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Sociology's Past and Futures: The Impact of External Structure, Policy and Financing

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The immediate context of this chapter is the radical reforms to higher education in England that were initiated after the Browne Review (2010). It recommended that undergraduate degree programmes in social sciences, arts and humanities should be wholly financed by student fees supported by a publicly underwritten system of income-contingent loans. The subsequent government White Paper (2011) modified the proposals to some degree (primarily by placing a cap on fees and student numbers because of the potentially high cost of the loan system), but reinforced the commitment to higher education understood simply as an investment in human capital. At the same time, it proposed to allow for-profit providers to compete for students with access to loans, and for universities to change their legal status to facilitate their own for-profit activities and joint ventures with for-profit companies (McGettigan, 2013).¹

I shall suggest that this marks a culmination and deepening of what had been a piecemeal encroachment of neo-liberal policies that began with the Jarratt Report (1985). This introduced the idea that business practices should be adopted by universities and their different divisions and departments treated as 'cost-centres'. At more or less the same time, in 1988, the government replaced the Universities Grants Committee (which had existed since 1919 as a buffer between the state and independent universities for the purposes of requesting and distributing public funds) with a new University Funding Council that adopted a more directive stance toward universities and as a conduit for government policy. It, in turn, was divided into separate Funding Councils for England, Scotland and Wales in 1992. Government policies had the effect both of subjecting research to performance audit (the Research Assessment Exercise (RAE), first introduced in 1986 and deepened in each subsequent iteration) and to measures designed to increase the commercialisation of research and shortening

the time from innovation to market. These culminated in the Impact Agenda, which is applied both to the Research Excellence Framework (REF; formerly the RAE) from 2014 and to Research Council funding (Holmwood, 2011b).

The marketisation of university activities, and the shifting balance between public and private funding over the last two decades, has been a matter of considerable comment. However, most of it has been directed to a general discussion of public policy associated with higher education, whether of the 'new public management' (Dunleavy and Hood, 1993; Barzelay, 2000; Lane, 2000) or 'the politics of audit' (Power, 1999; Strathern, 2000). There have been few attempts at characterising it as an approach to *knowledge*, with the further implication that it may have distinct (and differentiated) consequences for disciplinary formation. One notable exception is Mirowski (2011), who identifies distinct 'regimes' of the organisation of science in the US, with a 'Cold War regime' associated with high levels of public funding and mass higher education, giving way in the 1980s to a new 'globalised privatisation regime' in which teaching and research are separated, corporate research is contracted out, and universities become engaged in the capture of fees from intellectual patents and 'start up' companies. Richard Whitley (2010), for his part, has also sought to set out a typology of governance regimes for public science, but has paid less attention to paths of development across those types, regarding governance regimes as relatively stable and path-dependent, once established.²

The combination of fee-based undergraduate education, research assessment exercises (and other audits), and the impact agenda, I suggest, means that the UK (and England in particular) now represents the most complete realisation of what Mirowski calls the 'globalised privatisation regime', though my preference is to call it a 'neo-liberal knowledge regime'. The nature of what preceded it is less clear-cut, but at least in the UK, and with particular resonance for the discipline of sociology, I shall speak of a 'social democratic knowledge regime'. In fact, the nature of the determination of public policy more generally in the UK meant that the characteristics of a social democratic regime were more strongly embedded than in the US, with the consequence that the shift from it to a neo-liberal regime can be more clearly perceived. Moreover, the impact of neo-liberal reforms is more complete precisely because they have operated upon a higher education environment that was more open to state intervention (in contrast to the relative weakness of federal interventions in the US).

The trajectory of regime-change – broadly from the 1960s to the present – also coincides with the emergence of the sociology of science and technology (STS) as a distinct subfield of sociology and with particular significance in the UK. However, STS has not shown a strong interest in either the formation of the social sciences, or in the impact of policy and knowledge regimes on them, preferring for the most part to focus on the natural sciences.³ This chapter, then, will also set out a relatively new topic for the sociology of science – the nature of

knowledge regimes and their impact upon disciplinary formation – and do so in a ‘reflexive’ concern for sociology as a discipline and the importance of national policy contexts. It concludes this volume on the history(ies) of sociology in Britain with some projections about its possible futures.

I

I shall limit my historical overview to the period since the 1960s. Other chapters in this volume, of course, attest to a much richer intellectual history for the discipline. However, the 1960s mark a particular period of expansion, both of the university system and of departments of sociology. Indeed, the very establishing of the idea of a university *system* was one of the achievements of the Robbins Report of 1963. This brought changes in higher education as profound as those now underway. In fact the success of Robbins in creating a *system* of higher education on which government policy can be enacted is precisely what has enabled its transformation beyond what is found in other countries where some elements of neo-liberal public policies for higher education are also being promoted.

The Robbins Report identified four aims, or public benefits, that warranted a system of public higher education. These are the public benefit of a skilled and educated workforce (1963, para. 25), the public benefit of higher education in producing cultivated men and women (1963, para. 26), the public benefit of securing the advancement of learning through the combination of teaching and research within institutions (1963, para. 27), and the public benefit of providing a common culture and standards of citizenship (1963, para. 28).⁴

Robbins’s articulation of the plural objectives for higher education do not directly map onto a concern with education as a social right and nor was Robbins the obvious person to Chair a committee making a recommendation that they should. After all, Robbins was a member of the Mont Pèlerin Society, founded by Hayek to promote classic liberalism and the free market (see Mirowski and Plehwe, 2009). However, he was by no means opposed to state intervention or bound to the doctrinaire neo-liberalism of its founder and some of its other members. The axiom that higher education should be available to all who are qualified by ability and attainment is a clear endorsement of a social democratic view of education, as, indeed, is the emphasis upon the public benefit of education as the cultivation of the mind and the role of higher education in facilitating cultural and democratic participation. Taken together they entail the recognition that liberal economic, civil and political rights require an underpinning of social rights to ensure their realisation for all citizens, one, of course, that was reinforced by other developments in the British welfare state.

