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Relations and disproportions:

The labor of scholarship in the knowledge economy

A B S T R A C T
In this article, I provide an ethnographic exploration
of some of the terms for imagining knowledge in
today's "knowledge society," and I attempt to
situate the kind of "sociology of knowledge" behind
this imagination. In particular, I am interested in
the sociological imagination of knowledge in terms
of a relational economy, in which knowledge flows
uninterruptedly to create and shape what Yochai
Benkler has dubbed "the wealth of networks." I
pursue this interest 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, such as libraries or manuscript
collections) occupy a place of prominence in the
institutional production of research. This economy
of scholarship (between books, between people and
books, and between what books do and what
institutions and researchers imagine them to do)
finds itself at a "disproportionate" distance from the
"network economy of information" encountered in
the literature on the knowledge economy and
promoted in certain circles within CSIC. I contrast
the epistemological economies of CSIC scientists'
relational and disproportional views on research
and, ultimately, attempt to provide an
anthropological description of a contemporary
sociology of knowledge, including its analytical
categories and models. [*knowledge, knowledge
economy, relations, proportionality, labor, academia*]

In March 2007, I attended a seminar at the Spanish 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 80 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 and human sciences (SS and H).[2] The spirit of the project report was unabashedly positive: Despite stereotypes to the contrary, it said, the SS and H had immense potential for promoting social and economic change, and, in particular, for contributing toward the coming-into-being of the "knowledge society."

Toward the end of the event, in the last of the many question-and-answer sessions for which time was made during the day, a historian of science stood up and made the following comments:

> We are being asked by our senior management to take a proactive role in making our science valuable for society. I understand their call. But I would like to make three comments in this respect:
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> 1. I would call our seniors to take seriously to task the organization 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 organizing 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-imbursement from the institution.

Short of having finished this last point, the historian was rather abruptly interrupted by the meeting's convener, who noted that she had specifically asked for brief interventions—time was running out—and that 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 home, reflecting and reminiscing about the day, some researchers with whom I was traveling recalled the historian's intervention: Many cited his comments as indicative of the "psychotherapeutic" nature of the event. People joked that every time attendees grabbed the microphone, "they lit a candle to the Virgin," meaning they used the opportunity to make public pronouncements about their own personal predicaments: They complained about not having enough resources, 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 a "disproportion" between what researchers were being asked to do (become knowledge managers) and what their institutions made available to them to carry out this task.

Some days later, while doing archival research at CSIC's Humanities Center, I came across the minutes of a meeting held at one department in the center. 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" (Secretaría Dirección Instituto de Filología 2000:4).[3]

The passage records a complaint by one professor that a colleague kept 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 labor. The sense of paralysis that the word *rapto* 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 preempted the possibility of academic labor; without the support and existence of books, Dr. Gómez insinuated, human intentionality and labor are evacuated. Much like the historian's intimation about the asymmetrical deployment of knowledge inside CSIC, about the ridiculousness 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, and laborious cul-

tivation to grow and that, in this context, finds itself constrained because of institutional strictures.

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, I was struck by a second analogy.[4] A friend brought to my attention a recent article in *The New Yorker* magazine on Google's Herculean project to create the world's online library (Toobin 2007). As reported in the magazine, Google's ambition is to digitize every book ever published, currently estimated at no fewer than 32 million volumes. Dan Clancy, chief engineer of Google's scanning project, summarized its complexity 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. [Toobin 2007:33–34]

This article is about what Clancy refers to as "the relationship between books," about the imagination that this relationship plays in the making of 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, in which knowledge flows uninterruptedly to create and shape what Yochai Benkler (2006) has dubbed "the wealth of networks." In this context, Clancy's point about "the relationship between books" echoes CSIC researchers' own insistence on the importance of books and other bookish analogues (libraries, journals, and manuscripts, of which more below) for producing knowledge and for making knowledge grow: for dispensing with—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. I describe these differences and use an ethnographic account of the institutionalization 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. The "demonstrative" moment of the social is important, and I want to underscore it 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 the ethnography, the production of knowledge demonstrates itself through its absences. Building on the two vignettes with which I opened the article, I develop an ethnographic analysis of how disproportion and abduction mediate the production of knowledge within CSIC and, in particular,

how they inflect researchers' imagination of the labor of scholarship.

The Spanish context provides a particularly interesting case for study because of its location outside the golden triangle of the historical economy of academia (Britain–United States, Germany, and France) and because of its singular history of state interventionism (from a 40-year dictatorship to socialist government) in the latter half of the 20th century. With this in mind, my aim is to understand how the SS and H create a context for their own usefulness at a moment in economic history when knowledge has become a reigning value in market economics and when universities and research institutions across Europe are facing mounting pressures to marketize and commercialize their main productive assets (via intellectual property rights, patents, media appearances, etc.). What are the political and academic arguments used by Spanish academics and science policy makers for negotiating the transformation of scholarship traditionally thought of as standing outside economy and industry (such as the humanities, and philology and history, in particular) into viable market objects and projects? In providing a descriptive answer to such a question, this article ultimately constitutes an ethnography of that gray and nebulous area that makes up what Philip Mirowski has called the "surreptitious affair" (2004:5) between political economy and science theory. It is my hope that an ethnography of such an affair will yield an anthropological critique of contemporary sociology of knowledge, including its analytical categories and descriptive models.

Productive knowledge

What makes knowledge productive? How does one recognize—what circumstances are conducive to—the productivity of knowledge?

Despite the overabundance of references to the advent of a knowledge society, and to the existence of a knowledge economy, scholars still know little about what makes knowledge capital productive, and we know even less about the interplay of economy and society in recognizing the political purchase of knowledge. As Dominique Foray has put it, "There is no production function that can be used to forecast, even approximately, the effect that a unit of knowledge will have on economic performance" (2006:9).

