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Interdisciplinarity and the social sciences: capital, institutions and autonomy¹

Introduction

Interdisciplinarity is currently a high priority for science policy and research funding (European Commission Research Directorate-General 2007; HM Treasury 2006; RCUK no date; Commission on the Social Sciences 2003), and a growing area of interest in studies of knowledge production (Jacobs and Fricke 2009; Barry, Born and Weszkalnys 2008; Strathern 2007; Kwa 2006; Maasen, Lengwiler and Guggenheim 2006). At the same time, disciplines remain important institutional and epistemic nodes in the organization, practice and legitimation of academic research and teaching, and there is considerable emphasis on investment in and protection of their core assets: people and methodologies (ESRC no date).

Social scientists have mounted a sophisticated analysis of various dynamics of disciplinarity and interdisciplinarity with respect to ideas, concepts, theories, and methodologies (Strathern 2007; Scott 2005; Stanley 2005; Weingart 2000). We know from this work that both disciplines and interdisciplinarity are by their nature heterogeneous and hybrid (see also Dolling and Hark 2000), and that inter/disciplinarity provokes tensions and ambivalence for researchers across the arts, social sciences and sciences, particularly in relation to academic identities (Brew and Lucas 2010; Henkel 2000). However, relatively little is known about how interdisciplinarity and disciplinarity differ in particular institutional contexts, especially when we compare teaching departments and research centres or units and the priorities and commitments of staff within them.

We aim to shed some light on these differences by exploring accounts of interdisciplinarity and disciplines with respect to identities and institutional structures. We draw on interviews and

observation studies with staff in a large social science department and affiliated research units in a UK university. Reflecting on Bourdieu's work on scientific and symbolic capital, autonomy and heteronomy (Bourdieu 1988), we interpret a range of accounts of interdisciplinarity and disciplines in relation to our respondents' academic histories, positions in the institution and relationships with external stakeholders, particularly funding bodies. Our aim is to reinsert academic selves and institutions (Skeggs 2008: 674) back into debates about the future of the disciplines and the increasingly insistent calls to interdisciplinarity in the social sciences.

We begin by noting debates about the current state of sociology and social policy in the context of widespread calls to interdisciplinarity in academic research. Drawing on Bourdieu, we outline some of the different forms that interdisciplinarity and disciplinary commitments can take in relation to the level and types of autonomy experienced by researchers. We discuss our research methodology and site, and go on to explore how scientific and symbolic capital shaped participants' accounts of their interdisciplinary and disciplinary commitments, contrasting the position of researchers in the core departments and staff in contract research units. We point to significant differences, with participants in the department having a greater sense of autonomy and more of a stake in disciplines than participants in the research units. However, we also consider the range of ways in which status was achieved by participants, including recourse to forms of symbolic capital in the non-academic world. We conclude that, in this case, disciplinarity and interdisciplinarity had different consequences for status and power depending upon the organizational **contexts** and individual **biographies** through which they were deployed. We conclude by reflecting on the implications of our findings with respect to the risks and opportunities of interdisciplinarity and considering what this means for policy and academic debates about the future of the social sciences.

Inter/disciplinarity and the social sciences

The social sciences are widely seen as 'restless disciplines' (Commission on the Social Sciences 2003: 24), characterized by fuzzy boundaries, epistemological pluralism and ever-changing methods, theories and research fields. Sociology has arguably undergone a sustained process of fragmentation or hybridization in recent years. This is often discussed under the rubric of 'crisis',² reflecting concerns over the discipline's continuity and coherence, especially in the face of challenges from feminism and in the wake of the 'cultural turn' in the social sciences (Moon 2010; Osborne, Rose and Savage 2008; Scott 2005; Stanley 2005; Urry 2005; Eldridge et al. 2000). Sociology's methodologies and the saliency of its object of inquiry are also under increasing scrutiny (Savage and Burrows 2007; Urry 2005, 2000; Latour 2005). The recent International Review of Sociology notes that it is 'perceived as an "exporter discipline" with the boundaries between a sociological, although not well-defined, "core" and the various sub-fields in flux' (ESRC 2010: 5). On this reading, Sociology has embraced interdisciplinarity and benefitted other disciplines by giving them methodological and theoretical options. Openness and pluralism have added to the intellectual strengths of sociology, and graduates benefit by being able to find employment in a range of cognate areas. However, this may have been at the expense of the distinctive core of the discipline, weakening the range of sociological research in sociology departments and eventually narrowing the possibilities of interdisciplinarity.

