
- Normativity: This is an in-Appropriate association of groups in the context of an industrial dispute;
- Comprehensibility: This dimension appears in both negative and positive degrees: a mysterious JUNK BOND KING; Obviously there is a plot [which is also in-Comprehensible!] against the MUA;
- Humour, which propagates at a high level of abstraction intertextually and culturally (Farmers in suits is an excellent example); and,
- Importance: It is Significant that the CEO of Patrick, the company that fired the union workers, Chris Corrigan, is involved in the dispute.

All these dimensions interact by their metaphorical, co-textual, and intertextual relationships to evaluatively propagate un-Desirability across the main evaluative “scaffolding” of un-Usuality and in-Appropriateness.

So what is a relatively simple model where the evaluation of a single proposition or proposal is concerned becomes a tangled and complex web of hierarchically organised value-relations, much (if not all) of which must be inferred intertextually if we want to apply it to much longer or more lexically condensed

stretches of text. The usefulness of Lemke's method is most evident in its ability to identify which broad categories of evaluation are propagating over long stretches of text. The approach provides a way of seeing the organising evaluative logic of texts, much of which must be intertextually inferred from "outside" the text itself. But there are few resources for organising predications made for the Substances and Processes that are the constituent parts of propositions and proposals, and which are also relational constituents of the ineffable 'evaluative' dimensions themselves.

An engagement with Martin's APPRAISAL

Martin's (2000) model is complementary to Lemke's in many respects. But after applying it to the policy corpus in isolation, I encountered immediate difficulties. First, the notion that all appraisals (or evaluations) are 'encoded feeling' is theoretically problematic for me. The idea that rationality and feeling, fact and value, are separate or separable aspects of human experience is a uniquely "western" conception (Firth, 1953), the difficulties of which have been discussed for millennia:

Implicit in this approach is a distinction between observation on the one hand and the values on the basis of which we place the stamp of moral approval or disapproval on the other. This distinction between fact and value (which is consistent with the distinction between methodology and philosophy) is one of the innumerable dualisms which ... pervade post-Renaissance western philosophy.

(Harvey, 1973, p. 14)

From my perspective, such a disjunction is anathema: 'the act of observing is the act of evaluation and to separate them is to force a distinction on human practice that does not in reality exist' (Harvey, 1973, p. 15; cf. also Graham and McKenna, 2000).

This is perhaps a difficulty with coupling evaluative meanings too closely to the domain of interpersonal meaning.⁷ This becomes most evident when evaluations are analysed over longer stretches of text. Evaluational content appears to have its own “thematic” and logical organisation, most of which must be inferred independently of the logico- and lexico-grammatical aspects of a given text. Further, it seems that evaluations have a logical “syntax” similar to that of formal argumentation (see below, Value as syllogistic).⁸

There are also complex grammatical difficulties to deal with that arise from the high abstraction typical of the policy register, again as a result of the emphasis on appraisal as feelings or emotions. Take, for instance, the problem of nominalised affect, realised in the following Greek passage as projected ‘concern’, which is (concretely) an affective expression of disquiet. But the overall appraisal would appear to be one of ‘judgement’, a resource for evaluating people’s behaviour:

[6] But, there is **concern** that the **traditional strengths** of adaptability and resilience of the Hong Kong people **have gradually been eroded by** the "bubble economy" created in the early 1990s. Some in the community believe that it has generated a "**get rich quick**" mindset that could **seriously undermine** the **strong** work ethic that has long been associated with the Hong Kong workforce. There is also **concern** that, in some quarters, a **dependency** culture has developed and with it, increasing and sometimes **unrealistic** expectations as to both the role of the Government and its ability to provide **additional** services. (hongkvis: 9,378)

In [6], from the perspective of appraisal, concern is nominalised ‘affect’, a reference to feelings of ‘insecurity’, or ‘disquiet’ (Martin, 2000, p. 153). But nobody in particular is feeling the concern—it is projected from nowhere as an extant “Thing”,

⁷ This is of course not Martin’s intention. But the basis of the model, as encoded emotion, tends towards an isolating trajectory of the interpersonal metafunction.

as a Substance. As such, it becomes available for the authors to “use” in a number of ways. First it provides a device for ‘evaluative cohesion’ (Lemke, 1998, p. 50), an element that creates cohesion between sometimes quite disparate and grammatically remote elements by evaluating them and their trajectories as causes of concern: the traditional strengths of adaptability and resilience of the Hong Kong people; the “bubble economy”; a "get rich quick" mindset; the Hong Kong workforce; a dependency culture; increasing and sometimes unrealistic expectations; and the role of the Government. All of these are bundled together – evaluatively conflated – under an umbrella of disembodied concern that propagates, albeit intertextually, the un-Desirability of “welfare dependency” and government intervention, as well as the Importance and Desirability of particular attitudes to work and the role of government in general (cf. Fairclough, 2000; Weber, 1932/1992). And there is another, even broader value-system upon which the authors are drawing, and which the text consequently propagates. I will say more about that below.

A second effect of nominalising appraisal resources is that they can then be appraised themselves. Examples of this phenomenon from the corpus include: ‘there is significant concern in both industry and Government ...’; ‘their formerly fearsome credibility ...’; ‘it is the latter which is the crucial concern ...’; ‘the current fears are totally groundless ...’; and so on. The Substance of concern in the Hong Kong text is firstly directed towards nominalised judgements on peoples behavioural predispositions, namely, the traditional strengths of adaptability and resilience of

⁸ The policy data supports Hunston and Sinclair’s (2000) proposition that evaluation has a distinct grammar, although I am inclined to think of the system not as a ‘sub-grammar’, but as an alternative grammar, a wholly-related alternative, with its own identifiable ‘metafunctions’.

the Hong Kong people.⁹ Once all these ‘feelings’, disembodied and otherwise, are nominalised, the authors then have ‘the entire transitivity system’ with which to cast them metaphorically as Actor, Agent, Medium, Goal, Participant, or Circumstance. Thus they become available for use as cause, effect, circumstance, and/or rationale (cf. Martin, 1999, p. 36).

But what is being evaluated in the Hong Kong text? The disembodied concern? The unidentified persons who are “feeling” this concern? The traditional strengths of adaptability and resilience? The Hong Kong people? Their “attitudes”, “behaviours”, and strong work ethic? The bubble economy? The “get rich quick” mindset? The “belief” of a nebulous some in the community? The answer to all of these questions is yes and no.

All these elements are inscribed with evaluative predicates, explicit, implicit, contextual, and intertextual. But what is propagating here is an overall evaluation for the Desirability of a “progressive”, reformationist, economic rationalist Process with which most of us ought to be familiar by now (we can call it the “Globalisation” program for the sake of convenience). It is propagating the Importance (Necessity) of people’s adherence to the value-imperatives that “rationalise” that Process. That is, it is saying that people need to do and be in specific ways for Desirable outcomes to happen (cf. Fairclough, 2000). In short, the elements of the “Things” for which an overall evaluation of Desirability is being propagated here – the tenets of neoliberal

⁹ All of these are on the borderline between judgement and appreciation to my mind, at least according to the system outlined by Martin (2000). While behaviour is being appraised (work practices), therefore implying judgement of one sort or another, once nominalised, they can be appreciated as Things. It also strikes me that to keep coherence with social theory, we must assume appreciation is mediated by

“structural reform” – are not elaborated explicitly in the text at all. Moreover, the value system of neoliberalism provides coherence for what is being said. What gets smuggled in is thus an hortatory imperative connected with the values of the orthodoxy propagated by the authors. They appear to be passing ‘judgement’ on the eroded moral proclivities of Hong Kong’s entire working population, as well as their (Obviously unreasonable) expectations of the government, among other things. But if this were a more concrete construal of what is being said, with the submerged proposal made explicit, we see that the Necessity for particular ‘ways of being’ and ‘seeing’ are propagated (cf. Fairclough, 2000):

The Hong Kong people need to realise that the world has changed and that they must work harder for less. It is not the government’s job to help.

So in deploying Martin’s (2000) model to analyse policy evaluations, I encountered problems with the effects of evaluative interplay between predications made of specific elements in the text, the hortatory and propositional content of the text, the submerged proposals demanding explicit action, and the socio-political and historical contexts in which the text is embedded—that is, overall, with evaluative propagation. In many senses, it is the reverse of the problem I encountered when applying Lemke’s resources. With Martin’s model, the limitations for policy analysis happen at a different grammatical level, as well as at a different level of value abstraction. In Lemke, we have few resources to categorise explicit evaluations; in Martin, we have few resources to identify what is propagating at the most abstract levels of evaluation across longer stretches of a text, as well as outside the text itself. My approach, then,

judgement, especially in the form of ‘social sanction’, or in Lemke’s model, Normativity.

is a synthesis of these two approaches, with a special emphasis on time-space and Substance-Process disjunctions in evaluative meanings.

Let us return to text [4] to display a preliminary synthesis. Propositional content is (in brackets), evaluative condensations are IN CAPITALS, explicit appraisals are underlined, evaluative dimensions are marked in square brackets according to fig. 1, and the processes concerned with Warrants **are marked** in bold:

[4] As (economic activity **has globalised**), particularly in the FINANCIAL AND SERVICES SECTORS [I], (a few major cities - world cities - **have become vital** centres for MANAGING AND CO-ORDINATING ECONOMIC ACTIVITY [I] on a GLOBAL [I] basis). Furthermore, (successful world cities **appear to share** a number of common characteristics). First, (world cities **have** a distinctive economic structure **and exert** a level of INFLUENCE [I] which is far greater than their size might suggest). This is because (they **have developed** tremendous strengths in INTERNATIONALLY ORIENTED SERVICE INDUSTRIES [I:D] and other HIGH-LEVEL CORPORATE SERVICE FUNCTIONS [I:D], **which generate** significant levels of ADDED VALUE [I:D] as well as GOOD EMPLOYMENT OPPORTUNITIES [D:I]). (hongkvis: 5,235)

This text [4] provides a fairly straightforward example of ‘evaluative cohesion’, or ‘[c]o-evaluation, along the same dimension (and more definitively if also similar in polarity and degree, but this is not necessary)’ which creates ‘cohesive links between separated elements that are not readily construed by cohesive devices’ (Lemke, 1998, p. 50). Positive degrees of Importance are construed throughout supported by intertextually condensed evaluations for Desirability. At the predication level, ‘appraisal’ resources of ‘appreciation’ are deployed in the terms successful, major, vital, distinctive, significant, and tremendous. The “Things” appraised – world cities – are phenomena specific to a functioning global economy, and they are central to, or “do”, Important processes, namely manage and co-ordinate economic activity on a global basis. The Processual functions buried in the nominal group, managing and

co-ordinating economic activity on a global basis, attribute an enormous degree of Power to the cities: they fairly much control global economic activity.

The evaluative resources located on the level of abstraction at which Power is propagated here (which is more abstract, in higher polarity, and broader scope than the explicit realisation of Power in tremendous strengths) is of an order between the direct lexical resources available at the attributional (predication) level of appraisal, and those at the most broad propagational level of Importance. These “middle-range” values occupy quite a different and distinct order of abstraction. For instance, they are not typically (or cannot be) used to evaluate propositions and proposals, but may appear as direct lexical appraisals of elements in the text, as may the semantic labels of all of the most abstract and broad dimensions of evaluation.

This somewhat confusing aspect is to be expected because of the intrinsically relational nature of language (Fairclough and Graham, forthcoming), as well as circularity that arises from the need to describe evaluations in language that uses the semantics of evaluation. The semantic labels from any “level” of value-abstraction can appear as predicates of an element in the text: a desirable circumstance; a necessary evil; a beautiful place; a fearful child. But only evaluations of a certain order of abstraction and ineffability can propagate. For example, we would not usually say, using Lemke’s probe, that it is very Powerful that John is coming. But we might say that John is very Powerful, just as we might say that Beethoven’s fifth is a Powerful piece of music. But the order of abstraction at which Power is construed in the Hong Kong policy text, as well as the degree of its polarity, clearly lies “above” inscribed predications and “below” the most abstract propagations of

Importance. Power does not appear in the text as a predicate of the cities. Yet the reader can hardly avoid “seeing” Power propagated in the semantic interplay of explicit and implicit evaluations. Thus the process of evaluative propagation appears to be relational, intertextual, multi-dimensional, hierarchical, and “syllogistic”. It is also important to distinguish between the use of semantic labels for evaluative categories and their direct operationalisation in texts.

For instance, what becomes clear is that the level of evaluative abstraction, which in turn depends on the grammatical, co-textual, intertextual, and contextual status of evaluands and their predications, changes the evaluative orientation of the attribution, Powerful. The statement, John is very powerful, might construe an appraisal bordering on ‘appreciation’ of John’s social (or perhaps physical) makeup and a ‘judgement’ about his social standing. We would need to know more about context to say which it might be, and more importantly, how the predication of John as a Powerful person might be evaluated within certain groups who are talking about the “sort” of Power that John has. The statement, “Beethoven’s fifth is a Powerful piece of music” deploys an appreciative (or perhaps metaphorically affective) appraisal of some music. But in the text [4] about world cities, Power appears as a sort of judgemental evaluation: the world cities’ global economic functions are endowed with ‘social esteem’ and ‘social sanction’ (Martin, 2000, p. 156). The abstraction of Power here happens at a level of “below” the propagated value of Importance [note that we would sensibly say “it is Important that world cities are Powerful”, but not “it is Powerful that world cities are Important”]. In this case, Power is propagated by the Process aspects of evaluations in [4] and is metaphorically “transferred” to the Substance of world cities. The Process aspects

that propagate Power are buried in a nominal group [managing and co-ordinating] and in the “range” of the nominalised processes [economic activity on a global basis]. World cities are Powerful because they control the world economy. Therefore they are Important. Here we begin to see the syllogising function of evaluative propagation (see below).

Understanding the difference between evaluations made by predication and propagation has clear implications for evaluative analyses. My investigations so far suggest that evaluations, at least in the particular genre I am investigating, happen on at least four levels of abstraction as they propagate throughout a text. These are dependent on the grammatical status of the evaluative resources being deployed (are they nominals or part of a nominal group?); the elements being evaluated (are they construed as outcomes of Processes or as attributes of Substances?); the temporal aspect of the elements involved (what are the tense and modality systems doing?; do the nominals “contain” an aspect of time?); and the grammatical relationships (or lack thereof) between them. To make matters more complex, appraisals get nominalised and appraised, as do relationships between elements, as do whole value systems (as in the term ideology).

All this implies a relational grammar of evaluation that is at least as complex as the tense systems (cf. Halliday, 1994, pp. 196-210 ; Hunston and Sinclair, 2000); which, indeed, appears to be influenced strongly by the tense system itself (see below); which functions simultaneously at different levels somewhat analogous to Halliday’s (1994) metafunctions; and which is subject to the same complexities associated with ‘metaredundancy’ (Lemke, 1995, pp. 166-174), with the various

“levels” or “dimensional metafunctions” peculiar to evaluations interacting with each other, and, of course, with the social, historical, generic, and discursive contexts of the textual instance (Lemke, 1995, pp. 166-167; Martin, 2000, p. 161). It also implies an hierarchical organisation of values which, at the most abstract level of the policy genre, propagates degrees of Desirability and Importance for certain propositions upon which imperatives for Necessary action are developed.

A brief outline of some relational categories for analysis

Time and space permit only a brief description of what seem to me to be the most salient aspects of an extremely complex system. I will firstly outline an hierarchical arrangement of evaluative abstraction with corresponding semantic labels, all of which might appear as predicates of elements in the text, only some of which can be propagated at the middle-range of abstraction, and two of which typically propagate at the most abstract level over the course of the policy texts that constitute the corpus. Any such “hierarchy” will, of course, alter greatly from genre to genre. It should be seen as relational, remembering that the semantic labels are also lexical resources that can appear as concretely inscribed appraisals of specific elements in the text. This is the relational hierarchy that I have found in the corpus:

1. The broadest and most abstract semantic level of propagated values: Desirability and Importance/Necessity which are mutually mediating in the process of propagation;
2. At an almost equally abstract level: Warrantability/Probability; Comprehensibility/Obviousness, Usuality/Expectability, Utility/Usefulness

(proposals only), Difficulty/Ability (proposals only),
Normativity/Appropriateness, all of which can mediate, support, and propagate
the semantic categories of evaluation in 1 (I have not found any instances of
Humorousness deployed in the policy corpus);

3. Intermediate categories which, again, may either be predicated of textual elements or propagated across long stretches of text. However, they are not typically deployed to evaluate propositions or proposals, and are “parts” of the broader semantic dimensions in 1 and 2. As predicates of elements in language, they can also propagate the evaluative stances in 1 and 2. The (ineffable) definitions for these labels are drawn from Lasswell (1941), Perry (1916), and/or Martin (2000) and include only those categories I have encountered in the corpus. Whether as part of attributive or identifying clauses, or as parts of propositions, or otherwise embedded (intertextually or implicitly) in nominal elements or relations in the text, evaluations at this level can themselves be evaluated in terms of the categories in 1 and 2 above: Power, Respect, Freedom, Efficiency; Morality, Trust(worthiness), Legality, Virtuousness; Beauty, Intelligence, Wealth, Excellence (Quality), Consistency, Balance, Happiness, Stability, Complexity, Sophistication, Coherence, Restrictive; Quantity, Size (or Dimensions), Expense, Dependency, Innovativeness, Novelty.
4. Lexical resources that directly evaluate an element in the text. These are most conveniently organised by Martin (2000, p. 145) under the headings of Affect, Judgement, and Appreciation (once again emphasising the ultimate impossibility of separating “fact” from “value”). These resources of ‘appraisal’ are directly

inscribed in the text and directly affected by the resources of amplification and engagement (p. 145). Resources of appraisal are directly predicated of elements – Processes, Participants, Circumstances, and Qualities – in the text, even though they may be seen as intertextually ‘evoked’ or ‘inscribed’ (p. 154). Seen relationally, they are in “hierarchical”, or better, constitutive relationships with the broader, less specific categories in 1, 2, and 3, which may also appear as predicates of textual elements.

Propagated value as syllogistic

If we consider evaluators as semantic operators, and ask what is their *scope*, i.e. to what precisely does their evaluation extend — we find that quite often evaluations propagate or ramify through a text, following the grammatical and logical links that organize it as structured and cohesive text as opposed to a mere sequence of unrelated words and clauses. – (Lemke, 1998, p. 49).

Evaluations can have their own “logic” which may be largely independent of the text’s logico-grammar (cf. Hunston and Sinclair, 2000; Lemke, 1998, pp. 50-51). This is most obvious when seen from the perspective of ‘syntactic propagation’ (pp. 50-51). Syntactic propagation occurs when an evaluative stance towards an element in the clause transfers its evaluation to another element. We can exclude ‘explicit evaluators’, such as epithets and auxiliary modalisers, and ‘there are still a host of other phenomena’ that can propagate evaluations (1998, p. 50). However, even though such propagation can be analysed without recourse to appraisal resources, we need not ignore them. In any case, ‘what counts as appraisal depends on the field of discourse. Because of this, ideational meanings that do not use evaluative lexis can be used to evoke appreciation, as with AFFECT and JUDGEMENT’ (2000, p. 161). In the following passage from a Greek policy statement, an overall evaluation of the Necessity (an aspect of Importance when directed at irrealis proposals) for

institutional change propagates across positive and negative evaluations for

Desirability where the effects of new technology are concerned:

[7] The **initial** tendency for a **decline** in the demand for labour as a result of the introduction of **labour-saving** technology is counteracted by the **increased** demand for products and services that follows the **higher** productivity, **lower** prices, and the creation of **new** markets for the **new** products and services. In order for **sufficient** jobs to be created, it is **necessary** to establish a policy framework for the labour, product and service markets which facilitates such **dynamic** adjustment, encourages the **necessary new** investments, and prepares the labour force for the **new** skills that **will prevail** in the job market. **New** technologies are a source of **new employment opportunities** but at the same time create the need for **difficult** adjustments. Experience shows that policies which focus on safeguarding **existing** jobs in **declining** sectors and professions at all costs cause **significant** delay in the renewal of the industrial fabric with **adverse** consequences for **healthy** companies. It is therefore **necessary** to establish an institutional framework for the labour market where the restructuring of jobs and skills can take place **faster** and **easier**. Employment policy in the Information Society aims at creating a **flexible** institutional framework for the labour market and is accompanied by **initiatives** for training and the **upgrading** of skills. (Greece1: 20,857)

In [7], the syntactic propagation of Necessity (Importance) for wholesale structural reform of labour policy and the institutions thereof in Greece ‘depend[s] on a single variable which must be assigned intertextually’ (Lemke, 1998, p. 51). In this case, it is the high degree of Desirability for new employment opportunities that automatically flow from new technologies. These will allegedly offset the negative effects of labour-saving technology.