In collaboration with Paul A. David, Foray has recently ventured to describe the economic fundamentals of the new knowledge society (David and Foray 2003). Central to this sociological economy, David and Foray say, is the velocity at which knowledge is created, distributed, and used. The technological speed at which this happens has, in turn, enabled a revolution in technologies of organization, prompting the establishment of "knowledge-based communities" (David and Foray 2003:21) that foster the externalization of skills and information through expanding net-

works of decentralized, "online" exchanges (2003:22). These exchanges involve designers, users, and "laypeople" on an equal footing, thus making it almost impossible to determine 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" (David and Foray 2003:29). It is such diffusion of the sources of innovation that also redefines the "public space" of technological participation (cf. Barry 2001; David and Foray 2003:27). The public appears here as an internal moment of a technological economy. The implication is that the economy carries its own democratic potential within, which can be best realized if visualized and made explicit through the application of technology. Technology, thus, awakens the democratic impulse that lies dormant within the economy.

Although David and Foray speak authoritatively about the technological and sociological changes brought about by the revolution in information and communications technologies (ICTs), the political rhetoric about the knowledge society remains anchored, as Peter Scott has noted, in a "utopian vision" (2005:298) of what knowledge can do for people. The utopia of knowledge is flawed by the duplicitous value of knowledge as both a commodity and a public good (Scott 2005:299). This is a point recognized by David and Foray, 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" (2003:37). This rehearses a well-known idea in economic theory about the qualities of knowledge as an "externality" (e.g., Cornes and Sandler 1996:6).[5]

The idea of knowledge as an externality has led economists to point out the similarities between the unstable nature of knowledge as a public good and the precariousness that inflects the imagination of political values in modern theories of global justice, in which the global and the political spill over each other in complex ways, distorting the capabilities of an agent to exercise agency over a good (Kaul and Mendoza 2003; Stiglitz 1999). These theories rehearse classical themes in economic anthropology on the interplay between labor, agency, personhood, and value in the makeup and organization of social life (Corsín Jiménez 2003; Firth 1979; Graeber 2001; Ulin 2002). Two labor theories of knowledge in this context are worth distinguishing.

The first theory is sustained on the idea that knowledge is the relational outcome of people's use of it. The larger the number of people exchanging knowledge, the greater the chances of making the overall stock of knowledge grow. Because of knowledge's inclination to behave like an externality, some economists speak of a "tragedy of the public

knowledge 'commons' " (David 2000), in which any attempt at circumscribing and appropriating knowledge—at turning knowledge into property—is seen as a likely subtraction from a future, larger stock of valuable knowledge. The idea participates in what economists call a regime of "open knowledge" (Dasgupta and David 1994; Foray 2006:172–179), in which knowledge is rapidly disclosed and freely available: The larger the stock of knowledge "out there," the greater the chances that people will "take it in," use it, transform it, add value to it, and return it in the guise of an overall incremental addition. It is this model of the incremental exchange of knowledge that informs what Benkler (2006) calls "the wealth of networks," whose paradigm is the Internet's "networked economy of information." I call the sociology of knowledge that underpins this vision a "relational economy of knowledge."

The second sociological theory of knowledge partakes, too, of the relational imaginary, although it is qualified by what one might call a "sense of magnitude," an appreciation of the capacity to turn labor into knowledge. This mirrors in important ways the distinction that Amartya Sen (1999) draws between global justice and international equity, in which what is gauged is neither the amount of knowledge "out there" nor its velocity of circulation but the capacity of different actors to make knowledge relevant for themselves and others. Indeed, the labor theory of knowledge on which this model is built recognizes the importance of "open knowledge" but distinguishes between labor and agency in turning knowledge into a political asset. Whereas ease of access to a network economy of knowledge guarantees the availability of knowledge for use (agency), it says nothing of the actor's capability to use it productively (labor). As Michel Callon has put it, "Asserting that an isolated copy of a statement has use value is like saying that a photograph of a cigarette provides as much satisfaction as the cigarette!" (1994:405).

Grahame Thompson's study of the impact of ICTs on the knowledge economy provides an interesting example of the differences between an agency- and a labor-based sociology of knowledge. Central to Thompson's argument is his contention that, despite all the rhetoric about the importance of networking and the decentralization of production, the e-economy remains alive because of its adherence to old modes of production. His argument is that, contrary to expectations, most of the new business done by networking appears to be a technological extension of business first sanctioned by handshake agreements (cf. Green et al. 2005). In the business-to-business sector—which makes up 85 percent of total e-business revenues (Thompson 2004:566)—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, therefore, complement, rather than displace, 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' " (Thompson 2004:566). So, networking flourishes not on time–space compression but on clustering and institutional aggregation. Most significantly, this involution to clustering and the intensification of knowledge circulation around circumscribed domains would appear to represent, at some level, a return to a craft mode of production. Thompson (2004:571) suggests that, unlike most diagnoses of the knowledge economy, which take a scientific–technological revolution as their organizing paradigm, networking enables reorganization of production around an engineer-based paradigm, in which tacit knowledge and craftsmanship emerge as all important. This is a mode of production, then, in which what is recognized as paradigm shifting is engineers' capacity to put knowledge to work rather than the simple availability of knowledge.

Thompson's argument has significant implications for the organization of production in universities, which he himself spells out. Against the current of intensified, engineer-based changes in the organization of production, universities seem unique in having embraced the knowledge economy to its letter. Increasingly, universities are networking their operations, moving closer to flexible specialization modes of production (Slaughter and Rhoades 2004). A well-known example is the distinction made between teaching and research staff, which often entails subcontracting teaching activities to graduate assistants. This is most odd, in Thompson's (2004:574) view, because universities, in their traditional guild form of organization, were best suited to profit from the clustering and intensification of tacit knowledge that the new focus on craftsmanship seems, in fact, to promote.

