

The relationship between books: abduction and disproportion in the production of knowledge

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Abstract

Google's Herculean project at becoming the world's online library has recently hit the news. As reported in *The New Yorker* magazine, Google's ambition is to digitize every book ever published, currently estimated at no less than thirty-two million volumes. Dan Clancy, chief engineer of Google's scanning project, summarized the venture thus: 'The real challenge is to get somebody something that they are actually interested in, inside a book. Web sites are part of a network, and that's a significant part of how we rank sites in our search – how much other sites refer to the others... Books are not part of a network. There is a huge research challenge, to understand the *relationship between books*.'

In this paper, I want to explore how the 'relationship between books' may speak to and about our contemporary 'knowledge economy', and I do so through an ethnography of the production of research among humanities scholars at Spain's National Research Council (CSIC). For CSIC's human scientists, 'books' (and other bookish-analogues, like libraries or manuscript collections), occupy a place of prominence in the institutional production of research. Human scientists also speak of 'personal relations' as central to how the institution governs its knowledge economy: Which books one is working on (translating or annotating them) being an index of who one works with. This relational economy (between books; between people and books; and between what books do and what institutions and researchers imagine them to do) stands in friction to the 'network economy of information' (à la Google) that CSIC's management and majority of natural scientists institutionally promote. The paper contrasts the epistemological economies of CSIC's natural and human scientists, and asks some questions about the sociological imagination of the knowledge economy when books become bearers of relations in their own right.

In March 2007 I attended a seminar at Spain's National Research Council's (CSIC) Institute for Knowledge Management (*Instituto para la Gestión del Conocimiento*,

INGENIO) on 'ways of making the social sciences and humanities valuable in CSIC'¹. The event brought in people from all over Spain, including representatives from departments of history, philology, sociology, economics, anthropology, geography, linguistics, archaeology, social studies of science and area studies. Altogether some eighty people attended. The occasion marked the conclusion of a three-year long research project carried out by INGENIO exploring the potential for 'knowledge transfer' and 'innovation' in the social sciences and humanities (SS&H). The spirit of the report was unabashedly positive: despite stereotypes to the contrary, it was said, the SS&H had immense potential for promoting social and economic change, and in particular for contributing towards the coming-into-being of the 'knowledge society'. The presentation of the project's results concluded with a slide that read as follows:

We need to commit ourselves to the following project: To promote an entrepreneurial attitude/mentality among researchers. Those who aim to embark on a research career must have, on top of the appropriate scientific and research qualifications, the management skills to deal with research management and administration; intellectual property rights; communication; networking; entrepreneurialism; and team work. (Criado 2007)

Towards the end of the event, in the last of the many 'questions and answers' sessions for which time was made during the day, a historian of science stood up and made the following comment:

We are being asked by our senior management to take a pro-active role in making our science valuable for society. I understand their call. But I would like to make three comments in this respect:

1. I would call our seniors to take seriously to task the organisation of CSIC's historical archives. It's all very well to speak of 'knowledge transfer management', but shouldn't we first, for reasons of institutional dignity, invest in organising our own historical archives?
2. It would be good, too, if those in the Science Culture Area [the department in charge of promoting CSIC's activities to the media] had some sense of the distinctiveness of our disciplinary expertise: I'd rather not have to deal with urgent calls from the press to talk about things I don't know much about.

3. Ever since I got here, some twenty years ago, we've had tremendous difficulties when it comes to buying books. Right now, it is impossible to buy books on one's credit card (say, when you are abroad) and then try to get a re-imburement from the institution.

Short of having finished this last point, the historian was rather abruptly interrupted by the meeting's convenor, who noted that she had specifically asked for brief interventions – time was running out – plus she did not quite see the relevance for the topic under discussion (knowledge transfer in the social sciences and humanities) of the points raised by the historian.

After the meeting, on the train back home, reflecting and reminiscing about the day, some researchers with whom I was travelling recalled the historian's intervention: his comments were cited by many as indicative of the 'psycho-therapeutic' nature of the event. People joked about how every time someone grabbed the microphone 'they lightened a candle to the virgin', meaning they used the opportunity to make public pronouncements about their own personal predicaments: people complained about not having enough resources; about needing more money; wanting more job openings for their departments; or needing more administrative support. One researcher captured this sense of asymmetrical power in a vivid idiom, when he noted that there was a 'disproportion' between what researchers were being asked to do (become knowledge managers) and what the institution made available to them to carry out this task.

Some days later, whilst doing archival research at CSIC's Humanities Centre, I came across the minutes of a meeting held at one department in the Centre. My attention was drawn to the following paragraph:

Dr. Alicia Gómez talks about the abduction (*rapto*) of books. She explains that the books are taken by Dr. Martin Alonso when there are no witnesses around, who keeps them for a year or more. She complains that this makes work impossible. 'Isn't there a mechanism to stop this?', she asks. (Acta de la Reunión de la Junta Ordinaria del Instituto de Filología, 19 October 2000, p. 4)ⁱⁱ

The passage records a complain by one professor that a colleague is keeping books for himself, withdrawing them from the library without permission, and hoarding them in his office or home, thus raising barriers to other people's academic labour. The sense of aesthetic paralysis that the word *rapto* (abduction) conjures reminded me of the train conversations. In this indigenous usage, the term *rapto* captured a particular form of affected and suspended agency: the absence of books pre-empted the possibility of academic labour; without the support and existence of books, Dr. Gómez insinuated, human intentionality and labour are evacuated. Much like the historian's intimation about the asymmetrical deployment of knowledge inside CSIC, about the ridicule of being audited for knowledge when its very production is not properly funded, the declaration about the abduction of books echoed an idea of knowledge as a regenerative organic body, something that needs watering, agency, laborious cultivation to grow, and that in this context finds itself constrained due to institutional strictures. In complicit association with an institution that was permissive about such behaviour, the raptor of books appeared thus as secretly cultivating what others had no means to access. The production of knowledge was imagined thus as containing its own abysses and distances, its complex disconnections from the world.

