Steve Fuller

The Sociology of Intellectual Life

The Sociology of Intellectual Life

Theory, Culture & Society

Theory, Culture & Society caters for the resurgence of interest in culture within contemporary social science and the humanities. Building on the heritage of classical social theory, the book series examines ways in which this tradition has been reshaped by a new generation of theorists. It also publishes theoretically informed analyses of everyday life, popular culture, and new intellectual movements.

THE TCS CENTRE
The *Theory, Culture & Society* book series, the journals *Theory, Culture & Society* and *Body & Society*, and related conference, seminar and postgraduate programmes operate from the TCS Centre at Nottingham Trent University. For further details of the TCS Centre's activities please contact:

The TCS Centre
School of Arts and Humanities
Nottingham Trent University
Clifton Lane, Nottingham, NG11 8NS, UK
e-mail: tcs@ntu.ac.uk
web: http://sagepub.net/tcs/

Recent volumes include:

Informalization: Manners and Emotions Since 1890
Cas Wouters

The Culture of Speed: The Coming of Immediacy
Jom Tomlinson

The Dressed Society: Clothing, the Body and Some Meanings of the World
Peter Corrigan

Advertising in Modern and Postmodern Times
Pamela Odih

The Saturated Society: Regulating Lifestyles in Consumer Capitalism
Pekka Sulkunen

Globalization and Football: A Critical Sociology
Richard Giulianotti & Roland Roberton

The Sociology of Intellectual Life

The Career of the Mind in and around the Academy

Steve Fuller

SAGE

Los Angeles | London | New Delhi
Singapore | Washington DC

First published 2009

Published in association with *Theory, Culture & Society,*
Nottingham Trent University

SAGE Publications Ltd
1 Oliver's Yard
55 City Road
London EC1Y 1SP

SAGE Publications Inc.
2455 Teller Road
Thousand Oaks, California 91320

SAGE Publications India Pvt Ltd
B 1/I 1 Mohan Cooperative Industrial Area
Mathura Road, Post Bag 7
New Delhi 110 044

SAGE Publications Asia-Pacific Pte Ltd
33 Pekin Street #02–01
Far East Square
Singapore 048763

Library of Congress Control Number: 2008943694

British Library Cataloguing in Publication data

A catalogue record for this book is available from
the British Library

ISBN 978-1-4129-2838-0
ISBN 978-1-4129-2839-7(pbk)

Typeset by C&M Digitals (P) Ltd, Chennai, India
Printed by MPG Books Group, Bodmin, Cornwall
Printed on paper from sustainable resources

Contents

Introduction 1

1 The Place of Intellectual Life: The University 3
The University as an Institutional Solution to the Problem of Knowledge 3
The Alienability of Knowledge in Our So-called Knowledge Society 5
The Knowledge Society as Capitalism of the Third Order 12
Will the University Survive the Era of Knowledge Management? 15
Postmodernism as an Anti-university Movement 19
Regaining the University's Critical Edge by Historicizing the Curriculum 27
Affirmative Action as a Strategy for Redressing the Balance Between Research and Teaching 31
Academics Rediscover Their Soul: The Rebirth of 'Academic Freedom' 36

2 The Stuff of Intellectual Life: Philosophy 43
Epistemology as 'Always Already' Social Epistemology 43
From Social Epistemology to the Sociology of Philosophy: The Codification of Professional Prejudices? 51
Interlude: Seeds of an Alternative Sociology of Philosophy 59
Prolegomena to a Critical Sociology of Twentieth-century Anglophone Philosophy 62
Analytic Philosophy's Ambivalence Toward the Empirical Sciences 68
Professionalism as Differentiating American and British Philosophy 73
Conclusion: Anglophone Philosophy as a Victim of Its Own Success 78

3 The People of Intellectual Life: Intellectuals 83
Can Intellectuals Survive if the Academy Is a No-fool Zone? 83
How Intellectuals Became an Endangered Species in Our Times: The Trail of Psychologism 91

A Genealogy of Anti-intellectualism: From Invisible Hand to Social Contagion 99
Re-defining the Intellectual as an Agent of Distributive Justice 106
The Critique of Intellectuals in a Time of Pragmatist Captivity 113
Pierre Bourdieu: The Academic Sociologist as Public Intellectual 135