Productive demonstrations of knowledge

The comparison that Thompson draws between flexible and engineer-based modes of organizing the production of knowledge throws up interesting questions when one thinks seriously about the kinds of knowledge that universities produce. Universities are peculiar institutions. They are both producers (through research) and destroyers (through teaching) of social capital (Fuller 2003a:108), and this tension is widely recognized today as an index of the social democratic imagination (Habermas 1970; Readings 1996). For Gerard Delanty (2001), for instance, the critically constructive and destructive project of the university partakes of the longer historical tradition of modernity, which the university has contributed to by promoting the institutional reconciliation of alternative conceptions of knowledge as, at times, a scientific venture, at times, a cultural project in democracy, a historical project aimed at defining and

embedding a space of critical and communicative reflection in society.

Many of the struggles over the project of modernity, including national projects of political economy, have been fought inside universities. It is in this sense that Steve Fuller (2003b:230) speaks of British, French, and German models of university education, each carrying its own 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 case. The political economy of knowledge thus describes how knowledge "appears" in society, for what purpose and effect. Not coincidentally, Fuller (2003a:112) suggests elsewhere, what counts as knowledge 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.

What I find intriguing about Fuller's analyses of the political economies of knowledge is his insistence that different modes of producing knowledge (rent, profit, and wage) yield different modes of productivity (intellectual property rights, credentials, and expertise). Building on the work of Werner Sombart, Fuller summarizes this connection with a poignant question: "How [do] producers [capitalists, academics] *publicly demonstrate* their *productivity*?" (2003a:116, emphasis added). My interest here is in what Fuller calls the "demonstrative" aspect of knowledge, that is, the dimension of production through which knowledge creates its own aesthetic effects. Echoing a distinction first made by Aristotle, José Ortega y Gasset (1992:178) once differentiated between "demonstration" (in the original Greek, *deîxis*) and "monstration" *(apodeîxis)*: a second-order proof versus a first-order appearance. Reality, Ortega y Gasset held, manifests itself, "appears," in a sort of emergent mode, an appearance that is "pure exhibition," pure spectacle (1992:179; cf. Strathern 1991:101–102). The difference between the deictic and the apodictic, then, lies in mode of appearance: Whereas the former requires a context to convey its meaning, the latter emerges simply as its own epistemological context-in-action. In this guise, one 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. Letting things transpire their own apodictic qualities is difficult; one is always urgently tempted to locate them in a deictic context. This, I think, is why Fuller (2003a:116) 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. Third-order capitalism stands in this context for reflexive capitalism (cf. Thrift 2006), a mode of production in which consumption per se no longer indexes one's productivity, in which consumption is no longer the vanguard of history (cf. Miller 1995). Instead, under conditions of third-order capitalism, productivity is signaled by the consumption of knowledge as an economic good. Knowledge is the new vanguard of history, the point at which society demonstrates itself as economy.

Antiquarianism

Given the background sketched above, how, in fact, do human and social scientists working at Spain's CSIC encounter and redescribe to themselves the production of knowledge? How do they demonstrate to themselves that what they "do" is knowledge, and what larger political and sociological economy do they face in this process of recognition?

I arrived at CSIC in June 2006 to do an ethnography of public knowledge, of the ways in which the SS and H produce knowledge in the Spanish context, at a time when the organization of state science in Spain was undergoing a profound transformation.

Arriving in CSIC, I was assigned a research space at the Institute of Philology, located within the Center of Humanities in Madrid (CHM). I was given complete freedom to move about 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 and employ some 200 people, both staff and faculty. The Institute of Philology, for instance, is made up of the Departments of Biblical Philology and Oriental Antiquity, Hebrew and Sephardic Studies, Arabic Studies, and Latin and Greek Philology. I first took residence in Biblical philology (which had 28 members, including doctoral and postdoctoral fellows), where I stayed for approximately six months (September 2006–March 2007), and I then moved to the Department of the History of Science (16 members) 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.

My arrival in CSIC coincided with an important moment of organizational change in the institution, referred to by the authorities as the most significant in the history of the council's SS and H. This involved the establishment and organization of a new Center for Human and Social Sciences (CCHS) in Madrid, which was to bring together in a single site most of CSIC's SS and H departments. Deferred and postponed a number of times, the move finally took place in October–November 2007. The new center is based in a new, so-called intelligent building on the outskirts of Madrid. Approximately 650 people moved 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 (Consejo Superior de Investigaciones Científicas 2007:3).

In many respects, the new center exemplifies what Helga Nowotny and colleagues (2001) 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. In this vein, the strategic plan for the new center 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" (Consejo Superior de Investigaciones Científicas 2007:5). To this effect, the center will promote the development of "multidisciplinary" and "transverse" research programs that will contribute toward "dynamizing the Spanish national system of research and development" (Consejo Superior de Investigaciones Científicas 2007:5). The INGENIO seminar on knowledge-transfer in the SS and H, with which I opened this article, inserts itself into this programmatic vision of a new sociological role for science. Central to the cross-fertilization of the sciences and society implied in this vision is the imagination of the center 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" (Consejo Superior de Investigaciones Científicas 2007:6). This framework responded to a vision of senior management to use the creation of CCHS as an opportunity to restructure the academic organization of the SS and H within CSIC. The idea was to put right a long history of neglect and marginalization of the SS and H within CSIC, a situation compounded by the SS and H's own poor record (acknowledged by researchers themselves) of international recognition.