Within days of having noted this connection between the singular relevance of books as abductors of agency and the sociological imagination of CSIC as a disproportionate aesthetic form, I was struck by a second analogy. A friend brought to my attention a recent article in *The New Yorker* magazine on Google's Herculean project at becoming the world's online library (REF). As reported in *The New Yorker* magazine, Google's ambition is to digitize every book ever published, currently estimated at no less than thirty-two million volumes. The project has raised concern over, and opposition because of, issues of intellectual property rights, in particular regarding the terms in which knowledge is said to inhabit the public domain: Who owns (to the) knowledge in a book with uncertain copyright status?, or how does an electronic version of a book relate to its physical content? Dan Clancy, chief engineer of Google's scanning project, summarized these complex connections thus: 'The real challenge is to get somebody something that they are actually interested in, inside a book. Web sites are part of a network, and that's a significant part of how we rank sites in our search – how much other sites refer to the others... Books are not part of a network. There is a huge research challenge, to understand the relationship between books.' (REF)

This paper is about what Clancy terms ‘the relationship between books’: about the imagination that this relationship plays in the making of our contemporary ‘knowledge society’, and about the ‘sociology of knowledge’ behind this imagination. In particular, I am interested in the sociological imagination of knowledge in terms of a relational economy, where knowledge flows uninterruptedly to create and shape what Yochai Benkler has dubbed ‘the wealth of networks’ (REF). In this context, Clancy’s point about ‘the relationship between books’ echoes CSIC’s researchers own insistence at the importance of books and other bookish-analogues (libraries, journals, manuscripts, book chapters – of which more below) for producing knowledge, and for making knowledge grow: for dispensing – for doing without – its capacities for abduction. There are, however, important differences ‘between books’: between Google’s and CSIC’s visions of a world of book relations, and of the productivity of such relational worlds. The paper describes these differences and uses an ethnographic account of the institutionalisation of knowledge among philologists and social scientists at Spain’s CSIC to comment on the epistemological economies through which knowledge is made to appear *demonstrably social*.ⁱⁱⁱ The ‘de-monstrative’ moment of the social is important, and one I want to underscore, because it points to the complex connections between the public nature of science, different sociologies of knowledge, and the political economy of a ‘knowledge society’. In this sense, the paper fares as an ethnography of that grey and nebulous area that makes up what Philip Mirowski has called the ‘surreptitious affair’ between political economy and science theory (MIROWSKI p. 5). The paper ends with a commentary on how anthropology may help reduce the new utopianism of knowledge into a productive venture.

Productive knowledge

What makes knowledge productive? How do we recognise – what circumstance are conducive to – the productivity of knowledge?

Despite the overabundance of references to the advent of a ‘knowledge society’, and our inhabiting of a ‘knowledge economy’, there are few analyses of the terms and conditions that make the social realisation of knowledge as a productive asset possible: We know little about what makes knowledge capital-productive, and we know even less

about the interplay of economy and society in recognising the political purchase of knowledge.

An important referent in the characterisation of the knowledge economy is the work of Dominique Foray (REF). In collaboration with Paul David he has further ventured to describe the economic fundamentals of the new knowledge society (REF). Central to this sociological economy, Foray and David tell us, is the velocity at which knowledge is created, distributed and used up. The technological speed at which this happens has in turn enabled a revolution in technologies of organisation, prompting the establishment of 'knowledge-based communities' (21) that foster the externalisation of skills and information through expanding networks of decentralised, 'online' exchanges (22). These exchanges involve designers, users and 'lay people' on an equal footing, thus making it nigh impossible to identify the exact location and identity of an innovator. Coming from different locations, backgrounds and interests, those who are involved in a knowledge-based community's network boost knowledge through 'recombination, transposition and synergy' (29). It is such diffusion of the sources of innovation that redefines too the 'public space' of technological participation (DAVID AND FORAY, 27; cf. BARRY). The public appears thus as an external moment of a technological economy; a consequence of radiating relations, rather than a relational form as such.

Though Foray and David speak authoritatively about the technological and sociological changes brought about by the revolution in information and communications technologies (ICTs), the fact is that the political rhetoric about the knowledge society remains anchored, as Peter Scott has noted, in an 'utopian vision' of what knowledge can do for us (298). The utopia of knowledge is flawed by the duplicitous value of knowledge as both a commodity and a public good (299). This is a point recognised by Foray and David, who acknowledge that the new information and knowledge-rich society is producing 'artificial scarcities – by achieving legally sanctioned monopolies of the use of information [via intellectual property rights] – in fields where abundance naturally prevails, thus giving rise to an enormous amount of waste.' (37) A similar argument has been made by Grahame Thompson, who thinks ICTs spin out so much knowledge that this eventually simply 'spills over' the market and flows away in unrecognisable value-forms. This is why for Thompson this externalising capacity of knowledge would be best bridled if given the form of a public good (570).^{iv} This echoes

the analysis made by Strathern a propos of the image of the externality in our contemporary economy (REF). Talk of ‘externalities’ externalises our own sociology: our tools for making sense of the ‘knowledge society’ are tools that remainder their own sociology out: patents, technology transfer protocols or collaborative ventures are all remaindering devices, that work by re-dividing knowledge and society through a proliferation of explicatory terms;^v instruments whose objectification of knowledge simultaneously ‘produces’ (knowledge about) society. Hence the current elusiveness of knowledge as a sociological category – and the image of our sociology of knowledge as a sociology *on* knowledge (on patents, on collaboration, on metrology, etc.).