4 The Improvisational Nature of Intellectual Life 143
Academics Caught Between Plagiarism and Bullshit 143
Bullshit: A Disease Whose Cure Is Always Worse 147
The Scientific Method as a Search for the (Piled) Higher (and Deeper) Bullshit 155
Conclusion: How to Improvize on the World-historic Stage 158

Summary of the Argument 164

References 167

Index 175

Introduction

This may be the most self-exemplifying of my books to date: the strands of thought and writing drawn together in these pages stem from my participation in the very roles, capacities and arenas that they examine. Their overall effect has led to me to conclude that an edifying life may be led by becoming the sort of person one writes about with favour. It amounts to a kind of method acting in which the author functions as both author and performer of the script. Thus, not only do I need to thank professional academics – Stefan Gattei, Ivor Goodson, Alan Haworth, Ian Jarvie, Ouyang Kang, Douglas Kellner, Gregor McClennan, Hugo Mendes, Tom Osborne, Raphael Sassower and Nico Stehr – for prompting my thinking in many useful directions, but also such decidedly extra-academic personalities and media represented by Julian Baggini (*The Philosopher's Magazine*), George Reisch (Open Court Press's Popular Culture and Philosophy series), Project Syndicate (a worldwide press organization associated with George Soros's Open Society Institute) and *The Times Higher Education* (London).

The Sociology of Intellectual Life is divided into four chapters guided by my own version of social epistemology. 'Social epistemology' is an interdisciplinary field concerned with the empirical and normative bases for producing and distributing knowledge. My own version has focused largely on the organized forms of knowledge associated with academic disciplines. The social epistemological thesis pursued in this book can be stated in a way that makes sense of the arrangement of the four chapters. Historically speaking, a specific institution has best promoted a form of intellectual freedom that has managed to serve as a vehicle for the progressive transformation of society. That institution is the university, especially in its nineteenth-century reincarnation as the seat of 'academic freedom', as theorized by 'philosophy', understood as both the foundation and the ultimate unifier of all specialized forms of knowledge. This idea was largely the invention of Wilhelm von Humboldt, who saw himself as applying the lessons of Immanuel Kant's critical philosophy, which formalized many aspects of the previous century's Enlightenment movement. Humboldt envisaged that as increasing numbers of people received a university education, they would become intellectually empowered, so as to take decisions of public import for themselves in democratic forums. Thus, this book has three main chapters, each devoted to a part of Humboldt's original vision: one to the university, one to philosophy, one to the intellectual.

However, Humboldt's vision did not go quite to plan in many respects. Over the past 200 years academic life has become a victim of its own success. It has trained people so well and its research has become so socially relevant that it has constantly had to resist economic and political curbs on its spirit of free inquiry. This resistance has often assumed the sort of studied anti-disciplinary stance that characterizes improvisational forms of expression – that unholy alliance of plagiarism and bullshit by which clever academics routinely overreach for the truth. Hopefully once readers have considered the stormy 'career of the mind in and out of the academy' in the main body of the text, Chapter 4 will provide comic relief, if not an outright catharsis.

1

The Place of Intellectual Life
The University

The University as an Institutional Solution to the Problem of Knowledge

At least since Descartes, the problem of knowledge has been posed *inside out*, that is as a problem for each individual to solve by approximating an external standard to which the individual may or may not have conscious access. There is no sense that epistemic access may be a scarce good, with one individual's access to knowledge perhaps impeding, competing with, or making demands on the epistemic access of some other individual. Rather, knowledge is regarded as what welfare economists call a *public good*, namely, one whose value does not diminish as access increases (Samuelson 1969). In contrast, my own version of social epistemology poses the problem of knowledge *outside in*, that is, in terms of the individual having to choose between two or more alternative courses of action, in full awareness that resources are limited and that other individuals will be simultaneously making similar decisions, the consequences of which will realize certain possibilities at the expense of others. I have called this the problem of *epistemic justice* (Fuller 2007a: 24–9). It implies an image of the knower as a 'bounded rationalist' engaged in 'knowledge management'. This line of thought has run throughout my work in social epistemology, even in my doctoral dissertation (Fuller 1985) and certainly from Fuller (1988) onward. It presupposes that knowledge is a *positional good* (Hirsch 1977). This point has significant implications both for the interpretation of the time-honoured equation 'knowledge is power' and the design of knowledge-bearing institutions, especially universities.