To establish the organisational weight of new employment opportunities as an evaluation for the Desirability and Importance of new technology, it is helpful to trace out the elements that are most explicitly inscribed with evaluations in the above example. Overall, new technology is presented as having both positive and negative

effects upon society. We are told that labour-saving technology tends to reduce the demand for labour when it is first “introduced”. But this un-Desirable effect is indirectly offset by increased demand for products and services, the result of higher productivity, lower prices, and new markets for new products and services. All these outcomes are presented as unqualified effects of new technologies.¹⁰ Once given, the positive “facts” of technological development are transformed into imperatives for action: it is necessary to establish a policy framework that facilitates dynamic adjustment, encourages necessary new investments, and prepares the labour force for new skills that will prevail in the job market. In other words, the technologies that reduce the demand for labour, and which are the cause of all the change that people have suddenly had to deal with, also create new employment opportunities. The authors resolve the consequent logical tensions by operationalising an alternative evaluative “logic”.

First, increased demand; higher productivity; lower prices; and new markets, products, and services are attributed to technological advances. The benefits appear from nowhere and we can only assume that they are causally related. The prospect of protecting existing jobs in declining sectors is dismissed based on the empirical facts of experience. The decrepit state of the Greek economy is acknowledged in the implied need for a renewal of the industrial fabric, thus doubly reinforcing the futility of maintaining the industrial status quo. Next, the image of healthy companies is set against itself to imply “sick” ones thus situating declining sectors and professions and sick companies in a burdensome relationship with healthy ones. The outcomes of all

¹⁰ This is quite false according to many assessments, but never mind

these evaluations, positive and negative in Polarity, is Necessity – for difficult adjustments; for training and the upgrading of skills; for an institutional framework; and for a policy framework, all oriented towards creating a flexible institutional framework for the labour market.

All this is offset by new employment opportunities. Without this evaluator, there would be no solution to the problems of technology identified by the author. Technology would otherwise appear solely as the cause of economic decline and social disruption and would offer no mitigation. The Desirability of new employment opportunities dominates the evaluation that propagates throughout [7]. For reasons that become obvious, ‘a reader needs intertextual knowledge of the writer’s probable assignment of value polarity to key well-known elements in order to trace out the evaluations in the text’ (Lemke, 1998, p. 51). In the above example, ‘heteroglossic opposition’ can only be established through intertextual knowledge of late-twentieth century attitudes towards “technology”, the “economy”, and “employment” to discern the high evaluative polarity and Importance of new employment opportunities.

We can see that there is a kind of evaluative “syllogising” going on through the text. The evaluations of particular elements in the text do not merely or obviously “add up to” an overall evaluation of Desirability for the benefits of technological change, even though the “pluses” and “minuses” of introducing technology are laid out according to a certain (neoliberal) axiology. The evaluations are not merely heaped one upon the other, but are set in opposition to one another, and at times, to themselves, in a kind of sic et non. Following is a step-by-step analysis that

foregrounds positive and negative degrees of Desirability and its evaluative “scaffolding”

The **initial tendency for a decline in the demand for labour** as a result of the introduction of labour-saving technology

The un-Desirable decline in the demand for labour caused by new technologies is not a fact, but rather a tendency, a nominalised aspect of Usuality which is mitigated by the Temporariness (a ‘borderline’ evaluator in Lemke which pushes the evaluation of Usuality semantically towards Probability) that inheres in the time-laden epithet, initial. But a kind of “fact” does follow the Usuality of a decline in jobs. The fact is that labour-saving technology is the primary force in all this: it results in a number of things, one of which is the initial tendency to destroy jobs [inter alia, employment opportunities]. This negative possibility is offset by the following, which is construed in a far more positive way:

is counteracted by the increased demand for products and services that follows the higher productivity, lower prices, and the creation of new markets for the new products and services.

Here a string of Desirable “facts” – apparently the unquestionable effects of technology – is counterposed to the possibility that demand for some jobs will be lost. These positive facts are constitutive of demand of a different kind. Demand for jobs may decrease, but demand for new products and services will come from the new markets that technology inevitably creates. Negative demand is counterposed to positive demand.

In order for sufficient jobs to be created, it is necessary to establish a policy framework for the labour, product and service markets which facilitates such

dynamic adjustment, encourages the necessary new investments, and prepares the labour force for the new skills that **will prevail** in the job market.

Next, Desirable demand is problematised to bring forth an evaluated proposal: there needs to be adjustments in policy if the new opportunities of technology (previously presented as unmitigated effects) are to be realised. A policy framework that is designed to facilitate the positive effects of technology becomes Necessary. So, what were construed as inevitable effects in the previous sentence now become opportunities for benefits to be realised. Inevitability is transferred from the exogenous effects of technology to the endogenous Necessity for a policy framework that responds to the effects that technology has created elsewhere.

New technologies are a source of new employment opportunities but at the same time **create the need for difficult adjustments**.

Here is the central sic et non proposal on which the evaluative chain rests. Note that the nominal new technologies is evaluated both as a Substance and as an Actor in a creative Process; they have intrinsic properties as a source of new employment opportunities. They also create the need for difficult adjustments. The Necessity of change, which has already been established based on the Desirable effects of technology, is transferred to difficult adjustments because the new employment opportunities are construed as an intrinsic property of new technologies. This follows on from the sic et non construction in the first sentence – the inevitable benefits of technology far outweigh the negatives, which are only tendencies. Therefore, adjustments to technology and its benefits are Necessary. Policy that encourages adjustments is the natural solution.

Experience shows that policies which focus on **safeguarding** existing jobs in **declining sectors and professions** at all costs cause **significant delay** in the renewal of the industrial fabric with **adverse consequences** for **healthy** companies.

Just in case any reader thinks that the un-Desirable effects of technological progress can be moderated by policy that safeguards the status quo, the authors invoke anti-protectionist rhetoric to dispel any such possibility. The overall result would be to protect the sick at the expense of the healthy. This is an overt operationalising of eugenic values (Galton, 1904).¹¹ If healthy, and presumably new, industries are hampered by protectionist policies that protect the sick, the industrial fabric will continue to decay.

It is therefore necessary to establish an institutional framework for the labour market where the restructuring of jobs and skills can take place faster and easier. Employment policy in the Information Society aims at creating **a flexible institutional framework for the labour market** and **is accompanied by initiatives for training and the upgrading of skills.** (Greece1: 20,857)

Here we come to the end of this evaluative chain which, as we see, propagates Necessity for institutional “reform”. The Desirability of new employment opportunities, counterposed to the un-Desirability of unemployment, and the Importance of restructuring jobs and skills to adapt to the exogenous effects of new technology, the province of individual ability, is translated into Necessity for policy makers to act on behalf of the whole country.

¹¹ ‘Though no agreement could be reached as to absolute morality, the essentials of eugenics may be easily defined. All creatures would agree that it was better to be healthy than sick, vigorous than weak, well-fitted than ill-fitted for their part in life; in short, that it was better to be good rather than bad specimens of their kind, whatever that may be’ (Galton, 1904, p. 2).

In brief, taking the form of the deductive syllogism, we can express the evaluative logic of the Greek text in three syllogisms:

A

Major premise: All new employment opportunities are Desirable

Minor premise: New technologies are a source of new employment opportunities

Deduction: New technologies are Desirable.

B

Major premise: New markets, services, and products are Desirable

Minor premise: New technologies create new markets, services, and products.

Deduction: New technologies are Desirable.

C

Major premise: The effects of new technologies are Desirable.

Qualifying major premise: They require people to have new skills.

Deduction: It is Necessary that people gain new skills.

At this point, if we accept the major premises of evaluation, it becomes a matter of mere “common sense” that education becomes oriented towards employment, and that employment policy becomes oriented towards re-education of the population if the Greek economy is to reap the unquestionable benefits of new technologies. Once again, the neoliberal value system is propagated. It provides an organising evaluative “logic” for the text and is practically enthymematic in function: there appears to be no need to justify or elaborate the Desirability of restructuring jobs and skills; the un-Desirability of safeguarding existing jobs in declining sectors and professions; or

Warrantability for the claim that new technologies will result in higher productivity, lower prices, and the creation of new markets for the new products and services. All these are presupposed as fact by the authors.

Multidimensionality

While the evaluative dimensions of Necessity (Importance) and Desirability are clearly foregrounded in the Greek text, we might just as fruitfully model the dimension of Probability for the significance it creates for change. More and less subtle juxtapositions of Probability for various elements in the text “support” the overall evaluations for Necessary action and Desirable outcomes. For example, while the introduction of technology is attributed with an un-Desirable initial tendency to reduce jobs, the benefits of technology come with an evaluation for unmitigated Truth (an aspect of Warrantability). Necessity is itself juxtaposed to Desirable outcomes to propagate Probability: In order for sufficient jobs to be created, it is necessary to establish a policy framework for the labour, product and service markets In other words, if an Appropriate policy framework is not put in place, then the benefits of technology will very Probably not be realised. Similarly, bearing in mind the relations between implicit and explicit construals of tense and temporality, and see Substance and Process, strong claims for Warrantability in

the new skills that **will prevail** in the job market;

new technologies **are** a source of new employment opportunities; and

experience **shows** that policies which focus on safeguarding existing jobs in declining sectors ... **cause** significant delay... .

All operationalise high positive degrees of Warrantability. They are statements of highly-modalised “facts”, past, present, and future (note that the past tense is condensed in the nominal, experience). While time and space do not permit a full analysis of the various other first and second order evaluative dimensions, suffice it to say here that various degrees and polarities of Normativity, Comprehensibility, and Usuality are brought to bear on the text, although these are more opaque, especially because of their reliance on the tense system (e.g., that specific skills will prevail is a contentious claim untestable by anything other than empirical evidence of the future). For instance, in the current international policy climate, it would be considered in-Comprehensible for the government of an economically struggling country to take up protectionist policies, even though these may be prima facie quite Useful.

It will probably be most often at the cost of these more subtle configurations of evaluative “scaffolding” that the most broad dimensions are foregrounded in any sustained analysis of language. The intertextual dependencies of authorial evaluative stances in any given text are problematic to say the least (Martin, 2000, p. 175). But by identifying the evaluative dimensions that are foregrounded overall in policy texts, we can begin to see which dimension propagate “beneath” those most prominent to “support” the more easily identifiable dimensions. We can perhaps do this by seeing evaluative dimensions as ways “in” to the system of evaluations underlying those that most obviously propagate. Viewing evaluative propagation within and between evaluative dimensions as syllogistic has the advantage of separating in analysis what is, in discourse, inseparable: the interdependence between evaluations at all “dimensions” and “levels” of value propagation.

But there is a problematic aspect to all of this, precisely because of the complex interplay of evaluative dimensions: how can we, as analysts, know which evaluative semantics are propagating most strongly? How do we know what is supposed to be inferred in the often enthymematic invocation of evaluative syllogisms? How do we explain and identify the contextual materials that organise and propagate evaluations across stretches of text? Unless, as analysts, we claim innately superior hermeneutic processes, our ability to identify intertextual and heteroglossic resources, which both readers and professional analysts must identify to make evaluative “sense” of texts, we must say, not merely that such resources exist, but also where they “come from”. Moreover, we need to say, or at least acknowledge, how they are inculcated as meaningful, recognisable systems of value. I argue that a political economy approach to media is not only fruitful but necessary for achieving this.

The inculcation of intertextual resources: mediation, propagation, and propaganda

There are overt historical underpinnings to the perspective on evaluative meaning that I am putting forward here. If a reader is to make appropriate “sense” of evaluative propagation, they must share a considerable degree of intertextual knowledge about specific but often implicit axiologies—propagational “logics” and predicational lexes—within a discourse community. In many ways, notions of ‘heteroglossia’, ‘discourse formations’, ‘intertextuality’, ‘inculcation’, and ‘evaluative patterns’ address the historical nature of evaluative logic, or ‘axiology’ (cf. Fairclough, 1992, pp. 12-135, 2000; Firth, 1953; Lemke, 1995, pp. 22-36, 1998, pp. 34-35).

The central problems addressed by, for instance, the notion of ‘heteroglossia’, are those concerning ‘the persistent habits of speaking and acting, characteristic of some group, through which it constructs its worldview: its beliefs, opinions, and values’ (Lemke, 1995, p. 24). In other words, equipped with notions of heteroglossia and intertextuality in hand, we can set out to identify the production and reproduction of particular ways in which ‘people represent the world, including themselves and their productive activities’ (Fairclough, 2000). However, and this is all the more important in a globally mediated environment dominated by as few as six people (Wolf, 1999), heteroglossia, intertextuality, and so on presuppose the existence of shared values systems without explaining their means of inculcation (production, reproduction, distribution, and transformation) which is – and has been for at least five thousand years – media technologies and their associated institutions, which are also media in their own right (cf. Bourdieu, 1991; Graham, 2000; Halliday, 1993; Horkheimer and Adorno, 1947/1998; Innis, 1950, 1951). I include here oral technologies, and all the institutionally mediated ‘knowledge monopolies’ that have waxed and waned in dominance throughout history (Innis, 1950, 1951).

It is unquestionable that the social situatedness of persons is foundational to their potential for making and understanding meaning. However it can no longer be assumed (if it ever could) that people are socialised into localised meaning systems (such as families within distinct social classes) and that broader media processes and effects “come afterwards”, with people merely making of media what they will according to some cultural background that is unaffected by mediation. Today’s media are pervasive, immediate, and global. They are “part of the family” from the earliest years, and are as much a part of the home in affluent societies as running

water (Silverstone and Haddon, 1996). Media practices are, of course, neither homogenous nor consistent, either in form, content, production or “consumption”. They accommodate ‘different cultural roles for different groups of people to play, and different sets of myths or different cultural pleasures to go along with them’ (Tetzlaff, 1991, p. 17). There is no need to posit singularity for media effects. Throughout the twentieth century, ‘media producers have continued to maintain or expand the diversity of their products while control of production has become ever more centralized’ (Tetzlaff, 1991, p. 17).

But if we are to claim knowledge of a discourse community’s heteroglossic resources and so on in the critical analysis of language, we need to take into consideration precisely how systematic ways of evaluating the world are inculcated. The mediated discourses of everyday life are processes ‘of classification: the making of distinctions and judgements’, and processes of mediation are central to these:

in so far as the media are ... central to this process of making distinctions and judgements; in so far as they do, precisely, mediate the dialectic between the classification that shapes experience and the experience which colours classification, then we must enquire into the consequences of such mediation. We must study the media (Silverstone, 1999, p. 12).

Herein lies an important exhortation for critical discourse analysis (CDA), especially at a time when politics and the media have merged in an almost seamless manner (Postman, 1985; Graham, in press; Graham and Hearn, 2000, Saul, 1997, chapt. 2). Mediation does much to give the impression of credibility and coherence to the

system in which we live. In fact the current global system could not exist without its media; it could also cease to exist because of them:

How it is possible to discuss globalization, reflexivity and the management of risk without placing media as central beats me. Global economies and global finance cannot work without a global information infrastructure, and are threatened by the same media technologies: speed can kill and undo reason as well as facilitate transactions and speculations. (Silverstone, 1999, p. 144)

Today, myth, money, politics, and power are conflated in a globally mediated meaning system. To ignore the institutional and relational aspects of media – the processes of production and distribution in a massified means of inculcation – is perhaps far worse than ignoring the content of media “messages”.

The neoliberal value-system that underpins most (if not all) of contemporary technology policy is the result of a massive propaganda that cannot be ignored in the practice of critical language analysis:

Everywhere we hear it said, all day long – and this is what gives the dominant discourse its strength – that there is nothing to put forward in opposition to the neo-liberal view, that it has succeeded in presenting itself as self-evident, that there is no alternative. If it is taken for granted in this way, this is a result of a whole labour of symbolic inculcation in which journalists and ordinary citizens participate passively and, above all, a certain number of intellectuals participate actively. Against this permanent, insidious imposition, which produces, through impregnation, a real belief, it seems to me that researchers have a role to play. First they can analyse the production and distribution of this discourse. (Bourdieu, 1998, p. 29)

I would argue that it is not just a few intellectuals that participate actively in the production and distribution of neoliberal discourse. Nor do I agree that “ordinary citizens” are passive receptacles for axiological inculcation. But popular media culture, a significant part of which is populist politics, provides essential normative work in inculcating the legitimacy of a mass mediated, centralised, and “entertainmentised” system of discursive inculcation.

Here is an address to the Radio and Television Correspondents Association annual dinner by US President Clinton that foregrounds, acknowledges, and exemplifies (albeit semi-satirically) the “entertainmentisation” of politics itself:

[8] Well, there has been some real news this week. The DNC announced it will hold the 2000 Democratic Convention in Los Angeles. But what you may not know is that the Los Angeles Planning Committee insisted on some minor changes in the convention format. For example, the Democratic candidate must start his acceptance speech by thanking the Academy, and saying what an honor it is just to be nominated. (Laughter.) In addition to the red-meat rhetoric as usual, there will be a fabulous vegetarian plate prepared by Wolfgang Puck. Tough questions will now be handled by stunt doubles. There'll be a fundraiser at Grauman's Chinese Theater. And, basically – even after it's over – in Hollywood, Oscars will still be bigger than the convention. (Clinton, 1999).

While global power politics [8] takes on the tone of bad situation comedy, the full expression of neoliberalism is championed and propagated by its main beneficiaries. Gerald Levin, Time-Warner CEO and co-architect of the world's largest media merger (with America On Line), is more than aware of shifting institutional and functional boundaries between government and the media:

[9] We're going to need to have these [global media] corporations redefined as instruments of public service because they have the resources, they have the reach, they have the skill base, and maybe there's a new generation coming up that wants

to achieve meaning in that context and have an impact, and that may be a more efficient way to deal with society's problems than governments.

It's [media corporation dominance] going to be forced anyhow because when you have a system that is instantly available everywhere in the world immediately, then the old-fashioned regulatory system has to give way. (Levin, 2000, in Solomon, 2000)

One wonders which of society's problems media corporations might be able to solve more efficiently than governments. But that is not the point. The point is that any claims for knowledge about axiological resources – or what I am calling evaluative syllogisms – within any “globalised”, thoroughly mediated community cannot ignore the significant role of media in the inculcation of axiologies. Media and social memory are synonymous (Innis, 1951). Social memory and social reality are mutually mediating phenomena. It is therefore, in my view, fruitful if not necessary for CDA to take on the complementary perspectives offered by the ‘political economy of communications’ to understand the historical significance of the vastly centralised and “globalised” pool of intertextual resources from which a significant amount of resources for evaluative meaning can be – and indeed unquestionably are – drawn by people (*e.g.* Bagdikian, 1997; Boyer, forthcoming; Garnham, 1991; Graham, 1999, 2000; Horkheimer and Adorno, 1947/1998; Innis, 1942, 1944, 1950, 1951; Lasswell, 1927, 1941; McLuhan, 1964; Silverstone, 1999; Smythe, 1981; Tetzlaff, 1991; White, 1940, 1965, 1974).¹²

Today's global media environment, though incredibly complex and diverse in its expressions, is nonetheless a globalised, centralised, monopolised factory for

¹² In general, many of the theorists in this arena have been (to my mind) mistakenly called ‘medium theorists’, ‘historians of technology’, or worse, ‘technological determinists’ (cf. Meyerowitz, 1994). But that is far too cursory a description of what is said in such literature.

producing ‘knowledge commodities’ (Graham, 2000, p. 139). Knowledge commodities need to be recognised as valuable and significant artefacts, as the sociocognitive products of “more and less valuable” social relationships (cf. Bagdikian, 1997, p. 114; Graham, 2000, pp. 146-151). Defining “what value is” is an historically persistent function of sacred institutions and their associated processes of mediation (Bourdieu, 1991; Innis, 1950, 1951; Graham, 2000).¹³ The social institutions that have dominated media have played consistent roles throughout human history: mediation is the means by which specific groups of people have produced, maintained, manipulated, and eventually destroyed the various power-knowledge monopolies that have persisted throughout human history. A political economic history of media is thus also a history of the way social controls are developed, operationalised, usurped, overthrown, and reconfigured across space and time. Each dominant media institution, whether sacred or secular, has had its specific media, genres, and modes by which it has exercised its power. Sacred institutions are the historical engine room of sacred genres. (Graham, in press; Graham and Hearn, 2000). Sacred genres are ritual expressions of sacred value-systems.

Policy discourse, time, and tense

In this final section, I slide the focus of analysis wider to show how centuries of mediated practices of power are operationalised in recognisable evaluative patterns. Seen as historically and globally mediated artefacts that still “contain” the most ancient historical practices, heteroglossic relations in technology policy

¹³ I take a broad view of the term “media” here. Torture is as much a medium as is the sermon form;

discourse usually “contain” the following ‘role structures’ (Halliday, 1978, p. 143), or “voices” (cf. Lemke, 1995, pp. 22-25):

1. **client↔patron** [*action*: sell/choose/select - *relationship*: the patron speaks on behalf of the client’s needs];
2. **beneficiary↔benefactor** [*action*: give gifts/mercy/permission - *relationship*: the benefactor speaks on behalf of the beneficiary’s well-being];
3. **employee↔manager** [*action*: order/organise/control/coordinate/plan - *relationship*: the manager directs the actions and attitudes of the employee];
4. **expert↔idea** [*action*: innovate/transform/inform/define/quantify/identify - *relationship*: the expert speaks on behalf of the idea. Examples include legal expert↔law; engineer↔technology; bureaucrat↔policy, etc];
5. **soldier↔officer** [*action*: order/command/coordinate – *relationship*: the officer commands the soldier who is only a means to an end and has no voice in the matter];
6. **priest↔god** [*action*: dispense salvation/justice/fate/predictions/divine law/power/received wisdom - *relationship*: the priest speaks on behalf of an omnipresent, extrajudicial god].