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. Many bemoaned this as disrespectful to "historical identities" and correspondingly resisted it. Once summoned, the question of identities conjured a phantasmagoria of filiations. Philologists were often blamed, and regularly singled out, for their "antiquarianism." A senior social scientist, member of the council's Scientific Commission, spelled this out with furious irreverence:

> The people in Medinaceli [the name given to the building that hosts the Center 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 rumors and gossip. A perfect example of an environment *casposo* and *rancio,* 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?[6]

The reference to the National–Catholic bureaucracy startled me when I first heard it, but it was soon to reveal itself as an important organizing trope in the imagination of the politics of knowledge inside CSIC. Although important subtleties distinguished people's political views, the dominant partisan division within the institution was that of "right-" and "left-wingers." Whenever I recounted to my colleagues in philology or history of science a story I had heard elsewhere, they would often respond by saying, "Oh, but now you need the left-wingers' point of view" or vice versa.

Briefly put, the views of right-wingers were strongly associated with the history of CSIC during Francisco Franco's dictatorship. For those critical of this tradition, the association summoned images of a corporation dominated by "patriarchal families" or "mafias," as some people occasionally put it, an academic aristocracy that controlled the allocation of resources, especially of *plazas* (new vacancies) and that insisted on reproducing its own apparatus of research. It published in in-house journals, organized its own conferences, and promoted research agendas that proved the importance of historical continuity in the development of scholarship. It did this by extolling connections with the savants of Spanish academia: members of the Real Academia de la Lengua (Royal Academy of the Spanish Language) and the Real Academia de Ciencias Políticas y Morales (Royal Academy of Moral and Political Sciences) or emeritus university professors who were at the height of their powers during the Franco regime and still sat on the council boards of funding bodies, foundations, or even financial institutions. Left-wingers, by contrast, were occasionally spoken of as "enamored of the JAE" (the Junta de Ampliación de Estudios [Higher Studies Board]), which was CSIC's institutional forebear. Their connections outside academia were to institutions of much more recent provenance: trade unions; publishing houses with a history of repression during the Franco years and that only went public after 1975; literati and intellectuals who had made an explicit effort to demarcate themselves from official academic culture; or, more

recently, and especially among younger scholars, experimental art–technology networks. Left-wingers' imagination of CSIC's historical genealogy thus strove to "jump over" a 40-year gap (1936–75), creating a link between the democratic impulse of the pre–civil war Spanish republic and current concerns with the governance of science in the age of the networked economy of knowledge. Some people spoke, too, of a third group, the "pragmatists," described as currently in senior managerial positions and having a natural sciences background.

In everyday conversations, the historical genealogy of CSIC assumed contemporary inflections, in line with Spanish current affairs. At the time of my research, the Spanish government had promoted a Ley de la Memoria Histórica (Bill of Historical Memory), aimed at recuperating the memory of the victims of the civil war (1936–39). Some people inside CSIC joked that the council was in the process of passing its own Bill of Historical Memory, in allusion to the commemoration of JAE's 100th anniversary (1907–2007). The point, however, was not always taken lightly. For some, the need to link up with the spirit of the JAE years was indispensable, for the JAE was taken as a symbol of the cultural prosperity enjoyed by the Spanish republic in the years preceding the civil war. The commemorations were seen as a first step toward rewriting the history of CSIC, recovering the JAE legacy, and helping initiate a "purge that will cleanse the institution of its dictatorial and authoritarian elements," as one researcher put it in unusually dramatic terms.

The narratives of political self-consciousness through which researchers described the history and genealogy of the institution correlated in interesting ways with the "historical identities" of academic departments, and, in particular with local, departmental imaginaries of productive forms of scholarship. Human scientists, for instance, were often singled out for their antiquarianism, as the senior social scientist quoted above makes explicit. Within the humanities, philologists and language theorists were favorite recipients of such accusations, although they, too, created their own intramural divisions. At the time of my arrival, for instance, inside philology a fierce battle waged over the future name of the institute, which a majority vote had proposed to change from the Institute of Philology to the Institute of Cultural Studies of the Mediterranean. Those who resisted the change saw dropping the word *philology* from the name of the institute as an irretrievable loss of identity. For these scholars, their identification as philologists marked their belonging to a historical school of classical Spanish philological work. "It's not a matter of words," I overheard a professor of philology tell a colleague on the way out of a meeting, "it's a matter of historical knowledge." A matter of words or not, the director of the new CCHS decided to include a semantic word analysis in the center's strategic plan. This consisted, as he explained to me, "in

tagging each research group's academic interests: we put a tag to each thematic line of research, much like del.icio.us [the website] does to create hierarchies of words. So words that are tagged often appear in very BIG font sizes, whilst those that are less frequent are not as visible." It turned out that both PHILOLOGY and HISTORY scored very highly in the analysis. Notwithstanding, philologists remained unconvinced that a "word game" would reproportion what they saw as the miniaturization of their historical scholarship vis-à-vis the new economy of knowledge.

An interesting point of entry into philologists' imagination of knowledge in terms of a reproportioning of genealogy and institutional histories and economies is the debate surrounding the organization of the library at the new CCHS. The new center is to host what people refer to as Europe's largest library in SS and H, and this became a sticking point in philologists' reactions to the move to the new building and the reorganization of the center. Almost every philologist I met, at some point in our conversations, made 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."[7] 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) were often taken as an index of which colleagues one was working with—an inflection that placed books, and libraries, amidst the context of political and epistemological battles between researchers.