In the slogan 'knowledge is power' (or '*savoir est pouvoir*' or '*Wissens ist Kraft*'), power involves *both* the expansion and contraction of possibilities for action. Knowledge is supposed to expand the knower's possibilities for action by contracting the possible actions of others. These 'others' may range from fellow knowers to non-knowing natural and artificial entities. This broad understanding of the slogan encompasses the interests of all who have embraced it, including Plato, Bacon, Comte and Foucault. But differences arise over the normative spin given to the slogan: should the stress be placed on the *opening* or the *closing* of possibilities for action? If the former, then the range of knowers is likely to be restricted; if the latter,

then the range is likely to be extended. After all, my knowledge provides an advantage over you only if you do not already possess it; hence, knowledge is a 'positional good'. This concept also helps to explain the rather schizoid attitudes toward the production and distribution of knowledge that are epitomized in the constitution of universities. In short, we do research to expand our own capacity to act, but we teach in order to free our students from the actions that have been and could be taken by others.

By virtue of their dual role as producers and distributors of knowledge, universities are engaged in an endless cycle of creating and destroying *social capital*, that is, the comparative advantage that a group or network enjoys by virtue of its collective capacity to act on a form of knowledge (Stehr 1994). Thus, as researchers, academics create social capital because intellectual innovation necessarily begins life as an elite product available only to those on 'the cutting edge'. However, as teachers, academics destroy social capital by making the innovation publicly available, thereby diminishing whatever advantage was originally afforded to those on the cutting edge. Recalling Joseph Schumpeter's (1950) definition of the entrepreneur as the 'creative destroyer' of capitalist markets, the university may be similarly regarded as a 'meta-entrepreneurial' institution that functions as the crucible for larger societal change.

However, if the university is taken out of this systemic context, its effects can appear perverse. A clear example is the tendency for credentials to depreciate as more people seek them. The fact that a Bachelor's, or even a Master's, degree does not offer the same labour-market advantage as in the past is sometimes blamed on low-quality academic instruction or the irrelevance of academic to vocational training. More likely, though, the loss of advantage is simply a straightforward result of more job-seekers now possessing the relevant degrees, and hence cannot be so easily discriminated just on that basis. In this case, knowledge has lost its former power. A natural academic response is to call for more research, so as either to discriminate more effectively among current degree-holders or to establish yet still higher degrees in which the new knowledge is taught in the Sisyphean struggle for credentials (Collins 1979). Moreover, this strategy is deployed even within academia, as the PhD is now virtually required to hold any regular teaching post, even though doctoral candidates are still selected in terms of their research potential and trained with a research career in view.

Although research has always been an elite activity, the closeness – ideally the identity – of researchers and teachers in universities tended to overturn whatever initial advantage was enjoyed by the creators and funders of new knowledge. The ideal governing this cycle of creative destruction received its clearest philosophical justification with Wilhelm von Humboldt's reinvention of the university in early nineteenth-century Germany. It aspires to a form of knowledge that is 'universal' in both its potential applications and its potential appliers. Over the past half century, this ideal was recast as serving the welfare state's dual economic

function of subsidizing capitalist production (research) and redistributing its surplus (teaching). Not surprisingly, while universities magnified in size and significance during this period, the welfare state's recent devolution has thrown them into financial and wider institutional uncertainty (Krause 1996). The recent drive to have universities mimic business firms as generators of intellectual property amounts to no less than a campaign of institutional dismemberment, in which the university's research function is severed from the teaching function. Thus, we have seen the emergence of quasi-private 'science parks' whose profitable ventures threaten to arrest the normal flow of knowledge and to provide a legal framework for the creation of a knowledge-based class structure that is nowadays sometimes called *information feudalism*. The full implications of this phenomenon are treated in the next section. In the section after that, I explain it as an instance of *capitalism of the third order*, which is paradoxically an attempt to reproduce within capitalism the kind of social structure that capitalism is designed to eliminate.