These voices rarely appear alone in the language of policy and politicians today. Rather, they have been developed, refashioned, and drawn upon throughout history

institutional forms are also media, as are nuclear weapons and payslips.

by people in power—and by people seeking to usurp or influence institutions of power. In operationalising these voices, policy authors and spokespersons produce, reproduce, and transform the practice of symbolic control. The “voices” have been historically overlaid and refined as effective techniques of social control, one upon the other. Here is an overt example of the historical heteroglot I am talking about:

[10] In my faith tradition, the true prophet of God's message for humankind is the one who comes forth to say: I have been called, as we have all been called, to bring good news to the poor. To bring healing to the sick. To mend the broken-hearted. To speak out clearly on behalf of the oppressed.

Dr. King reminded us that prophetic truth is marching on.

He taught us that there is no such thing as partial freedom. All of our people must be free from economic privation, or none of our people will be fully free. In his last speech, delivered from the pulpit of Mason Temple in Memphis, Tennessee – when he told of his vision from the mountaintop – he reminded us of the urgent need to build "a greater economic base." (Gore, 2000)

That is the vice-President of the United States, not the Pope, compressing at least two millennia of heteroglossic power resources into five sentences and three sentence-fragments to propagate the Divinity, Desirability, and Necessity of a dogmatically Marxist outcome.¹⁴

Supranationally oriented policy is even more complex. Having so many contradictory forces to contend with, and without the luxury of such a singular history of values as that which Gore draws upon above, it is characteristically shot through with logical and evaluative contradictions, and not merely in terms of its

¹⁴ Although my work is strongly influenced by Marx's work, I have no sympathy for high-structuralist, economic deterministic Marxisms that have transformed a pluralistic and flexible body of work into a pseudo-radical dogma which is not much different in its expression than totalitarian neoliberalism.

role-structures. Those contradictions are the product of historical interaction—the historical production and reproduction of symbolic power forms—which are institutionally and otherwise technologically mediated (cf. Bourdieu, 1991). They are contradictory because each historical “layer” is necessarily set in heteroglossic contradistinction to its previous and subsequent “layers”. That is not to assert a “punctuated”, “revolutionary”, one-dimensional, or linear view of historical transition, although sometimes history changes in those ways. It is, rather, an acknowledgement that each new form of symbolic control can only be defined as such in distinction to what has gone before.

Consequently the pressure upon the most ambitious supranational policy is apparent in its tense system, the most overt resources for dealing with time. The future-oriented purpose of the texts forces the authors into a series of unrealistic proposals and propositions which cannot, because of technocratic convention, seem too outlandish from a ‘presentational’ perspective (Lemke, 1995, p. 41). Following are examples drawn from an Organisation for Economic Cooperation and Development (OECD) text that sells a ‘vision’ of ‘socio-technical dynamism’ for the future of OECD countries (Miller, Michalski, and Stevens, 1998, pp.7, 26, 32). It is an excellent example of contemporary technology policy and is very useful for displaying the aspects of evaluative analysis, especially in terms of heteroglossia.

Once again the separation of Substance and Process aspects is very difficult because most of the implied action is frozen and buried deep in nominal groups. Further, because of the unrealistic focus of technology policy, combined with the need to display “expertise” in something that has not yet happened, the future-oriented

propositional and hortatory content of the texts gets blurred with proposals for action, and with thematic and evaluative condensations (which are always product of past social work). Verbal groups are marked in **bold**. Actor/Substances are underlined, [range is marked in square brackets in this typeface]. Carrier^Attribute and Tok^ Val relations are identified in bold inside triangular brackets, e.g. <carrier>, and the relational processes in these constructions are bolded and marked in [**square brackets**]. Page numbers are in (brackets).

[11] Twenty-five years from now, after more than five decades of development, the microprocessor, information technologies in general, and networks **will probably have penetrated** [every aspect of of human activity]. Many parts of the world <carrier> [**will be**] wired, responsive and interactive <attribute>. Beyond simply accelerating the pace of change or reducing the cost of many current activities, the use of these high-performance digital tools **opens up** [the possibility of profound transformations]. (10)

1) will probably have penetrated: Here we see a mild expression of the complex demands placed upon the tense system by the priestly predictions of ‘hyper rational’ technology policy (Armitage and Graham, in press). We have past [have penetrated] in future [will], modalised by probably. The past-in-future construction presents the Probability of the future state of affairs as fairly much “a done deal”, regardless of the modalisation and irrealis orientation. The choice of a material Process [penetrated] sets up the Range function for the nominal group Actor, the microprocessor, information technologies in general, and networks. The range is every aspect of human activity. Clearly, the authors are making some ambitious predictions. As far as we humans are concerned, technology is a profoundly transformative, all-encompassing, exogenously acting phenomenon

that will probably have penetrated everything we do, seemingly regardless of what we do. Power and Warrantability propagate.

2) **will be:** This high-Probability, intensive-attributive function is typical of priestly predictions in this genre (cf. Graham, 1999; McKenna & Graham, 2000), there are 1,897 instances of predictions realised this way in the main corpus of 1.3 million words. In this vision, Many parts of the world is the carrier of some rather vague attributes. It is as if today many parts of the world were not already wired, responsive and interactive. The act of predicting what already exists is an intrinsically sacramental form of renaming (Bourdieu, 1991, p. 120).

3) **opens up:** The abstract-material phrasal verb, opens up, is another instance of ‘process metaphor’ (McKenna and Graham, 2000; Graham, forthcoming). It functions to define a range beyond that of simply accelerating the pace of change or reducing the cost of many current activities. The use of these high-performance digital tools is an abstract, process-like Actor that exceeds mere change by opening up the Possibility of further change. But these further changes are profound [t: Important]. The abstract Actor creates, not merely the speed of change, but the profound nature of change itself: it changes the nature of change from simplistic to profound, from mere change to Significant change. That the use of these technologies will speed up change and lower costs is given. No other possibility is entertained. Power, Importance, and Desirability propagate.

These few sentences are fairly simple and common examples that highlight some of the basic evaluative pressures on policy discourse: its intention to sell (the benefits of socio-technical dynamism in this case); its prophetic, priestly, and

visionary nature (the world will probably have been thus in the future; such and such phenomena will be); the fetishism of technology; the confusion that arises from haphazardly collapsing Substance and Process elements (using technology will change change); the dependence on grammatical metaphor of an extremely abstract and ambitious nature (all areas of human activity; Many parts of the world; the use of these high-performance digital tools); and, especially, its reliance on authoritative statements about the future. An “unauthorised” person could not make such claims with much credibility, and these are mild in terms of the rest of the text.

The strenuous institutional demands upon the tense system that authoritative, irrealis descriptions of an inevitable future create is best exemplified by the 13-word verbal group in the following 62-word sentence:

[11.1] Virtual robots with fairly narrowly defined tasks, a type of expert software, will have reached the point of being able to track and respond to [many human needs, from the banal capacity of a networked toaster to identify users and recall their preferences to the more advanced functionality of e-mail screening, comparison shopping and assembling/tracking a person’s customised learning “adventures”].
(11)

The effect of the verbal group in [11.1] is to set the tense system spiralling back and forth in a helical manner, from future to past to present and back again, to construe an imaginary phenomenon as if it had already happened in some bygone future. This is a comfortingly consistent heteroglossic stew of authoritative statements: there are priestly predictions; experts expressing ideas and explaining them; the benefactor’s voice speaks condescendingly about the needs of people that will be catered to by virtual robots, a kind of mechanical knowledge slave; and even the homey familiarity of a household appliance sales pitch. All of these voices are overlaid and embedded

within each other, thus collapsing authoritative and persuasive voices from throughout history within a single sentence that is produced to describe an imaginary future.

The text proceeds in a very similar manner to explain the Inevitability of genetic engineering:

[11.2] By 2005, after fifteen years of intense activity, scientists **should know** [the full DNA sequence of a **typical** man or or woman]' (12);¹⁵

The extent and duration of its effects

[11.3] Biotechnology applications **are likely to pervade** [most areas of activity] in the next quarter-century (13);

and the risks of new technologies in general

[11.4] They <carrier/Actor> **could pose threats that will be** [both powerful and difficult to control] <attribute/Range>' (14).

This last sentence is an interesting and common construction because the verbal group mixes two distinct functions quite evenly. It fuses an abstract material [could pose threats: i.e. could threaten] with a future tense, high-modality intensive-attributive process [that will be] by nominalising the process, threaten, and then splicing the functions of the verbal group with the nominal.¹⁶ It projects an un-Desirable irrealis menace on behalf of technology's potential by attributing the

¹⁵ I have highlighted "typical" here to show the assumptions that the authors tend to make about people. Other epithets include 'prototypical' and so on.

Possibility of un-Desirable material consequences as Range, although the “who gets done to” goal is left unspecified. Another choice for this sentence could have been: They could pose powerful threats [to ...?] that will be difficult to control [for ...?]; OR They could threaten to be powerful and difficult to control [for ...?]. Whichever way this is represented, technology is an exogenous, determinative force of nature that someone or something needs to tame and or nurture on behalf of technology’s potential victims. This is a common intertextual thematic formation in all the texts in the corpus. It sets up a Utopia^Dystopia relationship that is oriented towards legitimising radical policy proposals, usually to be carried out by the institution for which the policy authors are writing.

The intrinsically colonising function of policy is revealed in the imperative for a ‘global framework’ for managing technology (26-32). The Hyper-theme of a global framework is introduced in the form of a projected, hypothetical ‘question’ embedded within a nominal group. The question appears from nowhere, asked by nobody in particular, we are merely presented with proposal evaluated for Importance that sets up resistance to change as the enemy of progress:

[11.5] it is important to examine the more general question of the of the relationship of global-level frameworks to socio-technical dynamism and resistance (26).

The shibboleth of ‘environmental sustainability’ is then pounded to further invoke the need for global policy:

¹⁶ I am aware that could pose might be defined as an abstract-material verbal group with the nominal range being threats that will be both powerful and difficult to control. Even if we make this choice for analysis, could pose is process metaphorical. It functions as a relational rather than as abstract-material. I am merely acknowledging the semantics of Substance^Attribute by which the authors are defining the pronominal, They—as a Thing with possibly threatening potential.

[11.6] Environmental sustainability <tok> [offers] one of the best examples of the divergent implications of realising (or not) global frameworks conducive to socio-technical transformation <val>. The first reason is that socio-technical progress <tok> [is probably] an indispensable part of improving ecological outcomes without facing unacceptable trade-offs in terms of wealth or individual liberty <val>. Secondly, environmental sustainability <tok> [is] the foremost example of two sets of externalities <val>: the cross-jurisdictional nature of pollution, and the probability that the overall social rates of return on investments in socio-technical change aimed at improving the environment are greater at a global level than at the country level <elaborated val>. (27)

We are told here why socio-technical transformation/progress is not only Desirable but also Necessary: because it is probably an indispensable part of improving ecological outcomes without facing unacceptable trade-offs in terms of wealth or individual liberty. Also, the prelude to a global governance imperative is laid out in the cross-jurisdictional nature of pollution and the overall social rates of return on investments in socio-technical change aimed at improving the environment. In short, pollution is suddenly behaving like a transnational firm, and its technical solutions, because they are not so profitable, must be coordinated by supranational regulation.

Global “management”: The ultimate in macro-proposals

Miller et. al. (1998) propagate the inevitability and Necessity (Importance) of global government – management, as they call it – a supranational monopoly of power, under the dual rubrics of effectiveness and efficiency:

[11.7] Ultimately, in light of increasing international interdependence, global as opposed to national-level approaches <tok> [look set to become] the most effective way of addressing macro-level problems <val> [such as ensuring that stocks and bonds can be traded seamlessly worldwide, or that producers of intellectual property are compensated fairly and efficiently when someone uses their output] <elaborated val>. Indeed, one of the main macro-level obstacles to socio-technical dynamism <tok> [is] the fact that available institutions are national or inter-nation(al) while many

emerging challenges appear to require more holistic, global thinking <val>. As many analysts have pointed out, particularly with respect to future environmental sustainability, the shift towards more integrated, planet-wide initiatives **will probably accelerate** < as < people come to recognise [the enhanced benefits - both private and social - of action at a global level].

Finally, converging economic, social and technological forces **seem poised to create** [a leap in both the importance and feasibility of global management]. (1998, pp. 28-29)

Here the authors conflate a priestly appeal to the God of neoclassical and neoliberal ideology, “globalisation”, with a techno-fetishistic nominalised appeal to the “big ideas” that inhere in the expert realms of multilateral policy centres: it is a description of every force at work in the human environment (converging economic, social and technological forces) as the final arbiter of a seemingly immutable destiny of global management. Never mind that economy, society, and technology have been inextricably interwoven throughout history, inseparably so. According to the authors, that is not the case. It is for them a rather recent phenomenon. These forces are now converging and thus nations must stand aside for the global management team of Übermenschen, the only people qualified to act in such circumstances. This is most clearly evidenced when they make the claim that

[11.8] The current base of the pyramid upon which global frameworks rest <tok> **[could begin to crumble <val>]** as socio-technical dynamism **disrupts** [existing patterns of assuring global cohesion] (27).

Here we see a heteroglot of authoritarian ideas about society that spans millennia. The “Natural Order” social Universe, symbolised by a Pyramid upon which global frameworks rest is combined with a Darwinian struggle that emerges from the Chaos associated with the dynamic, tectonic shifts caused by technological change. The

authoritarian assumptions and imperatives are obvious here: if the lower orders of society are not kept in line, supranational fora – the peak of the global social pyramid – could cease to exist. That would just not do. It would be the ultimate in un-Desirable outcomes. Therefore, expert management for the whole of humanity is not only Desirable, but absolutely Necessary (Important).

Conclusion

The evaluative aspects I have briefly outlined here are the product of a fairly rigid genre with very ancient roots. It is rigid precisely for the reasons I have outlined—most elements, no matter how complex the Processes involved, are presented to some large extent as Substances rather than Processes. This in turn is a function of the broad, abstract, and irrealis Processes that policy authors must describe. They are forced into grappling with massive and dynamic abstractions, and the technocratic textual strategy is to freeze them and present them as Things. That in itself is an unremarkable aspect. But the need to describe future spaces – future Substances, i.e. Substances that are heavily loaded with a time-element – appears to drive policy authors to use the devices of technocratic discourse to freeze or elide the time-element as far as possible, both by nominalising the Processes they are talking about and by exercising the tense system in a very strenuous manner so as to confound any easy attempt to sort out which order they are arranging events in time.

Much more could be said about the irrealis objects themselves, especially their spatial aspects (Graham, forthcoming). Predication and propagation allows analysis, at least to some degree, to distinguish between the time- and space-elements construed in texts. This is an important aspect because of the differences in

evaluations that can be made about spatially-oriented (Substantial; Objective; Static; Exogenous) elements as opposed to those that are peculiar to temporally-oriented (Processual; Subjective; Dynamic; Endogenous) elements. It helps to sort out what has been submerged in the nominals and also allows analysis to expose the value-logics inherent in evaluative “syllogisms”—the basis of enthymematic “shortcuts” that one must make to grasp the value-claims being made across large (and sometimes not-so-large) expanses of text. Finally, it lays out a method that exposes how values are construed at multi-dimensional levels of abstraction, although more comparative work across genres will be required to see what kinds of different and/or specific forms such configurations can take in different registers.

No meaningful analysis of these discourses, though, is possible today without considering the effects of mediation—the production and distribution processes by which evaluative syllogisms are now globally inculcated, thus allowing the enthymematic inferences that are necessary for readers to make intertextual “sense” of what are often demonstrably fantastic or nonsensical claims. A further significant function of mediation is to store and reproduce social memory. Since logic and existing realities often have little to do with the kinds of assertions made in the register, evaluations are, for the most part, what provide cohesion for the texts. These value-systems are mediated, produced, reproduced, and transformed institutionally, and therefore in quite concentrated social relationships. Those institutions and relationships need to be subject to further research, with a special emphasis on the processes of production and reproduction, the means and modes of distribution, and the means and mass of inculcation.

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Chapter 6

Space

Irrealis objects in technology policy and their role in a new political economy

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Abstract

In this paper, I show how new spaces are being prefigured for colonisation in the language of contemporary technology policy. Drawing on a corpus of 1.3 million words collected from technology policy centres throughout the world, I show the role of policy language in creating the foundations of an emergent form of political economy. The analysis is informed by principles from critical discourse analysis (CDA) and classical political economy. It foregrounds a functional aspect of language called process metaphor to show how aspects of human activity are prefigured for mass commodification by the manipulation of unreal spaces. I also show how the fundamental element of any new political economy, the property element, is being largely ignored. The potential creation of a global space as concrete as landed property – electromagnetic spectrum – has significant ramifications for the future of social relations in any global “knowledge economy”.

Space

Irrealis objects in technology policy and their role in a new political economy

The future ain't what it used to be – Yogi Berra

Introduction

It is unremarkable to note the future-oriented aspects of policy. After all, the purpose of policy is hortatory, not historical (Graham and Hearn, 2000); it is designed to ‘get people to do things’ (Muntigl, in press, p. 147), which is always a future-oriented function. Policy makers have, over millennia, learned many ways to create and promote imperatives for future ways of acting: for example, by allocating resources; by prioritising civil objectives; by legal coercion; by force; and by mass propaganda). In many ways, though, these are the “blunt objects” of policy. A far more ancient and perennial method of “getting people to do things” is to create prophetic perceptions of value for new, unexplored, or unknowable spaces that exist at a time-distance from the here and now—that is, to create value for some imagined future place and time (Bernier, 1992, p. 1992).

Whether as ‘the next world’ described by Plato (de Santillana and von Dechend, 1962, p. 230); the future ‘kingdom of priests and ... holy nation’ of the Old Testament (Exdodus 19:6, in Küng, 1968/1995, p. 370); the far more democratic ‘holy nation’ promised by the New Testament (Küng, 1968/1995, pp. 380-383); the promised ‘holy land’ of the first crusade-mongers in Western Europe (Cawsey, 1999); the ‘silk road’ of the late middle ages (McNeill, 1987); the mythical El

Dorado upon which the South Sea Bubble was eventually built (Morgan, 1929); or as the gold-fields of the nineteenth century in Australia and California (Marx, 1976, pp. 932-940), mythically constructed future spaces – imagined and real – have remained as a feature of hortatory public discourse since the beginnings of history (Voltaire, 1764/1972, pp. 141-145). Official “utopias” have been perennial “places” to aspire to, places where life will be better, where, by ‘simply passing on through the inevitable steps proposed by whatever particular ideology is in question, we are promised that we will re-enter Eden at a higher, more sophisticated level. Paradise is the first and last destination’ (Saul, 1997, p. 41). The utopias of any age are its most powerful illusions.

One of the most well-advertised utopias of our contemporary milieu is ‘cyberspace’ (Graham, in press). There are others of course – as yet without specific names – and these are also considered here. I have drawn the data for this analysis from a 1.3 million word, world-wide corpus of technology policy (for a list of corpus sources cited, see [Appendix 1](#)). They were produced in local, state, national, and supranational policy institutions between 1994 and 2000. Being concerned with new spaces, the data presented here is organised around a phrasal verb, “opens up”, and its various morphemes (opened up; opening up; open up). In most cases, this phrasal verb functions as ‘process metaphor’ (McKenna and Graham, 2000, p. 230), the features and functions of which I will describe in the following section. I theme the analysis along historical lines, emphasising the hortatory function of contemporary technology policy, the express purpose of which is to create the foundations of a new economy.

Process metaphor as method

Halliday (1994) identifies six broad categories of processes types: material processes, or ‘processes of doing’ such as hit, kick, push (pp. 109-112); mental processes, or ‘processes of sensing’ such as think, dream, see, hear (pp. 112-119); relational processes, or ‘processes of being’ and becoming such as has [x attributes], was/ is [a kind of ...x], is like [...x] (p. 119- 138); behavioural processes, or processes that refer to ‘typically human’ behaviour such as cough, laugh, shiver, shit (pp. 139-142); verbal processes, or ‘processes of saying’ such as said, promised, exhort, mean (pp. 140-142); and existential processes, or those that claim existence for something (pp. 142-143).

The process typology refers to processes that relate to somehow different but overlapping ‘worlds’ of human experience: ‘the abstract world of relations’ (being); ‘the world of consciousness’ (sensing); and ‘the physical world’ (doing) (1994, p. 108). But process metaphor allows Participants in the discourse to act simultaneously in antithetical realms of human experience. For instance, in language, “globalisation”, a product of abstraction, is said to act in all sorts of mystical, relational, conscious, and physical roles, thus giving the impression that exists as a force independent of what people do (Graham, 1999; McKenna and Graham, 2000). The term process metaphor should not be understood here as the term “metaphor” is

commonly understood in common literary terms. It is, rather, a part of ‘grammatical metaphor’ (Halliday, 1994, pp. 342-349).¹

In process metaphor, processes retain their grammatical standing as processes, but they function very differently according to Halliday’s taxonomy. They can imply “action” throughout the various realms of experience that Halliday describes. Here is a common example from the technology policy genre I am investigating:

[1] The transition to a knowledge economy and society over the next few decades opens up the possibility of massive productivity gains (Organisation for Economic Development and Cooperation [OECD], 1999, p. 1).