In this context, it should perhaps not come as a surprise that our image of the knowledge economy remains an elusive image at best. Indeed, Thompson’s sobering analysis of the impact and governance of ICTs on the economy delivers a heavy blow to the very notion of an economy of knowledge. His quantification of the impact of the e-economy concludes that ‘99.7 per cent of the global economy was made-up of ‘old-economy’ or ‘non-e/m’ economic activity’ (564), leading him to remark sardonically that the so-called ‘weightless economy’ appears weightless indeed (565).

Central to Thompson’s argument, and what is of most interest to our subject matter here, is his contention that despite all the rhetoric about the importance of networking and the decentralisation of production, the e-economy remains alive because of its adherence to old modes of production. His argument is that contrary to expectations it appears that most of the new business done by networking is a technological extension of business first sanctioned by handshake agreements. In the business-to-business sector – which makes up 85 per cent of total e-business revenues (566) - the complexity in new production designs brought about by ICTs seems to have promoted a parallel increase in face-to-face contact and ‘handshake’ transactions. ICTs are therefore complementing, rather than displacing, traditional business strategies, which still require ‘the continuation of proximity, the clustering of activities where they can be controlled and monitored through handshake transactions.... Networks continue to do their work ‘locally’.’ (566) So networking flourishes not on time-space compression but on clustering and institutional aggregation. Most significantly, it would appear that this involution to clustering and the intensification of knowledge circulation around circumscribed domains represents at some level a return to a craft mode of production.

Thompson suggests that unlike most diagnoses of the knowledge economy, which take a scientific-technological revolution as their organising paradigm, his research indicates that networking is enabling instead a reorganisation of production around an engineer-based paradigm, where tacit knowledge and craftsmanship emerge as crucial.

Thompson's argument has significant implications for the organisation of production in universities, which he himself spells out. Against the current of intensified, engineer-based changes in the organisation of production, universities seem unique in having embraced the knowledge economy to its letter. Increasingly, universities are networking their operations, moving closer to flexible specialisation modes of production. A well-known example is the distinction between teaching and research staff, where the former often includes sub-contracting teaching activities to graduate assistants. This is most odd, in the view of Thompson, because universities, in their traditional form of organisation, were best suited to profit from the clustering and intensification of tacit knowledge that the new economy seems in fact to be promoting.

Productive demonstrations of knowledge

The comparison that Thompson draws between flexible and engineer-based modes of organisation in the production of knowledge throws up a number of very interesting questions when one thinks seriously about the kinds of knowledge that universities produce. This topic has been the subject of much recent discussion under the general rubric of a 'governance of (scientific) knowledge' debate (REFS). Whilst there are important subtleties and variations to the debate, there is an important sense in which the terms of the governance of science discussion, and especially of its spin over the present and future of universities, have had a general impact on our cultural models of society: how we come to imagine knowledge as a productive force being an index of the kind of social democracy we feel capable of promoting. As Gerald Delanty has argued, the university has played a historical role in the institutional and cultural imagination of modernity, mediating alternative conceptions of knowledge as now a scientific venture, now a cultural project in democracy (REF). Many of the struggles over the project of modernity, including, of course, national projects of political economy, have been fought inside universities. It is in this sense that Steve Fuller speaks of British, French and German models of university education, each implying its own economic structure: (i) the 'British model envisages the university as a fiduciary institution in which

students pay academics to make choices on their behalf that they themselves do not feel competent to make... The choices concern the sort of knowledge that students need in order to succeed in life.’; (ii) ‘In the French model, higher education is a state-sanctioned monopoly that licenses the practice of the liberal professions’; (iii) ‘the German model of the university is that of a multi-product firm, in this case one devoted to both teaching and research.’ (‘University: social technology for producing universal knowledge’. p. 228). These in turn reproduce a productive economy based on ‘rent’ (of reputation), in the British case; profit (from contracts) in the French case; and wage (from work) in the German model (230). The political economy of knowledge thus tells us how knowledge ‘appears’ in society, for what purpose and effect. It is not coincidental, Fuller suggests elsewhere, that what counts as knowledge, or how it gets recognised, varies in terms of its location within a political economy: expertise, credentials and intellectual property being approximate indicators of the social structure – German, French and British – behind different classes of knowledge (Universities succum knowledge society, p.).

What I find useful about Fuller’s analyses of the political economies of knowledge is his insistence that different modes of *producing* knowledge (rent, profit, wage) yield different modes of *productivity* (intellectual property rights, credentials, expertise). Building on the work of Werner Sombart, Fuller summarizes this connection with a poignant formula: ‘how producers [capitalists, academics] *publicly demonstrate* their *productivity*?’ (Universities succum knowledge society, p. 116, emphasis added) My interest here is in what Fuller calls the *demonstrative* aspect of knowledge, that dimension of production through which knowledge creates its own aesthetic effects. Echoing a distinction first made by Aristotle, Ortega y Gasset once differentiated between ‘demonstration’ (in the original Greek, *deîxis*) and ‘monstration’ (*apodeîxis*): a second-order proof vs. a first-order appearance (O&G, *Principio Leibniz*, 178). Reality, Ortega y Gasset held, manifests itself, ‘appears’, in a sort of emergent mode, an appearance that is ‘pure exhibition’, pure spectacle (O&G *Principio Leibniz*, 179). In this guise, we may profitably use Ortega y Gasset’s distinction to lend an inflection to Fuller’s question: how does academic knowledge ‘appear’ productive? What do academics do, when they ‘do’ knowledge?