The Alienability of Knowledge in Our So-called Knowledge Society

Consider the strangeness of 'knowledge society' as a label for what is supposedly distinctive about our times. To anyone innocent of social theory, it should be perfectly obvious that knowledge has always played an important role in the organization and advancement of society. What is new, however, is what the expression 'knowledge society' is meant to *conceal*. An easy way to see this point is to examine the other words that inhabit the same semantic universe as 'knowledge' in knowledge-society discourse: *expertise*, *credentials*, *intellectual property* are the sorts of things that denizens of the knowledge society either possess or can acquire. These three words have been listed in order of increasing *alienability*. Let us start with the least alienable: expertise.

The knowledge embodied in my expertise inheres to me in ways that make it not clearly distinguishable from other aspects of my personality. Indeed, the relatively inalienable state of my expertise renders it less tractable to the classical philosophical treatments of knowledge than to what I have called *phlogistemology*, named for that protean eighteenth-century chemical substance *phlogiston*, whose properties were defined exclusively in terms of whatever was left after all the other known factors have been removed or accounted for in a combustion experiment. The defining moment in the Chemical Revolution was when Lavoisier realized that what chemists called 'phlogiston' was sometimes oxygen and sometimes nitrogen, depending on the context of combustion. By analogy, 'expertise' probably refers, not to some unique quality of mind, but to a variety of behavioural dispositions that share little more than our current state of mystification about them.

More specifically, expertise is phlogistemic in the following senses, adapted from Fuller (1996):

(1) Expertise is not reducible to a formal procedure or set of behavioural indicators, yet those who possess expertise can make appropriate socio-epistemic judgements in real life settings.

(2) The same act may be counted as manifesting or not manifesting expertise, depending on the social status of the agent (e.g., a novice's error may count as an innovation if committed by an expert practitioner).

(3) There is little direct evidence for the presence of expertise. Rather, it is 'presupposed' in the lack of disruption in one's day-to-day activities.

(4) Conversely, expertise operates as a default explanation for one's basic competence when one's thoughts or actions are otherwise under dispute (e.g., the fact that you disagree with me on this point does not lead you to conclude that I am generally off the mark).

(5) The denial of expertise to someone is taken to be at least as much a moral judgement as a social or epistemic one, thereby inviting the charge that the denier is not merely critical, but uncharitable to the point of misunderstanding the person under scrutiny.

Expertise can be placed on a continuum of alienability that leads naturally to credentials and intellectual property via the common knowledge society locution that expertise can be 'acquired'. This peculiar feature is captured in point (2) above. It means that if I demonstrate that I have undergone a certain regime, then my actions are given much greater significance than they would be given otherwise. In order to appreciate the phlogistemic character of this process, consider that the actions themselves, as pieces of behaviour, may not have changed much before and after the application of the regime. Rather, what has changed is the context, and hence the range of responses, that are likely to follow the performance of those actions. This point was elevated to a metaphysical conundrum at the dawn of the knowledge society in the form of the 'Turing Test', which hypothesized that it may be impossible to tell the difference between human and machine utterance, short of being told which was which. Knowing that a given sentence was uttered by a *bona fide* human rather than an 'artificially' intelligent machine licenses one to confer virtually limitless semantic depth on the former utterance, while reducing the latter utterance to a superficial, programmed response (Fuller 2002a: chap. 3).

However, we need not breach the human–nonhuman divide to make the point. Students typically (and perhaps justifiably!) fail to understand why they cannot get away with saying the more radical things contained in the texts they are assigned to read. The pat answer is to say that the assigned authors can back up their radical utterances, whereas students would be unable to justify their own versions of the same utterances. Of course, we teachers rarely, if ever, put this hypothesis to a direct test. Rather, we treat the hypothesis as a presumption: experts must fail by some canonically sanctioned test before we question their expertise, yet these tests tend to be administered indirectly and their results are always contestable (e.g. fading

citations count as measures of invalidity or even irrelevance). In contrast, students must pass tests that are clearly defined, frequently administered, and still largely uncontested, before they are declared expert. We typically let the fact that the expert authors assigned in a course graduated from good universities, hold good jobs, and publish in good places, and are regarded highly by other such experts pass as grounds for supposing that they possess a depth in knowledge that is lacking in the student. Moreover, a consequence of possessing such credentials is that the expert is given the licence to make statements about things that have little to do with the content of one's qualifying examinations or even one's last book.