The idea of education as a social right entails a public interest in higher education that goes beyond the role of citizens as taxpayers and potential funders of it. The Report states:

this ... is perhaps especially important in an age that has set for itself the ideal of equality of opportunity. It is not merely by providing places for students from all classes that this ideal will be achieved, but also by providing, in the atmosphere of the institutions in which the students live and work, influences that in some measure compensate for any inequalities of home background. These influences are not limited to the student population. Universities and colleges have an important role to play in the general cultural life of the communities in which they are situated. (1963, para. 28)

The Robbins Report also coincided with the development of a public commitment to social scientific knowledge manifested in the establishment of the Social Science Research Council (SSRC) in 1965. The SSRC embraced a commitment to the integrity of social scientific knowledge, but also its significance as forming an evidence-base for public policy (see King, 1997). The Economic and Social Research Council (ESRC) became subject to criticism and review in the early 1980s, as part of the first wave of neo-liberal reforms of public policy by the Conservative government under Mrs Thatcher (Posner, 2002). This involved a review under Lord Rothschild (1982), who declared a moratorium on proposed changes, although it was precisely these that began to be reintroduced alongside the Jarratt Report (1985) recommendations and the dismantling of the University Grants Committee in 1988, all of which marked the beginnings of increased regulation of research through audit and transparency measures, alongside cuts to public spending, which had a particular impact on higher education from the late 1970s onwards, until a period of reinvestment from the late 1990s onwards.

Significantly, sociology as a discipline was represented in newly created institutions and brought into older universities for the first time after Robbins. For example, in 1961 there were just seven Departments of Sociology, while by 1974, there were 34 (Halsey, 2004). Halsey and Trow (1971) wrote of the likely impact that expansion would have on the conditions of university academics, as 'expansion met economics', but sociology was attractive to students and faculty alike who were first in their families to attend university and were oriented to the new opportunities afforded.

In this way, the expansion of sociology was associated with the rise of public higher education and the principles articulated by the Robbins Report.

In this context, British sociology in the 1960s developed a new sensibility, or what Savage and Burrows (2007) call a new 'jurisdiction', engaged with issues of inequality and the modernisation of status-bound institutions (which included

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that of its own formation within the gentlemanly ethos of the tradition of political arithmetic in which it had been located in the older civic universities). In this way, the 'public university' became particularly 'friendly' to the development of sociology and the establishment of sociology departments, with C. Wright Mills's (1959) call for the exercise of the sociological imagination in the address of public problems their 'founding' text.

Indeed, the expansion of sociology as a discipline and the democratisation of the university that was its condition, also created the grounds for the development of what Alan Sica and Stephen Turner (2005) describe as the 'disobedient generation', keen to exercise their sociological imaginations in sympathy with new social movements and challenging the orthodox consensus of society and mainstream sociology alike.

This expansion was first curtailed by the funding crisis of the late 1970s and 1980s, which was associated with a dramatic decline in the unit of resource compared with the Robbins period, as Halsey and Trow had intimated would be the case.⁵ Investment after 2000 provided renewed growth in the sector, including for sociology. However, the 'politics of austerity' after 2008 created new fears that funding of universities would face severe cuts. However, this was offset by shifting funding of undergraduate education from direct public funding to student fees, thereby managing an 82 per cent cut in funding from the public accounts, at the same time as providing a marginal increase in income overall to the sector.⁶ The more profound cost, however, was that this protection of income to universities came along with a more radical implementation of the neo-liberal knowledge regime, the consequences of which is likely to shape the discipline in the coming decades.

II

The initial development of STS addressed the social organisation of the sciences and the social construction of their knowledge claims. This raised issues of the relation among the sciences, their access to resources, their relative status and their ability to control their fields of study and to maintain boundaries. At the same time it placed STS as a newcomer field of study, challenging the relatively high status claims of philosophy and even, by association, the very sciences – such as physics – that philosophers had sought to interpret. In this way, STS was necessarily part of what it studied, so the lack of interest in placing its own claims within the system of disciplines (especially the social sciences) and their 'politics' was significant.⁷

Richard Whitley's (1984) approach to the intellectual and social organisation of the sciences was an exception, albeit one that was not taken up by mainstream STS. It represented different disciplines (including social science and the humanities) in terms of a typology organised in relation to their

manifestation of high or low task uncertainty (relating to the agreement or otherwise on methods to be used) and strategic uncertainty (relating to agreement or otherwise on problems deemed important for study), and high or low functional and strategic dependence (relating to what, following Perrow (1984), we might call the tight, or loose, 'coupling' among researchers and their problems). Essentially, this produced seven ideal types of intellectual and social organisation (one of the possible types was deemed to be unstable and is unpopulated). The typology also contained an implicit continuum from high technical and strategic uncertainty combined with low functional and strategic dependence, to low technical and strategic task uncertainty combined with high functional and strategic dependence. These two ideal types at either end of the continuum – what Whitley calls 'fragmented adhocracy' and 'conceptually integrated bureaucracy' – are exemplified, he argues, by post-1960s sociology in the US and the UK (among other disciplines) and post-1945 physics.