The place of texts in the organization of the new library drew the attention of philologists in other ways. 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 organization fit for philological work. Many 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-shelf regime. A respected professor approached the matter in an interesting way. He had heard that the library staff had produced lists of most-requested books using checkout-counter statistics and that these lists had been used to decide which books were going into deposit and which into open-shelf collections. He was

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 the scholars rarely made requests at library counters. The professor and those attending the meeting were finally assured by the head librarian that books in the deposit collection would be loaned without due-back dates: "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 that I presented earlier in this article: In 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 convened 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, file cabinets, and computers, used by departments to accommodate visiting professors and doctoral and postdoctoral students. But the rooms were also used to hold departmental reference libraries, which sometimes, as in the case of anthropology, amounted to no fewer than 7,000 volumes. The new building contained no space for such rooms, a matter that agitated researchers considerably. During the discussion with the head librarian, much was made about the structural importance of such rooms: For philologists, these rooms provided space for organizing collections according to their own internal principles, not those of librarians. These were philological libraries, not bibliothecary ones: libraries organized by philologists, not by librarians. The librarian admitted to this divergence in structural principles of organization. She had been promoted to the new library job from a librarian position at the Institute of Philology, so she knew her audience well. She, thus, conceded the point in a gentle way:

You have to keep in mind that we are moving into a building and a library organized 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 worse off. We will work on creating new habits, new sets of relationships between books.

The librarian's comments about the structural organization of the new library, about the relationships between books, echo 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 (Toobin 2007:33–34).

As intimated above, philologists would not accede 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 characterized 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, whose internal coherence responds to principles of organization borne out by a lifetime program of research. This is a sort of antiquarian economy of knowledge, in which books' relations to other books respond to a cultivated trajectory of historical scholarship and research, and in which the principle that cements the organic growth of knowledge is a sense of continuity. This principle of continuity was most lucidly explained to me by the head librarian as "an absence of absences." The head librarian had a philological background herself and, as noted above, had spent much of her bibliothecary life working with philologists. In an interview, she described philologists' mode of work in the following terms:

Philologists need to surround themselves with a structural, physical base of scholarship. This consists of a basic corpus of reference works, which they need to have at arm's length for consultation. They might not necessarily be working on those texts now, but they know they are there for them to pull out at their convenience. Not all books are reference works. Some hold books they have never read in their entirety; they may have read about them in a footnote, or know of their significance through indirect sources. The point is that this structure makes up a safe haven, a close environment where they feel their work can proceed securely. They only realize the virtues of an online library catalogue when they come across a reference that they do not hold in their personal libraries. It is such void that prompts them to come to us. We are summoned to make up for an absence.

Philologists' sociology of knowledge approximates what one might call, for want of a better term, a "sociology of research," if not, in fact, a complex epistemological economy. For philologists, the structure of a collection is intimately connected to the social structure of research, in which the images of continuity and absence inflect their genealogical sense of scholarship. Let me explain.

At the aforementioned meeting between the philologists and the librarian, the librarian noted that the new library would assemble books from a variety of collections and libraries, including books currently in researchers' offices. Thus, a collection hitherto found within one structure

in an institute's library might find itself dispersed into different structural locations in the new library. 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 would not be possible for certain titles that they knew had been destined for a depositary location in the new library to be placed in the open-shelf 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 be prioritized. In a precautionary move, anticipating a possible discussion about bibliothecary rationalities and structures, she hastened to add that the principles for organizing the new library had in fact been approved by a library Scientific Committee in 2002, a committee that included representatives from all departments and disciplines, including philology.

Mention of the Scientific Committee suddenly sparked a debate that was taken outside to the corridors and that lasted for several days. The philology department representative on the Scientific Committee recounted the story of the committee: It 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 staff representatives felt that their views had been constantly ignored by management, and they subsequently renounced their committee positions. But this made no difference. Management was tired of feasibility 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. Some linked it to the question of historical identities. They recalled the way researchers' opinions had been belittled in the selection of a name for the new library: "They have eroded our past," a researcher said. "If they truly cared about the social visibility of the humanities, why not name the library after Menéndez Pidal [a classical figure in early 20th-century Spanish philology], for instance?"

The politics of misrepresentation is especially poignant in an institution with an overrepresentation of decision-making forums, a point made by researchers themselves; "we spend our time in meetings" was a favorite complaint. The failure of representative politics inside CSIC was also spoken of in terms of "contradiction." I heard researchers commonly complain that "one day we are told one thing, the following day we are told something different." The failure to name the library after Menéndez Pidal was also in-

terpreted as a contradiction: "I just don't get why the library should be named after Tomás Navarro Tomás [another 1930s philologist], unless, of course, it is because he was in exile and an original member of the JAE. But his name is unknown to most people, and certainly not a banner of social visibility. It's just a sheer contradiction."

This is the social structure of research to which I referred above: an institutional imaginary of meetings, decision-making forums, and political spaces and narratives that inflects the way researchers conceive of their own production activities. The professor who complained about the lack of respect for the institution's own historical identity when considering a name for the new library 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.

Not knowing where decisions come from is another way of saying that jumps occur in the steps that institutions take in their decision-making processes. These voids capture moments of absence and suspension, like the decision to give a library a name that has no relevant link to the institution's past. A gap opens up between where things come from and where they are going to, within which the very possibility of (historical) relationality disappears.