Once knowledge has begun to be alienated from the knower, such that one needs to acquire something not already possessed, the *content* of what one needs to acquire is no longer salient in explaining how credentials confer expertise on people. This point is clear to those who seek university degrees mainly to get credit for knowledge they have already come to possess by virtue of their job or other life experience. That alone makes 'knowledge society' an extremely misleading expression, since knowledge is usually defined in terms of its content, i.e. some more-or-less valid and reliable representation of reality, without which one could not function. But it would seem that the *containers* of knowledge are really what matter in the knowledge society, e.g. whether what is said comes from the mouth of a Harvard PhD or a high-school dropout. The validity and reliability of one's knowledge may not substantially rise between the start and finish of an academic degree programme, but the likelihood that one's knowledge will be recognized as possessing those qualities does. (However, the speech of a Harvard dropout may carry authority, too, if there is sufficient capital backing and product delivery: witness Bill Gates.)

Thus, the expression 'knowledge society' may be informative, after all – namely, of the means by which social structure is reproduced. Alma Mater has replaced birthright as the biggest determiner of one's place in society, which means that academics have replaced the family and the clergy as the premier custodians of social status. This transition reflects not only the fact that a formal education is required for doing virtually anything of social significance, but perhaps more importantly that it has crowded out most alternative paths of social advancement (Ringer 1979). While knowledge society rhetoric extols the virtues of 'lifelong learning' and apparently extends a hand to those returning to school after having made their way in the 'real world', in reality these adult learners are compelled to return in order to translate their life experience into the hard currency of credentials.

It may be useful at this point to take an aerial view of the alienation of knowledge. In trendier terms, what are the 'spatial flows' that define the knowledge society (Urry 2000)? The natural home of expertise is the workplace, where the requisite tacit knowledge is incubated and transmitted. However, the next stage, that of credentials, forces people out of their disparate workplaces to a central location, the university classroom, where their expertise is converted into something of a generally recognizable

social value by means of formal discipline. The final stage of epistemic alienation, intellectual property, involves a further move out of the classroom into the ultimate site of commodification, 'research', which immediately calls to mind laboratories but is hardly confined to those bastions of natural science authority. The social sciences have their own version, as epitomized in the work of the Austro-American sociologist Paul Lazarsfeld. Lazarsfeld's public opinion surveys enabled the extraction of tacit social knowledge to occur at the sites where they are naturally produced (typically, the household), the results of which are then used (or sold) to inform the manufacture of products and policies aimed at generating consumer demand or voter interest, depending on whether the client is in the private or public sector. In the former case, it is called 'advertising', in the latter 'campaigning'. In one clear sense, the social-scientific extraction of raw knowledge material is more efficient than its natural scientific counterpart, namely, that the only instruction required prior to the extraction of social knowledge is telling subjects the constraints within which they must reply to the survey questions.

What distinguishes the knowledge society from the conversion of labour to technology that has characterized the bulk of human history is the presence of academic 'middlemen' who ease the conversion from human to artifact by subjecting the former to explicit procedures. When the academics are civil servants, they provide a moment of mercantilism in what would otherwise be a straightforward account of capitalist appropriation. However, the analogy with mercantilism is not perfect. Universities have never enjoyed – and certainly do not now – a monopoly on the disposition of knowledge products. Moreover, the semi-privatized character of higher education (long-standing in the USA and increasing in Europe) and the proliferation of corporate-sponsored science parks adjoining university campuses serve ultimately to render academia the tail of innovation that is mistakenly thought to be wagging the capitalist dog. In fact, intellectual mercantilism's last stand is the teaching function of the university, which remains (at least for the time being) under the control of the state, even as the university's research function is increasingly devolved to the private sector.