The sociology of knowledge has generally been concerned with the demonstrative at the expense of the monstrative, if only because perhaps the latter emerges in an ethnographic tempo difficult to apprehend with a sociological vocabulary. It is difficult to let things transpire their own apodeictic qualities; one is always urgently tempted to locate them in a deictic context. This, I think, is why Fuller needs to write the spectacular dimension of *productivity* back into an economic mode of *production*: why the productivity of knowledge is linked back to what he calls ‘third-order’ capitalism (116). For Fuller, third-order capitalism stands for reflexive capitalism, a mode of production where consumption per se no longer indexes one’s productivity; where consumption is no longer the vanguard of history (REF MILLER). Once a form of ‘second-order production supported on the back of increased first-order production’ (117), consumption has evolved today into a new ‘third-order’ type of capitalism where what indexes productivity is the consumption of knowledge as an economic good. Thus, to become visible as a mode of productivity, consumption has had to create its own aesthetic effect. Knowledge is now consumed to show one’s productivity as a capitalist. Knowledge is the new vanguard of history: the point at which society *de-monstrates* itself as economy.

Antiquarianism

My concern in the rest of this paper is to re-describe the demonstration of knowledge in economy and society through what might be called a monstrative account of how knowledge becomes a productive force. I want to explore what knowledge may look like when it does not assume a self-consciously vanguard form: when the economy is not its mode of representation. I do so by way of an ethnography of the modes of appearance of knowledge in a SS&H environment within Spain’s National Research Council. My remit, then, is the institutionalisation of knowledge in an academic economy.

I arrived at CSIC in June 2006 in order to do an ethnography of ‘public knowledge’: an ethnography of the ways in which the SS&H produce knowledge in the Spanish context, at a time when the organisation of state science in Spain is undergoing a profound and radical transformation.

Upon arriving, I was designated a research space at the Institute of Philology, located within the Centre of Humanities in Madrid (CHM). I was given complete freedom to move within the institution, which I did. The CHM is made up of three institutes, Philology, History and Spanish Language, which are made up in turn by a variety of academic departments. The Institute of Philology, for instance, is made up of the departments of Biblical Philology & Oriental Antiquity, Hebrew and Sephardic Studies, Arabic Studies, and Latin and Greek Philology. I first took residence in Biblical Philology, where I stayed for approximately six months (Sept. 2006 – March 2007), and then moved to the department of the History of Science within the Institute of History. I also moved at leisure around other areas in the CHM and CSIC at large, attending meetings and interviewing academics. I cultivated especially good relationships with people in the Anthropology department and a trans-disciplinary Social Studies of Science Network.

My arrival in CSIC coincided with an important moment of organisational change in the institution, referred to by the authorities as the most significant in the history of the SS&H in CSIC. This consisted in the setting up and organisation of a new Centre for Human and Social Sciences in Madrid (hereafter CCHS) which would bring together in one single site most of CSIC's SS&H departments. (At the time of writing, the move is scheduled to take place in June-August 2007. The Centre is planned to open in September 2007.) The Centre will be based in a new, so-called 'intelligent' building on the outskirts of Madrid. Approximately 650 people are expected to move to the new building, coming from a diversity of academic sites and geographical locations in Madrid, some leaving behind privileged residences in the financial and political districts, next to Congress, the banking sector or boutique shopping areas. The decision to set up CCHS was taken in the year 2000 and to this day CSIC has invested €25 million in the project (REF. Plan Estratégico CCHS, p. 3)

In many respects, the project for the new Centre exemplifies what Gibbons, Nowotny et. al. have famously called a site of 'Mode 2 knowledge': a research space dedicated to the production of socially robust science, that is, Science developed in partnership and association with Society (REF). In this vein, the Strategic Plan for the new Centre defines its mission as that of 'producing and transferring research results in the social sciences and humanities in order to help create a knowledge society'. (Plan Estratégico

CCHS, p. 5) To this effect, the Centre will promote the development of ‘multidisciplinary’ and ‘transversal’ research programmes that will contribute towards ‘dynamizing the Spanish national system of research and development.’ (PE CCHS, 5) The INGENIO seminar on knowledge-transfer in the SS&H with which I opened this article inserts itself into this programmatic vision of a new role sociological role for science. Central to the cross-fertilization of the sciences and society implied in this vision is the imagination of the Centre as a ‘totally new scientific structure... The Centre is not the outcome of a *fusion* between pre-existing Institutes, nor a *confederation* of such Institutes. Its organisational model respects such Institutes but will *integrate* them in a new framework.’ (PE CCHS, 6, emphasis in the original). This responded to a vision by senior management to use the creation of CCHS as an opportunity to re-structure the academic organisation of the SS&H within CSIC. The idea was to put right a long history of neglect and marginalisation of the SS&H within CSIC, a situation compounded by the SS&H’s own poor record of international accreditations.

Perhaps predictably, the integration of institutes was not generally welcomed by academics. Among other changes, the integration entailed the dissolution of academic departments and the invitation to researchers to associate anew into so-called ‘research groups’. This was bemoaned by many as disrespectful of ‘historical identities’, and correspondingly resisted. Once summoned, the question of identities conjured a phantasmagoria of filiations. Philologists were often blamed, and regularly singled out, for their ‘antiquarianism’. A senior member of the Council’s Scientific Commission spelt this out with furious irreverence:

the people in Medinaceli [the name given to the building that hosts the Centre of Humanities] are essayists and archivists. They behave like antiquarians. Philologists are obsessed with accumulating papers that nobody knows what use they have. I suppose someday they will serve some purpose. But then again the building itself is most apposite for their enterprises. [The building dates to the 19th century.] They roam its corridors trafficking in rumours and gossip. A perfect example of an environment *casposo* and *rancio*^{vi}, charged with the air of a National-Catholic bureaucracy. How can anyone feel attachment to such place? But of course there is the question of history and identity: don’t even think of

changing their names. Or their books. Fucking obsession with books. Take the new library in the new Centre: who needs a gigantic library in the knowledge society? Why go down to the library if you can access it online from your office computer?