In [1], the phrasal verb opens up appears to function as a material process, a singular, concrete doing (Halliday, 1994, p. 208). In the case of a more ‘concrete’ construal (Martin, 1999, p. 36), one that might be deployed in more ‘common-sense’ context, such as George opens up the door, the materiality and singularity of the process is clear. However, because the OECD deploys grammatical metaphor, the process relates two highly condensed, highly abstract nominal groups that are compressing myriad, complex, and massive processes into static, unrealis “Things” [The transition to a knowledge economy and society over the next few decades; and the possibility of massive productivity gains]. Consequently, the process metaphor works across the concrete process functions, and not necessarily in a “material” sense at all. In fact, the phenomena to which the material process apparently relates need not even exist – not now, nor even in some imagined future. Process metaphor is a deceptively powerful tool.

¹ Although Shakespearean ‘conversion-metaphor’ (Oxford English, 1986, p. 531) is somewhat similar in function and form.

We can see the rather surprising metaphorical scope of the process by substituting other processes that retain the semantic sense of the OECD's proposition: The transition to a knowledge economy and society over the next few decades [opens up, promises; offers; brings; creates; reveals; shows; presents; indicates; implies; signifies; suggests] the possibility of massive productivity gains. But there are few other choices that can retain a similar semantic sense in a concrete construal involving the same phrasal verb: George [opens up, opens] the door. Within the choices that do retain the original semantic sense of the proposition in the OECD sentence, we see that they would occupy positions on the verbal (promises, suggests); abstract-material (offers); relational (indicates, shows = symbolises); and material (creates, brings) planes of Halliday's process typology. In other words, the process metaphor lets the abstract and highly compressed nominal group Head, The transition to a knowledge economy and society over the next few decades, grammatically loose amongst practically all the realms of human experience – the conscious, the sensate, the physical, and the logical – by having for its object an irrealis, highly-compressed nominal group.

The analytical salience of using the substitutive probe, as I have done above, is to see what sort of “sense” or “action” the author is trying to convey with the choice of process. So when we see the substitutes – promises; offers; brings; creates; reveals, etc – we see that something like a future treasure, prize, or gift is being all but guaranteed. Conversely, a transformative Agent with immense and mystical creative powers is implied as guarantor. But the mystical aspects of such futuristic speculation, a kind of “I promise you that these new things place portend a magical future ...”, is hidden in the deceptive materiality of the process, opens up. A

distinctive feature of process metaphor is that synonyms for processes, as they are used in concrete language, need not sensibly apply; lexical synonyms for process metaphor can “come from” or properly pertain to, completely different realms of experience and action than those we would expect to see in more concrete construals.

One effect of process metaphor is to animate huge abstractions in language, thus allowing authors of policy to present abstract linguistic constructs as if they had supreme power over people – the word “globalisation” is an excellent example in our current pantheon (Graham, 1999, 2000; McKenna and Graham, 2000).

Sociolinguistically animated abstractions, which are necessarily products of human imagination, have long played a large part in the governance of human societies, and consequently in their value systems. They are phenomena as old as history (Graham, 2000). The gods of various religions are excellent examples, as are the ethereal utopias they inhabit.

Space, time, and political economy: On the pluralistic nature of space

Political economy proceeds from the fact of private property. It does not explain it. It grasps the material process of private property, the process through which it actually passes, in general the abstract formulae which it then takes as laws. It does not comprehend these laws, i.e., it does not show how they arise from the nature of private property. Political economy fails to explain the reason for the division between labour and capital, between capital and land. For example, when it defines the relation of wages to profit it takes the interests of the capitalists as the basis of its analysis; i.e. it assumes what it is supposed to explain – Marx (1844/1975, p. 323)

Besides creating all-pervasive Actor-abstractions (Graham, 1999), another function of process metaphor, specifically pertaining to the particular instance I am describing here (that of open/s/ed/ing up), is to attribute Power, Desirability, and Importance to unrealistic spatial abstractions. The inculcation of space as a socially

significant concept is a very old and long story, and I have no time to go into much detail here. Throughout western history, there are recognisable periods during which the redefinition of geographical and social spaces has become central to the course of history: during the latter twelfth century when feudal ties were legally formalised throughout large areas of western Europe (Bloch, 1940/1961, pp. 72-73); during the three hundred years or so it took to complete the enclosures movements in which the land of whole nations was “privatised”, and which provided the property foundations for early capitalism (Hobsbawm, 1962, p. 46; Marx, 1844/1975); and during the early twentieth century when radio bandwidth was first subject to technical definition, allocation, and ownership on a national scale, which became the basis of centralised, totalitarian nationalism (Innis, 1951, pp. 81-82; Smythe, 1981, p. 300). These are significant transitional periods in history and, as I hope to show, we are quite probably in such a period now.

There are of course many other significant periods during which empires, nations, and groups have fought over ideas, faiths, and geographical prizes. But they are vastly different and perennial phenomena. I am concerned with describing the inculcation of definable and ownable spaces that previously did not exist as such for people. A thought experiment might help to illustrate the strangeness of the phenomenon I am trying to describe:

Imagine you are far out at sea on a vessel that comfortably contains a modest number of people, about 40 or so. You cannot see land on any horizon. You have never seen it. The currents are such that you are kept drifting at regular intervals within indistinct boundaries, catching fish at one time of the year, whales at another, and harvesting nutritious seagrasses at another. Rain falls predictably enough, and in

sufficient amounts so the community has enough drinking water during most years.

In such a situation, how would you go about imagining, describing, and defining the space in which your community moves so as to be able to render it ownable by particular individuals? (Graham and Hearn, forthcoming)

It is conceivable and quite probable that land would have appeared as “fluid”, ineffable, and un-ownable a space to the ninth century European social imagination as the watery boundaries within which our hypothetical sea-dwelling community moves (cf. Bloch, 1940/1961, pp. 39-42).² The same most certainly holds for radio bandwidth in the early twentieth century (Childs, 1927; Church, 1939). The creation of space as space—that is, as a bounded, concrete, geo-technically defined area within which active relationships, rights, and obligations are formally defined, enacted, and enforced in relation to that space—is reducible to four basic prerequisites: (i) the technical means to identify and make use of new forms of geo-technical space, such as radio bandwidth, trade routes, land, or international waters; (ii) the pre-existence of a set of informal relationships within that given space prior to their formalisation (Dickinson, 1926, p. 308); (iii) the legal means of formalising the definition of space, and of regulating the relationships therein, which includes a sufficiently developed legal language and institutional infrastructure (Bloch, 1940/1961, chapt. 7); and, (iv) the means to patrol and enforce the boundaries, both within and without, as both concrete, substantial, “exogenous” space, and as abstract, time-bound, “endogenous” activity-spaces (cf. Innis, 1951, p. 53; Brewin, 1998).

² I realise I am stretching a long bow to posit the existence of such a “thing” as a “ninth century European imagination”.

These aspects of space creation are the central focus of my analysis here. I am asking how, in policy oriented towards new technologies, social and geo-technical spaces are being prefigured as concrete and abstract environments so that they can be owned by people and regulated by law. Or, from the perspective of political economy, I want to know how the concrete spatial foundations of increasingly abstract commodity forms are being established at law, and how values are created for, and attributed to, the social relations prefigured for commodification in technology policy. Further, any such space must exist as informal (or perhaps invisible) social relationships before being formally defined at law as something else: new spaces cannot be brought into existence by law alone. Following, I show the social processes that are currently being prefigured in policy language prior to them becoming – concretely, legally, socially, and technologically – real, ownable activity spaces, each corresponding to specific and existing domains of activity and, consequently, their associated value-orientations.

Realis and Irrealis spaces

My analysis distinguishes primarily between two distinct types of space, realis and irrealis. The significance of process metaphor in policy language is that it operates “officially” in the subjunctive, thus binding ‘large stretches of institutional time and space. It achieves this, first, by orienting its actions towards potentiality (“irrealis”) rather than actuality (“realis”)’ (Iedema, 1998, p. 484). However, as I will show, while the actuality \leftrightarrow potentiality cline that distinguishes between past, present, and future states is most usually expressed in redundancies between tense, mood, and modality systems (Iedema, 1998, pp. 484-485), the functionality of process metaphor

turns on the actuality↔potentiality circumstance being embedded in the object to which the process is directed, whether the potentiality is realised literally, such as in the words possibility and opportunity, or whether it is buried in the highly-compressed nominal groups which are typical of this genre (McKenna and Graham, 2000). Herein lies the aesthetic ruse of process metaphor: when deployed, ideational representations of irrealis states and processes are presented as concrete, extant, material doings and beings in the here and now.

A brief note on evaluative meaning

Even though the purpose of policy is essentially hortatory, the content of policy discourse, at least in the corpus I am analysing here, is largely propositional. The hortatory content of policy is based on, or justified by, its assertions of “fact”, or high degrees of Warrantability. These are most overtly expressed in propositional content. Here is an example:

[2] A great deal of effort **must be put into** securing widespread public acceptance and actual use of the new technology. Preparing Europeans for the advent of the information society **is** a priority task. Education, training and promotion **will necessarily play a central role**. The White Paper's goal of giving European citizens the right to life-long education and training here **finds** its full justification. In order best to raise awareness, regional and local initiatives - whether public or private - **should be encouraged**. (eu3: 1,525)

Confusions arise because the functional and social pressures on the genre often pushes the hortatory function towards the propositional realm. In [2] we see a highly-modulated imperative for effort on someone's part which must be put into securing widespread public acceptance and actual use As is typical of the genre, the whole stretch of text is agentless. Even where we are told that something must or should be done, we are not told by whom (cf. Lemke, 1995, p.65; McKenna and Graham, 2000). Describing the Necessity for agentless action allows the exhortation to pose as

a proposition, as a “fact”. After the proposal for action by unnamed Agents, we are given an evaluative (axiological) justification for the proposition construed as a statement of “fact”: Preparing Europeans for the advent of the information society is a priority task. Translated into the rank-shifted model outlined by Lemke (1998), the proposition says: it is very Important that someone prepares Europeans for the advent of the information age. Put another way, it says: someone must prepare Europeans. We are not told why it is Important that Europeans are prepared, nor who is supposed to do the “preparing”. Here, though, we see the relationship between an irrealis object [the advent of the information society], evaluative meaning [the Importance of Preparing Europeans] and the smuggling in of a second exhortation by what seems like a relational proposition [Preparing Europeans <Tok> is a priority task <Val>]. Thus education, training and promotion will necessarily play a central role in something or other: it is Inevitable that education and advertising will play a role. The “is-ness” of the proposition is shifted by the “must-ness” of the previous agentless proposal towards an evaluation for Obligation, towards a Normative exhortation.

Much evaluative detail can be unpacked from texts of these kinds (Graham, forthcoming). However, rather than paying detailed attention to ‘appraisal’ resources (Martin, 2000) deployed to inscribe or evoke value for particular elements in the discourse, or to the relationship between the ‘predication and propagation’ of values in the text (Graham, forthcoming), I use an adaptation of the broad categories detailed by Lemke (1998, p. 37, see [fig. 1](#)) to describe propagated value wherever necessary. My reasons for choosing a less detailed evaluative analysis are twofold: i) to concentrate on the historically significant political economic aspects of the

phenomenon I am describing, and, ii) to highlight the role of process metaphor which can conflate practically the whole spectrum of evaluative semantics into a single process.

Evaluative Dimension	Positive degree	Negative degree
[D] Desirability/Inclination	It is <i>wonderful</i> that John is coming	It is <i>horrible</i> that John is coming
[W] Warrantability/Probability	It is <i>certain</i> that John is coming	It is <i>unlikely</i> that John will come
[N] Normativity/Appropriateness	It is <i>essential</i> that John comes	It is <i>inappropriate</i> that John comes
[U] Usuality/Expectability	It is <i>normal</i> that John is coming	It is <i>unusual</i> that John is coming
[I] Importance/Significance	It is <i>important</i> that John comes	It is <i>irrelevant</i> whether John comes
[C] Comprehensibility/Obviousness	It is <i>obvious</i> that John will come	It is <i>mysterious</i> that John is coming
[H] Seriousness/Seriousness	It is <i>hilarious</i> that John will be there	It is <i>serious</i> that John is coming
[A] Ability/Difficulty [proposals]	It is <i>easy</i> for John to come	It is <i>difficult</i> for John to come
[Ut] Utility/Usefulness [proposals]	It is <i>useful</i> for John to come	It is <i>useless</i> for John to come

Figure 1: Evaluative resources for proposals and propositions (adapted from Lemke, 1998, p. 37)

Where evaluative condensation is overtly implied, that is, when a Process, Participant, or Circumstance collapses a “pre-evaluated” proposition that can be expanded into Lemke’s rank shifted probe, it is ... x that, I have underlined the evaluator concerned using broken lines. Process metaphors, their associated irrealis objects, and their spatial elaborations, are marked in **bold**. Where agency is attributed to what is being opened up, the Actor is underlined. Examples from the corpus quoted here are identified by file name and concordance word numbers (see Appendix 1).

“Opening up” future space: Gold fever and bubble blowers in “the new economy”

In the corpus, the phrasal verb “open/s/ed/ing up” collocates with possibility/ies and opportunity/ies.³ The possibilities and opportunities opening up are overtly spatial in their constitution; they are often construed as the spatial aspects of irrealis states; as the result of ways of being, seeing, and acting in new spaces (cf. Fairclough, 2000); and as the social realms in which such doings might occur. In all, there are 108 instances of open up and its morphemes in the corpus, not a significant number considering the size of the corpus (1.3 million words). But a collocation map (see Appendix 2) shows its significance to other key terms in the corpus. For instance, open up collocates with information, technology, and economy, the most frequent words with lexical content in the corpus.

Something on the value differentials between the main irrealis objects being “opened up” is in order here. Possibilities may be positive or negative potentialities in terms of Desirability, one of the broadest (or at least most highly elaborated) “species” of value in the English language (cf. Lemke, 1998, p. 38; Graham, forthcoming). Possibilities may be evaluated as Desirable or un-Desirable to varying degrees. Opportunities, on the other hand, are already potentialities positively evaluated for Desirability: Opportunities are always Desirable potential realities for someone and thus imply the need for a certain amount of action for the opportunities to be moved from potentiality to actuality. These broadest of evaluative orientations are implicitly and explicitly expressed in the data. Following, for example, is an explicit recognition that possibilities may be Desirable or un-Desirable:

[3] As with other technologies that have become intrinsic parts of everyday life like the automobile, different physical, social and economic configurations may prevail in distinctive societies with particular traditions, values and political preferences. The Net is no different, it **opens up possibilities, from the ominous to the utopian**, for facilitating the development of new or the consolidation of old **social orders**. (oecd6: 2,656)

Opportunities, on the other hand, are unquestionably Desirable potentialities, even if those potentialities are not available, or their Desirability not Obvious, to all:

[4] However, an element of the population is likely to remain excluded from the **opportunities opened up by e-commerce** for a range of social and economic reasons.

Whilst a number of publicly-funded initiatives, at **local, regional and national level, aim to improve** the **opportunities** for this 'e-excluded' group, the Team believes that better co-ordination of these initiatives is needed - with resources targeted at the most effective programmes - which **must also be effectively marketed**. (uk_eva-2: 32,909)

Here we see the interrelationship between evaluations of Desirability and Importance for realising opportunities. The hortatory function of policy is expressed in Necessity: initiatives are required to improve opportunities and these initiatives must be effectively marketed. There is also a subtle reference to degrees of Desirability where opportunities are concerned; for some, namely this 'e-excluded' group, opportunities must be improved. That is, they must be made to appear more Obvious and Desirable than they currently are to this group. The express need to improve opportunities also refers to the Ability of this e-excluded group to grasp the opportunities.

The preconditions for property in political economy

As I have stated above, there appear to be four preconditions for the development and formalisation of new spaces of politico-economic significance. In the following sections, I show that these are indeed a major focus for contemporary technology policy. The first and most significant aspect is the creation of new geo-

³ I analysed the corpus using *Wordsmith Tools* software.

technically defined spaces. Surprisingly, this is the least elaborated aspect of space in the corpus. The second is the pre-existence of informal relations in that space. The third is a legal infrastructure for formalising the relationships, and the fourth is the means to patrol, police, and defend the space. This last aspect is presupposed and thus passed over here. That is because in 1998, the United States (US) Department of Defence formally defined ‘cyberspace’, along with ‘air, land, and sea’, as a ‘battlespace’ thus committing the world’s most expensive and destructive war machine to patrolling and policing the boundaries of an ostensibly global space:

The Information Operations doctrine "moves information operations from an ad hoc process and institutionalizes it." The individual services already had taken steps to formalize their information operations ... and the new doctrine brings these operations into the joint realm ... The doctrine published by the chiefs takes warfare to a new dimension with the "ultimate target human decision-making." (Brewin, 1998)

Little more needs to be said on the matter. Therefore, I firstly focus on the activity spaces – the “informal” relationships – that are being prefigured for formalisation in the “new economy” before moving on to identify the concrete geo-technical space that is currently being colonised on a global scale, and upon which the foundations of a new form of political economy are to be built.

Activity spaces

Cyberspace is most often construed as a space created by ways of doing things, which is merely to say that it is technologically contrived space: ‘broadly speaking, technology is how we do things’ (White, 1940, p. 15):

[5] The information economy opens up new ways of communicating with each other and doing every day activities - and it **offers huge opportunities** to all Australians.

[...]

And it no longer matters **how far away we are** from each other, because **it takes no time to get there**. This is the information society. (cita1: 635)

In other words, according to Australia's Ministry of Communication, Information, Technology and the Arts (CITA), the future activity space with its huge opportunities is created precisely by making a commodities out of the destruction of time between people (cf. Innis, 1951). In fact this statement says that the space between people is precisely where huge opportunities lie, as they logically must in any process of mediation (Silverstone, 1999, p. 13). In any case, it is a space of new activities into which specific institutions are firstly moving:

[6] Telecommunications companies (Telstra, Optus, AAPT, etc.) **are moving into e-commerce and application development** and finding new value. They **are moving more into** Internet Protocols and data transmission. **This is opening up a whole lot of new opportunities** for them ... **in this new environment** that can mean developing software. (ausbey~1: 40,801)

Here are direct and explicit links between what people do, the new spaces created by doing these activities, and the perceptions of value that accompanies the creation of these new activity spaces.

New media also have the potential to bring different social spaces – previously antithetical institutions and, thus, qualitatively different activity spaces – into contact with one another:

[7] These channels would help teachers **to find** workplace assignments and **might also offer** "job shadowing" or other programs that **would expose** business executives to the **learning environment** and build connections that **would open up** classrooms [**one social space**] to the world of work [**another social space**]. It is **essential** that employers gain a fuller appreciation of the complexities and challenges involved in preparing young people for the labour market. (canada1: 34,261)

Open up does not function as process metaphor here. Both the realisation and possible semantic substitutes remain on the abstract-material plane. In this case, a semantic probe reveals that open up ... to means, roughly, expose ... to: that is, schools should be exposed to the world of work; executives should also be exposed to the learning environment. The process metaphor actually happens here to a somewhat restricted extent in the low-modality group might also offer.⁴ Probing offer here, we find the meaning is something like allow, present, create, open up, bring about, mean, facilitate, and so on. Once again, future opportunities that would exist, given the conditions that the authors outline, are presented as the valuable artefacts. No explicit evaluation for Desirability or Importance is necessary: the unrealistic promised land of opportunities requires only certain forms of action at the right time. A would, an evaluation for the Probability of outcomes related to exposure, becomes an obligatory should in the evaluative chaining of would help → would expose → is essential. The chain develops its force in ‘retrospective’ propagation (Lemke, 1998, pp. 52-53). The is essential casts its evaluative force back along the chain to propagate the Necessity of exposing schools to work: would help ← would expose ← is essential. The propositional would ... is thus shifted by retrospective propagation to an hortatory shouldness, or more strongly, a must.

New views and new ways: Opening up new ways of seeing, being, and acting

The inculcation of ways of being and acting is an inherent aspect of discourse (Fairclough, 2000). It is also an overt function of technology policy. Certain unrealistic

⁴ “Offers” also functions as process metaphor in [5].

spaces are construed in video-geographical terms, as new spaces that would more concretely be seen: vistas, horizons, perspectives, and so on:

[8] In the future, the main possibilities for manufacturers, whose **horizons** for the moment remain primarily European, will be linked to **the expected opening up of the American market** ... (fr3: 16,736)

In [8] the process metaphor is nominalised and rendered part of a projected nominal group organised around a disembodied “expectation”. The strategic advantage of nominalising the process metaphor is to hide some nonsense and submerge an admission of subordinate dependency. Future possibilities for French manufacturers, whose horizons are currently limited, will be linked to expectations of an unrealis space opening up. The manufacturers’ main possibilities are linked to an expected opening up, that is to say, they are linked to another set of Possibilities, which are shifted towards higher Probability by being expected (by nobody in particular). Put concretely, this says: the manufacturers’ future opportunities depend on whether the American market opens up; that is, whether it is “liberalised” or “deregulated”. Here is where the admission of dependency comes to the surface. To be realised as overt process metaphor, this construal would have to read something like the expected liberalisation [i.e. opening up; deregulation] of the American market **will open up** the main possibilities for manufacturers...