Social policy is also in flux. The public pronouncements of bodies such as the Social Policy Association describe it as an 'interdisciplinary and applied field' which draws on theories and methods from sociology, politics and economics (Social Policy Association Guidelines on Research Ethics 2009). However, various concerns have been raised amongst its practitioners about the need to protect or redefine a distinctive core, especially with respect to the field's close relationships with sociology and politics (Hudson and Lowe 2005; Lowe 2004; Sinfield

2004; Lewis 2000; see also Spicker 2008; Dean 2006; Alcock 2003). There is a sense that social policy may become invisible or marginalized due to colonization or encroachment. Some argue for the need to 'bring political science back in' (Lowe 2004; Hudson and Lowe 2004), while others welcome a wider exploration of social inequalities and more critical and deconstructive epistemology with much in common with sociology (e.g. Sinfield 2004). As with sociology, the changing nature of the object of inquiry, especially shifts in the welfare state in the late **twentieth** century, has led to calls to 'rethink' social policy as a subject area (Lewis 2000).

Meanwhile, funding bodies and academic institutions are placing increasing emphasis upon inter-, multi- and/or transdisciplinarity³ in an effort to reframe social research in relation to logics of economic innovation, social usefulness, and public accountability. These so-called Mode 2 conditions of knowledge production (Nowotny, Scott and Gibbons 2001) focus upon answering research problems with the best tools available, regardless of disciplinary traditions. While the question of how far Mode 2 has become dominant or even widespread in academic research remains contested, the concept has nonetheless proved pervasive, persuasive, and performative (Barry, Born and Weszkalnys 2008; see also Weingart and Stehr 2000; Turner 2000). As Strathern (2007: 125) has argued, there is a strongly felt admonishment to interdisciplinarity circulating in the academy (witness the Commission on Social Sciences call for a 'major restructuring of the social sciences to adapt to contemporary realities' (2003: 116; see also Shove and Wouters 2005)). In Becher and Trowler's (2001) terms, the social sciences are urged to become more urban, with larger research communities concentrated around a small number of externally determined problems with readily apparent outcomes, rather than continuing with rural modes of research based on lone scholars setting their own research agenda.

A range of studies have been conducted on researchers' accounts and experiences of interdisciplinarity. Most look across arts, science and social science subject areas to demonstrate the ways in which disciplinarity is flexibly deployed or 'overcome' in researchers' accounts of their practice. Researchers have been shown to find various routes into and between disciplines - moving into new disciplinary sub-fields, working alongside researchers from other disciplines, bringing theories and methods from another discipline into their work or, more rarely, developing innovative theories and techniques and forging new disciplines in the process. These studies demonstrate diverse academic experiences and perspectives on disciplinarity and interdisciplinarity in relation to research (Brew 2008), teaching and learning (Fanghanel, 2009), and their significance in the lived experiences and identities of researchers and lecturers (Brew and Lucas, 2010), including the different emotional challenges and rewards of working in and across disciplines (Manathunga 2010). But although these studies are vital antidotes to more abstract discussions of ideas and representations of interdisciplinarity and the disciplines (Skeggs 2008; Stanley 2005), there is a need for more detailed analysis of specific disciplines and interdisciplinary groupings, as well as a greater focus on the institutional and epistemic contexts in which the academics who negotiate them are working (Knorr Cetina 1999). To bring institutions back into discussions of interdisciplinarity and academic selves, we turn to Bourdieu.

Bourdieu's ground-breaking study of the French academy of the 1960s, *Homo Academicus* (1988), has had a lasting influence on higher educational studies, fundamentally shaping our understanding of the workings of power in university settings and drawing attention to the material and symbolic conditions of academic work. Bourdieu interrogates the social backgrounds and activities of academics in detail, mapping the ways in which power is reproduced through recruitment, training and intellectual outputs (Manton 2005). Much of this analysis has focused on issues of pedagogy, graduate careers, and leadership. However, there is relatively little writing on the implications of Bourdieu's work for understanding disciplinarity

and interdisciplinary research (see Moran 2002; Lingard et al. 2007). Yet Bourdieu does address some pertinent issues concerning the nature of disciplines and interdisciplinarity with respect to what counts as prestige and power in the contemporary university. Of particular note is his analysis of the different forms of capital possessed by professors, and the distinction that he draws between academic power and scientific power.