Whitley's study of disciplinary formation also maps onto a distinction made a little later by Gibbons and Nowotny and their colleagues (Gibbons et al., 1994; Nowotny et al., 2001) around the distinction between 'mode 1' and 'mode 2' knowledges. The former are oriented to internal audiences – essentially those of disciplinary peers – while the latter are oriented to external audiences, and, indeed, are engaged in the 'co-production' of knowledge with those audiences (or users). Those disciplines with the form of a 'conceptually integrated bureaucracy' are more likely to maintain strong mode 1 characteristics and exert hierarchical domination over mode 2 knowledges within their domain – as exemplified by economics in its relation to business studies. In contrast, those disciplines with the form of a fragmented adhocracy are open a both to the undermining of internal hierarchy and the occupation of more space by mode 2 knowledges within their domain. In the case of sociology, this tendency is reinforced by its engagement with critical epistemologies associated with new social movements, such as feminism, critical race studies and queer theory. Here, 'critical interdisciplinarity' and the challenge to intellectual hierarchy arising from challenges to social hierarchy coexists with applied social studies, where the concern is to serve public policy and user groups. It should also be apparent that, in so far as the encouragement of mode 2 knowledges is a part of public policy as, increasingly is the case with the neo-liberal knowledge regime, then greater 'protection' is afforded by disciplines with the characteristics of conceptually integrated 'bureaucracies'.

Within Whitley's overall typology there is a subset, also implicitly organised as a continuum, which contains most of the subject fields associated with the social sciences and humanities. These subjects are all characterised by low functional dependence and high technical task uncertainty, but varying in terms of high or low strategic task uncertainty and low or high strategic dependence. This part of the typology produces three distinct types (with the

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unstable, unpopulated type located within this subset): 'fragmented adhocracy', 'polycentric oligarchy' and 'partitioned bureaucracy'. Once again, post-1960s sociology occupies one end of the implicit continuum with the partitioned bureaucracy of 'Anglo-Saxon economics' at the other (high technical and low strategic task uncertainty, with low functional dependence and high strategic dependence). The fragmentation of sociology, of course, is also partly a consequence of its rapid expansion in the context of a generational shift that sought to challenge disciplinary consensus (on the US, see Turner and Turner, 1990). In contrast, economics secure tighter coupling and stronger task and strategic certainty (Fourcade, 2009).

Of course, there is a certain irony in this characterisation of economics. The changing governance regime of science has been strongly influenced by arguments from within economics regarding the superiority of the market (and, therefore, the dispersed organisation of knowledge production), yet the discipline is itself characterised by hierarchical control (see, also Mirowski, 2011). These are not the only salient differences among social science disciplines. For example, sociology and economics are characterised by fundamental epistemological and conceptual differences, not captured by the typology (for example, the 'social self' *versus* the 'rational self'; methodological holism *versus* individualism). These are themselves also aligned with the characteristics of knowledge regimes, with economics aligned with a liberal account of the self as rational, calculative and self-determining and the market as the expression and aggregation of such selves.

However, for present purposes, the significant feature of a fragmented adhocracy is that its subfields are more likely to be subject to migration, depending on factors associated with the attractiveness, or otherwise, of the 'host' discipline. Thus, (arguably) STS is in the process of migrating from sociology to management studies,⁸ while historical sociology has migrated from sociology to international relations, as has political economy from economics.⁹ This arises because a fragmented adhocracy is characterised by 'loose coupling' of its subfields. However, the possibility of migration would seem to require tighter coupling of relations *within* the subfield enabling it to constitute *its cohesion as a special field* against the more fragmented nature of its 'host' discipline, or even, in the case of STS, as an emerging new discipline (see, Guggenheim and Nowotny, 2003). In other words, each subject area is characterised in ideal typical terms on the basis of the aggregation of its parts, some of which, when taken separately, are closer in character to one of the other ideal types.¹⁰

III

The point of my arguments so far has been to elaborate the characteristics of sociology as a form of knowledge in order to consider its place in the system

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of social sciences as a prelude to considering how a changing environment of higher education might impact upon that system, with differential consequences for its component disciplines. The implication of the title of my chapter is that the consequences for sociology are likely to be negative. However, I am some way from being able to demonstrate that. Moreover, there is a difficulty just insofar as the characterisation of the changing knowledge environment in terms of governance regimes is necessarily provided in terms of 'ideal types', with particular disciplines occupying niches in different national 'mixes'. Another problem is that, notwithstanding the complexity and rigour of Whitley's typology, it assigns too many social sciences to a single category, that of fragmented adhocracy. The purpose of this section will be to unpack that category and to begin to differentiate it in relation to the issues raised by Gibbons and Nowotny et al in their distinction between mode 1 and mode 2 knowledges.

Mode 1 corresponds to a conventional view of research, based within universities and organised around disciplines oriented to their practitioners as the primary audience. In mode 2, knowledge production is increasingly trans-disciplinary and is part of a 'larger process in which discovery, application and use are closely integrated' (Gibbons et al., 1994, p. 46; see also Slaughter and Rhoades, 2004; Caswill and Wensley, 2007). In other words, external audiences are much more significant in the case of mode 2 knowledges, such that knowledges are argued to be 'co-produced' with their users (Jasanoff, 2004). In the view of Gibbons, Nowotny and their colleagues, mode 1 knowledges will not necessarily supplant mode 2 knowledges; rather, the two modes will coexist and interact. However, adapting the arguments of Whitley, we might expect mode 1 knowledges to remain more effective the more they have the characteristics of a partitioned bureaucracy.