New horizons and new vistas go together, but the vistas “opened up” by the power of tomorrow’s communication technology are vistas on the most intimate aspects of social interaction, and on the bodies and minds of the people who constitute these:

[9] As for the inquiry and collaboration that are indispensable for learning and basic scientific research, the power of tomorrow’s information technologies **will open up new vistas** by radically improving the capacity to communicate and simulate. ... Once liberated from some of **the constraints of cost, time and space** of

traditional education, learning systems that encourage individual creativity may take over.

Biotechnology will open up new vistas. The identification of genetic information and applications of genetic engineering are already making their mark in society and will profoundly affect many facets of everyday life in the future. Human health, food production (both livestock and plants) and food processing are all likely to be influenced by advances at the interface of genetics and technology.

Work is already well under way on the human genome; by 2005, at the latest, scientists should know the full DNA sequence of a typical man or woman. (oecd7:1,164)

There is clearly a colonising imperative in all of this. Opening up and securing new spaces is both Necessary and Important. But the spaces are of the most personal and intimate kinds. Cost, time and space are constraints that will be cast off to enable new kinds of education. Once again the destruction of time and space between people makes “room” for qualitatively new spaces. The “map” of the human genome should be complete shortly, and the sequencing of a typical man or woman is something that apparently ought to be celebrated rather than dismissed as so much nonsense. Who is this typical man or woman? What colour would their skin, eyes, hair, and teeth be? What will they look like? How would they smell? Who will decide what are Normal physical and intellectual traits? If “typical” men and women are part of the new vistas that biotechnology will open up, one might well wonder what the authors’ meaning of individual creativity in education might be.

The geographical metaphors of trails and paths provide the nexus between social activity and its legal regulation. In the following, legal expertise and legal language are the means by which new paths can and must be put forward, another geographical feature of the future space of political economic activities:

[10] France has a meaningful voice to be heard in this respect, which should amount to more than just exporting its “model” of data protection; given the country’s experience in these matters, France **must and can put forward propositions** that **open up new paths**. (fr2: 14,231)

New legal trails are being blazed in France, ones of a very specific nature and orientation:

[11] The current positive law covering communications would not be capable of serving as a basis for the entire analysis relating to criminal liability. The first cases brought before the courts **open up certain trails** which confirm that inspiration can be drawn from foreign examples. It then becomes appropriate to formulate recommendations which are based both on a clarification of the relevant rules and recognition of the role of a joint regulatory body. (fr2: 64,483)

The laws are concerned with intellectual property, with the ownership of the products of people's minds. 'How does one become an owner of productive stock? How does one become owner of the product created by means of this stock? Through positive law' (Marx, 1844/1975, p. 295). The legal definition of existing social relations is perhaps the most significant aspect of any transition in human social relations. It is the process that gave us formal feudalism and private property (Bloch, 1940/1961, pp. 72-73; Hobsbawm, 1962, p. 46; Marx, 1844/1975). The mere mention of a "knowledge economy" implies new commodity forms and property laws – intellectual property laws – which depend on the codification and definition of new types of property, and thus new (pseudo-)spatial domains (Graham and Hearn, forthcoming). New positive law is needed to own the new kinds of formally defined products of labour, products of everyday human interaction.

Legal spaces and information infrastructure

Where legal definition is concerned, the use of open up is usually part of the verbal group form, open up ... to and not process-metaphorical. It means, again, to expose ... to and thus refers to concrete objects. The following European Union policy statement sets the agenda for what must be done in member states for a new social space to become a legal reality:

[12] Member States **should accelerate** the ongoing process of liberalisation of the Telecom sector by :

(1) **opening up to** competition infrastructures and services still in the monopoly area

(2) **removing** non-commercial political burdens and budgetary constraints imposed on telecommunications operators

(3) **setting** clear timetables and deadlines for the implementation of practical measures to achieve these goals.

An authority should be established at European level whose terms of reference will require prompt attention. (eu3: 1,285)

Although the use of open up is usually not process-metaphorical in discourses about legal and communication infrastructure, its deployment is nevertheless worth investigating. Opening up social processes and institutions to “outside” influences carries unerringly positive connotations in the contemporary policy genre. Indeed, open (along with its morphemes) is a key term that appears in the corpus about the same number of times as free and its morphemes.⁵ Open appears as a Desirable pre-modifying attribute for government, networks, systems, access, markets, standards, society, environment, communication, services, information, processes, frameworks, and so on. It carries roughly the same liberatory connotations as freedom. But as opening up ... to, as in the above example, it means precisely the opposite of what is commonly understood by the word free: it means forced to submit to new influences (competition) and new forms of regulation; regulation based on different values than those that have to date prevailed in these social domains. It is a form of technocratic euphemism that operationalises the axiology of neoliberalism.

But the liberatory euphemism bears little scrutiny. The first two liberalisation measures mentioned here are in contradiction. The infrastructures and services that need opening up to competition are those still in the monopoly area. That either

means regulating against existing private monopolies or privatising government monopolies. Either way, liberalisation requires new regulatory regimes: it requires more regulation, not less. That fact is reflected in the highly modulated should-ness of EU recommendations to Member States, and in the announcement that a new EU authority is necessary to regulate the liberalisation of the Telecom sector. Taken as a whole, the statement merely says that Member States should accelerate liberalisation of the sector by liberalising the sector more quickly, since measures [1] and [2] are ostensibly regulatory measures for liberalisation, and [3] is a proposal to do it more quickly.

There are clear confusions in the relationship between regulation and liberalisation in terms of circular causality. This is typical of the genre (Graham, 1999; McKenna and Graham, 2000). For instance, the French group says that

[13] The gradual **opening up** of the telecommunications market **is leading to** profound changes in the structure of this sector of activity and considerably speeding up its growth. (fr3: 17, 819)⁶

In other words, the gradual opening up of the infrastructure market is causing changes in the structure of the sector as well as speeding up its growth. Liberalisation is prima causa, not an effect of regulation. But the European Commission (EC) says that

[14.1] Provided the necessary safeguards are in place, **opening up** infrastructure provision **will underpin** the further development of the telecommunications sector, and this development is necessarily **at the heart of the transition towards the Information Society in the European Union**.

[14.2] Liberalisation of infrastructure will reinforce the benefits of the liberalisation of telecommunications services by encouraging innovation and the exploitation of the

⁵ Open and morphemes $n=695$; Free and morphemes $n=678$

⁶ I have evaluated “growth” here for Desirability. “Growth is good” is an underpinning axiological assumption at this stage of history (Halliday, 1993).

new technologies, and by **opening up** greater possibilities to provide new services in new ways. A clear regulatory framework and timetable is required in order to give predictability to all sector actors, including both the traditional and new investors.

[14.3] In the longer term and as integrated or multimedia services and applications develop, a regulatory framework will be required that addresses the issue of convergence between telecommunications and broadcasting. It is already possible technically to use communications infrastructure from each of these domains to provide services in either area.

[14.4] The development of the Information Society and of the new integrated applications will make it increasingly difficult to distinguish between the two service areas. **Opening up** infrastructure provision is an essential step for the future development of the telecommunications sector and the Information Society, and this document puts forward the measures and principles that are required at a Union level to provide the necessary regulatory framework. (eugpv16c: 45,542)

Here we see the confusion of causal circularity fully blown where regulation and deregulation are concerned: provided safeguards [regulations] are in place, opening up [deregulating] infrastructure provision will underpin further growth of the telecommunications sector. This in turn will lead to Europe's transition to an Information Society. A dichotomy is established between the "pipes", or infrastructure, for telecommunication and the services that are sold "through" them.

According to the EC, the liberalisation of telecommunications services is exceeding that of "pipe" provision. So Europe needs both liberalisation of infrastructure as well as liberalisation of services. No clear distinction between the two is made. What is needed for liberalisation [deregulation] is a clear regulatory framework [set of regulations] that gives predictability to all sector actors. But the processes of regulation and deregulation will necessarily get further confused because the services and infrastructure of telecommunications are getting all mixed up with those of broadcasting. To add to the confusion, the development of the Information Society will make it more difficult to tell the difference between telecommunications infrastructure and broadcasting. So even more regulation will be required.

In [14.1], the Information Society was to be a result of the unrealistic liberalisation of telecommunications infrastructure to the same degree as the providers of telecommunications services. By [14.4], the relationship has reversed; the development of the Information Society will change the relationship between telecommunications and broadcasting, apparently because the infrastructures of both can be used to deliver the services of both. In the first instance the Information Society is râison d'être for infrastructure liberalisation, whereas by paragraph [14.4] it becomes prima causa of the deteriorating distinctions between “content” and “pipes”. Then the Information Society is subject to a three-way Cartesian split of sorts: its infrastructure, the telecommunications sector, is put up as a separate entity from the new integrated applications, which also exists separately from the Information Society, thus making a regulatory framework necessary to sort out the confusions.

This is a schizophrenic worldview. Evaluations for the Necessity of new regulations appears as the result of Necessary deregulation, or liberalisation: deregulation of infrastructure is necessary for the development of the Information Society. But because the Information Society makes it difficult to distinguish between infrastructure and services, more regulations are required. Roughly equal evaluations for the Necessity of regulation and deregulation are overt: safeguards are necessary; regulation is required; further regulation will be required; opening up infrastructure provision is essential; new measures and principles are required. There is no agency whatsoever, and whoever it is doing the needing and requiring is not specified. All this Necessity for regulatory action is premised upon the Desirability,

Inevitability, and Importance of the Information Society, which apparently does not yet exist.

Market space

The predominating irrealis spatial object which is being “opened up”, as might well be expected in the neo-liberal climate of the current age, is the activity space of markets:

[15] <Heading> Internet opens up global markets

The market must lead. The government's first job is to remove **obstacles**, and champion the way ahead.

<Heading> Setting out **a vision and a clear direction**

Where government intervenes, the results must progress us towards becoming a knowledge-driven economy. We must have a sense of urgency. We've won against the odds before ... we can again.

Throughout our history, New Zealanders have shown a remarkable ability to respond in a positive way to world events. Just as the first shipment of refrigerated meat aboard the SS Dunedin in February 1882 **opened up new overseas markets** for our primary products, so the Internet opens up new markets for our knowledge exports. These include such products as software, technology, education, film, television, Web design, telecommunications, financial services, call centres and others, all of which can **travel down** the information **superhighways to the world at the speed of light**. (nzknow~1:17,456)

The heading claims that the Internet opens up global markets. Again, nowhere in this stretch of text does open up function overtly as process metaphor. However the metaphorical function is buried in the relations over a stretch of text much longer than any single clause. All the objects appear to be past or present actualities.

Semantic probing reveals that the authors firstly mean the Internet clears the way to; exposes; gives access to; and so on, all of which are realisations on the abstract-material plane. Nevertheless, the authors are clearly concerned with spatial qualities and a new “territory” of opportunity which is irrealis. The literary metaphor of the pioneering trailblazer is deployed to portray the government’s role: to remove obstacles, and champion the way ahead. But within the first two sentences, the

propositions become either circular or redundant because of two meanings of “market/s”. The internet opens up global markets; the market, in turn, must lead. What is causing the confusion is two distinct meanings of market/s. The first instance, global markets, means a space of activities defined by the activities of producing, buying, and selling commodities. The second instance, in which the market must lead, refers to market logic, principles, and values, presumably according to neoliberal tenets.

Panic is barely implicit when authors say that New Zealand is running against the odds and that the government must have a sense of urgency about its mission. The whole report is shot through with the same sense of panic, inadequacy, and confusion from the first paragraphs onward.⁷ The comparison between the “new economy” and “the old” raises some interesting questions. If, as the report claims, a shipment of refrigerated meat opened up new overseas markets as early as 1882, then the authors are not concerned with the existence of new geographical markets, since none have been “created” for many decades. Of course not even the most confused or panicked technocrat could buy literally into the illusion that a shipment of refrigerated meat opened up new overseas markets. This is where the process metaphor function becomes apparent. It has been buried under nonsense.

⁷ “In today’s information age knowledge has become the gold standard. If New Zealand is to prosper in the third millennium it is vital that we understand the implications of this change. [para 1]

But time is short. Prices for our commodity exports are in decline and we face tight competition for markets. It is unlikely that the traditional foundations of our economy alone - farming, forestry and fishing - can deliver the level of growth needed for our future well being. If we don’t change the way we compete in the global economy our way of life and standard of living are at risk.” [para 2]

The refrigerated meat presumably did not depart all by itself from New Zealand for foreign lands in order to open up new markets; it merely signified the existence of new markets, or, more precisely: a) the newly acquired ability that New Zealanders developed to keep their products fresh during long sea voyages: the medium of refrigerated ships; b) the pre-existence of commercial and legal relationships between New Zealand institutions and institutions in other countries that made trading shiploads of refrigerated meat practical and legal; c) the qualities that made New Zealand's refrigerated meat a desirable commodity for institutions and people in other countries, and; d) the ability of New Zealand farmers to produce enough meat to establish practical commercial and legal relationships throughout the world. Thus, the use of opened up here collapses all sorts of Participants, Circumstances, Relationships, Activities, Processes, and other abstractions in the strange clause that claims refrigerated meat opened up new markets.

The most extreme expressions of neoliberal dogma are possible when expectations of the irrealis are too heavily overlaid on the present:

[16] With the advent of information and communication technologies, the vision of perfect competition is becoming a reality. Consumers can now find out the prices offered by all vendors for any product. **New markets have opened up**, and prices have dropped. When businesses can **deliver** their products **down** a phone line **anywhere in the world**, twenty four hours a day, the advantage goes to the firm that has the greatest value addition, the best known brand, and the lowest 'weight'. Software provides the best example: huge added value through computer code, light 'weight' so that it can be delivered anywhere at any time.

Competition is fostered by the increasing size of the market opened up by these technologies. Products with a high knowledge component generate higher returns and a greater growth potential. Competition and innovation go hand in hand. Products and processes can be swiftly imitated and competitive advantage can be swiftly eroded. **Knowledge spreads more quickly**, but to compete a firm must be able to innovate more quickly than its competitors. (nzknow~1:3,920)

Here we see at least one reason why the “knowledge economy” is construed so reverently in technocratic policy statements (cf. Graham, 1998; McKenna and

Graham, 2000). Contemporary econometrics is well known for its lack of ability to cope with the unpredictable muck of reality (Saul, 1997). New technologies will solve the problems of reality by making the vision of perfect competition a reality. The reality is, unfortunately, exactly the opposite of that posited by neoliberal economics. Media ownership concentration is at an historic high (Barr, 2000; Kellner, 1999). Monopoly appears to be the paradoxical outcome of increasingly perfect competition. Moreover, the product that provides the best example of new economy goods, software, is perhaps the most monopolised of all.

Leaving aside the confusions and inaccuracies of the New Zealand group's propositions, the process metaphor function of opened up is again less obvious here, partly because of its past tense, partly because it is agentless, and partly because of the level of abstraction in the single Participant, new markets. Markets are activity spaces, mass processes involving many People, Processes, and Things. There are many different kinds of markets: labour markets, financial markets, software markets, commodity markets, fruit markets, geographically defined markets, and so on. We are left unsure as to which new markets have opened up. But if we take the advent of information and communication technologies as 'hyper-theme' (Martin, 2000), and assume that perfect competition and consumers having perfect knowledge of prices are predicated upon the hyper-theme, then the process metaphor becomes more obvious. Put more directly, the relationship is this: With the advent of information and communication technologies new markets have opened up [in the first instance, appeared; come into being; have become accessible, and so on]. But even with that relationship made clear, the metaphorical scope of the process is still

not entirely exposed. To see the scope of the metaphor, we need to consider time and tense.

The temporal relations between ostensibly linked propositions in [16] is confusing because of the tenses deployed: the present-ness of is becoming a reality, and of can now find out, conflicts with the past-ness of have opened up and the future-ness of when businesses can deliver their products down a phone line. We are left unsure as to which elements are causally predicated upon which others, and of the qualitative aspects of the previously opened up markets. Presumably, the markets the authors refer to must have been opened up prior to consumers having access to price knowledge. The confusion of present-ness, past-ness, and future-ness, and the consequent lack of clear causal relationships, makes the propositional content elusive: while perfect competition is construed as a result of information and communication technologies, new markets are already presupposed in the availability of price information and product availability. The ability of businesses to deliver their products down a phone line appears to be set in the future. But in the next paragraph, the increasing size of the market is again opened up by these technologies, resulting in more competition, while products with a high knowledge component – those that can be delivered over the phone – appear in the present.

When all this is unpacked in terms of causality and temporal relations, the metaphorical scope of opened up – in both instances – becomes more obvious: the market, its products, its producers, and its prices are already present: new technology makes these available; exposes them to competition; relates them to all the others; signifies their existence to people, along with their Significance; creates markets as

social and symbolic spaces of interaction; and facilitates awareness of all participants in the market process to all others, thus creating perfect competition. The superficial singularity and materiality of opened up appears to be something that has already happened. But it actually collapses and confuses causal relations, uniting past and future happenings, awarenesses, possibilities, knowings, and doings for all the participants in the market space of the knowledge economy, thus bringing into being an ideal state: the reality of perfect competition.

Concrete space: The foundation of any new political economy

All of the future spaces that are elaborated to any extent in the corpus are symbolic activity spaces. Whether referring metaphorically to vague unrealistic objects, or to currently “protected” social activities, what is said to be opening up in the policy corpus are possibilities and opportunities for further commodify existing human activities: education, biological processes, thought, art, language services, cultural production, imagination, and so on. They are the ever-more intimate aspects of human social activity that are to be alienated from whole nations and sold off as commodities in the “knowledge economy” (Graham, 2000). But the kinds of activities that policy authors posit as the basis of the “new” economy are not new in any way whatsoever. They are existing activities that are to be formally redefined for “removal” into a “new” space.

And it is this largely “undefined” space into which much of human conscious activity is to move which is of most historical significance. It is a concrete space, one which certain individuals have only recently developed the technological, institutional, and legal infrastructures to colonise on a global scale. It is global

electromagnetic space, or bandwidth, or ‘electrospace’ (Hinchman, 1969, in Smythe, 1981, pp. 300-318). Throughout history, the meaning of geo-technically defined space has, to a very large extent, characterised each particular age (Innis, 1951, pp. 92-97; Marx, 1973, pp. 276-283). Geo-technical spaces exist independently of what people do. They include land, air, sea, and electrospace. They are fundamental to any new form of political economy. This is most noticeable during recent times in the development of industrial capitalism:

wage labour in its totality is initially created by the action of capital on landed property, and then, as soon as the latter has been produced as a form, by the proprietor of the land himself. This latter then ‘clears’ ... the land of its excess mouths, tears the children of the earth from the breast on which they were raised, and thus transforms labour on the soil itself, which appears by its nature as the direct wellspring of subsistence, into a mediated source of subsistence, a source purely dependent on social relations. (Marx, 1973, p. 276)

Which is also to say that the globally mediated nature of human interaction is epiphenomenal. It first requires the existence of a new “type” of private property. After staring at the ever expanding edge of electrospace, concentrating on the spatial, social, and technical qualities of electromagnetic spectrum, Smythe (1981, pp. 300-318) concludes that electrospace ‘is to communications today as is land is to crops and water to fish. It is a peculiar natural resource, one whose politico-economic and social aspects have largely been ignored by social scientists’ (1981, p. 300; cf. also Childs, 1924; Church, 1939).

And that remains the case in the corpus I have analysed here. Bandwidth is only mentioned in 28 of the 68 documents that make up the 1.3 million-word corpus. Bandwidth appears 198 times in those 28 documents. Only once in an Australian document is it discussed in terms of “available electromagnetic space”, and even then it gets confused with data transfer capabilities:

[17] **Bandwidth refers to the range of frequencies**, expressed in Hertz (Hz), that can pass over a given transmission channel. The **bandwidth determines the rate at which information can be transmitted** through a circuit.

The phenomenal growth projected in electronic commerce will significantly affect the demand for bandwidth. The growth in online transactions for intangibles such as **delivery of entertainment and educational** products will also fuel demand. In Australia, **demand for bandwidth is expected to grow strongly** for the retail trade; property and business services; education; and health and community services sectors over the next five years. (au_kba: 7,622).

Although the authors implicitly distinguish between commodity categories – entertainment; retail trade; property and business services; education; health and community services – and identify bandwidth as a medium of sorts, this is a most perfunctory and confused treatment of what is actually being proposed. It collapses three meanings of bandwidth currently in use: the first refers to radio spectrum, the second to the rate of data transfer, the third to a commodity form. They are far from identical meanings, even though there are certain relationships between them. Furthermore, none grasp the essential features of bandwidth as a geotechnical space that must be occupied monopolistically to be of any politico-economic advantage, like land for example.