Abduction and disproportion

In the paragraph on the abduction of books, I chose to translate the word *rapto* as *abduction* (vs. *rapture* or *kidnap*) for its analytical echoes of a recent body of work in studies of material culture. I refer to Alfred Gell's (1998) famous use of the concept of "abduction" to describe the conceptual means through which art objects extract meaning from the vicinity of social relationships in which 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 protensions 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 artifact 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 criticized because how objects can exercise agency in terms coterminous to those of persons remains unclear (Layton 2003). I do not intend to elaborate a theory of material agency here. But I do comment on the agency of persons and books, that is, on the relationship of academic work and labor 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 nonavailability of books. It entails a realization that a gap exists between agency and knowledge. Whereas in Gell's model, abduction provides an inferential framework to describe extensions of agency to material objects, no doubt the process of extension may also be seen as a process of evacuation, in which the potential for the object's agency evacuates one's capacities for action in the present. For philologists, books as material sources of productive knowledge were capable of evacuating their 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 that is also made apparent 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 what I call "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 a ghostly or historically hollowed agency. Here, academic labor is brought to a halt, or is severely constrained, by an economy of knowledge that sets disproportionate, almost gigantic demands on it. An example is the way managerial decisions create generational and genealogical vacuums in which the relationship between knowledge and scholarship, history and agency, labor and research collapses, opening up a gigantic space of incommensurable expectations.

Another example is the way the economies of scale of the new library made the reference rooms look like antiquarian economies of knowledge. Here the personal capacity to produce knowledge was miniaturized against a relational economy of self-proliferating and self-aggrandized knowledge. 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 digitalization

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 (2006) have attributed this need to a new serendipity of knowledge, which builds on the nonlinear, hyperlinked qualities of digital networks. The ramifying nature of such knowledge, extensional and autopoietic, almost vital (Featherstone and Venn 2006:10–11), 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 our old typological model of theorizing. [2006:5]

The question of the classification of knowledge would ring a bell for philologists, whose ideas on classification are profoundly dependant on a social structure of research in which what is at stake is not the relational order of knowledge (hyperlinked, networked, or nonlinear) but the very types of relations that link agency to knowledge, labor to books. As philologists would put it, what orders of knowledge does a (virtual, abstract, immaterial) relation describe?

That "relationality" is a mode of description that can take different forms is brought to light by the examples of "abduction" and "disproportionality" depicted above. In a sense, these are concepts that 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 nonrelational. Abduction and disproportion are descriptions of the relational and, in this sense, evocative of orders of knowledge larger than the relational itself. 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 (Corsín Jiménez and Willerslev 2007). Abduction and disproportionality point to a theory of communicative agency (between humans and nonhuman persons and objects) that requires an appreciation of its own negativity to fully capture the ways in which knowledge and understanding are mobilized. 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 realization of an obverse potential, an evacuated potential that only becomes salient and jumps into being because it is recognized as the antithesis of the gigantic (Weiner 2001:163–164). The point, simply, is that some things cannot be known because they are not out there for people to relate to. Instead, they become apparent by omission, through their absences. Thus,

insofar as some people speak of knowledge as something valuable because of its capacity to produce relational effects (say, communicative agency or a market price), a case can also be made about a type of knowledge whose efficacy lies not in its effects but in its moments of origination, that is, that demonstrates nothing except its own epistemological context in action.

Conclusion

Disproportionality is a metaphor that does not chime well with philosophical, and managerial, explanations of how science ought to work. As Mirowski (2004) has insistently argued throughout his work, the prevalent metaphorical vision of explanation in the philosophy and sociology of science in the 20th century has been that of geometrical equilibrium. As an aesthetic of structural proportionality, the metaphor of equilibrium has long functioned as "the primary [locus] for the mathematization" of natural science (Mirowski 2004:338), especially in physics, from which it has permeated the scientific aspirations of economics (Mirowski 1989). 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 (Mirowski 2004:339).

For Mirowski, the new economics of science, of which the globalization of privatized science is the 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" (Mirowski 2004:11). The underlying social structure here is a frictionless plane, on which social interventions, whether economic, political, or scientific, interact smoothly and efficiently and eventually gravitate toward an equilibrium resting place, obtained by consensus and evidence-based rationality. This is also, of course, the model of the "open society" (Popper 1945) and the model, too, of the "republic of science" (Polanyi 1962), in which the political structures of science are essentially value free and transparent and 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 theories of social democracy and political justice (Corsín Jiménez 2007b); in which science and scientific knowledge are imagined as political objects that can be "well-ordered" (Kitcher 2001).

The use of a proportional aesthetic to imagine the rise of the knowledge economy, and to conceptualize the place of knowledge in sociology, has a historical sociology of its own. As Simon Schaffer (1994) has shown, the rise of intelligence as an object of political economy is closely re-

lated to the philosophy of machinery that took over the technological imagination of labor at the turn of the 18th century. Hand in hand with the rise of Ricardian political economy, a debate arose in which what was at stake was the very location or "geography of intelligence" (Shaffer 1994:223). Whereas philosophers of manufacturing argued that "the surplus value extracted from the machines was the product of the intelligence of capital made real in the force of steam-driven engines," socialists held that the factory system "used, and assumed, the image of the human body as 'living machinery' " (Shaffer 1994:223). Philosophers of machinery provided in this context a rationalistic account of what was otherwise a battle—between the visibility or invisibility of machine versus labor intelligence— whose larger political context was famously redescribed by Edward P. Thompson in his account of the conflicts over the Corn Laws and the transition from a "moral economy of the crowd" to the "political economy of the free market" (1971:128).

The image of a balancing of forces between the human and the machine, the visibility and invisibility of intelligence–knowledge, and the conflict between morality and economy provided a set of grounding metaphors for the larger imagination of society in terms of a proportional aesthetic. The implication here is that the analytical categories through which scholars conceive our sociology of knowledge are given to us by a sociological imagination in which "knowledge," "society," "value," or "economy" stand as proportionate objects for one another (Corsín Jiménez 2007a). In the case of Thompson's famous conceptual pair—"moral economy" and "political economy"—this is straightforward and manifest in Thompson's own sociological imagination: The larger the slice of "political economy" in "society," the smaller that of "moral economy." In the case of the so-called knowledge economy, the occasion for this balancing out is the confluence and intersection of the public nature of knowledge and the political economy of science. In all cases, the danger is to mistake "morality," "technology," or "knowledge" for substantive sociological concepts, when all that is at play here is a variant of a geometrically inspired, supply-and-demand sociology. 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, and our sociology of knowledge becomes, inevitably, a sociology of economic knowledge.