Although all subjects represent combinations of mode 1 and mode 2 knowledges, the balance among these elements is potentially radically different in the different types of scientific field. Put simply, in the 'partitioned bureaucracy' of economics, analytical theory constitutes an integrated core, with empirical and applied economic knowledge in a relation of subordination to it. This subordinate relation means that there is continuity and thematic coherence across the different subfields of the discipline. In contrast, the fragmented nature of sociology means that it is an aggregation of discrete fields and there is little thematic coherence across subfields (no common theory or methodology, for example) and little temporal continuity of subfields (see Crane and Small, 1992, for a comparison of economics and sociology in the US in these terms).¹¹

This bears directly on Abbott's (2001) discussion of applied problem-oriented interdisciplinary knowledges. He acknowledges that they have grown disproportionately, but doesn't believe that this has undermined the hegemony

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of conventional disciplines (including, sociology, but, by implication, also economics, anthropology and psychology). Abbott puts forward a strong case for the superiority of conventional disciplines. It is there that original, transformative work takes place (although, the nature of that transformation is not well-specified by him; see Holmwood, 2010). That work is then translated into applied fields where reputations are forged by 'importer' academics. A different reputational order operates in the originating disciplines where it is associated with the initiation and development of transformative debates. The two orders do not match, however, and translation tends to be one way. In other words, the developments in the applied field are rarely translated back into the primary field. For Abbott, this means that the applied areas are not self-reproducing, but rely on continued importation, and, in consequence, on the health of the exporter disciplines.¹²

Precisely because of its characteristics as a fragmented adhocracy, however, this stable reproduction of disciplines might be problematic in the case of sociology and its putative wider contribution to social science. There is some support for this view in Cappell and Guterbock's (1992) earlier research in the United States which identifies a bifurcation between, 'specialities supported by research agencies of the welfare state and specialities that draw inspiration from intellectual, ideological and political opposition movements. This division reinforces the lack of integration between theoretical and applied sociology' (1992, p. 271). In other words, the greater significance of external audiences is partly what contributes to fragmentation within a fragmented adhocracy, while at the same time changes in the wider political environment can make some audiences less salient.¹³

Abbott is less concerned with this phenomenon because the strong departmental structure of US academic life sustains disciplinary organisation. However, the fact that this is an external factor weakens his general claim about the internal processes that serve disciplinary integrity. Thus, Abbott argues that

interdisciplinarity has generally been problem driven ... There is ample evidence that problem-oriented empirical work does not create enduring, self-reproducing communities like disciplines except in areas with stable and strongly institutionalized clienteles like criminology. Even there, the status differences seem to keep the disciplines in superior power. Criminology departments hire from sociology departments, but seldom vice versa. (2001, p. 134)

However, as I shall go on to suggest, the UK government's introduction of 'impact' measures into the evaluation of research favours applied, problem-oriented subject areas and, thus, creates a 'central' and 'proxy' institutionalised clientele as a new structural condition affecting the reproduction of disciplines,

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with particular consequences for sociology different from those of economics or psychology, for example. The 'status hierarchies' that operate within different scientific fields are potentially subject to change and external pressures, but there need be no assumption that the changes are similar across types of scientific field.

Abbott's argument is also weak on two other grounds. The first is that interdisciplinary areas do not straightforwardly accept their hierarchical subordination to their disciplinary 'superiors'. Indeed, Nowotny et al. (2003) suggest that their identification of mode two knowledges has been used 'politically', writing that

those with most to gain from such a thesis espoused it most warmly – politicians and civil servants struggling to create better mechanisms to link science with innovation; researchers in professional disciplines such as management, struggling to wriggle out from under the condensation of more established, and more 'academic', disciplines. (2003, p. 179)

This is something I will return to in the next section in the context of institutional changes in the UK and their impact on sociology.

The second problem is that Abbott's own differentiation of sociology from applied, interdisciplinary studies is also weak. He says that he writes about sociology, 'partly because it is my own discipline. But it is also the most general of the social sciences, or, to put it less politely, *the least defined*' (2005, p. 3; emphasis added). However, the problem is that the greater generality of sociology makes it particularly difficult to distinguish it from interdisciplinary subject areas (while social sciences like economics and psychology provide the disciplinary self-identity that allow them to distinguish themselves from sociology). Thus, he writes that, 'sociology has become a discipline of many topics – always acquiring them, seldom losing them ... Sociology, in short, is irredeemably interstitial. In fact, this interstitiality is what undergirds sociology's claims as a general social science, claims not necessarily justified by its contributions in theory, method, or substance. Rather, sociology's claim as the most general social science rests on its implicit and fuddled claim that 'no form of knowledge [about society] is alien to it' (2005, p. 6).

In other words, while disciplines are defined as the repository of abstract, 'problem portable' knowledge, there are degrees of abstraction and sociology is the most general. Although he suggests that generality is associated with problem portable knowledge, he also casts doubt on that 'portability' in the case of sociology precisely in so far as he allows that sociology's claims to generality are not necessarily justified in terms of theory, method or substance. At the same time, this 'generality' is also associated with 'high fractal dimension', which suggests that such a discipline may have difficulty in maintaining itself precisely because it lacks a conception of disciplinary identity sufficient

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to protect its distinctiveness from threats at its boundaries, and in the wider environment, that reinforce problem-based knowledge. The problem is twofold. What distinguishes sociology is potentially too general to be a source of useful exemplars, while its concepts and methods, as Savage and Burrows (2007) also argue, are no longer distinctive. In other words, in Whitley's terms, there has been a further reduction in task and strategic certainty in sociology compared with other disciplines.¹⁴

In this context there is a curious inversion where interdisciplinary areas appear to undergo a form of professionalization, as a corollary of denying the hegemony of their associated disciplines. Thus, Guggenheim and Nowotny (2003) suggest that the field of STS is in urgent need of disciplinary development and professionalisation. However, their proposal entails

the capability to select problems for their own – scientific and intellectual – sake and to transform them into research priorities which are seen as collective, and not simply as an individual task. It also implies the willingness and capability to transmit the relevance of scientific activities to a wider audience and perhaps even to one's 'clients'. (2003, p. 231)

In effect, what is being proposed is the creation of STS as a form of mode one knowledge, but one that is immediately given meaning by its hierarchical association with mode two knowledge, where its practitioners are to be conceived as professional experts mediating scientists, government and public. The prestige of the 'external' audience is traded for the relative low prestige of the 'internal' audience of wider sociology.¹⁵

The implication of these arguments (using sociology as the example) is that a fragmented adhocracy is potentially a fragile disciplinary edifice. It represents an aggregation of discrete subfields, some of which are organised in ways that potentially create identities that can be mobilised for new disciplinary formations. Where the collective identity of the 'host' field is weak and potentially lowly placed in the hierarchy of credibility, these pressures for new disciplinary formations are likely to be reinforced if they will be the source of greater resources and status. For the most part, the obstacles to these developments are the stable features of the higher education environment, such as institutional structures of faculties and departments and a common funding framework. However, these stable features are not maintained by the power of fragmented adhocracies, but arise as the corollary of the organisational strength of other members of the scientific field and of external actors with the capacity to shape funding decisions. In a period of significant change in the environment of higher education, the capacity to resist or shape it will be different across scientific fields. This brings me – at last – to the motivating topic of this chapter, the impact of policy and financing on structure.