For Bourdieu, in the context of French academia in the post-1969 period, the university field involved two poles. The first was concerned with academic capital - the reproduction of the cultural order – and the second with the accumulation of scientific capital – research and scholarly goals. Academic power was constituted via control of the ‘instruments of reproduction of the professorial body’ (1988: 78) such as boards of examiners, and dominated by academics from traditional disciplines with high prestige, such as law or medicine. It was opposed by a collection of powers, discussed under the rubric of scientific capital, which were displayed via direction of research teams and accumulation of scientific prestige through publication and citation, as well as ‘symbolic capital of external renown’ (1988: 98). The latter included public and political activities. Bourdieu argued that scientific capital was particularly important in the relatively new disciplines of the social sciences, where traditional prestige was less well established, and he identified a new group of left-leaning ‘consecrated heretics’ in the social sciences who were especially innovative in terms of their research and pedagogy in a context where applied research was increasingly important. Bourdieu also noted the development of new kinds of cultural producers who garnered prestige through being responsive to the demands of their commissioners, at the same time undermining the principle of academic autonomy and creating ever more marked divisions between teachers and researchers.

Bourdieu’s analysis suggests that the disciplinary and interdisciplinary orientations of academics and researchers will differ depending upon their access and commitments to academic,

scientific and symbolic capital and their dependence on teaching and/or research funding for their livelihoods. Different kinds of capital and prestige have always co-existed in the academy, and this multiplicity is arguably necessary to the reproduction of a complex field with a constantly changing mission and purpose. For Bourdieu, however, the development of a more fundamental breach between applied research and traditional academic practice had the potential to undermine the status of the academy. This concern is echoed in some contemporary discussions of the nature of Mode 2 knowledge production discussed earlier, particularly its potential to undermine critical inquiry and challenges to authority which are often associated with disciplines and autonomy from funders. Here we are primarily interested in the institutional dimensions of these tensions and potential breaches, and how they play out in practice, and their implications for the future of the social sciences more generally.

The study

In order to explore these issues in more depth we draw on mixed data **from the UK part of the** EU project KNOWING: Knowledge, Institutions and Gender - An East-West Comparative Study.⁴ As part of this project we conducted a survey, participant observation, interviews, and focus groups with staff working in a department of social policy and applied social sciences⁵ and its affiliated research units in one UK university between 2006 and 2007. We chose to study this department because it combined a disciplinary identity linked to academic social policy with commitments to applied social science research and the provision of professional training in related social science areas. It also had connections with the department of sociology, partly through the academic backgrounds and networks of individual staff members. At the time of the research, it was a relatively large teaching department with a range of research units attached, and a good research profile in previous research assessment exercises. The department also had a long history of staff contributing to debates about the future of social policy and its

relations with other disciplines. It is part of a university with a good track record in sociology and centres of interdisciplinary research beyond the social sciences.

Despite prior connections with some of the staff through our existing academic networks, our engagement with the department as a whole was not straightforward. We faced difficulties in gaining access and participants, which means that our findings are far from systematic or comprehensive. Our first challenge came when we tried to negotiate access through the head of department. When approached about asking members of the department to participate in questionnaire and observation studies, the head responded that he could not speak for his colleagues and we would have to negotiate access with each individual.⁶ This proved difficult, with a low response rate to our questionnaire (16.5 per cent) and numerous non-responses to requests to discuss potential observation or interviews. Our requests to observe research being conducted were also often unsuccessful. This was particularly difficult in the case of the research units, whose heads all felt that they could not participate, citing concerns that our observation studies would affect relationships with their own research participants, many of whom were in vulnerable groups. Our observational encounters with members of the research units were thus limited to 'staged' events such as seminars, lectures and presentations. We did however, have some key supporters of the research, most of whom were women in the teaching department. This group participated in interviews and focus groups and allowed us to shadow their research work as well as teaching, meetings, and seminars.

In this paper we draw on data from fourteen questionnaires, five in-depth semi-structured interviews, two focus groups, and observation of selected lectures, meetings and a series of research seminars run by one of the research units. We interviewed two female lecturers, one female professor, one male researcher and one female researcher. One of the focus groups was with lecturing staff (three participants, all female), and the other was with research staff

(three participants, two female, one male). The questionnaire, interviews and focus groups involved questions about the public and the personal aspects of academic work, careers and biographies, everyday working cultures in university departments, work-life balance, gender and disciplinary boundaries and identities.