The result partly resembles what Marx originally called 'Oriental Despotism', whose 'Asiatic' mode of production consists of an imperial power taxing its subject-nations, while leaving their local modes of production and social relations largely intact. This corresponds to the role of academics who, empowered by the state, can command the time and money of workers in need of credentials for career advancement, usually without transforming the workplace or sometimes even the workers' substantive knowledge. Under Oriental Despotism, the collected taxes were originally fed back into large-scale public works projects that solidified the empire's power. Here too there is an analogy in the history of the knowledge society, namely, the efforts taken by what Alvin Gouldner (1970) tellingly called the 'welfare-warfare state' at the height of the Cold War era to consolidate the citizenry with comprehensive healthcare coverage

and educational access, at the same time as it increased surveillance and military capabilities through the construction of vast electronic information and communication networks. These nation-building projects called forth the first burst of the technically trained personnel of the post-World War II generation, especially in the wake of Sputnik in 1957.

However, with the decline of superpower hostilities in the 1990s revealing large state budgetary burdens, both large corporations and special interest groups have increasingly appropriated these projects for their own uses. The resulting political devolution and normative fragmentation are associated with the ideological emergence of 'postmodernism' and 'neo-liberal' forms of governance. These developments are normally cast as the continued penetration of capitalism into spheres of society previously protected by the welfare state. Without denying the considerable truth of this claim, once we see the original construction of the knowledge society's infrastructure as a latter-day version of Oriental Despotism, the privatization of the great information and communication networks starts to look more like the breakdown of the Roman Empire into the feudal fiefdoms and free cities that characterized the Middle Ages in Europe.

Not surprisingly, then, on the margins of the knowledge society's boosters has flourished a clutch of foreboding theorists of the oncoming 'information feudalism' (Drahos 1995). What might count as evidence for this atavistic turn of events? The following three points will have to suffice for an answer here:

1 Human labour becomes increasingly transitory as a source of value, but only in part because more efficient mechanical means are developed to replace it. The other part of the story is that these new machines – e.g. expert systems – are increasingly protected by intellectual property law, which enables the holder of the relevant property rights (i.e. patent, copyright or trademark) to extract rents from those who would try to lower their own overall production costs. In the name of encouraging innovation, the legal system effectively converts the capitalist profit-seeking motive to a feudal rent-seeking one. This conversion had not occurred at the onset of the Industrial Revolution because, before the US Constitution explicitly prescribed the state's interest in systematically licensing innovation, the granting of intellectual property rights had been subject to the ruler's discretion, typically as a personal favour. There had been no expectation that eventually all of intellectual space would be divided into discrete domains as physical space had been under feudalism. For their part, the American Founding Fathers were mainly concerned with ensuring individual free expression (which required protection not only from censure but also from imitation) and collective wealth production (assuming that the nation that had registered a patent stood to gain most from the invention's economic benefits). Given capital's increasingly transnational mobility over the last two centuries, intellectual property legislation would seem to meet the former aim at the expense of the latter.

2 The more that credentials are required for employment, the less the knowledge content associated with obtaining those credentials matters to prospective employment. This is largely because credentials are no longer sufficient but merely necessary to securing a position. Thus, from being a principle of empowerment, credentials are now marks of exclusion. Under the circumstances, they have succeeded race and class as the premier mechanism for discriminating and stratifying a population. And like race and class, credentials turn out not to be an especially good job performance indicator but merely a lightning rod for resentment. As this feudal residue of credentials is revealed, private sector non-academic training centres emerge to undermine the virtual monopoly enjoyed by universities. But more importantly, and ironically, the surfeit of academically qualified people gives a competitive edge to those who possess traditionally *non-academic*, specifically entrepreneurial, forms of knowledge. This is no more evident than in the natural sciences. The 'expert' scientist enters and exits lines of research just ahead of the pack, invests in skills and equipment that are usable in the widest variety of projects, and constructs her knowledge products so as to extract a certain 'tribute' (be it an attribution in a citiation list or a financial tribute in patent royalties) from their users. 'Knowledge engineers' design computers that simulate a field's expertise to eliminate still more academic competitors. The raw material for these simulations is of course the experts themselves, who gladly sell their knowledge in the face of eventual obsolescence, once it has yielded most of its anticipated return. Here we see, perhaps most clearly, the wedge that the knowledge society drives between the two main functions of the university – teaching and research – for instead of feeding back into teaching, research either circumvents the educational process through privatization or renders it obsolete through automation (Fuller 2002a: chap. 3).
3 The surfeit of available information often described as an 'explosion' turns out to have the same effect as scarcity had in pre-capitalist times, namely, to slow the overall pace of intellectual progress. Before Johannes Gutenberg perfected and commercialized moveable type printing in the mid-fifteenth century, books could not be produced in large quantities; hence authors could not reasonably suppose that their readers had access to a library. This meant that the bulk of most texts was given over to acquainting readers with all the knowledge they would need to have in order to understand the author's distinctive contribution. Unfortunately, the propaedeutic task was usually so laborious that more energy was spent in summarizing and criticizing the past than in pushing forward the frontiers of knowledge (Eisenstein 1979). Little wonder, then, that the Copernican Revolution began only after Gutenberg, even though various heliocentric astronomies had already challenged the geocentric orthodoxy for over a thousand years. However, now we suffer from the opposite problem, as the speed at which texts are put on the market makes it impossible for anyone to catch up with all of them first hand. Consequently, instead