IV

A comparative approach to the sciences implies comparison across different disciplines and fields, but also across different national contexts. The implication of a field characterised as a fragmented adhocracy is that it will also show greater cross-national variation in terms of its intellectual characteristics. This includes the possibility that a discipline characterised as a fragmented adhocracy (sociology in the US and the UK, for example) in one context can have the characteristics of a polycentric oligarchy in another (sociology in Germany, for example).

Furthermore, although science policies may have common characteristics – emphasis on promoting the knowledge economy, concern with transparency in the management of public funds, and so on – it does not follow that there will be convergent consequences for disciplinary fields (see, for example, Abbott, 1988, for a general argument to this effect applied to the cross-national study of professions). Indeed, the paradox of policies directed toward the ‘internationalisation of science’ in the context of a ‘globalised knowledge economy’ is that for some disciplinary fields they can accentuate tendencies toward localism and greater cross-national variation in the content of approaches and respective subfields, and this is more likely to be the case for a fragmented adhocracy when compared with a partitioned bureaucracy. The latter will show less international variation and, by that token, be regarded as more ‘international’.

When Whitley presented his initial typology, he did so in the context of what he came to call the emergence of a ‘public system of science’; that is, a system in which science was primarily undertaken by ‘employees’ within a university and primarily publicly funded. The primary historical reference point was the emergence of this system out of various kinds of amateur and gentlemanly science of the early nineteenth century. By the 1950s, the model of the research university within what Clark Kerr (2001 [1963]) called the ‘multiversity’ was firmly established. In this way, the configuration of disciplines is presented by Whitley as relatively settled at the time in which he wrote, though some further shifts might be anticipated, not least associated with new problem-fields. It is this regime that Mirowski (2011) associates with the ‘Cold War’ regime of science that began in the 1980s to be transformed into a globalised privatisation regime.

In fact, in the light of recent changes in the UK, with the removal of direct funding of undergraduate higher education in the social sciences and humanities, and the creation of what is, in effect, a publicly-funded voucher system for the payment of fees, a new factor is introduced into the organisation of disciplines, namely a change in the relation between its teaching and research activities. The multi-university, in Kerr’s terms, may have displaced teaching in the hierarchy of value within the research-oriented university, but teaching

remained one of its core functions. The emerging ethos of 'research-led' teaching indicated that for many disciplines – perhaps especially in humanities and social science – teaching income helped sustain research. Whereas Whitley noted that teaching was part of the activity of the public system of science, it did not make up a major part of his analysis of their intellectual and social organisation (in contrast, to research student recruitment and post-doctoral placement).¹⁶

It would be hard now not to acknowledge that the introduction of a government-regulated, private fee-based, student-choice system will potentially have a major impact in the future. Indeed, the UK government's mantra for research organisation of 'concentration' and 'selectivity', is mirrored in its explicit intention to create a (three) tiered system of undergraduate fees that mirrors a research hierarchy, with there no longer being an expectation that universities need offer a wide range of subjects or that teaching *and* research are necessary activities for their staff. In terms of his later argument about types of authority in public science systems (Whitley 2010), the UK is moving from the 'state-delegated discretionary type' to one of the 'employer-dominated (either "competitive" or "employer-centred") types'.¹⁷

The primary mode of organisation of scientific research fields identified by Whitley is 'professional' and 'collegial' and, increasingly in the UK, these are being modified by hierarchical, managerial university structures oriented to the requirements of central funding arrangements (whether of Research Councils or Higher Education Funding Agencies, themselves subject to government pressure). At the same time, universities are also encouraged to secure private financing for research and to increase the economic impact of that research which is publicly funded. Whitley drew upon critical sociological studies of the professions, such as that of Collins (1977) and Larson (1975), which argued that professions sought to control different types of knowledge production and dissemination. However, he rather neglected alternative accounts of professions (such as functionalist accounts) that provided the positive functions of professions. This is perhaps unsurprising given their association with the Mertonian approach to science studies and the prevailing critiques of post-1960s sociology. In this context, they were regarded as aligning with normative philosophies of science by representing social studies of science as their supplement.

The reason for mentioning these debates is twofold. On the one hand, the prevailing sociological critique of professional organisation was, at its core, not that different from neo-liberal critiques. Thus, professional organisation was associated with 'producer interests', but whereas the early sociology of science was associated with radical, democratic critiques of science, neo-liberal critiques of science policy have emphasised transparency in the use of public money, with science better aligned with users (including the public policy interest of furthering economic growth and what is represented as the requirements of the

knowledge economy) through the market. In this way, the context of policy engagement of science has changed quite dramatically since Whitley wrote the first edition of his book. Indeed, the introduction of increasingly complex audit measures and greater direction of Research Councils by government agendas such as the Impact Agenda in the UK are precisely what has reinforced hierarchical managerial control within universities and undermined collegial, professional organisation (for general discussions of changing governance in universities, see Bok, 2003; Margison and Considine, 2000).