Despite the obvious limitations of this dataset, we argue that this research has enabled us to explore some important questions about disciplinarity and interdisciplinarity, research autonomy, scientific and symbolic capital, and institutional conditions of work. Although our data is partial, it is also revealing, especially when combined with some of the public declarations of biography, scientific and symbolic capital and institutional position of the non-participating individuals and the research units and the department of which they were a part. The facts of these academics' non-participation are also enlightening in and of themselves. Our unsuccessful requests for and negotiations over access highlight a number of key factors which feature as the analysis unfolds. These include the forging of social policy and allied subject areas as interdisciplinary fields with greater symbolic capital than sociology (our own disciplinary home); the importance of scientific as opposed to academic capital to the 'consecrated heretics' in the core department, and the protection of a particular hybrid of scientific and symbolic capital in the form of research participants as assets amongst the research unit directors and some of their staff.

A diverse department

We found that the individuals and research groups in our study expressed commitments to a wide range of disciplines and interdisciplinary research. Our first, albeit highly partial, picture came from the ten staff and four PhD students who returned completed surveys, which, taken together, presented a diverse set of biographies and disciplinary affiliations. Questionnaire respondents had worked in a variety of vocational fields before entering the university, including

midwifery, social work, and public sector research. Respondents had training in a range of social science disciplines, including for example sociology, public health, social policy, and geography. They listed diverse research interests which covered various substantive policy areas (for example children and families, poverty and social exclusion) and themes (such as the policy process, professionals and policy implementation; knowledge transfer). Answering a question about 'your most important publication', respondents revealed a wide range of single and co-authored outputs, with publications in social policy and social work journals cited by core staff and research reports often cited by fixed term research-only staff. **Few shared academic landmarks, such as favoured journals or conferences, emerged.**

These responses linked symbolic capital, in particular the idea of links to stakeholders and publics, with a broad commitment to interdisciplinarity and applied research rather than narrower versions of scientific capital. This was also notable in the websites we analysed. Particular subject areas, fields and disciplines were not prominent. Instead, individuals and research groupings emphasized the pursuit of better policy which involved the need to cut across traditional disciplinary boundaries. On their personal web profiles staff explained, for example, that they sought a productive relationship between sociology and social policy or noted their circuitous career route as they pursued a particular research problem. Here the 'fuzzy boundaries' of sociology and self-consciously interdisciplinary nature of social policy were mobilized as part of a narrative of public relevance and problem-oriented research.

The department and the research units had separate but linked web pages which articulated a shared commitment to excellent and policy-relevant research. The mobilization of scientific capital was central to creating a prestigious public identity on both websites. The core department web pages focused on the longevity and formal recognition of its research activities, for example by referring to its place in national research assessment rankings. Although

traditional forms of academic capital (such as participation in university committees and managerial positions) were not highly visible or explicitly valued, the department did link scientific to academic capital by emphasizing high quality teaching, and by showing institutional positions and hierarchies, for example by listing staff individually by title. The core department also emphasized its long-term contribution to policy formation, and the roles of various senior academics as policy advisers, linking academic, scientific and symbolic capital.

The department's web pages were rather moribund compared to those of the research units, which were frequently updated to show scientific capital in the form of a high number and fast turnover of current research programmes, multiple sources of funding (largely government and charities), and recent publications and reports, many available to download. Researchers were listed not by academic position or individual areas of research expertise, but by team affiliations and current projects. The research units' sites made some use of academic capital by giving information about their historical connections with the department and founders in the professoriate. However, symbolic capital was more prominently on display via multiple references to the immediate relevance of their research to current policy issues and initiatives, and its benefits for various publics and vulnerable groups. Staff were presented as responsive, connected and making a difference, with their biographies often emphasizing that they had come into academia from a professional background. Unit web pages stressed 'making a distinctive contribution' to policy and service delivery, taking ordinary people's views into account, and empowering them through research which promoted, for example, inter-agency working. Research respondents, users and participants - particularly vulnerable groups - appeared as a kind of capital in their own right: a vehicle for the realization of research ambitions to change policy and make a positive social contribution, and unique and hard-won assets in that process. In this context it is perhaps unsurprising that some staff did not want to

become subjects of our (purportedly more theoretical, and certainly less policy-relevant) research, to risk us interfering with their own work and vulnerable 'assets'.