> of running ahead of the pack, academics run interference within the pack, each trying to show his or her own indispensability to understanding what the others are doing. In this respect, the recently growing awareness of complexity in reality is nothing more than a projection of academics who need to define themselves in terms of their colleagues in order to occupy any recognizable intellectual position whatsoever (Fuller 2000a: chap. 5). Such a regime, perhaps most closely associated with Pierre Bourdieu's sociology of knowledge, ensures that innovation will occur only within the narrow confines of professionally sanctioned discourse, thereby minimizing the prospects for ideas being the source of major societal change (Fuller 1997: chap. 7).

Readers who doubt this gloomy prognosis should consider the recent computerization of the medieval practice of anonymous writing, or 'hypertext'. As was true generally of texts in the Middle Ages, the authority of the hypertext rests on the circulation patterns revealed by the superimposition of layers of commentary. Because the ultimate source of such a text is often unknown and its exegetical accretions are often at odds with each other, it is nearly impossible to subject the text to any focused criticism (i.e. to oppose a thesis that it asserts). Instead, one is forced to 'write against' or 'resist' the hypertext, which in turn unleashes another hypertext into its own separate electronic orbit.

The feudal precedent for the above developments is obscured by the dual sense of history that informs the continual condensing and surveying of texts that together artificially maintain the knowledge society's sense of its own originality. This duality consists of a *telescoping* and a *stereoscoping* phase.

On the one hand, the history of the relatively distant past is *telescoped* so that knowledge-based social movements from the past that have been at least as complex and wide-ranging as the knowledge society are collapsed into a uniformly distributed ideal type – say, 'Protestantism', 'Enlightenment', 'Socialism' (Wuthnow 1989) – that is chosen more for its distinctiveness than its representativeness. Although a reasonable methodological principle when it was first introduced to enable sociology to formulate general hypotheses on the basis of historical data, it has since become a strategy for legitimating historical amnesia in an archivally saturated world. Therefore, any awareness of anticipations of contemporary developments is bound to be lost.

On the other hand, for the history of the relatively recent past, events are *stereoscoped*: that is, a wedge is driven between two closely connected developments, making them appear to be on opposite sides of a fabricated divide. Perhaps the clearest case in point is the alleged distinction between 'Mode 1' and 'Mode 2' knowledge production that is now so popular among European science's policy gurus (Gibbons et al. 1994). Applied mainly to the laboratory-based natural sciences's, Mode 1 stands for discipline-based research and Mode 2 for a hybridized sense of research that blends together the interests of academia, the state, and industry. Seen stereoscopically, the origins of Mode 1 are pushed back to the founding of the Royal Society in

the seventeenth century (if not to the ancient Greek philosophers), while the roots of Mode 2 are brought up to the period starting with the Manhattan Project that built the first atomic bomb (if not the post-Cold War devolution of the welfare-warfare state). However, historically speaking, it is only in the last quarter of the nineteenth century that *both* Modes come into being, almost simultaneously, in Germany. Laboratories had been traditionally excluded from universities (and confined to polytechnics) for reasons that amounted to an intellectualized class snobbery (i.e. lab work required a manual dexterity that was alien to the hands-free world of liberally educated elites). Yet, once the laboratory sciences were ensconced on campuses, they quickly made alliances with state and industry clients, most notably in the Kaiser Wilhelm Gesellschaften.