One of the features of UK Research Councils associated with the impact agenda is also the tighter specification of priority areas for future research into which the bulk of funding will be directed (including an increase in directly commissioned research). 'Responsive' mode funding will be significantly reduced and will increasingly become the domain of independent (charitable) funding agencies. However, at the same time, these priorities are anticipated and matched within the internal research management of universities (unsurprisingly all claiming international expertise in similar interdisciplinary areas – for example, global food security, science and society, digital society, health and medicine, global governance and security, the global economy, and so on). The bureaucratisation of research under a model of applied interdisciplinary research directed toward government research agendas is reinforced by adaptations of the different actors.

One of the key issues of current science policy discussions in the UK is the problem of disentangling policy actors as 'interested' parties, from the role of the social sciences as providing 'evidence-based policies'. Thus, the emphasis in Research Council funding is on 'Pathways to Impact', while the ex post distribution of research funds through the RAE (now the REF) will also be strongly oriented toward impact (weighted at 20 per cent for REF 2014, but set to rise in subsequent years).¹⁸ The definitions of impact are set out in terms that are contradicted by many science policy studies and increasingly emphasise short-term economic impacts (reducing the time to translate 'idea' into 'income'), notwithstanding that the same Research Councils advocate different understandings of innovation and the importance of scientific knowledge in their lobby documents to various consultations.¹⁹

Nonetheless, the hold of the old sociological critique of professions remains strong, and in a recent contribution on the topic of audit, Martin and Whitley (2010) represent the UK experience with the RAE as a case of 'regulatory capture'. In their account, strong scientific elites have managed to maintain control through the instrument of peer review of outputs and Panels made up of subject specialists. However, this analysis tends to be at odds with the implications of the earlier study. After all, the RAE/REF is a 'one size fits all' approach, whereas the intellectual and social organisation of disciplines is various. While it follows that highly integrated subjects may have been

able to effect regulatory capture, it by no means follows that the regulatory framework that has developed has uniform effects on all disciplines. Moreover, it doesn't address the possibility that 'regulatory capture' also occurs through the co-production of the regulatory arrangements, such that the captor is also captive and moves toward the criteria being enjoined at the same time as proclaiming the importance of self-definition of appropriate criteria. This is, in part, a story of the relation between mode 1 and mode 2 knowledges that I prefigured in the previous section.²⁰ Indeed, I shall go on to suggest that in the social sciences it tends to favour applied, problem-based social studies, where the primary audience is not the internal audience of a disciplinary elite, but an external audience of users (and, of course, externally-oriented, internal disciplinary actors within specific subfields). In this context, co-option though the techniques of 'governmentality' (Rose, 1996) seems a more appropriate terminology than 'regulatory capture'.

V

I now want to draw out some of the consequences of these developments for sociology and why I characterise it as a discipline that is potentially 'fading' from the scientific field in the UK, to be replaced by a variety of applied social studies. In part, this is a consequence of a 'crisis' in the public system of science that was identified by Clark Kerr (2001 [1963]) at the high point of its optimistic expansion and prefiguring the circumstances of the shift to the 'globalised, privatised' governance regime (Mirowski, 2011). His positive account of the 'multiversity' – publicly-funded, but primarily oriented to utilitarian goals, with 'blue-skies' research funded on a promissory basis – already contained a warning of its potentially dysfunctional development (a warning that became accentuated in the various additional essays that were added to the text on its various editions, the last of which, was added for the 2001 edition). Kerr argued that universities would confront resistance to spending on activities other than those that could be justified in terms of their contribution to health and medicine, economic growth or the development of the military-industrial complex. There would be a decline in the humanities and most social sciences, except that they functioned in support of the 'big 3' research topics, and there would be a decline in the concern with equalities and the social mission of the university. Indeed, the shift from a conception of the university as promoting public values of higher education to its role in transmitting human capital is central to the 'globalised, privatised' regime enjoined by neo-liberal science policy.

The expansion of universities since the 1960s created conditions in which sociology in the UK became fixed in its character as a 'fragmented adhocacy', but, since the introduction of the RAE, sociology has been in decline as a 'subject

area' presented for assessment. In many ways, it is fast resembling anthropology as a small discipline (one which Whitley represents as a 'polycentric oligarchy' able to sustain 'locally coordinated knowledge' and prestige), but without its place in the hierarchy of prestige (evident, for example, in anthropology's *Royal Anthropological Institute*). Thus, only 39 RAE submissions were made in Sociology in RAE 2008, down from 67 in RAE 1992. A further reduction in submissions is anticipated in 2014, perhaps to below 30. In contrast, 67 RAE submissions were made in Social Work, Social Policy and Social Administration (a mode 2, applied interdisciplinary subject) in RAE 2008, rising from 40 in RAE 1992.

However, in part, this constitutes a consolidation of sociology within fewer institutions since, notwithstanding the decline in the number of units submitted, staff submitted to Sociology rose from 826.6 FTEs (full time equivalents) in 1992 to 927.37 FTEs in 2008, while that to Social Policy remained constant (see Holmwood, 2010; Kelly and Burrows, 2011). In part, however, the data are misleading because institutions need not have submitted all their staff in a particular subject area and the degree of selectivity varied by type of institution. Social Policy submissions tend to come from a wider range within the implicit hierarchy of UK universities while Sociology (like Anthropology) is increasingly associated with 'upper level' institutions, although it is by no means uniformly represented among them.²¹

The fact that a significant part of sociological research is not submitted to the RAE under Sociology is also an issue of specific subfields of the discipline. Thus, the Subject Report for Sociology from the RAE 2008 indicated that well-established sub-areas of the discipline, such as the sociology of health and illness and the sociology of organisations was no longer a significant presence at the main disciplinary panel. Whereas the sociology of science was a significant presence, it is increasingly divided between Sociology and Business and Management Studies submissions.