Similar dynamics of scientific and symbolic capital were apparent in a series of research seminars organized by one of the research units. This brought together a diverse audience of social science academics from across the university to hear work on the theme of 'risk', which was applied in a range of different empirical domains (for example public health and environmental safety). In these seminars, participants traded, shared and developed scientific capital across disciplinary and sub-disciplinary borders with respect to mapping and applying concepts and theories. At the same time, an imagined community of critical social scientists was tentatively invoked on the basis of a shared capacity to 'make a difference' in relation to a range of social problems and institutions. As researchers reflected on their interventions in policy-related fields, symbolic capital was invoked to distinguish applied interdisciplinary social science from 'theory'. Participants often told 'off the record' stories from their research which highlighted professional dogmatism and bureaucratic irrationalities and self-protection in the institutions and social welfare fields they had studied. These stories seemed to position the researchers as insiders within the organizations they had researched, but simultaneously to distance them from professionals, policy-makers and administrators. Here scientific capital linked to the critical power of the social sciences was in play. However, this was usually displayed alongside rather than in opposition to symbolic capital in the context of an explicit commitment to research participants and helping vulnerable populations. In this way, researchers presented challenges to policy and professional intransigence as crucial to social change rather than a vehicle for academic prestige.

We also noted some ambivalence amongst participants about the act of mobilizing capital in this way, especially in less public conversations during our observation period. With respect to

scientific capital, participants explained how they 'didn't fit in' (female researcher, focus group) to their current research area or disciplinary context, and people frequently told us that they were 'a bit unusual in social policy' (observation note, female lecturer), or came from an 'odd background in sociology' (observation note, female lecturer). Some interviewees mentioned the importance of having a disciplinary home to establish their scientific capital and avoid being 'pushed around' by short-lived funding agendas and institutional priorities (interview, researcher). However, it was also clear that academic work was never a matter of staying in one discipline, even if people had stayed in one department for a long time. Instead participants narrated a routine sense of moving through disciplinary and sub-disciplinary terrains in their careers, crossing areas as close as social policy, and sociology, and as distant as geography, psychology, statistics, economics, and history. Others spoke of feeling uneasy about being represented as an expert on a particular matter in public or policy environments, suggesting that symbolic capital is not always easily deployed by academics or researchers who are especially conscious of its shaky biographical foundations.

These findings show a diversity of scientific and symbolic capital at work in the department and the research units. As Bourdieu (1988) pointed out, this kind of plurality offers considerable protection against strict judgment of value from out with as well as within the university, especially in disciplines like the social sciences where status and academic capital can be contested. However, our findings suggest that these forms of capital are distributed in different patterns across the department and research units and the substantial form they take on in public and formal contexts does not necessarily hold up in private reflection and scrutiny. In the next section we explore this further, focusing upon capital in relation to the autonomy or heteronomy of individual academic staff, particularly in relation to economic and political fields beyond the university, as well as the structures of power within the institution.

Institutional structures, interdisciplinarity and autonomy

The past two decades have seen dramatic changes in the university due to the massification of higher education, the rise of the new public management, the embedding of audit cultures in academia, and the changing funding landscape, especially the marked shift towards fixed-term project funding for research. These changes have had far-reaching consequences for the conduct of research, the organization of academic work, and for individuals' careers and epistemic identities (Kogan, Henkel and Hanney 2006; Slaughter and Rhoades 2004; Henkel 2000). These changing contexts suggest an increased differentiation in the organization of disciplines, status differences between institutions, and intensifying divisions of academic labour (Shavit, Arum, Gamoran and Menachem 2007; Leathwood 2004). Scientific, academic and symbolic capital are mobilized in a changing field marked by institutional and epistemic divisions of labour. This is particularly evident in the differences between permanent teaching-and-research staff in department, and fixed-term contract staff in applied research units.⁷ Below we explore issues of inter/disciplinarity, capital and autonomy within and across these divides.

The Core

Assertions of scientific and symbolic capital notwithstanding, for participants in the 'core' department, academic capital was a fact of life – organized and enacted in numerous committees and departmental meetings, particularly around teaching. This could offer a sense of being 'at home' and 'comfortable' (observation notes, female lecturer) in the department, and of 'trustful relationships' (interview, social science lecturer) with mentors. Often this capital and comfort been built up over the long term, with some staff having done their PhD and even undergraduate studies in the department. Yet in other respects, participants from the department gave accounts of feeling 'very alone,' experiencing departmental culture as

'individualistic' and 'inhibiting' in relation to the prevailing research climate, which favoured larger scale, collaborative funded projects (interview, female lecturer).

This points to a particular tension within the 'core' department with respect to autonomy. Although the research world demands increasing heteronomy - introducing dependent relations with funders, research participants, and within research teams, particularly in the relationships between principle investigators and contract researchers - this is at odds with the autonomy of the traditional academic, who is also expected to be self-directed in terms of the research problems s/he identifies and in the pursuit of disciplinary and scientific prestige. In these conditions, interdisciplinarity has the potential to undermine scientific capital and status with complex outcomes for careers and academic trajectories.