My concern in this article 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 faced an important reorganization of its activities aimed at catching up with the knowledge society. Of course, not all human scientists embraced the general epistemological economy I have described here on their behalf. Many held

views that could be described as roughly "managerial" and were ferocious critics of their peers. However, the view of the humanities as an antiquarian economy of knowledge permeated the institution as a whole, was acknowledged, if not actually self-consciously articulated, by many scholars, and thus inflected the way human scientists related to their own work. It is, therefore, in the context of this acute self-consciousness about being seen to play in an antiquarian economy of knowledge that I have attempted to show how philologists and historians presented to themselves the catching up with the knowledge economy, both in terms of their own human capacities and labor and in the larger context of institutional demands for a more dynamic and socially responsive (some also say "responsible") science.

I have attempted to show the difficulties and complexities that attend the activity of research, and I 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 Hirokazu Miyazaki and Annelise Riles (2005) have called the "endpoints" of failure. They are also, in this sense, exemplars of how value obtains in a knowledge economy whose sociology is not compromised by the aesthetic of (socioeconomic) proportionality. They point to what an anthropology of the sociology of knowledge might look like when one does not fall in the trap of demonstrating the rise of knowledge in economy and society.

There is perhaps a lesson to be learned here about the relational economy of the new utopianism of knowledge. As Maurizio Lazzarato and Antonio Negri (1991), among others, have argued, the technological qualities of the new knowledge economy contribute to hiding the collaborative and cumulative nature of labor invested in the production of knowledge, for it is knowledge in all its immaterial dimensions—in its very communicative process—that is now taken as a productive figure (Lazzarato 1996).

Now, although the problem of the phantasmagoria of machine intelligence is as old as the philosophy of machinofacture, there is a sense that hyperlinkages and nonlinearity are making labor disappear in a radically novel way, because it is connectivity–communication that is directly producing the social relation of capital today (Lazzarato 2004). The matter is not trivial because, in the age of network capitalism, the question of the production of knowledge is most often posed in terms of ownership (McSherry 2001). Thus, the question of who owns capital appears in this context as a question about the very ownership of social relationality, a capitalist appropriation, anthropologists might say, of the (Melanesian) model of generative, productive knowledge (Strathern 1988). For this reason, critical le-

gal scholars and public-domain economists rightly argue that, in the context of a network economy of information, much is to be gained by keeping the economy open: by fostering free access and promoting common-based peer production (Benkler 2003; Benkler and Nissenbaum 2006). But there is a danger to be encountered here in that the notion of "relational connectivity" often involves conflating and mistaking the productivity of knowledge with the production (i.e., the labor) of knowledge, confusing knowledge with scholarship and, thus, the demonstration of knowledge (in economy and society) with its ethnographic appearance (monstration). In this context, some aspects of the nature of knowledge may be better grasped if placed in the context of their own negativity, if one asks of knowledge not how it grows or what its conditions of production are but how it disappears: what contributes to its absences and abduction and how it confronts its own sense of diminishment and disproportion.

Notes

1. The seminar, "La valorización de las ciencias humanas en el CSIC," was held at INGENIO, in Valencia, on March 13.

2. The term *human sciences* is used in CSIC to designate academic disciplines that, in the Anglo-Saxon context, are more often referred to as "humanities." I use both terms interchangeably throughout.

3. I have anonymized the names of all people, whether ethnographic informants or those identified in institutional documents. I give, however, complete archival references for all documents that are in the public domain.

4. I employ *aesthetic* following Marilyn Strathern's (1991:10) and, more recently, Annelise Riles's (2001) use of the term. In this context, the word describes an institutional form, one that is at once descriptive and analytic. *Disproportionate,* therefore, characterizes both a personal experience and an institutional pattern. Thus, insofar as talk of "disproportionality" folds the distance between the personal and the analytic, it becomes a formal device itself: "It claims to take into account both system and heterogeneity, both models and real complexities at once" (Riles 2001:64).

5. That economic transactions produce externalities is something that economic analysis takes for granted. In economic analysis, an externality is something external to a market transaction. For example, pollution is an externality insofar as it is not something that inheres in the cost structure of, say, mining operations. Michel Callon (1998) has rightly argued that externalities are a matter of "framing": One decides what to frame and what not to frame, what stays "inside" and what remains "outside" the analysis. Indeed, externalities are also known as "spillovers" (Frischmann and Lemley 2006), things that flow over and outside the cost structure or framework of the analysis (Callon says that they "overflow" the frame). It is worth pointing out, however, that, as Strathern (2002) has noted, talk of externalities externalizes scholars' own sociology. Our tools for making sense of the knowledge society are tools that remainder their own sociology out: Patents, technology transfer protocols, or (pseudo)republican models of Science–Society dialogues are all remaindering devices that work by redividing knowledge and society, objectifying knowledge while simultaneously producing (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.).

6. The terms *casposo* and *rancio* have no equivalents in English. The semantic field in this context encompasses terms such as *conservative, backward, Francoist* (reminiscent of the Franco years), *bureaucratic,* or *stagnant.*

7. The human economy of knowledge that transpires in the annotations that readers make in the margins of books has been wonderfully described and commented on by Helen J. Jackson (2001). What Jackson calls "marginalia" provide a clue to the relational depth of, in this case, philological scholarship. The difference between the relational intensiveness of philology and the relational extensiveness of the network economy of information might be another way to characterize the sense of disproportionality that furnishes researchers' expectations toward the new knowledge economy. I thank one of the anonymous reviewers of the article for bringing Jackson's book to my attention.