The 'optimistic' interpretation of these data is that, with the emergence of a 'three tier' university system, sociological research will be largely concentrated in the upper tier (Savage, 2010).²² However, this is unlikely to provide it with the resources equivalent to those of Anthropology which, it might otherwise be argued, it is coming to resemble. The impact of changes to the funding of undergraduate degree programmes is likely to be severe. Unlike Anthropology, the distribution of undergraduate programmes occurs across all tiers. In fact, the relationship between Sociology and Social Policy with regard to research is inverted as far as teaching is concerned. Thus, while Sociology is taught in 89 higher education institutions in the UK (with 67 institutions offering single honours degrees) Social Policy was offered in only 33. In other words, in many institutions a research activity oriented to applied social studies is sustained by undergraduate student numbers in Sociology, although those numbers are now

no longer guaranteed because of the move to a student-choice system in which universities are encouraged to offer places to those subjects able to recruit.

In fact, the new undergraduate fee regime will also be dominated by the logic of rank order placing as the determinant of the ability to sustain higher fees. To some degree the ability to recruit at higher fee levels will depend upon the ability to demonstrate the recruitment of high achieving prospective students (as measured by their tariff scores on school-leaving qualifications). These differ across subjects within the social sciences, with Economics and Politics, for example, able to set higher tariff scores than sociology and social policy. The implication is that universities will shift their recruitment toward subjects that attract higher tariff scores, especially if these are subjects performing well in the REF. In this context, weaker REF performances by subjects that have weaker student demand is likely to make those subjects more vulnerable to restructuring and closure (a process that is already beginning and is focused upon social science subjects and humanities). While Sociology will not be the only subject affected, it is likely to be more affected than many other subjects.

Any likely reorganisation will reinforce specific subfields of Sociology, but also encourage their detachment from Sociology and reattachment to other subject fields. These latter will share the characteristics of a fragmented adhocracy, but they will be sustained by key external audiences engage in the co-production of knowledge. Sociology will not become like Anthropology, a polycentric oligarchy, I suggest, but will be a fading and displaced fragmented adhocracy, with its professional membership increasingly drawn from 'lower tier' institutions also captured by the logic of mode 2 knowledge production as the only means of securing any (partial) advantage.

VI

Does any of this matter? Disciplinary formations wax and wane. And, of course, I have been discussing the interaction of the characteristics of the intellectual organisation of the discipline with a changing external environment which, for the present, is peculiar to the UK (and England, in particular). The intellectual status of Sociology is different across national settings and the environment of higher education differs, too. Moreover, even if there are similar policy developments in other countries, it does not follow that the various combinations of factors will give rise to convergent developments.

Yet it is difficult, as a sociologist, to contemplate the situation with equanimity, as if it were just a matter of setting dispassionate gaze on the evolutionary reorganisation of disciplinary 'niches'. It is difficult not to believe that something more profound than mere disciplinary fortune is at stake. A clue might lie in other aspects of Whitley's characterisation of a fragmented adhocracy. This is its tendency to produce, 'diffuse, discursive knowledge of commonsense objects'

(1984, p. 158). Where this discursive knowledge is aligned with that of expert publics, no particular problem of credibility is brought into being. Indeed, such alignment is advocated as ‘user engagement’. However, where a discipline has an aspiration to engage with less powerfully placed publics, then a different issue of credibility arises (see also Turner 2001, 2003).

It is perhaps no accident that a recent call for the reintegration of Sociology has had the form of a call for ‘public sociology’ (Burawoy, 2005). We might be sceptical of the capacity of such a call to reintegrate the discipline in the context of pressures toward fragmentation and migration of segmented subfields (see Holmwood, 2007). Nonetheless, given the ‘eclipse of publics’ (Dewey, 1927) by government (and its embedded experts) and market alike, the functions of the public university for deeper democratic values than those simply of a ‘public science system’ is precisely what is at issue in the current moment of reform of higher education. As Kerr (2001 [1964]) observed, the public university also had a social mission and an association with a secular trend up until the late 1970s of narrowing social inequalities (of income and social status). At a moment when the university is being directed toward the service of widening social inequalities, perhaps the fate of Sociology is symptomatic of the fate of civil society and social justice (see Holmwood, 2011c). The fate of the discipline matters because it mirrors the fate of disadvantaged fellow citizens whose claims to be recognised as a proper audience for social scientific inquiry are eclipsed by their depoliticised constitution as ‘consumers’. The neo-liberal knowledge regime is continuous with the reduction of society and politics to the market.

Notes

1. For further details about the reforms, see Holmwood (2011a). It should be noted that the devolved structure of government in the UK means that the reforms apply initially to England and not to Scotland, Wales and Northern Ireland which have separate assemblies with responsibility for education.
2. Few studies address undergraduate education and its significance in the creation and reproduction of disciplines, especially the arts, humanities and social sciences. This is partly a consequence of the overwhelming emphasis on the physical sciences in studies of disciplinary formation.
3. In fact, the organisation of social scientific knowledge has been a relatively neglected topic in the sociology of science until quite recently, with studies of economics by Yonay (1998) and Fourcade (2009).
4. Similar aims are found in the Dearing Report (1997), but are absent in the Browne Review and subsequent White Paper. For the authors of the latter documents, advocating market mechanisms seemingly obviates any need to address the Robbins requirement that account should be taken of ‘the interests of all sectors of higher education’.