For participants in the department who were most aware of and keen to protect their autonomy, top-down admonishments to interdisciplinarity were felt to devalue specialism and threaten academic status, as in the following quote:

somehow I feel like you're [expected to] go back to the beginning all the time. Instead of building on existing knowledge in a discipline, you're having to justify the roots of those ideas to people all the time just to get a research project off the ground. (Focus group, female lecturer).

Others spoke about protecting disciplinarity to protect their autonomy:

you realize how passionately you hang on to some things, I think... It also makes me feel that there's a vulnerability or fragility to those disciplinary bases that is under attack

somehow. That you have to be able to justify your position to audiences who traditionally have not engaged with those ideas. (Focus group, female lecturer).

In focus groups and interviews, these staff expressed a desire for their work to be relevant to in the policy process, but insisted that its primary value was academic and disciplinary; there was a sense that if the ideas and arguments were rigorous and persuasive, their relevance and application would follow some way down the line. Here disciplinary scientific capital was actively pursued, while symbolic capital was seen as much less central to their activities.

Discipline-based scientific capital was not an easy route to security, however. One lecturer in our study discussed how she had to move into a social policy research area to secure employment, generating a sense of insecurity and vulnerability (female lecturer, social science focus group), reinventing herself through necessity rather than autonomous choice. The need to mobilize scientific capital which was not necessarily founded on **long-standing** or autonomous pursuit of particular forms of specialist knowledge was also an uncomfortable business on a more routine basis, within the academy and beyond. As one lecturer commented, ‘in an academic field I feel very uncomfortable if anybody points at me and says, “you know something about this”’ (focus group, female lecturer). Another lecturer talked about feeling flattered to be approached as an expert in her area of social policy by other academics and, government committees, but noted that she **none the less** felt ‘inexperienced,’ and distanced herself from fully taking up the position of expert (female lecturer, observation fieldnote). For these mid-career lecturers, success in one’s career seemed to involve a continual process of recalibration and balancing between scientific and symbolic capital, autonomy and heteronomy, generating a prevailing sense of not quite fitting in, or being sufficiently knowledgeable or relevant, whatever one’s public presentation of self in websites or seminars might suggest.

By way of contrast, an interview account from a senior academic in the department, from a different generation, emphasized her sense of how a successful combination of disciplinary and interdisciplinary commitments, autonomy and heteronomy, and academic and symbolic capital, had intensified her security and status. This professor had moved across fields including social policy and women's studies as she built her career. She explained that she moved to her current department 'partly because it didn't feel right to go back. I felt I was a different sort of animal to the person who had left sociology' (interview, female professor). Her account stressed her role in pioneering a new interdisciplinary field closely linked with the women's movement, and her autonomy as an academic actor who chose her own departmental home to suit her needs to engage in policy worlds. In her narrative, engagement in interdisciplinary research and teaching had enabled new ways of being and belonging in the academy and were strongly associated with a sense of liberation and fulfilment:

that experience very much changed me into a much more kind of multidisciplinary [thinker], which I still think I have to some degree [...] it was a very, very enjoyable time. And I think being with these women from other disciplines was very, very illuminating. (Interview, female professor)

Alongside some of her male peers who had similar trajectories of interdisciplinary research and teaching with emancipatory movements, and high levels of autonomy founded on scientific and symbolic capital, this professor seemed to fit the profile of Bourdieu's 'consecrated heretic', often to be found in the social sciences in a 'prestigious but marginal position in relation to the mechanisms of reproduction' (1988: 125) but **none the less** part of its realization. This professor also had considerable academic capital, particularly with respect to involvement in university policies and committees as a critical voice holding the institution to account.

We therefore found that configurations of academic, scientific and symbolic capital varied in the core department depending on individuals' career trajectories and autonomy (actual and desired). On balance, however, these configurations were associated with more security and status than those available to staff in the research units, as we go on to discuss below.

The Periphery

The research units in this study were structurally distinct from the main department, dependent on ongoing research contracts for their continued existence. This meant they were staffed largely by individuals on fixed-term employment contracts, who worked together on particular projects. This organizational structure was a practical necessity in the context of short deadlines and a high volume of contracts. As is the norm in many areas of the natural sciences, research reports featured several co-authors, and researchers were usually working on multiple projects at any one time. This involved considerable heteronomy. Participants voiced a strong sense of commitment to each other, often describing themselves as 'team players', although the teams themselves were frequently 'reshuffled' (contract researcher focus group). Claims to or worries about autonomy were markedly absent from their accounts, in contrast to the accounts of staff from the core department.