Indeed, what had made the laboratory sciences so alien to the classical constitution of the university *also* enabled them, once inside the university, to adapt well to externally oriented research projects. Here it is worth recalling a salient feature of Kuhn's (1970) account of science, which is based almost entirely on the laboratory sciences (with astronomy as the important exception): the 'normal science' conducted by a paradigm's practitioners is autonomous not only from practical applications but also from the research trajectories of other academic disciplines. In that respect, a paradigm is a *doubly alienated* form of knowledge – a self-contained module of inquiry that does not require the institutional setting of the university for its existence or even its legitimation. Little wonder – though also little noticed – that Kuhn says next to nothing about academia as a site for the conduct of normal science. Only doctoral training programmes are worthy of some discussion. In contrast, the university's traditional nerve centre has been its undergraduate curriculum committee, as the site where the relevance of each discipline's major discoveries to a liberal education is regularly negotiated, resulting in 'the creative destruction of social capital' discussed in the first section of this chapter. The humanities, which until about 1900 had dominated the universities, were never as narrowly insular as Mode 1 implies but neither as readily adaptive to external pressures as Mode 2 implies (Fuller and Collier 2004: chap. 2).

The Knowledge Society as Capitalism of the Third Order

To understand the integral role of universities to the latest phase of capitalism, consider two general ways of thinking about the nature of capitalism. The more familiar one is a first-order account about how producers are engaged in a perpetual – and largely self-defeating (according to Marxists) – competition to make the most out of the least, and thereby generate the greatest return on investment, a.k.a. 'profits'. Whatever its other merits, this account takes for granted that the relative standing of competing producers is self-evident, so that no additional work is required to identify the 'market leaders'. But in fact, such work *is* needed. This second-order account

of how producers publicly demonstrate their productivity is the context in which 'capitalism' was coined by Max Weber's great German rival Werner Sombart in 1902 (Grundmann and Stehr 2001). What contemporaries, notably Thorstein Veblen, derided as the 'conspicuous consumption' of successful capitalists, Sombart treated as the principal means by which capitalists displayed their social standing in a world where social structure was no longer reproduced as a system of fixed heritable differences. Thus, capitalists had to spend more in order to appear more successful.

However, it would be misleading to think of these expenditures as allowing capitalists to luxuriate in their success. On the contrary, it spurred them to be more productive in the ordinary, first-order sense, since their competitors were quickly acquiring comparable, if not better, consumer goods. Indeed, before long, the competition was so intense that it became necessary to spend on acquiring the connoisseurship needed to purchase goods that will be seen – by those who know how to see – as ahead of the competition's purchases. By the time we reach this 'third-order' capitalism, we are at the frontier of the knowledge society. That the 'knowledge society' might be a more polite way of referring to third-order capitalism should not be *prima facie* surprising. After all, the founding father of scientometrics, Derek de Solla Price, trawled through the welter of national economic statistics, only to find that the indicator that showed the strongest positive correlation with research productivity was not a measure of industrial productivity, but of electricity consumption per capita (Price 1978; see also Fuller 2002a: chap. 1).

A certain vision of economic history is implied in the above account of capitalism. In pre-capitalist times, consumption was done at the expense of production, which explained (for example) the fleeting success of Spain and Portugal as imperial powers. They failed to reinvest the wealth they gained from overseas; they simply squandered it. In contrast, capitalist consumption is second-order production supported on the back of increased first-order production. From a sociological standpoint, the most striking feature of this 'before-and-after' story is its suggestion that capitalism is innovative in altering the sense of responsibility one has for maintaining a common social order. In pre-capitalist times, this responsibility was, so to speak, equally distributed across its members, regardless of status. Lords and serfs equally bore the burden of producing the distinction that enabled lords to dominate serfs. Expressions like 'mutual recognition', 'respect', and 'honour' capture this symmetrical sense of responsibility. However, in capitalist times, it would seem that, like insurance in today's devolved welfare states, individuals bear this burden in proportion to their desire to be protected from status erosion. Thus, those who would be recognized as superior need to devote increasing effort to a demonstration of their superiority.

This last point becomes especially poignant in advanced capitalist societies, where at least in principle the vast majority of people can lead materially adequate lives while spending less time and effort on first-order