The new Centre is to host what people refer to as Europe's largest library in SS&H and this became indeed a sticking point for philologists' accounts of the move to the new building and the reorganisation of the centre. Almost every philologist I met made at some point in our conversations a reference to the new library. 'Our present library', one philologist told me, 'is very good. It has many journal collections, many of them complete, some going back to the 19th century. Libraries are very important for us', he added. 'Sometimes we speak of ourselves as "library rats". But it is true: we work with cards and texts. Our work is very different from that of historians, or anthropologists, who love fieldwork. We work slowly, with texts.' 'Books', another philologist told me, 'condense our economies of knowledge. We inscribe our thoughts in them, in annotations on the margins, where we make our own translations of ancient words that have no dictionary entries; likewise, we read the thoughts that others wrote in them. Books carry our personal relations within.' The place of the personal in the economy of philological scholarship was true in another sense, because the books that one was working on (translating or annotating them) were often taken as an index of who one was working with – an inflection that placed books, and libraries, as we will see, amidst the context of political and epistemological battles between researchers.

The place of texts in the organisation of the new library drew the attention of philologists in other ways too. In April 2007 the staff of the Institute of Philology convoked a faculty board to discuss with the head of the new library the importance of a bibliographic organisation fit for philological work. A number of people were concerned because they had heard that many of the texts and collections they worked with, especially 19th century books, were being moved to the library's 'deposit collection', still available for loan but not on an 'open shelve' regime. A reputed professor approached the matter in an interesting way. He had heard that the library staff had produced lists of 'most requested' books using counter statistics, and that these lists had been used to decide which books were going into deposit and which into open shelve collections. He has worried because the books most used by philologists were

those they had in their offices, on loan from the library for periods of a year or more. Philologists' use of books was therefore not visible to librarians because they rarely made requests over the library counters. The professor and those attending the meeting were finally assuaged by the head librarian that books in the 'deposit collection' would be loaned without due-back date: 'You will still be able to keep the books in your offices', she affirmed.

The insistence by philologists that books dwell in their offices echoes the vignette on the abduction of books with which I opened the article: on both cases the importance of the material proximity of books for philological research emerged as central to the imagination of productive work. This was true in other ways. The meeting with the head librarian that I have reported was originally assembled because of concern among philologists about the future of the 'Reference Rooms' (*Salas de Referencia*) that each department had in the old Medinaceli building. These were very spacious rooms, equipped with desks, files and computers, used by departments to accommodate visiting professors, doctoral and postdoctoral students. But the rooms were used also to hold departmental reference libraries, which sometimes, as in the case of anthropology, amounted to no less than seven thousand volumes. The new building contained no space for such rooms, a matter that agitated researchers considerably. At the discussion with the head librarian much was made about the *structural* importance of such rooms: for philologists these rooms provided space for organising collections according to internal principles of their own, not those of librarians. These were philological libraries, not bibliothecary ones. The librarian admitted to this divergence in structural principles of organisation. She had been promoted to the new library job from precisely a librarian position at the Institute of Philology, so she knew her audience well. She conceded thus the point in a gentle way:

You have to keep in mind that we are moving into a building and a library organised according to 21st century principles. We worked together here in Philology in a way that won't be easy to replicate in the new library. I worked with you personally, to build up a library based on your research habits. I know that you have a particular relation with books, that you move between books, consulting annotations or quotations. This is unlikely to happen in the new library.

But you won't be worst off. We will work on creating new habits, new sets of relationships between books.

The librarian's comments about the structural organisation of the new library, about the relationships between books, echo Dan Clancy's imagination of a Google-led world of scholarship. 'Books', Clancy observed, 'are not part of a network.' The real challenge for Google, he added, is to establish this network, to create a relational economy of books (REF).

As intimated above, philologists would not concede to this vision. The way philological work makes series of books cohere into a structural order is a case in point. The key word here is 'structure'. For philologists, a relational order of scholarship characterised by the horizontal connectivity of a 'network of information' is far from proving that an economy of knowledge is in place. Books relate to other books productively only when they belong to a structural economy, where the internal coherence of a research collection responds to principles of organisation borne out by a life's time programme of research. This is a sort of antiquarian economy of knowledge, where books' relations to other books respond to a cultivated trajectory of historical scholarship and research.

In this sense, philologists' sociology of knowledge approximates what we might call, for want of a better term, a *sociology of research*, if not, in fact, a complex epistemological economy. This is because for philologists the structure of a collection is intimately connected to the social structure of research. Let me explain.

At the aforementioned meeting, the librarian noted that the new library would assemble together books coming from a variety of collections and libraries. Thus, a collection hitherto found with one structure in an Institute's library might find itself dispersed into different structural locations in the new library. 'You must keep in mind', she said,

that the structure of the collections of books in your offices need not correspond to the structure of the collection of the library. If the books you have in your offices end up in different places in the new library that is just because they belong to a different structure. You will of course be able to find them; but you may not find books you thought of the same subject in the same shelf.

Researchers responded by asking whether it would not make more sense to keep Philology's library intact as a unitary structure, moving it as a whole to the new library. Some even asked about particular volumes: they wondered whether it wouldn't be possible for certain titles which they knew had been destined to a depositary location in the new library to be placed in the 'open shelve' regime. The librarian remained adamant: the new library would provide a bibliothecary structure for the collections of eight former Institute libraries; the series of no collection could therefore be prioritised. In a precautionary move, anticipating a possible discussion about bibliothecary rationalities and structures, she hastened to add that the principles for organising the new library had in fact been approved by a Library Scientific Committee back in 2002, a committee which included representatives from all departments and disciplines, of which Philology was of course a part.