Research work in the units was also strongly associated with symbolic capital. Participants articulated a strong preference for 'applied work' (focus group, female researcher) with a 'real world' focus (focus group, female researcher). Although sometimes sceptical about the policy process, they saw themselves as people whose research work could make a difference: 'you'll find a lot of people working in this job have a degree of vocationalism [...] people do want to make other people's lives better' (interview, female researcher). This researcher explicitly positioned herself as a social policy researcher here, drawing attention to its difference from

sociology which was framed as more theoretical and ‘academic’ (interview, female researcher). This point was also picked up in the contract researcher focus group, where one researcher explained that ‘[m]y work is very much for children and families. I very much have them in my thoughts as I write a book.’

Research here was also associated with a lack of commitment to disciplines. In contrast to their colleagues in the teaching department, contract researchers had no ‘great identity or affinity’ with particular disciplines or subject areas (focus group, female and male researcher). This was linked to a routine lack of control and choices about what types of projects they worked on. As one researcher commented, moving into contract research involved being repeatedly ‘picked up from one discipline and thrown into another’ (interview, female researcher). However, they also positively correlated inter- or even a-disciplinarity with an interest in specific policy problems which invited or even demanded a ‘broach church’ of approaches: ‘I would say that it has always been very multidisciplinary [...] housing in itself is not a discipline’ (male researcher, focus group). For these participants, disciplines were represented as external and objectified as stores of knowledge, theory, evidence or methodological tools, not communities to which one belonged. As one contract researcher put it, ‘what I do is begging and borrowing from a whole range of different disciplines’ (interview, male researcher). Others said that disciplinary identity had simply ‘never mattered’ – except in encounters with institutional manifestations of discipline, where it became literally a matter of ticking boxes:

[the ESRC] expect you to belong... There’s boxes to tick in an application, and I don’t know whether I could have just said well, actually I don’t sit inside any of these. I’d better tick that box and that box then (interview, male researcher).

These accounts echoed some key features of Mode-2 type research (Nowotny, Scott and Gibbons 2001), and more specifically the kind of social science research endorsed in calls to restructure the social sciences (Commission on the Social Sciences 2003; Gulbenkian Commission 1996) – problem-oriented, team-based, boundary-crossing. However, participants also noted a lack of institutional recognition of these models of working (contract researcher focus group; interview, male contract researcher). This was associated with a sense of detachment from the department and the institution more generally. Researchers noted that higher education research assessment policies and promotions procedures in institutions undercut the value of their collective epistemic labour, making the work of multiple contributors invisible. Their accounts focused on difficulties in acquiring scientific capital based on sole-authored publications in highly rated journals and accessing forms of academic capital in the institution, for example having little opportunity to participate in committees and other formal and informal decision-making processes.

Thus, while the everyday research practices of contract staff embodied some of the ideals of interdisciplinarity and team-working strongly endorsed in recent research policy, individuals working in applied contract research units risked problematic career consequences and low status, often continuing to work for long periods on precarious contracts and lacking institutional recognition. Their applied and collaborative models of research were practiced in the margins of the institution where academic capital was largely absent. Researchers in the units successfully mobilized and generated symbolic capital – and financial capital, in the form of grants - in the course of their work. However, their scientific capital was limited by precarious contractual status and relative lack of autonomy compared with their colleagues in teaching departments. Only individuals at the top of the research units' hierarchies succeeded in converting scientific capital into career progression and prestige.

Conclusion: Divided we stand?

In characterizing the department and units as core and periphery we force home our analytical point about different levels of access and commitment to capital and autonomy in both places. It would be misleading to draw too stark a contrast between different institutional domains. The 'core' department and the 'peripheral' research units in this study were part of the same organizational entity: in Bourdieu's terms, part of the same field of power. There was considerable intellectual traffic, as well as traffic of people and resources, between them. Staff in the department and the research units also shared many of the same political and scientific commitments and successes in applied research.