A far greater awareness of bandwidth as being concrete space was prevalent when it was first brought to widespread attention in the early proliferation of broadcast radio. Bandwidth was commonly thought of as “air-as-raw-material”, but of course

air has nothing to do with the matter, whether as raw material or otherwise. Nothing is property unless it can be reduced to possession and exclusively occupied and held. The newspapers of Washington D.C., called attention ... to the purchase of space overlying a lot of ground by the owner of a tall building adjoining, in order to secure the right to the perpetual use of whatever light and air might fill that space. Air drifts in and out with every zephyr, and light passes through at the rate of 186,000 miles per second.

The purchaser can only own so much of them as he can use. What he here bought was something more imponderable than light. In economics it is known as land, or natural resources; in everyday English it is space. (Childs, 1924, p. 520)

Throughout history, and I see no reason for the current period to be any different, the mass media environment has been a decisive influence in the distribution of political power, the essence of which is control of people within a particular space (Graham, 2000; Innis, 1950, 1951; Mumford, 1962; Smythe, 1981). And power, in the end, is the focus of any critical analysis. The policy statements in the corpus I have analysed are concerned almost entirely with the activities that are or will have been commodified in the “new economy”. That is to say, the purpose of the policy statements I have analysed thus far is not to identify or explain the foundations of an emergent political economy but to identify the kinds of labour that will be commodifiable and commodified in future. These include everything from art and imagination, to education and engineering, to entertainment and research, and just about any act of symbolic labour whatsoever. People must act and think in certain ways if their labour is to become fit for commodification in what will be the “knowledge economy”.

Quibbles over the ownership of radio spectrum may seem mundane in terms of what is being proposed in the policy corpus: namely, the commodification of practically everything that makes humans human (and inhuman). But it should be noted that the global privatisation of bandwidth is an historically unique macro-proposal. Electrospace is objective common property, the global enclosure of which is presupposed and apparently needs no explanation. Grabs for whole spectrum blocs have to date been the concern of nation-states: ‘radio communication is particularly susceptible to national control because, to a much greater extent than other communication media, the radio requires some control if it is to serve any human purpose whatsoever’ (Church, 1939). But today there is a fully developed system of international institutions that can provide the legal infrastructure to define and formalise social interaction; to make property, commodity, and contract laws; and to enforce these on a global scale.

Until quite recently,

nations of the world have never departed from the basic “world property” concept of the right to use specific radio frequency assignments, such rights have in practice been treated as one of the most important bases of politico-economic power on a first-come, first served policy. (Smythe, 1981, p. 307)

Today this power is being privatised. Unlike copper wire, fibre optics, or satellite infrastructure, radio spectrum is the non-depletable, concrete resource upon which any global knowledge economy, if it is to exist at all, must eventually be built (Rosston and Steinberg, 1997). The concrete quality of the space is almost incomprehensible. Because the electromagnetic spectrum exists everywhere all the

time at all frequencies, the current bandwidth legislators construe electrospace as a kind of ‘space in the fourth dimension’ which should be left ‘open to private exploitation, vesting title to the waves according to priority of discovery and occupation’, but that is not the case:

Of course, the wave length is not a fourth dimension, for there is also breadth and depth of wave (amplitude and frequency) and doubtless the correct analogy is the whole electro-magnetic field; but private property in any natural field or wave is only a human convention and one that it would be dangerous to extend to this new-discovered continent. The theory that otherwise it cannot be developed has already been demonstrated to be untrue. Otherwise only can it be kept free from monopoly. (Childs, 1924, pp. 522-523, emphasis added)

A new-discovered continent indeed! But that was in 1924. Today it is a continent that has become as conceptually passé and opaque as land. That is because bandwidth is generally sold as amounts of time, and because it cannot be seen or touched. It has thus been relegated to the status of a mythical realm. Radio spectrum is now not widely conceived of as concrete property, at least not in policy.

Even those charged specifically with selling the spectrum are clearly confused. The language advocating spectrum privatisation is shot through with all the clarion calls of colonialism, and with all the “pioneering” images that adorn the imperialist mindset. Thus, in however an unconscious and confused manner, the spatial aspects of language are clear and present:

[18] I truly believe that encouraging **more bandwidth**, particularly, to residential consumers in the country, **is the next great frontier** in communications policy.

As I was saying, **bandwidth is the great :: the next great frontier** in communications policy. And I want the hallmark of this Commission's work to be

that we encourage the competitive provision of high speed networks and services using any appropriate technology for **all Americans wherever they live, at home, at work, in schools, libraries, hospitals, whether they live in cities or in rural areas, on reservations. Wherever** there's demand, **there should be** bandwidth. (Kennard, 1998, in FCC, 1998)

Here again in the Federal Communications Commission's (FCC) argument to "deregulate" bandwidth we see the same expansive aspects of social life implicated as in the policy concerned with proposing the commodification of human activity. But this time the talk is referring to foundational space, real space – newly privatisable property, not something that there can be suddenly more of .

Typically, such talk is accompanied by the liberatory claptrap that has accompanied "revolutions" throughout history (cf. Fairclough and Graham, forthcoming; Marx, 1846/1972, p. 457). Here we have another Federal Communications Commissioner bidding an almost sentimental farewell to the national geography of electrospace:

[19] I think **this is an extraordinary crossroad in our intellectual thinking** with regard to communication services, and **we should keep that in mind**. In a sense, **the beginning of crossing the rubicon**, sort of **leaving the world** of legacy systems and their inherent limitations not only in technology and the kinds of communication services **we provide to the public**, but as well in the regulatory structure that was built up and served well, and **to a great degree, administering national policy** with respect to those sorts of systems.

And so, this really is **one of the many opening salvos** of an important transition, both in terms of the way we provide communication services **and the way that we regulate them**. (Powell, 1998, in FCC, 1998).

Regulators are firing off salvos as they cross the rubicon, enthusiastically mixing metaphors and confusing medium, message, national regulation, and service provision with the meaning of private property in electromagnetic spectrum.

The underpinning assumption of the new (de)regulatory push for bandwidth is that, because of the digitally convergent nature of our new technological environment, modes of communication between people have become qualitatively

indistinguishable: ‘I would say that if not already, in the very immediate future, it gets rather basic. Bits is bits. Voice is data. Data is voice. Video is data. They're all the same’ (Chrust, 1998 in FCC, 1998). There is much in history to refute the Commissioner’s assertions: “bits is bits”; radio waves is radio waves; space is space. That is to miss the whole significance of mediation as a process that involves people, their culture, and their historical and extant knowledge economies (cf. Innis, 1951; Silverstone, 1999, chaps.1-2; McLuhan 1964). We might as well say “trucks is trucks”, regardless of whether they are transporting nuclear weapons, wheat, or anthrax. From such a perspective “all roads lead to Rome” and the rest is so much irrelevant noise.

A macro synthesis of the meaning of “content” and property policy

In all of this – in the privatisation of formerly common property and the global regulation of human activity at the most intimate levels – we see an incipient prefiguring of what policymakers and telecommunications industry experts think should happen in the unreal world of the knowledge economy. The symbolic activities of humans are to be commodified and traded within a privatised global realm of electrospace. The unifying principle underpinning both “types” of policy is that it will encompass and commodify all aspects of human activity everywhere. There is nothing that should not be bought and sold. The policy concerned with spectrum ownership is oriented to reaching people wherever they live, at home, at work, in schools, libraries, hospitals, whether they live in cities or in rural areas, on reservations, and so on. Similarly, for policy concerned with those aspects of humanity that are to be modified for, and commodified within, the newly acquired global space, the legislative vistas include changing how people live, learn, work,

create, buy and sell. Put simply, the privately-owned, concrete property element will ideally extend to enclose all of humanity; the commodity element will ideally infuse every aspect of what it means to be human.

Conclusion

It is not surprising to find that policy constructed in an age dominated by a perverse, falsely individualist, neoliberal economics has the most personal aspects of people as the primary focus of the commodification process. We owe such an oppressive global condition to the failure of political economy to understand its object. Nevertheless, neoliberal economics has become ultimately successful in dominating administrative logic and colonising the channels of public opinion throughout most of humanity. But political economy continues to misunderstand private property, the element on which its claims to expertise are premised. To this day, political economy presupposes the property element. This is all the more pronounced considering that we are in the historically unique situation of seeing the creation of new private property on a global scale, the global privatisation or enclosure of electospace. It is the single largest continuous expanse of cultivatable economic property we can possibly realise under existing technical conditions. Consequently we are in the situation of seeing the creation of the largest division of 'property owners and propertyless workers' in history (Marx, 1844/1975, p. 322). Simple possession has nothing to do with the matter.

At the same time as the digital divide is being loudly and roundly touted by one group of legislators as the issue that most needs addressing today, another related group of legislators are busily working towards the only possible means by which

such a fundamental division can be created and sustained. The entire global mass of “knowledge economy” and “information society” policy entirely ignores the creation of this new private property, focusing instead on rationalising the commodification of human thought, language, art, imagination, communication, creativity, and emotion. These are the activities of the propertyless knowledge worker that will be commodified in the institutional edifices that control the medium through which all electronically mediated experience must eventually pass. Should full technological realisation of the property element prove to be realisable (there are doubts that this can be accomplished), the implications cannot be understated: it would amount to the corporate colonisation of every aspect of propertyless humanity.

Moreover, as the politico-economic basis of power since radio, the privatisation of electromagnetic space is essentially the privatisation of that power, the privatisation of global political power. What is now only a barely covert influence in world politics must, if the property-medium of political power becomes privately owned, become an overt and singular influence, perhaps implying outright structural dominance on the part of its future owners. Alienation of thought, language, and the most intimate aspects of biology is thus the apotheosis of a pathology that is oriented to the legal definition and ownership of others’ lives, of their life energies, and of the products of these. The gene pools of whole nations are now being sold (Williams, 2000). The current process is, or will be, at its most complete if and when the irrealis objects being claimed process-metaphorically in current technology policy are allowed to become objects of positive law. The language of policy is the operationalised discourse of contemporary political economy. For this reason, if for

no other, a sustained critique of policy language is necessary, if not sufficient, for positive change.

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Appendix 2: Collocates

L= total within 5 words to the left of open/s/ing/ed up

R= total within 5 words to the right of open/s/ing/ed up

T= total collocates

Freq= frequency of collocate word in entire corpus

Rank= rank order by frequency of collocate in total corpus

Words $n = 1,355,425$ - Types $n = 27,579$ - Sentences $n = 37,909$

Sent.length = 27.60 - Paragraphs $n = 15,094$ - Para. Length = 80.37

N	WORD	T	L	R	Freq	Rank
8	NEW	27	7	20	4,383	3
15	INFORMATION	16	13	3	7,652	1
16	ECONOMY	14	10	4	1,510	24
17	OPPORTUNITIES	13	8	5	833	135
19	COMMERCE	10	4	6	3,518	6
20	MARKET	10	3	7	2,247	12
21	MARKETS	10	4	6	975	93
22	POSSIBILITIES	9	3	6	134	799
24	GLOBAL	8	2	6	736	160
26	TELECOMMUNICATIONS	8	5	3	1,791	15
27	ACCESS	7	1	6	2,339	11
29	PROCESS	7	2	5	1,076	71
30	SECTOR	6	6	0	2,043	13
33	COMPETITION	5	0	5	1,134	60
34	ORDER	5	5	0	1,017	82
35	POLICY	5	3	2	1,949	14
36	SERVICES	5	2	3	4,451	2
37	SOCIETY	5	5	0	1,789	16
38	TECHNOLOGIES	5	2	3	1,452	28
39	TECHNOLOGY	5	4	1	3,855	4

Chapter 7

Space and cyberspace: On the enclosure of consciousness.

(in press). In J. Armitage and J. Roberts. (Eds).

Living With Cyberspace: Technology & Society in the 21st Century.

London: The Athlone Press.

Abstract

In this chapter I argue that the global privatisation of electromagnetic spectrum marks this period as historically unique. I also put forward conceptual categories for understanding the nature of an emergent cybereconomy. They correspond to classical conceptions of property, value and labour, but in no way treat these categories as singular, simple or unproblematic. From a perspective informed largely by Marx's critique of classical political economy, I frame the creation of a global cyberspace as the enclosure, or "privatisation", of conscious activity. I argue that a full and formally defined cyberspace, at least as it is currently conceived of, must prefigure the eventual alienation of human social existence at its most fundamental and definitive level: consciousness.

Space and Cyberspace

On the enclosure of consciousness

Consciousness is the total awareness of life which people have. It includes their understanding of themselves as individuals and of their relations with other individuals in a variety of forms of organization, as well as with their natural environment. Consciousness is a dynamic process. It grows and decays with the interaction of doing (or practice) and cognition over the life cycle of the individual in the family and other social formations. It draws on emotions, ideas, instincts, memory and all the other sensory apparatus.¹

The production of ideas, of conceptions, of consciousness, is at first directly interwoven with the material activity and the material intercourses of men, the language of real life ... The same applies to mental production as expressed in the language of politics, laws, morality, religion, metaphysics etc. of a people. Men are the producers of their conceptions, ideas, etc. ... Consciousness can never be anything else than conscious existence, and the existence of men is their actual life-process.²

Introduction: Space, electrospace and cyberspace

This chapter is organised around the meaning of space in political economy.

Space is a new and difficult concept, and perhaps for that reason it has not been discussed very much by political economists. Even when the subject of space is broached, most of political economy has tended to emphasise the time aspect, such as labour, the circulation of money and commodities, rent, the depletion of land and machinery, the movement of information and so on.³ But the meaning of space is, for the most part, left untouched as a problem. In other words, space – as exemplified by land – is generally assumed to be an unproblematic concept; it is the activities that go on within and between particular spaces that most of political economy focuses on. But the legal definition and ownership of land is the very basis of private property.

¹ Dallas Smythe, Dependency road: Communications, capitalism, consciousness, and Canada, New Jersey, Ablex, 1981, pp. 270-271.

² Karl Marx and Frederick Engels, 'The German Ideology', in R.C. Tucker (ed), The Marx-Engels Reader, New York: W.W. Norton, 1846/1972, pp. 110-166.

Without it, capitalism could not exist. As an idea and a reality, private property has become quite taken for granted. But we can perhaps imagine the kind of technical, legal, and historical work required for the idea to have become a reality by means of a thought experiment.

Imagine that you live at sea on a vessel that comfortably contains a about 40 or so people. You cannot see land on any horizon. You have never seen it. The currents are such that the vessel drifts at regular intervals within indistinct but regular boundaries. The community harvests fish at one time of the year, whales at another, and nutritious seagrasses at another. Rain falls predictably enough so that people have enough water during most years. Here is the problem: in such a situation, how would you go about imagining and defining the space within which the community moves so that it could be broken up into separate subdivisions which could then be owned by particular individuals?

At the very least, you would need technical and legal definitions of the space. Your community would also need the means to patrol and enforce the boundaries of each and every subdivision, as well as the boundaries of the community as a whole. Otherwise anybody could redefine the space in their own terms, perhaps dispossessing incumbents of their spaces. This is basically how the idea of privately owned land became a reality over roughly three hundred years.⁴ But the pre-existence of a set of more or less informal and flexible social relationships within that space is

³ S. Enke, 'Space and Value', *Quarterly Journal of Economics*, vol 56, no. 4, 1942, p. 627.

⁴ Eric Hobsbawm, *The age of revolution: 1789-1848*, London, Abacus, 1962, p. 46.

most essential to formalising it. In other words, we create the possibility for property only by doing what we do within certain places.

Our ideas about the meaning of space are inseparably tied to our conceptions and experience of property, work, family, community and nationality. They are a function of the entire web of activities and relationships in which we are embedded.⁵ We make many kinds of spaces by doing what we do: social space, organic space, symbolic space and geographical space, to name only a few.⁶ For example, a conversation in a workplace can be viewed as creating many different types of social and symbolic spaces all at once. The conversation creates and maintains interpersonal spaces, or relationships between people; attitudinal spaces, or cultures; organisational spaces, within which social behaviours are regulated; and ideational spaces, in which special ways of knowing are preserved, such as in an economics department of a University or a legal firm.⁷

But these social and symbolic spaces are of a distinctly different nature than the much more concrete kinds of space I am discussing here (such as the land and buildings in which a workplace conversation might take place). Social and symbolic spaces are activity spaces and thus are time-bound. Geotechnical spaces – like land, sea and air – exist independently of what people do; they contain and constrain what people do (you cannot grow potatoes in the ocean); and they share a common aspect

⁵ Marc Bloch, *Feudal society (Vol. 1): the growth of ties of independence*, L.A. Manyon (Trans), London: Routledge and Kegan Paul, 1940/1961, p. 59, David Harvey, *Social Justice and the City*, London: Blackwell, 1973/1988, p. 36, Karl Marx and Frederick Engels, 'The German Ideology', in R.C. Tucker (ed), *The Marx-Engels Reader*, New York: W.W. Norton, 1846/1972, p. 118.

⁶ Pierre Bourdieu. *Practical reason: On the theory of practice*, London: Polity, 1998, David Harvey, *Social Justice and the City*, London: Blackwell, 1973/1988.

in that they can only be occupied exclusively: two different people, or groups, or factories, or cities or nations cannot occupy the same geotechnical space at the same time. It is simply an impossibility. The same holds for 'electrospace', or what is commonly called radio spectrum: a particular frequency cannot be used at the same time by different people or organisations.⁸ Like land, electrospace must be occupied monopolistically if it is to be used for any purpose whatsoever. Electrospace is the geotechnical aspect of cyberspace; it is the concrete, geotechnical area within which digitalised symbolic and social spaces are produced, reproduced, and exchanged by means of conscious human activity.

The historical significance of the meaning of space

There have been three significant periods in recent history during which the meaning of space has been redefined at the most fundamental levels throughout the West: the formalisation of feudalism at the end of the twelfth century; the enclosures movement between the mid-fifteenth to late-eighteenth centuries, which ended feudalism and created private property and the nation-state; and the definition of airspace and electromagnetic space, which began at the end of the nineteenth century, quickly giving rise to twentieth century nationalism. During these periods, relationships between the people and groups of people who carried on activities in these spaces were also legally redefined and formalised at the most fundamental

⁷ Jay Lemke, *Textual politics: Discourse and social dynamics*, London, Taylor & Francis, 1995.

⁸ Hinchman, 1969, in Dallas Smythe, *Dependency road: Communications, capitalism, consciousness, and Canada*, New Jersey, Ablex, 1981, pp. 300-318.

levels. It should be noted that these three periods correspond to the widespread availability of new media, respectively: paper, the book, and the radio.⁹

The current period is potentially as significant as these three preceding epochs in western human history because of an historically rare re-organisation of electrospace, once again facilitated by new media-related activities. But the significance of a privately owned global electrospace appears to have gone largely undiscussed in terms of its concrete spatial aspect, perhaps because it now seems to be pure social activity (whether commercial or otherwise). Since the discovery and technicalisation of electromagnetic spectrum, up until quite recently, ‘nations of the world have never departed from the basic “world property” concept’ of radio spectrum rights, and ‘such rights have in practice been treated as one of the most important bases of politico-economic power’ throughout the twentieth century.¹⁰ In other words, the global privatisation of electrospace is – at least potentially – the global privatisation of that same power source. It is the privatisation of the space in which the production, distribution, exchange, and consumption of ‘consciousness’ (or ‘knowledge’) commodities have, for more than a century, formed the basis of the most expansive, powerful and violent systems of political organisation in human history.¹¹

⁹ Harold Adam Innis, 1951, The Bias of Communication, Toronto, University of Toronto Press.

¹⁰ Dallas Smythe, Dependency road: Communications, capitalism, consciousness, and Canada, New Jersey, Ablex, 1981, p. 307.

¹¹ John Armitage and Philip Graham, ‘Dromoeconomics: Towards a political economy of speed’, parallax, in press, Philip Graham, ‘Hypercapitalism: A political economy of informational idealism’, New Media and Society, vol 2, no 2, 2000, pp. 131-156, Dallas Smythe, Dependency road: Communications, capitalism, consciousness, and Canada, New Jersey, Ablex, 1981, pp. 300-318.

The centrality of electrospace to any cybereconomics

Electrospace 'is to communications today as land is to crops and water to fish. It is a peculiar natural resource, one whose politico-economic and social aspects have largely been ignored by social scientists'.¹² The tendency of social science to ignore the spatial aspect of electrospace continues. However to understand the historical significance of its "privatisation", it is imperative that the spatial nature of electrospace be understood. Electrospace is currently being "cleared" of its occupants and "enclosed". The assumption underpinning this trajectory is that internet traffic will 'migrate from personal computers to devices like cell phones and hand-held computers', and that the spectrum must therefore be privatised.¹³ Whether or not internet traffic does "migrate" to cellphones and hand-held devices remains to be seen. But the imperatives from legislators and business that bandwidth must be cleared for such an occurrence are very insistent.

The public nature of the area currently being sold off (or given away) is well-evidenced by the nature of its incumbent occupants. For example, in the US, the 'Defence Department, law enforcement authorities and public safety organisations' are expected to 'shift' their entire communication systems to other, less 'useful' spaces.¹⁴ That ought to be enough in itself to raise questions about the social efficacy of the current round of global bandwidth privatisations. Electrospace is literal and

¹² Dallas Smythe, Dependency road: Communications, capitalism, consciousness, and Canada, New Jersey, Ablex, 1981, p. 300.