Mention of the Scientific Committee suddenly sparked a debate which was taken outside to the corridors and which lasted for several days. The member of the department who attended as Philology's representative in the Scientific Committee recounted the story of the committee. It turned out that the committee had been steered from above by senior management to produce a series of recommendations and reports that did not reflect the interests of researchers. Six of the eight representatives of staff felt that their views had been constantly ignored by management and subsequently renounced their offices. But this made no difference. Management was tired of reports piling up like autumn leaves. Someone had to give way if an 'action plan' for the new library was to be designed. A final report, incorporating some elements of dissent yet written without consultation, was produced and given the go-ahead by management.

The episode was quickly incorporated into the folklore of the institution. People spoke of the incident as 'business as usual', or 'always the same story', a story of continuous misrepresentation of the interests of humanities scholars by management. The politics of misrepresentation is especially poignant in an institution with an over-representation of decision-making forums, a point made by researchers themselves, 'we spend our time in meetings' being a favourite complain. The failure of representative politics inside CSIC was also spoken of in terms of 'contradiction'. It was common to hear researchers complain that 'one day we are told one thing, the following day we are told something

different'. An example is the call by management to shut down academic departments and promote the reorganisation of staff into 'research groups'. The move was hardly welcomed by researchers; many did not understand what a 'research group' was. A historian of science commented on what he thought the contradictory and ill-thought nature of the change:

A flexible unit of organisation, they say: one day you associate with one group, the next you align yourself with another. The idea is to promote a flexible topology of academic structures, agile and responsive to societal needs and changes. Groups that appear and disappear like fungi, in response to weather changes. Well, I don't get it. I have a research group. I work with people whom I know share my research interests. Sometimes we even tweak our research proposals here and there to make them sound as if we can do, and have been doing, things we do not necessarily have much expertise on. So what? How does that make us flexible? One thing is research, another thing is politics. Academic departments are not academic units. The History of Science department is an academic unit: it conglomerates the political interests of people with very different research agendas, and provides a unitary framework to make those different voices heard at an institutional level. If research is research and politics is politics, I just don't get how the disappearance of departments and the promotion of 'research groups' is going to enhance the former and make the latter disappear. We are just going to re-concentrate the political at the level of 'research groups'. To me, it's a contradiction.

This is the social structure of research to which I referred above: an institutional imaginary of meetings, decision-making forums and political spaces that inflects the way researchers conceive of their own production activities. A respected professor provided a succinct and ghostly image to this structure. Commenting on the disappearance of Philology's library and the role of the Scientific Committee, he said:

Nobody knows where decisions come from. You want to appeal to the content of a decision and you are told that it was made by a Scientific Committee. 'Don't blame us', they say, 'your peers made the decision.' But it turns out that my peers resigned their duties, thus discrediting the Committee. Doesn't matter. Science

evaporates as it travels. The only thing we are left with is a hollow architecture of decision-making processes. Like that film by Lars von Triers, ‘The Boss of it All’. Have you seen it? Of an actor who is hired to act as if he was the boss of a firm. So all decisions go to him, but of course he knows nothing about the business, so eventually he too has to invent a fictitious boss, who lives abroad, and whom he responds to. Decisions displace decisions, and nobody knows where decisions come from.

Abduction and disproportion

When translating the vignette on the abduction of books I chose to translate the word *rapto* as ‘abduction’ (vs. rapture or kidnap) for its analytical echoes with a recent body of work in studies of material culture. The usage I refer to is Alfred Gell’s famous use of the concept of ‘abduction’ to describe the conceptual means through which art objects extract meaning from the vicinity of social relationships where they are located. For Gell, who follows Umberto Eco and Charles Peirce in the use of the term, abduction involves the cognitive and indexical process through which material objects are caught up in a structure of retentions and pro-tensions that eventually sets them apart as distributors of agency themselves. Abduction signals the moment when an intellectual and conceptual inference is established through which the artefact itself becomes a distributed extension of the human: it is a mode of interpretation that brings the object to (social) life.

The use of the model of abduction has been rightly criticised (REF LAYTON) because it remains unclear how objects can exercise agency in terms coterminous to those of persons. I do not intend to elaborate a theory of material agency here. But I do want to comment about two aspects of the agency of persons and books; about, that is, the relationship of academic work and labour to academic knowledge and research that I think is illuminated by the ethnographic descriptions above. This relationship has two moments. The first I have called abduction. This is represented by the suspension of agency provoked by the non-availability of books. It entails a realisation that there is a gap between agency and knowledge: that academic labour is not enough for knowledge to flourish. Whilst in Gell’s model abduction provides an inferential framework to describe extensions of agency to material objects, it is no doubt true that the process of extension may be seen also as a process of evacuation, where the potential for agency of

the object evacuates one's capacities for action in the present. For philologists, books as material sources of productive knowledge were capable of evacuating their own personal capacities of production, as indeed happened.

The second moment situates the process of abduction in a larger epistemological economy, a social structure of agency which is made apparent also by its absences. The discussions surrounding the political machinations behind the Library's Scientific Committee are an example of this second moment. The prevalent imagery for describing this moment was that of 'disproportion', which pointed to the abyss that opened between institutional demands and personal conditions and possibilities for action. Other idioms for imagining this gap were those of ghostly and hollowed agency. Here academic labour is brought to a halt, or is severely constrained, by an economy of knowledge that sets disproportionate, almost gigantic demands upon it. The personal capacity to produce knowledge is miniaturised against a relational economy of self-proliferating and self-aggrandized knowledge. The way the economies of scale of the new library made the Reference Rooms look like antiquarian economies is a case in point.