However, we also found contrasting patterns of academic, scientific and symbolic capital, autonomy and heteronomy, and inter/disciplinarity across these domains. In the department we found that academics had more access to and ability to combine academic, scientific and symbolic capital to their advantage, although this varied according to generations (and, we suspect, gender and other categories of social difference). Autonomy was important, as were disciplines, although the realization of their benefits was far from straightforward and often contested. In the research units a more limited repertoire of capital was in evidence, with symbolic capital being a dominant force. This was strongly associated with interdisciplinarity and heteronomy as highly valued ways of working, albeit in conditions of considerable dependency on external agencies and weak links to the university as an institution.

Bourdieu's concern was that these types of developments would open up a fundamental division in the academy, ultimately undermining its autonomy as a whole. It would be inappropriate to draw firm conclusions in this respect based on our limited study. However, it does seem important to consider the implications of our findings for the social sciences in the

years ahead. Our research brings to the surface the institutional, material and cultural conditions in which disciplines and inter-disciplinarity are practiced. This approach draws attention to some of the ways in which the symbolic capital and the material resources generated by contract researchers have helped to sustain the scientific and academic autonomy of others. At the same time, it reveals how the discipline-based scientific and academic capital of more secure staff has generated opportunities for others to pursue the applied and interdisciplinary work that they express a passionate commitment to. Both groups have contributed to the maintenance of research communities in the social sciences that are theoretically rich *and* practically engaged, in which disciplines matter but inter-disciplinarity is also an important and routine aspect of practice.

We have also explored some key points of tension between the two domains of academic social science in our study, and we argue here that these tensions have implications for the future of the social sciences and academic autonomy more generally. We do not aim to diagnose the extent or implications of the 'breach', **but rather position our institutional and empirical findings in relation to calls from organizations such as** the ESRC and British Sociological Association to protect disciplinary 'cores' and foster creativity through 'bottom-up' interdisciplinary (ESRC 2010). With Stanley (2005) and Skeggs (2008), we note that the majority of participants in these discussions come from relatively stable and prestigious institutional positions in teaching departments and/or the boards of various funding bodies, assessment panels and professional associations. Their high levels of autonomy map onto scientific, symbolic and academic capital which is linked to their promotion of disciplines. It may also help to explain why the kinds of applied, routine and heteronomous interdisciplinarity invoked by researchers in contract units are rarely recognized in official audits of the social sciences.⁸ Our findings lead us to question the extent to which these reviews and manifestos represent the more marginalized workforce of social science research, for whom disciplinarity seems less likely to offer a meaningful route to

security, and whose interdisciplinary and collaborative work is currently undervalued in academic institutions. We suggest that in order to protect the academy in general and the social sciences in particular, we need to look carefully at the distribution of capital and autonomy across our institutions, and find ways to make them more accessible to a wider array of academic actors. Research on autonomy and capital in the social sciences has an important role to play in recognizing and enhancing the strengths of our diversity.

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Notes

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² As Hollands and Stanley (2009) note, current iterations of the 'crisis' trope refer to Gouldner's *The Coming Crisis of Western Sociology* (1970), and a sense of constant or even chronic crisis in the discipline seems to have been part of the package of sociology from its inception (see also Tonkiss 2010).

³ We are aware that attempts have been made to distinguish between multidisciplinary (an additive approach bringing together a range of disciplines without questioning their boundaries), interdisciplinarity (integrating methodologies and challenging/reconstructing epistemologies across fields), and trans-disciplinarity (ontological challenges). For an overview of these distinctions, their rather fuzzy boundaries, and the problems with using them generatively for analysis see Barry, Born and Weskalnys (2008) and the useful discussion in Strathern (2007). In this article we are concerned with conventional policy constructions of interdisciplinarity and the experiences of researchers (who almost without exception talked about interdisciplinarity); we therefore follow Barry, Born and Weskalnys (2008) and use 'interdisciplinarity' throughout.

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⁵ We have chosen not to give the name of the department here or to be more specific about its particular research fields and themes because of a commitment to anonymity for the participants.

⁶ This contrasts with our experiences of negotiating access to a science department elsewhere in the University, where the head acted as a willing gatekeeper. See Garforth (in press).

⁷ A small body of research on contract research in the social sciences over the past 20 years, mainly by feminist academics, has pointed out the lack of contractual security and difficulties managing time and

career trajectories and raised unsettling questions about new divisions of labour and academic status in the social sciences (Allen Collinson 2003; Hockey 2002; Hey 2001; Reay 2000; Stanley 1990; Kelly, Burton and Regan 1990).

⁸ It is notable that, for example, the Commission on the Social Sciences (2003: 37-41) reproduces the tradition of referring largely to senior individuals and academic teaching-and-research departments in its review of the contributions of the Social Sciences to UK public life.