¹³ 'US to clean up wireless mess', Sydney Morning Herald, 2000, October 16, p. 40.

¹⁴ 'US to clean up wireless mess', Sydney Morning Herald.

concrete rather than virtual and symbolic space, just like land. It must be understood as such to understand its historical significance.

The consciousness of electrospace as a concrete space was far more prevalent when radio first emerged as a dominant medium.¹⁵ What brought this aspect to the fore was a heightened sense of nationalism throughout the most technologically advanced countries, especially following the unprecedented slaughters of World War One. A concern with mass propaganda, most notably in the United States, brought with it the realisation that ‘radio communication is particularly susceptible to national control’ because, more than other medium, electrospace ‘requires some control if it is to serve any human purpose whatsoever’.¹⁶

It was therefore quickly realised that electrospace is a geotechnical space because it can only be used effectively if occupied exclusively. Over the last century, it has become the ultimate in public resources, like air and water. Electrospace is the non-depletable, concrete resource upon which any cybereconomy, if it is to exist at all, must be built.¹⁷ The ultimately concrete nature of electrospace has slid, for the most part, into the realms of incomprehensibility for people. It has become, once again, as conceptually opaque as the idea of privately owned land, around which the relations of capitalism were first organised. Electromagnetic spectrum exists everywhere at all times and all frequencies. But because it is most generally sold in

¹⁵ William Wallace Childs, ‘Problems in the Radio Industry’, The American Economic Review, vol 14, no 3, 1924, pp. 520-23.

¹⁶ G.F. Church, ‘Short waves and propaganda’, Public Opinion Quarterly, vol 3, no 2, 1939, pp. 209-222.

¹⁷ G.L Rosston and J. S Steinberg, Using market-based spectrum policy to promote the public interest, Washington: Federal Communications Commission, 1997.

lengths of time (like, for example, a thirty-second radio or television advertisement), it is most readily understood as such.

Alternatively, legislators treat electrospace like “raw material”, or as a kind of ‘space in the fourth dimension’ which should, according to the tenets of neoliberalism, be left ‘open to private exploitation, vesting title to the waves according to priority of discovery and occupation’, but that is not the case:

the wave length is not a fourth dimension, for there is also breadth and depth of wave (amplitude and frequency) and doubtless the correct analogy is the whole electro-magnetic field; but private property in any natural field or wave is only a human convention and one that it would be dangerous to extend to this new-discovered continent.¹⁸

A new-discovered continent, indeed; all-pervasive, and clearly all of a piece. But those words were written in 1924. Today electrospace is potentially a global rather than national space—it is our only potentially global, concrete activity space. Unfortunately, it has become passé if not entirely “invisible”, both as space and as a source of social power. It has been relegated to the realm of myth because it is generally sold and understood as quantities of time. But in political economic terms, the time aspect is invariably and inevitably tied to labour, to what people do. In any cyberspace, the activities that must be technically redefined, appropriated and commodified are the products of conscious human activity.

¹⁸ William Wallace Childs, ‘Problems in the Radio Industry’, pp. 522-523. The italics are mine.

Human activity and space: Time and the labours of consciousness

If any concrete space is to become private property with economic significance, the pre-existence of an established network of social activities is an absolute prerequisite.¹⁹ Like the ownership of space, the formal ownership of human activity and its products is a matter of law: 'How does one become an owner of productive stock? How does one become owner of the product created by means of this stock? Through positive law'.²⁰ The legal distribution of property rights in the ownership of human activity and interaction is perhaps the most overt aspect of any transition in human social relations. John of Salisbury's Policratus is historically instructive in this respect.²¹ It comes

just before the important turning-point in institutional development at the end of the twelfth and the beginning of the thirteenth century, when legal precision began to be stamped on a number of previously indefinite relationships, and when feudal independence tended to become consolidated into definite organs of political control.²²

Similarly today, new forms of legal precision are being stamped on human social relations at the most intimate levels of existence.²³ There is also a pervasive sense, as

¹⁹ David Harvey, Social Justice and the City, pp. 35-37, Karl Marx, 1976, Capital: A critique of political economy, vol 1, B. Fowkes (Trans), London, Penguin, pp. 932-933.

²⁰ Karl Marx, 'Economic and philosophical manuscripts', In Karl Marx, Early Writings, R. Livingstone and G. Benton (Trans), 1844/1975, London: Penguin, p. 295.

²¹ 1159/1909, as cited in J. Dickinson, 'The mediaeval conception of kingship and some of its limitations, as developed in the Policratus of John of Salisbury', Speculum, vol 1, no 3, 1926, pp. 308-337.

²² J. Dickinson, 'The mediaeval conception of kingship and some of its limitations, as developed in the Policratus of John of Salisbury', p. 309.

²³ Philip Graham, 'Hypercapitalism: A political economy of informational idealism', pp. 131-156.

there was during the enclosures movement, that there exists an unbreachable social and conscious distance between the people who define rules for human behaviour, for value creation, and for almost all forms of human activity, and those who are bound by those rules but are excluded from making them.²⁴

Social space, social distance, and consciousness commodities

Like the legal definition of geotechnical spaces, “official” definitions of social relationships are a function of legal expertise. The same holds for other social technologies, such as policies that define the legitimacy of wage- and money-forms, production technologies, management techniques, and the way in which legally sanctioned violence (war and punishment) is organised. As such, expert legal and political definitions also formalise and fix (to a certain extent and for a certain time) the meaning of particular aspects of social space. Legal definitions transform informal relationships into formal and legal ones, rendering flexible and variegated social relationships as relatively inflexible symbolic spaces, such as systems of law or management. It was from strenuous and sustained efforts in these directions that the historical development of wage labour became the dominant method of appropriating human energy – human life – or what political economy calls labour.

This remains the case in the emergent “knowledge economy”, although pre-capitalist labour relations are once again becoming dominant forms of appropriation (“casualisation” and “outsourcing”). The aspect of “labour” which is technologised

²⁴ John Ralston Saul, Voltaire’s Bastards: The dictatorship of reason in the west, Maryborough, Australia, Penguin, chapter 2.

and commodified in cyberspace is its conscious aspect. Consequently, today's most frenetic legal activities are concerned with the ownership of the products of consciousness, or 'intellectual property'.²⁵ With the not-so-gradual development of a global, privately-owned electrospace, a practical, artificial, humanity-wide split is being effected (technologically and at law) between labours of the muscle and labours of the mind. The artefacts of consciousness that people produce in the constitution, reconstitution and transformation of their social spaces are quite necessarily the commodity-forms of any cybereconomy. I have elsewhere identified this as a definitive aspect of 'hypercapitalism'.²⁶ Although the activities and social relations that correspond to new commodity forms continue to differ in levels of legal and economic formality, the aspects of humanity which are to be formalised in the cybereconomy include every facet, function and product of consciousness.²⁷

"Information" produced for people, by people, about people (and their environments) is supposedly the basic commodity form of any cybereconomy. Art, science, culture, education, communication and commerce are said by legislators to be the main social domains within which cybercommodities are to be created.²⁸ But to focus solely on the commodity forms produced within specific activity spaces is to

²⁵ See, for example, World Intellectual Property Organization, Joint Recommendation Concerning Provisions on the Protection of Well-Known Marks adopted by the Assembly of the Paris Union for the Protection of Industrial Property and the General Assembly of the World Intellectual Property Organization at the Thirty-Fourth Series of Meetings of the Assemblies of the Member States of WIPO September 20 to 29, 1999, Geneva, World Intellectual Property Organization, 2000.

²⁶ Philip Graham, 'Hypercapitalism: A political economy of informational idealism', New Media and Society, vol 2, no 2, 2000, pp. 131-156.

²⁷ Philip Graham, 'Hypercapitalism: A political economy of informational idealism', New Media and Society.

²⁸ Philip Graham, Space: irrealis objects in technology policy and their role in a new political economy, Manuscript submitted for publication.

miss most of the picture, namely their social, biological and environmental sources. With increasing attention given to intellectual property regimes, a new formality is being stamped upon existing social and biological relations of “globalised” humanity. More particularly, legal formality and money values are being placed on the conscious relationships that people have with particular symbolic artefacts.²⁹

Today, in the development of intellectual property rights, relations between such intimate and abstract “things” as words, sounds and genes are being formalised at law. These, in turn, are designed to be imposed world-wide.³⁰ Flippantly defining commodities of consciousness as ‘goods of the mind’, or biotechnological products as commodities derived from the ‘essence of life’, does little to clarify the picture.³¹ Such a view misses the point that these are already freely existing relations. But they are being technically redefined so as to be ownable and sellable as quickly as they fall within technological and legislative reach. As such, their redefinition is nothing less than the largest and most pernicious attempt at outright theft by a powerful group of elites in the history of humanity, if only because of the sheer size of the current human population. Individuals are currently buying the gene pools of whole

²⁹ Philip Graham, Predication and propagation: A method for analysing values in technology policy, Manuscript submitted for publication.

³⁰ World Intellectual Property Organization, Joint Recommendation Concerning Provisions on the Protection of Well-Known Marks adopted by the Assembly of the Paris Union for the Protection of Industrial Property and the General Assembly of the World Intellectual Property Organization (WIPO) at the Thirty-Fourth Series of Meetings of the Assemblies of the Member States of WIPO September 20 to 29, 1999, Geneva, World Intellectual Property Organization, 2000, p. 2.

³¹ John Perry Barlow, Cybernomics: Toward a theory of the information economy, New York: Merrill Lynch & Co, 1998.

countries, with the governments of Tonga, Estonia, and Iceland selling intellectual rights in their constituencies' gene pools.³²

Underpinning the global expropriation of abstract human activity is a set of contradictions inherent in any cybereconomy, at least as it is currently conceived of by its technocratic designers. These are: the assumed predominance of the exchange-values (money) over production-values; the collapse of distribution and consumption into the same moment as that of production and exchange; and the subsumption of use-value (useability) under the logic of exchange-value (saleability). Consequently the production of money becomes an increasingly irresistible imperative.³³ But money is just the idea of value given a (sometimes) physical form. To fully unpack these collapsed relations would take far more time and space than I have here. But a brief excursion is necessary to comprehend the historical significance of these actual and conceptual implosions. Largely for convenience, I describe the significance of these trajectories under the term value-relations.

Value-relations, spatial consciousness, and the alien realities of cyberspace

The idea of value 'is intimately associated with the most remote experiences of the human race. Ever since it has been possible to predicate desirability of anything, have values existed'.³⁴ That is the definition of value in the broadest and most abstract terms possible: the social desirability of anything whatsoever. Value-

³² Vanessa Williams, 'Biotech Firm Buys Tonga's Gene Pool', The Adelaide Advertiser, November 22, 2000, p. 2.

³³

relations are those aspects of the social within and during which the desirability of any given aspect of our environment is produced, attributed and expressed by people. Value-relations are expressed as patterns of social ‘preference’ and ‘decision-taking’, or, what can be called evaluative ‘patterns’.³⁵ Such patterns are largely the result of historical normative work. In other words, evaluative patterns – actively expressed perceptions of value – also specify the acceptability of what is perceived to be desirable within a given social domain.

Because they are expressed choices, evaluative patterns peculiar to any given social group exist at the expense of other possible value-relations. In a globally mediated social system, ideally encompassing the whole of humanity, the very concept of value takes on very complex dimensions. Paradoxically, and perhaps because faced with such vast complexity, value has been narrowed at the policy level to the most singular and simplistic system, namely price. Discourses of efficiency, growth, progress and control derive their logics and techno-logics almost exclusively from this illusory, “thingly” system of value:

The more production comes to rest on exchange value, hence on exchange, the more important do the physical conditions of exchange – the means of communication and transport – become for the costs of circulation. Capital by its nature drives beyond every spatial barrier. Thus the creation of the physical conditions of

³⁴ W. G. Langworthy Taylor, ‘Some important phases in the evolution of the idea of value’, *The Journal of Political Economy*, vol 3, no 4, 1895, pp. 414-433.

³⁵ Raymond Firth, ‘The study of values by social anthropologists: The Marrett Lecture, 1953’, *Man*, vol 53, (1953), pp. 146-153.

exchange – of the means of communication and transport – the annihilation of space by time – becomes an extraordinary necessity for it.³⁶

And this is precisely what has happened: exchange-value has become an end in itself, and the ‘annihilation of space by time’ is achieved by the conceptual implosion of concrete space (electrospace) and social space (human activity) into mediated time (conscious labour) through the manipulation of spatial consciousness. Value-relations have thus become expressions of space over time (how fast money circulates globally). Paradoxically, the larger this number – the closer it gets to a mathematically undefined term where circulation time equals zero – the greater the perceived efficiency!³⁷ In similarly vulgar terms, conscious social activity (social and symbolic space) is measured in terms of “the speed of thought” because, ‘expressed passively, the magnitude of labour appears as an amount of space; but expressed in motion, it is measurable only in time’.³⁸ When understood entirely as time, social space is annihilated by imperatives for speed.³⁹ There has never been so much human activity dedicated to the production of consciousness commodities. And time is money. It is also the most ancient and basic measure of human life: ‘In Stoic physics there is no simple location, no analytical space’, nor did there exist a ‘common sense’ distinction between time and space during the archaic period – ‘time was the only

³⁶ Karl Marx, Grundrisse: Foundations of the Critique of Political Economy (Rough draft), (M. Nicolaus, Trans.), London, Penguin, (1973), p. 524.

³⁷ The reduction of time to zero, of course, is an impossibility.

³⁸ Karl Marx, Grundrisse: Foundations of the Critique of Political Economy (Rough draft), (M. Nicolaus, Trans.), London, Penguin, (1973), p. 321.

³⁹ John Armitage and Philip Graham, ‘Dromoeconomics: Towards a political economy of speed’, parallax, in press

reality, and space still had to be discovered –or invented– by Parmenides after 500 B.C.⁴⁰ Space, in all its contemporary aspects, is a very new concept.

The destruction of space by time takes place by means of increased rapidity in social exchanges.⁴¹ In terms of value-relations, this is expressed as a relationship between the fastest possible speed at which perceptions of value can be exchanged across the greatest possible space. Perceptions of value thus become the primary commodity forms of cybereconomic production processes. The production of mediated perceptions of value across vast geographical and electrospaces is simultaneously an ongoing and immediate complex of consumption (destruction), circulation (distribution) and exchange. A paradox of this globally imploded system is that by decreasing time distances between people, it simultaneously annihilates existing perceptions of social space. Therefore, in any fully developed cybereconomy, the alienation of conscious human activity from its source, along with the perceived value of that activity, is complete.

Concluding remarks

It is a commonplace bias of every age to think of itself as historically unique. At some level, this is necessarily true for every moment in history. But there are very few ages during which the relationships between great masses of people and their concrete spatial environments are redefined on such a far-reaching and fundamental

⁴⁰ Giorgio de Santillana, G. and Hertha von Dechend, Hamlet's Mill: An essay investigating the origins of human knowledge and its transmission through myth, Jaffrey, New Hampshire: David R. Godine, 1962/1999.

⁴¹ John Armitage and Philip Graham, 'Dromoeconomics: Towards a political economy of speed', parallax, in press.

level as they are today. The privatisation of global electrospace – perhaps – distinguishes the current era from any other as historically unique. The enclosures movement was another such age, as was the formal definition of the feudal system in Europe during the late twelfth century. These periods combined the “legal” formalisation of previously informal networks of social relations with the “legal” redefinition of concrete space.

While electrospace is generally treated by legislators as little more than a complex time-bound conduit – a medium – for symbolic activities and institutional organisation, it is not only that. It is quite literally a concrete space in the most precise economic definition of the word. Its most incomprehensible aspect is that it can only be traversed at a single speed—the speed of light. The speed of electrospace is its most confounding aspect. It conflates space and time precisely because of its speed. But electrospace nevertheless retains its concrete spatial characteristics. It is everywhere, all the time, at all frequencies. It is, as far as we know, the non-depletable, omnipresent foundation upon which any future cybereconomy will be built.

But there is more to grasping political economy than the technical definition and reallocation of property. We must grasp the domains of human activity that legislators are redefining, harnessing and exposing to commodification in the emergent space; the commodity forms of the economy and their relationship to their “producers” and “consumers”; the value-relations upon which exchange, circulation and distribution are premised and enacted; and the global web of institutions that are ostensibly responsible for defining all of these aspects. Most importantly, we must

consider which aspects of human social activity are to be commodified within this space, and whether such aspects ought to be legally commodified. And since electrospace is global – in fact it is our only global space – we must understand the relationship of those institutions who would claim proprietorship over what must become the property base for fiefdoms over the most abstract, intimate, abstract and concrete aspects of humanity. These are the foundational tasks for any future political economy in cyberspace.

Chapter 8

Discussion

Discussion

The Queensland University of Technology thesis by publication format stipulates that a discussion of findings from each of the publications presented should appear here. Naturally, as works prepared for publication, each paper contains its own discussion. Rather than duplicate those sections here, I relate the papers presented to the theoretical and operational objectives set out in the Introduction section. I also offers a self-critique and suggest directions for future research in the area.

On the theoretical objectives of the research

The papers presented here set out to describe a relationship between new media, language, and social perceptions of value at a time in history when a global “knowledge economy” is being legislated for at all levels of policy-making. The thesis achieves that objective, at least to some degree, by means of historical research, by critically analysing the apparatus of classical political economy, by analysing the language of technology policy, and by developing a way to analyse the evaluative functions of language in that genre.

The social function of contemporary technology policy is to define the legal limits and principles by which economic resources are produced, evaluated, and distributed in a knowledge economy. A corollary to this is that “knowledge” or “innovation” policy is a kind of double-sided, applied epistemology (Rooney and Graham, in press)— it not only attempts to define “what counts” as knowledge, but also how legitimate knowledge is to be produced; in which social domains “it” is to

be produced; how it is to be valued; and, most importantly, what it means to be a knowledgeable person. And since contemporary policy is a technocratic endeavour, the distribution of political power flows directly from such determinations. Thus, the policy corpus here is a representative part of a wider political economy of communication whilst being political economy and creating new forms of political economy.

The kinds of policy that I have focused on identify and delineate the aspects of social and symbolic spaces (activity spaces) that can and may be commodified in any knowledge economy. But herein lies its limitations in terms of being an heuristic for learning something about the “newness” of current social transformations. It focuses wholly on the social and symbolic—the conscious—aspects of people’s activities. Once again, political economy (as policy) fails to grasp the meaning of geotechnical space. This is, as I have argued in the final two publications presented here, perhaps the most significant aspect of the “new economy”.

I have identified, described, and analysed specific aspects of contemporary technology policy language that contribute to the emergence of new value systems within society. I have also indicated how value systems emerge and are propagated as new media become dominant in the production and exchange of meaning, most notably through the effects of media practices upon social perceptions of time and space. In this respect, the theoretical objective of developing a political economy of language and new media has been met, albeit in an incipient form.

On the specific aims of the research

The specific aims of the research are as follows: to identify relationships between value determination and policy language; to elaborate and demonstrate a method for analysing evaluations made in policy language; to critically examine the capacity of classical political economy's conceptual apparatus in the context of a knowledge economy under current circumstances; to identify and elaborate historical relationships between new media, language, and perceptions of value; and to identify relationships and trends that characterise the current period as historically unique.

These tasks have been inseparable throughout. The relationship between policy and value determination is analogous to that of canon law and the first crusades: speakers with the patina of socially sanctioned, delegated, or divine expertise (or mixtures of all of these) can have profound effects on social value systems given favourable circumstances: Hitler and Stalin are recent exemplars in this respect, as are Walt Disney and Ted Turner. The first crusades were impossible without a propagandised value system being set against (and indeed defined in relation to) other demonised ones (Cawsey, 1999), just as Fascism and Sovietism were (Bullock, 1991). Consequently, any method for analysing evaluations in language cannot separate itself from the social and historical contexts in which perceptions of value are manipulated and expressed (produced, exchanged, and reproduced). More confusingly, patterns of evaluation themselves get evaluated. And since observation is evaluation, any description of evaluations in language is precisely such an exercise—it is an evaluation of evaluations, and therefore confronts the circularity of linguistic scholarship of any sort.

Grounding the research primarily within the apparatus of political economy mitigates against that circularity to some degree. But it must be acknowledged that political economy is also both an evaluative (normative) and a linguistic pursuit. In other words, a critical political economy is also a reflexive political economy which must attempt, as far as possible, to recognise its own social and historical situatedness. Hence a critique of one's conceptual apparatus is essential. In this research, my critique has led me to use the fewest categories in the most expansive ways: time, space, and value are the foundational aspects of the political economic perspective I have put forward here. But those are all just different perspectives on human activity. All human activity produces something: the possibility and meaning of space; the use, ownership, and meaning of time; the attribution, propagation, distribution, and meaning of "values". How these are distributed and/or configured at any given moment in any particular social history characterises the political economic aspect of that social system. Moreover, all these aspects are mediated, institutionally (socially) and technologically. The issue of the power to define the meaning of media and its mediations is intrinsic to the definition of any given historical period, hence my emphasis on the domain of political discourses about the meaning of new media.