The head librarian spoke of the new library in terms analogous to those of the member of the Council's Scientific Commission: a 21st century archive empowered by the technological capacities of hyperlinked, online communications. The possibilities afforded by the digitalisation of knowledge of such an archival project entails a serious re-dimensioning of the very nature of 'knowledge' as an epistemological object. Mike Featherstone and Couze Venn have attributed this to a new serendipity of knowledge, which builds on the non-linear, hyperlinked qualities of digital networks (Problematizing global knowledge, *TCS*, 23, 2-3: 1-20). The ramifying nature of such knowledge, extensional and autopoietic, almost vital (10-11), is not without its problems, however. Featherstone and Venn observe that

Such an archive would make problematic existing scholarly classification, and usher in a de-classificatory mood. The question arises whether we are at a particular historical juncture at which the speed of knowledge delivery systems through digitalization is extending the de-classificatory attitude... flows and flux outpace classifications and out old typological model of theorizing. (5)

The question of the classification of knowledge would ring a bell to philologists, whose ideas on classification, we have seen, are profoundly dependant on a social structure of research where what is at stake is not the relational order of knowledge (hyperlinked, networked or non-linear) but the very *types of relations* that link agency to knowledge, labour to books. ^{vii}

Abduction and disproportionality are two such modes of relationality. In a sense, they do even more conceptual work than relations do, because they both point to their own absences and negative potentials: they are relations that absorb the non-relational. They are what Spanish philosopher Eugenio Trías would call limit holders: concepts that stand on the verge of their own ontology, capturing their own recursive potential (CJ & WILLERSLEV). Abduction and disproportionality point to a theory of communicative agency (between humans and non-human persons and objects) that requires an appreciation of its own negativity to fully capture the ways in which knowledge and understanding are mobilised. The image of the disproportionate puts this in a particularly vivid idiom: how people sometimes measure their own capacities for action not in terms of relational efficacy, but as the fragile realisation of an obverse potential; an evacuated potential which only becomes salient and jumps-into-being because it is recognised as the antithesis of the gigantic (cf. REF Weiner). This, then, is an efficacy not of effects but of originations: of objects that stand self-consciously on the verges of their own potential, and de-monstrate nothing except their own epistemological contexts in action.

Conclusion

On a sunny, spring afternoon, I joined a group of three historians of science (a professor, one of his doctoral students, and a postdoctoral fellow) for their lunch break. We left the Medinaceli building, walked for about five minutes, and finally took seat on an open terrace near the Prado Museum, in a street taken by passing-by tourists. Once seated and relaxing under a gentle sun bath, they asked me how my project was going. I told them that it was going well, that it was easy to work with people like them. The way it almost always did when someone asked me about my project, the conversation gradually evolved into a discussion about the epistemological clash between the natural sciences and the social sciences. The cue for this turn-of-argument was generally

provided by my project being glossed as a ‘sociology of science’ that took social and human scientists’ interests seriously; a sociology of science that took the humanities, not biology or physics, as a paradigm of ‘normal’ science.

On this occasion we ended up talking about best-selling books. There had been rumours that CSIC’s management was intent on dropping book chapters (in edited collections) from institutional audits on scientific production. Some said that monographs were under the spotlight too. ‘There is no way monographs will disappear’, said the professor, who is regarded as one of CSIC’s most reputed historians of science. He added:

People are known by their monographs, not their articles. Take Simon Schaffer. Everyone knows that Schaffer is the author of the *Leviathan and the Air Pump*. That is how he is introduced when invited to give talks. Nobody says that he published such-and-such article in *Social Studies of Science* or whatever.

The doctoral student disagreed:

Nobody reads books these days. It just doesn’t happen. The future of the publishing industry in science lies in online journals. A sister of mine, a biologist, always spoke of publishing in *Science* as the pinnacle of her career. And when it did happen, that was it: one article, in one journal, wraps up your entire career.

The third historian stepped in:

I don’t agree that people don’t read books any more. Take the tube any morning: people are deep immersed in the pages of mammoth novels. Never before have best-sellers been so thick!! How about that Margaret Steel [she refers to Danielle Steel], how thick are her novels?

The doctoral student, again:

At the *Residencia* [a famous Hall of Residence for visiting academics and doctoral students] we joke about the work of poets [he refers to those with an arts

fellowship in poetry at the Residencia]. They wake up in time for lunch and are known for leading a late night life. Three years later they come up with their poetry books, which nobody doubts must be incredibly profound, but look very, very slim.

Our lunch discussion about books, their length, their impact, and the amount of visible, or invisible, scholarship that goes into their making, conjured an intriguing aesthetic of proportionality. The doctoral student summed it up nicely with the story about works of poetry: nobody doubts their profundity, but there remains an ironic scepticism about the mode in which this profound knowledge is obtained; the equilibrium between visible output and invisible work remaining slightly off-balance.

Off-balance is a metaphor that does not chime well with philosophical, and managerial, explanations of how science ought to work. As Philip Mirowski has insistently argued, the prevalent metaphorical vision of explanation in the philosophy and sociology of science in the 20th century has been that of geometrical equilibrium (REF). As an aesthetic of structural proportionality, the metaphor of equilibrium has longed functioned as ‘the primary loci for the mathematization’ of natural science (MIROWSKI EFORTLESS 338), especially in physics, from where it has permeated the scientific aspirations of economics. Classical political economy inherited this mathematical imagination of proportionality as a figure of stability and value, most famously in the development of the laws of supply and demand as integral to the project of neoclassical economics: ‘Supply and demand as an argument became central and indispensable to the structure of classical political economy, because it was the *locus* of temporary and dynamic reasoning in value theory.’ (339)

For Mirowski, the new economics of science, of which the globalisation of privatized science is its paradigmatic expression, retains the candid vision of a proportional aesthetic. He calls it “‘an effortless economy of science” – modern science as a set of self-sufficient and efficient social structures... patterned upon the neoclassical image of the market.’ (11) The underlying social structure here is a frictionless plane, where social interventions, whether economic, political or scientific, interact smoothly and efficiently, and eventually gravitate towards an equilibrium resting place, obtained by consensus and evidence-based rationality. This is also of course the model of the ‘open

society' (POPPER), and the model, too, of the 'republic of science' (POLANYI), where the political structures of science are essentially value-free and transparent, and where all that is required of scientists and legislators is to provide structures of governance that consolidate and replicate an idea of science as a democratic good in itself. This is also the context in which the metaphorical power of proportionality becomes a sociological surrogate for our theories of social democracy and political justice (CJ WELL BEING & PROPORTIONALITY).