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5. Funding per full-time student (at 2006–07 prices) peaked in 1972 at £11,000, falling to £7,000 in 1979, rising to £9,000 again in 1984 before beginning a slow decline to just over £5,000 by 2000. They rose to just over £7,000 after 2007. See London Economics (2010).
6. For a discussion from the perspective of Universities UK, the body representing Vice-Chancellors, see Smith (2011).
7. Of course, there were some studies that did so, but primarily from the perspective of what might be called ‘strong reflexivity’ (Woolgar, 1998), which did not address in any systematic way the organisation of disciplines and their fields, but primarily sought to ‘flatten’ any hierarchical claims.
8. Insofar as the characteristics of disciplines are also expressive of what Becker (1967) called a ‘hierarchy of credibility’ (or prestige), then the situation of STS has typically been that of a subject at one end of the continuum studying fields close to the other end (and, by and large, eschewing the study of the social sciences). One of the problems for practitioners has been that of managing their own status in relation to what they have been studying. Perhaps unsurprisingly, this has also given rise to claims from within science (and the philosophy of science) that STS is an exercise in the relativistic debunking of science (Newton-Smith, 1981), while from within STS there has been a move to claim credibility by attachment to expert scientific policy audiences (Guggenheim and Nowotny, 2003; Woolgar et al., 2007).
9. Migration is perhaps not the appropriate term here, unless one also recognises a form of ‘forced migration’. Political economy, for example, can be understood as a ‘heterodox’ sub-field that had no space within economics, but has found its space within international relations (and in management studies).
10. Given the smaller size of the sub-units and the possibility of more ‘personalised’ networks, including networks associated with journals, these subfields are most likely to fit the character of ‘polycentric oligarchy’.
11. This is evident in the fate of sociological theory, which Scott (2005) argues is (or should be) an *activity* at the ‘core’ of the discipline; theorising as a common activity, he suggests, is different from theory as a set of agreed categories. The latter seemed plausible prior to the 1960s in terms of attempts to constitute such a core and to create a form of sociological theory parallel to that of economics (see Parsons, 1959). Given that ‘theory’ means different things in different subfields, sociological theory as a distinct subfield would share in the fragmented character of the whole – it could not achieve the polycentric oligarchy characteristic of other subfields, such as STS. In this context, sociological theory risks becoming an aggregate of ‘theorists’ worthy of systematic consideration (see Wolfe, 1992), rather than the systematic address of analytic categories. Indeed, the attempt to do the latter is now frequently derided as an outmoded concern with the ‘structure-agency’ problem, and the like.
12. Of course, there is no requirement that any particular discipline should be an exporter and, at least in terms of public policy discourse, it is possible to discern a displacement of sociology as a core exporter discipline and its replacement by disciplines organised around a common methodological individualism – economics, psychology, cognitive science, and so on.
13. In this context, the greater variety of external audiences for sociology compared with politics, say, may create greater problems for sociology than for politics. This is also apparent in terms of the relation between it and its applied subfield, international relations. The greater overlap of the latter field with politics makes it easier for the former to maintain disciplinary hegemony, when compared with sociology and its subfields.

14. Abbott also poses the question of whether such 'generalism will not wither in competition with other, specialist disciplines' (2005, p. 6), and offers the observation that 'generalism' might be a better strategy 'in an age of interdisciplinary study and university reorganization and shrinkage' (2005, p. 6). This contradicts his claim that it is precisely the disciplinary system that confers reproductive advantage. The possibility that, in a time of shrinkage, the consequences will not be even across disciplines, but that some may cede to interdisciplinary areas and others not, is not considered, while it is clear that interdisciplinary areas have less claim to distinctiveness in 'theory, method and substance' than even sociology.
15. Interestingly, this is usually accompanied by the claim that the wider sociological audience pays insufficient attention to the significance of the subfield, notwithstanding the representation otherwise of the wider field as 'fragmented' and, therefore, not constituted to provide the recognition that is sought (see Woolgaret et al., 2007, for an example of the complaint!)
16. It seems likely that had Whitley provided more extensive examples from the humanities, the role of teaching in their organisation would have been more pronounced.
17. The paradox highlighted in much of the current debate in the UK is that the current moment of higher education in the UK is that of a *state-directed* move to an employer dominated competitive system. It is the arts, humanities and social sciences that will be made most vulnerable to the outcomes of 'student choice', since the sciences remain as 'strategically important' subjects and, therefore, their arrangements remain closer to the older mode of state-delegated discretion.
18. On the different aspects of these impact agendas, explicitly written as the co-production of knowledge in ESRC documents, see www.esrc.ac.uk/funding-and-guidance/tools-and-resources/impact-toolkit/developing-plan/guide/setting-objectives.aspx and http://www.hefce.ac.uk/research/ref/pubs/2011/01_11/, both accessed 26 May 2011.
19. For example, contrast ESRC 'Pathways to Impact' (www.esrc.ac.uk/funding-and-guidance/tools-and-resources/impact-toolkit/developing-plan/guide/setting-objectives.aspx) with their co-sponsorship of the ERC contribution to the consultation on the Common Strategic Framework for EU Research and Innovation Funding, http://erc.europa.eu/pdf/ERC_Position.pdf, accessed 26 May 2011.
20. The connections between the RAE and the rise of mode 2 knowledge are set out by the Director of Research at the ESRC (Alsop, 1999). The shift in modes of knowledge production is also reflected in the increased emphasis on 'users' and 'impact' in Government and Research Council discussions of research.
21. Although it is relatively weak within the high prestige institutions like Oxford, Cambridge and the LSE, where Sociology was among the poorer-performing social science subjects in terms of their placement within the respective RAE rank orders. In fact, it is 'upper tier' institutions – with the exception of Oxford and Cambridge – that are experiencing the greater competition for students as the first wave of changes has opened competition for students with higher entry grades (currently above ABB) but not allowed them to recruit any shortfall from entrants with lower grades.
22. In fact, although sociology is largely concentrated in 'Russell Group' and '1994 Group' universities, it is by no means a dominant presence, with many institutions subordinating sociology to social policy and high-profile recent closures of sociology at Reading and Birmingham, both Russell Group universities. This is in contrast to the US where departmental structures are strong and the closure of a single Department of Sociology is a matter of much disciplinary soul-searching.

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