Historical relationships between new media, language, and perceptions of value are neither simple nor direct. With the emergence of new media, dominant patterns of evaluation peculiar to one social domain can be inculcated across vastly different social and geotechnical spaces, and for different durations within these. Socio-cultural disjunctions, though, prohibit the positing of any singular or direct effects in the process of inculcation—social situatedness (normative historical praxis)

is the refractive lens through which propagated and inculcated value systems are transformed and dissipated. Most importantly, dominant value systems and their concomitant patterns of evaluation appear to be very resilient. Which is to say that they do not simply disappear and are replaced. Rather, “new” value systems are overlaid upon extant ones, just as new forms of mediation overlay older ones (Innis, 1951), and new ways of languaging exist within and “on top of” older language practices (Halliday, 1993). Rather than a simple sedimentary process, though, I hope to have conveyed a sense of historical “weaving”. The resultant fabric will, under certain circumstances, and in a certain perspectival “light”, appear very new; in and under others, it may seem positively archaic.

The aspects of our mediations, languagings, and evaluations which are foregrounded at any given moment in history are interdependent. However, the bias of dominant media constrain and influence, to a very large degree, the forms and “types” of language we can exchange, and the kinds of evaluation that are emphasised in specific media environments. Different media technologies are biased towards the meaning of different aspects of space and time (Innis, 1951; McLuhan, 1964; Postman, 1985). As I hope to have shown here, evaluations which are oriented towards spatial aspects are vastly different to those oriented towards the temporal. Institutions, which are also media, also have a bias towards space and time. That difference can be seen in the value orientations between, say, the Brisbane City Council and the World Trade Organisation. The same sorts of differences in patterns of evaluation could be noted for a particular family and the education system within which the children of that family are entangled.

This research has changed my understanding about the historical significance of the current period. Initially, I was inclined to think that there was very little new in what was being proposed on behalf of our new mediation processes. For the most part, this is probably the case. However, the redistribution of geotechnical electrospace marks this period as both historically unique and historically significant. Just as wheat and wool were grown before and after the enclosure of land throughout western Europe, education, art, and other forms of conscious human activity in general precede, and will survive, the enclosure of electrospace. But the production, ownership, distribution, and general qualitative nature of conscious activity will more than likely change in quite dramatic ways if current plans to enclose electrospace are successful.

Self-critique

At the end of such an enterprise, one would hope to know more about the research focus than at the outset, not less. Unfortunately I feel that the latter is the case. The object of this research – questioning what a “knowledge economy” might mean under current circumstances – first appeared to be an enterprise tied exclusively to the logic of capitalism. It is not. My initial mistake, which is perhaps characteristic to formulations of political economy, was to assume that the logic of the commodity – an essentially capitalist form – would prevail in any knowledge economy that grew out of systemic capital. In other words, I approached the problem using concepts and categories that are more than three centuries old to describe phenomena that are qualitatively – in many significant respects – less than forty years old. Yet seen from another angle, the core phenomena also seem to be very ancient. Although I

questioned the usefulness of concepts in classical political economy in the conclusion of Hypercapitalism, the doubts raised there about the expediency of our conceptual apparatus appear as little more than signposts and a conceptual reformulation remains undeveloped.

Having realised the confounding nature of a globally mediated socio-economic system, and the inadequacies of classical political economy's conceptual framework to deal with the most basic phenomena confronting any conception of a "knowledge economy", I found myself driven back upon two of the most ineffable concepts in the human constellation: time and space. The resultant conceptual formulations thus remain vague, serving only as an indicators of possible directions in which political economy might move so as to comprehend the nature of the emergent system. A more developed reformulation would develop and refine different qualitative aspects of concrete space, social space, and social time, and their significance for grasping the changes in human relations being wrought. While Armitage and I (in press) have emphasised the need for an understanding of the cultural impacts of increased speed in certain politico-economic processes, a similar effort is indicated for refined definitions of the nature of different kinds of social space. The break from the conceptual apparatus in classical and neoclassical political economy that such an undertaking requires is radical and massive. It is doubtful whether the language necessary for such an undertaking will exist for some time.

Not surprisingly, the thesis suffers from the problems of generality. But the subject of a global economy – any aspect of a global economy – will tend towards "grand narrative" theory at the expense of a focus on individual agency. However,

and this is important in the context of what I have attempted here, historical contextualisation of our global politico-economic system is both necessary and important, not merely because such a system does exist, but because it has become a central focus and rationale for policy decisions at all levels of government (as, for instance, when “globalisation” is claimed as a rationale for policy decisions). Thus the perceived logic and values of the system itself has become the basis for political decisions that directly influence the distribution of resources and power throughout humanity. It requires understanding, however vaguely and generally, to begin with. Moreover, definitive specificity as regards the system is neither feasible nor practical because of its transitional and unstable state at present. But such a transition might provide empirical material for the development of suitably flexible, “empty” categories that can readily adapt to the kinds of change we are seeing.

A further reason for the generality is the institutional nature of the corpus. The research is not about specific individuals; it is about institutional discourses: namely, the institutions that make policy and law, propositions and proposals, all of which are directed towards, and have significant (not determinative) effects upon, the whole of humanity. Further, to emphasise the role of any particular individuals in the current trajectory would have a doubly negative and illusory effect: it would attribute far too much power to any individual involved in the complex processes involved; conversely, it would diminish and compromise the significant role that institutionalised value systems play during any such period in history. Individuals who make policy have a much shorter life span than do the institutions of policy production.

The level of analysis is also very general. That was unavoidable for two reasons. First, the sheer volume of policy that has been written for the knowledge economy in the last six years is staggering, and it continues to increase exponentially. Only a small amount can be presented in any meaningful analysis. The second is that a “process of production”, ethnographic approach to the policy research (one that I initially intended to take for the study) was impossible because of time, access, and most importantly, generic considerations. The policy genre is exquisitely rigid, and its associated processes of production are very ritualistic, even where conflicts are present (Wodak, in press). Furthermore, the current hegemony of neoliberalism in policy circles proscribes value conflicts at all costs.

The neoliberal emphasis on consensus as regards the basic value-system upon which policy is based (unmitigated faith in discourses of “free” trade, efficiency, productivity, competition, “flexible” wages, and so on) is well documented by policy authors themselves, quite loudly, proudly, and roundly. Exploratory interviews at the OECD and EC produced two notable quotes on the matter: “Our job is to create a hegemony” (Riel Miller, July 19, 1999, interview, OECD: Paris); “We’re just technocrats. We’re here to produce a consensus and create a system. That’s all” (Anathasias Chrissafis, July 21, 1999, interview, EC: Brussels). The level of analysis is general because it is tied to the institutional and global scale of the study. Nevertheless, that does not mitigate against the well-aided problems of generality. That said, I assume that the theoretical and analytical perspectives presented here can inform microsociological analyses to some meaningful extent.

Directions for further research

I borrow an epigrammatic mode of expression here, mostly for the sake of brevity, and because the mode suits the nature of what needs to be said. The assertions here are testable, at least to some degree, and are meant largely as hypotheses rather than statements of fact.

Theses on future research into the social impacts of new mediation processes

I

New media are, by definition, new ways of relating. New forms of relatedness are necessarily overlaid upon older forms, giving rise to conflicts and crises of understanding. This is most obvious when the new medium is oriented towards control over the spatial element. Those using a new medium to propagate ideas and direct human action across vast geographical spaces will invariably encounter cultural resistance.

II

Cultural resistance is firstly axiological—that is, values-based. Human resistance is a function of a felt need for autonomy, or justice, or social equilibrium, or all three. Cultural disruptions from the effects of new media are manifestations of perceived threats to cultural autonomy in the determination of values; of a sense of justice in the formal and informal relationships between people; and of a clear historical tendency in social systems towards a social equilibrium between the separate but interdependent

social values that pertain to the definition and meaning of space and time in their many aspects.

III

A medium oriented towards regulating meaning over vast spaces will firstly seem as if it is oriented towards the time element. The current system is exemplary in this respect; it appears to emphasise the speed of exchanges, but is in fact oriented towards the regulation of vast social and geotechnical spaces. This displacement is a perceptual illusion. Larger social spaces are created at the expense of time between people and groups of people. Hence time appears to be an object of destruction for our new media rather than the means by which larger, less stable social spaces are created.

IV

In any case, the relationship between time and space will necessarily be confusing because the separation of the two is artificial. That conceptual artifice is further emphasised since the electronic exchange of meaning became possible. Since the advent of electronic mediation processes, the maximum speed at which content can move has been fairly stable. This might lead one to suspect that time has been steadily diminishing in importance since electrified mediations. That is not the case, but it points to the very definition of the word “media”, implicating genre, institutions, the movement of people, and the qualitative aspects of any form of communication as intrinsic “parts” of any medium. It also suggests a necessarily historical orientation for research into the political economy of human communications.

V

“Old” media are not destroyed by the new. The new are parasitic upon the old to some large degree, especially in their early stages of diffusion. That much is clear. For example, broadcast television is primarily a time-oriented medium. It is electronic ritual (Postman, 1985). The introduction of video changed that to some degree. But the sense of communion and communality in a time-shared mass spectacle remains very much an essential part of the television medium (e.g. a re-run of Princess Diana’s funeral is unlikely to generate a very large audience, whereas its live “performance” was seen by more people than any other televised spectacle in history). Seen from one perspective, institutions are also media. Some are more oriented towards the meaning of space, such as national governments; others are more oriented to the meaning of time, like the Catholic church. All new media impact upon social perceptions of time and space to some degree (Innis, 1951). A functional perspective on mediation (asking: “what are the social functions of this medium?”) is therefore implied, since structural typologies of media (asking: “what are the technical aspects of this medium?”) can tell us little about such social impacts.

VI

Genres are developed within institutions, and thus within the realms of vested interests and axiological biases. The sermon, for example, was developed within the church and evokes Divinity. The “white paper” has developed in large national bureaucracies and evokes the values of Expertise and

Inevitability (the latter in terms of future policy directions). Genres elicit and solicit expectations, including the expectation of evaluative biases. The close connection between institutions and genres therefore needs far more investigation, particularly from the perspective of production. Moreover, relational categories of media, genres, technologies, and institutions need to be developed. What is a medium from one perspective can be an institution from another; what is a genre from one perspective can be a medium from another. Technology is an equally slippery category that can and must be related to all the others: media, genres, and institutions are technologies in and of themselves, as well as configurations of technologies when seen from another perspective. A full account of genre will necessarily include all these aspects.

VII

Because “old” media are never entirely absorbed into the new, they do not disappear. However, their social functionality is affected. The invention of paper did not replace vellum, nor did the television replace radio or theatre, nor has the internet replaced paper. Vellum remained, perhaps because of its sacrificial mode of production, as the sacred medium, as the definitive copy of the sacred texts, for many centuries after paper became available. This remains the case with certain documents. It would be easy to draw an identity between paper and vellum as sequential forms of printed media. However, it would be a “structurally” true but “functionally” false identity. The cheaper cost of production for paper “democratised” knowledge to some degree in the

first instance. The prohibitive cost of vellum ensured a continued monopoly of sacred knowledge. The cheap availability of paper allowed the extant monopoly to extend its legal system across a much wider area. Widespread formal feudalism and its “natural order” were impossible without paper and the agents of canon law in the church. The enlightenment and reformation were impossible without movable type. Print media, taken as a typological whole, have no inherent and corresponding social effects.

VIII

Neither is “the internet” a singular medium, even though it firstly appears as an extension of the printed word. The various aspects of the internet can only be described as social phenomena in functional and generic terms. In this sense it is a stronghold of competing genres held in contradictory tension within discrete digital “realms”. This gives the impression of “convergence”, but that is not the case for the most part. For example, the high levels of security required for personal banking and other more substantial financial transactions ensure that these will remain functionally distinct realms from, say, chat rooms or listserv groups. Interpersonal e-mail is an intensely personal yet ambiguous genre; “broadcast” listservs are highly impersonal. There is a functional pressure that is beginning to exert pressures on genres within genres, serving to force a distinction between them in new ways rather than to diminish the expectational salience and evaluative biases of any given genre (let alone any specific medium!). Rather than convergence,

fragmentation, hybridity, and new generic (i.e. institutional) forms are indicated.

IX

The military is missing from most of what is said about new media (there are of course a few exceptions). No serious discussion of our new media can ignore the military aspect, which is what shaped our new media as a whole in the first instance. Politeness and civilised sensibilities perhaps prevent too explicit a discussion of such unpleasantness. Nevertheless, the role of military and the “management” of mass human destruction is a central focus for any further developments in media research. War and its associated atrocities are unlike random violent episodes, such as domestic violence. War is an utterly “rational” undertaking. Today, it is a thoroughly mediated process of “rationally” organised murder, which is, of course, inherently irrational by any measure. These most blatant contradictions will be apparent in the mediation processes of the military.

X

Critical theory ideally provides insight into the “logic of irrationality” in social organisation, such as that connected with “disorganised” violence, and also with organised, “rational” violence (war). But armed with knowledge of “irrational” logic, the colonising forces of humanity operate with full impunity to capitalise upon that very “irrationality”. This is the valorisation of ignorance, which is plain to see almost everywhere today. Hence ignorance has a social value and can thus also count as an intrinsic part – as the negative

moment – of any “knowledge economy”. Paradoxically, ignorance may even count as the “raw material” of knowledge.

XI

Critical theory is technique and technology. It must therefore technologise the object from which it allegedly remains inseparable: social change. The ostensible purpose of critique is to firstly understand, and secondly to transform, the social world. In accomplishing the first step, critique automatically accomplishes the second. Immediately upon doing so, and by being “progressive” and immersed in its object, critical theory tends towards its own commodification and provides a means of creating new and perverse fetishes (Stalinism and neoliberalism are exemplary here).

XII

Genre hybridity and ‘genre chaining’ (Fairclough, 2000) are primarily inter-institutional phenomena. At first these will appear as a matter of convergence, like a kind of symbolic corporate merger. But that is to hide the fact that genre hybridity is firstly an expression of institutional conflict over forms of symbolic regulation, which is what genres are (Fairclough, 2000). Today, governments are appropriating the genres of management. Businesses are producing policy. That is an expression of conflict over political power, over the right to tell people how to act and interact. The phenomena of genre hybridity and genre chaining are most overt in the processes that promote claims of legitimacy in the public sphere. Being inter-institutional they are primarily inter-axiological.

XIII

The relation between discourses, media, technologies, and genres can be expressed in terms of duration, as more or less stable patterns of production and reproduction of meaning over certain amounts of time (cf. Lemke, in press). Discourses, by which I mean recognisable ways of construing the world according to the interests and values of a particular social group, appear to be much more durable than any genre, medium, or technology. Once again, the process of the institutionalisation (enclosure) of meaning is foregrounded. Discourses, media, technologies, and genres can be seen as relational categories, which nonetheless stand in recognisably hypotactic relationships. For instance, an institution cannot be reduced to discourse, nor can genres, media, or technologies. The taxonomic starting point will depend upon the phenomenon being investigated. A full, relational account of these categories is necessary for a political economy of media in a predominantly digital media environment.

XIV

Marx was also driven back upon space and time, as were Innis (1951) and Smythe (1981). This suggests to me that the classical categories of political economy were already worn flat by the mid-nineteenth century. The effects of the telegraph and paper money need to be taken into account to explain and understand Marx, his thought, his influence, and the social milieu in which he worked. This cannot be done in isolation. It is perhaps best approached in the initial stages by way of a synchronic “snapshot” focusing on the use and

discussion of telegraphic “news” in such places as Vienna, London, Prague, New York, and Berlin. It should perhaps be noted that the telegraph and paper money emerged as combined forces at the end of the European imperialist era. There is probably a close connection between these phenomena. There is much to suggest that a “global information overload” – and consequently new conceptions of global human interrelatedness – associated with the telegraph gave rise to the thought of Marx, Mach, Freud, Hertz, Einstein, Wittgenstein, etc., all of whom were deeply concerned with the limits of expression (Janik and Toulmin, 1973). The implication is that the fundamental relatedness of people, and between them and their environments, was called into question at that time. This is historically a function of new mediation processes.

XV

Just as the church provided the universal spirit for the feudal age, the abstract value systems of business management and the price system provide the universal, or “transnational”, spirit for the current age. National forms of association are rooted in geography. Business and money recognise no such boundaries, and are therefore apparently transcendental. Managerialism expresses the religious impulse, which was always “transnational” in its functional orientation. The outcome of the struggles between nations and corporations for political and economic dominance over the rest of humanity will take place in the media. It will also be dissolved in such mediations. Both systems may be (I would suggest, they are likely to be) destroyed in the process, thus giving rise to new institutions. The successful engineering of

such institutions, though, is most probably an impossible task. It is more likely that they will emergent expressions of new systems of human relatedness.

XVI

Social science is always prone to charges of false determinism: media, linguistic, and economic determinism, for instance, are charges that might be laid against the approaches I have taken in this thesis. But that is to confuse the means and mode of social enquiry with its perceived purpose. Media theory presupposes media effects. Political economy assumes that the production and distribution of values has social effects. Linguistic enquiry assumes that the way people language (meant here as a verb) has effects. Causality is inherent to critical scholarship, and the search for causal relatedness mitigates against the dry stasis of pure description. Each causal modality of enquiry is nothing more than a kaleidoscopic lens that fractures the social world according to its functional aspects: social change seen from the perspective of mediation processes; social change seen from the perspective of production; social change seen as linguistically motivated. None of these views is inherently incorrect; all give very different perspectives on social phenomena.

Conclusion

This thesis set out to describe a relationship between new media, language, and social perceptions of value from the perspectives of political economy, critical sociolinguistics, and media history. It has succeeded, I believe, in a very modest way.

Of course, the project is far from complete or exhaustive. The main contributions it has made include a synthesis of Marx's critical perspective with the perspectives provided by contemporary critical sociolinguistics and media history; a method for analysing values in the genre of technology policy; and a critique of political economy in the context of an emergent global "knowledge economy".

The research emphasises that as more intimate aspects of human activity become technologised and exposed to the logic of commodification, correspondingly abstract forms of value have developed. Value production, in turn, has become more obviously "situated" in the valorised dialects of "sacred" and powerful institutions, such as legislatures, universities, and transnational corporations. It has moved from an objective category in political economy, pertaining to such substances as precious metals and land, to become located today predominantly in "expert" dialects and their institutional contexts of production. These dialects, and their associated discourses, are now propagated and circulated on a global scale at light speed. Legal, political, commercial, and technological developments are key in the development and inculcation of new, more abstract forms of labour and value.

The research begins with a sceptical view of the actual "newness" of the "knowledge economy", but by the end it appears that the contemporary period might indeed be a turning point in human history. If so, it most closely resembles the formalisation of the feudal system rather than what is now called the Enlightenment. The main elements that prompt me to draw such a comparison are: i) the presence of an international, axiologically consensual, elite group of institutions with the delegated (and undelegated) right to make laws about certain aspects of the whole of

humanity, including and especially “intellectual” property law; ii) the “privatisation” (or “redistribution”) of a global, exogenous, objective space (electrospace), and; iii) the redefinition, by a highly concentrated supranational network of legislatures, at international law, of what it means to be human in relation to other humans.

These features mark the current period as historically unique, and it is the elements that revolve around global media networks which most give the age its unique character—the current “globalised” system of governance is impossible without its mediation processes and their associated technologies. The conceptual apparatus of classical political economy is insufficient for grasping the meaning of this inherently transitional period in human relations. In all likelihood, the constellation of concepts for analysing political economy have been lacking since at least the mid-nineteenth century. Any future reformulation of political economy would, I suggest, need to start with mediation processes rather than end with them as some superfluous addendum.

The same holds for the analysis of evaluations in language. But any such analysis is doubly confounded by the fact that identifying evaluations in language transforms the often implicit evaluative patterns of a discourse community into analysable fact-like “objects”. Which is to say: the analysis of values in language can never be an ethical or moral project; it can only identify that which is typically construed as (in the last analysis) Desirable within a given discourse community. But that is merely a caveat, not a reason to forego the analysis of evaluations. To the contrary, that which is perceived to be most Desirable, Appropriate, and Important in any given context will unquestionably motivate human action. If only to draw

attention to the possibility that functional and analysable relationships exist between language, new media, and perceptions of value, the contributions made in this thesis will hopefully be of some use to future research in these areas.

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Appendix 1: Closely related publications

Published works

Graham, P. & McKenna, B. J. (2000). A theoretical and analytical synthesis of autopoiesis and sociolinguistics for the study of organisational communication.

Social Semiotics, 10 (1): 41-59.

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Journal of Technical Writing and Communication, 30, (3): 219-247.

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Armitage, J. & _____. (in press). Dromoeconomics: Towards a political economy of speed. parallax. [for the 2001 special issue on “Bataille’s Economies of Excess”].

_____. & G. Hearn. (in press). The coming of post-reflexive society.

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Fairclough, N. & _____. (forthcoming). Marx and discourse analysis: Genesis of a critical method. Language in Society. [MS submitted].

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Appendix 2: Technocratic discourse: A primer

McKenna, B. & Graham, P. (2000). Technocratic discourse: A primer. Journal of Technical Writing and Communication, 30, (3): 223-251.