Mirowski rightly criticizes this vision because it endorses a programme that insists in liberating science from its political economy. When supply and demand meet, problems of incommensurability in value disappear, the proportional imagination thus providing an ideal working scenario for an allegedly value-free science, or a science whose values can be made to converge, much like supply and demand curves balance-out once an agreement on price is reached. This is also the point, as noted above, at which 'knowledge' *de-monstrates* society as economy: when science is given a 'value' (or price), supply and demand become surrogates of our sociological imagination, because they provide the means by which society is made to appear as a knowledgeable object. Society takes form sociologically as the outcome of a balance of forces, a point of intersectional stability in a flux of knowledge currents. We only get to 'know' society, the model implies, when knowledge 'surfaces' as an object of concern for society, that is, when the market reaches consensus on its value.

The implication here is that the analytical categories through which we conceive our 'sociology of knowledge' are given to us by the confluence and intersection of an imagination of the public nature of knowledge and the political economy of science where 'politics', 'society' and 'economy' become proportionate objects for one another. The moment this happens our sociological imagination is seriously compromised, because we can only imagine sociological knowledge through the political philosophy and economy of market value; in other words, the sociology of knowledge becomes, inevitably, a sociology of economic knowledge.

My concern in this paper has been to explore the sociological imagination of the knowledge economy from the point of view of social and human scientists working at Spain's National Research Council, at a time when the Council is facing an important

reorganisation of its activities, aimed at ‘catching-up’ with the knowledge society. I have attempted to show how researchers present to themselves this ‘catching-up’, both in terms of their own human capacities and labour, and in the larger context of institutional demands for a more ‘dynamic’ and socially responsive (some also say ‘responsible’) science. I have hoped to show the difficulties and complexities that behold the activity of research, and introduced two ethnographic categories, ‘abduction’ and ‘disproportionality’, to illustrate how researchers imagined the routes and movement of knowledge, especially the moments at which knowledge collapses and stops. Abduction and disproportionality both point to researchers’ epistemological self-consciousness about the limitations that always threaten knowledge in its travails. They may be seen as ethnographic expressions of what Annelise Riles has called the endpoints of failure (REF). They are also, in this sense, exemplars of how value obtains in a knowledge economy whose sociology is not compromised by the aesthetic of economic proportionality. They point to what an anthropology of the ‘sociology of knowledge’ might look like when we do not fall in the trap of *demonstrating* the rise of knowledge in economy and society. The value, that is, of using ethnography to reduce the utopianism of knowledge.

I conclude with an ethnographic vignette. My interlocutors are still the historians of science:

Back in the office from lunch, the discussion about the epistemological status of books has stopped. We each take seat in our desks, except for the professor, who seeks refuge in his office, and work laboriously and in silence for over an hour, when the postdoctoral fellow walks into the open room where the doctoral student and I have our working spaces. As she walks in, she asks the doctoral student about a history of art book. They both share an interest in the history of art as an expression of the historical imagination of science. Apparently, the book in question contains some images that were cited by a philosopher at a conference they both attended some days previous. The images in question are a series of pictures taken by a photographer in the 1930s of a well-known Spanish narcissist. The man had posed in a variety of postures, sometimes naked, sometimes in acrobatic positions, often with a religious connotation (carrying a crucifix or dressed up as a monk). Some pictures are annotated; they were handwritten by the

narcissist, who spoke about his deceased mother and remembered her in a spiritual tone, hoping God had taken her in His arms. We talk about bodies, about the visual representation of the body, about how a historical narcissistic perspective imagines the body in action, its elasticity, its spirituality, its material and sociological self-consciousness: about the entanglement of the divine and the carnal in historical self-consciousness. It is an impassioned conversation, intriguing in many respects. We talk for about half an hour. Then, in silence, as if overtaken by our thoughts, we go back to our desks and resume our work. Myself, I seat down in my desk space, gather my thoughts, and wonder what it would be like to write a paper on the capacity of researches to make books bear relations in their own right.

A project whose disproportionate itinerary, I suppose, has just started.

References

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ⁱ ‘La valorización de las ciencias humanas en el CSIC’, INGENIO, Valencia, 13 March 2007.

ⁱⁱ I have anonymised the names of all people, whether ethnographic informants or those who appear in institutional documents. I give, however, complete archival references for all documents which are in the public domain.

ⁱⁱⁱ Elsewhere I have called this de-monstrative moment of the social, a ‘public’ moment (REF). I explain what I mean by ‘de-monstration’ in this context below.

^{iv} Not surprisingly, recent economic theory defines public goods as ‘externalities’ (REF Cornes & Sandler: 6)

^v In its original etymological sense: explication as *unfolding*, i.e. explaining knowledge by moving outwards, by expanding.

^{vi} There are no equivalent words in English. The semantic field in this context encompasses terms such as: conservative, backwards, Francoist (reminiscent of the Franco years), bureaucratic or stagnant.

^{vii} I prudently conflate agency and labour here, though see CORSIN JIMENEZ (2003).