References cited

Barry, Andrew
  2001 Political Machines: Governing a Technological Society. London: Athlone.
Benkler, Yochai
  2003 Freedom in the Commons: Towards a Political Economy of Information. Duke Law Journal 52(6):1245–1276.
  2006 The Wealth of Networks: How Social Production Transforms Markets and Freedom. New Haven, CT: Yale University Press.
Benkler, Yochai, and Helen Nissenbaum
  2006 Commons-Based Peer Production and Virtue. Journal of Political Philosophy 14(4):394–419.
Callon, Michel
  1994 Is Science a Public Good? Fifth Mullins Lecture, Virginia Polytechnic Institute, 23 March 1993. Science, Technology, and Human Values 19(4):395–424.
  1998 An Essay on Framing and Overflowing: Economic Externalities Revisited by Sociology. *In* The Laws of the Markets. Michel Callon, ed. Pp. 244–269. Oxford: Blackwell.
Consejo Superior de Investigaciones Científicas
  2007 Plan estratégico del Centro Ciencias Humanas y Sociales (2007–2009). March 2007, Consejo Superior de Investigaciones Científicas, Madrid.
Cornes, Richard, and Todd Sandler
  1996 The Theory of Externalities, Public Goods, and Club Goods. Cambridge: Cambridge University Press.
Corsín Jiménez, Alberto
  2003 Working Out Personhood: Notes on "Labour" and Its Anthropology. Anthropology Today 19(5):14–17.
  2007a Introduction: Well-Being's Re-Proportioning of Social Thought. *In* Culture and Well-Being: Anthropological Approaches to Freedom and Political Ethics. Alberto Corsín Jiménez, ed. Pp. 1–32. London: Pluto Press.
  2007b Well-Being in Anthropological Balance: Remarks on Proportionality as Political Imagination. *In* Culture and Well-Being: Anthropological Approaches to Freedom and Political Ethics. Alberto Corsín Jiménez, ed. Pp. 180–197. London: Pluto Press.
Corsín Jiménez, Alberto, and Rane Willerslev
  2007 "An Anthropological Concept of the Concept": Reversibility

among the Siberian Yukaghir. Journal of the Royal Anthropological Institute 13(3):527–544.
Dasgupta, Partha, and Paul A. David
  1994 Toward a New Economics of Science. Research Policy 23:487–521.
David, Paul A.
  2000 A Tragedy of the Public Knowledge "Commons"? Global Science, Intellectual Property and the Digital Technology Boomerang. Stanford: Stanford Institute for Economic Policy Research, Stanford University.
David, Paul A., and Dominique Foray
  2003 Economic Fundamentals of the Knowledge Society. Policy Futures in Education 1(1):20–49.
Delanty, Gerard
  2001 Challenging Knowledge: The University in the Knowledge Society. Buckingham, UK: Society for Research into Higher Education and Open University Press.
Featherstone, Mike, and Couze Venn
  2006 Problematizing Global Knowledge and the New Encyclopaedia Project. Theory, Culture and Society 23(2–3): 1–20.
Firth, Raymond
  1979 Work and Value: Reflections on Ideas of Karl Marx. *In* Social Anthropology of Work. Sandra Wallman, ed. Pp. 177–206. London: Academic.
Foray, Dominique
  2006 The Economics of Knowledge. Cambridge, MA: MIT Press.
Frischmann, Brett M., and Mark A. Lemley
  2006 Spillovers. Stanford Law and Economics Olin Working Paper, 321. Electronic document, http://ssrn.com/ abstract=898881, accessed November.
Fuller, Steve
  2003a Can Universities Solve the Problem of Knowledge in Society without Succumbing to the Knowledge Society? Policy Futures in Education 1(1):106–124.
  2003b The University: A Social Technology for Producing Universal Knowledge. Technology in Society 25(2):217–234.
Gell, Alfred
  1998 Art and Agency: An Anthropological Theory. Oxford: Clarendon.
Graeber, David
  2001 Toward an Anthropological Theory of Value: The False Coin of Our Own Dreams. New York: Palgrave.
Green, Sarah, Penny Harvey, and Hannah Knox
  2005 Scales of Place and Networks: An Ethnography of the Imperative to Connect through Information and Communications Technologies. Current Anthropology 46(5):805–826.
Habermas, Jürgen
  1970 Toward a Rational Society: Student Protest, Science, and Politics. Jeremy J. Shapiro, trans. Boston: Beacon.
Jackson, Helen J.
  2001 Marginalia: Readers Writing in Books. New Haven, CT: Yale University Press.
Kaul, Inge, and Ronald U. Mendoza
  2003 Advancing the Concept of Public Goods. *In* Providing Global Public Goods: Managing Globalization. Inge Kaul, Pedro Conceição, Katell Le Goulven, and Ronald U. Mendoza, eds. Pp. 78–110. New York: Oxford University Press. [Electronic document, Oxford Scholarship Online, http://dx.doi.org/10.1093/0195157400.001.0001, accessed May 2007.]
Kitcher, Philip
  2001 Science, Truth, and Democracy. New York: Oxford University Press.

Layton, Robert
  2003 *Art and Agency*: A Reassessment. Journal of the Royal Anthropological Institute 9(3):447–464.
Lazzarato, Maurizio
  1996 Immaterial Labor. *In* Radical Thought in Italy: A Potential Politics. Paolo Virno, and Michael Hardt, eds. Pp. 133–147. Minneapolis: University of Minnesota Press.
  2004 From Capital-Labour to Capital-Life. Ephemera 4(3):187–208.
Lazzarato, Maurizio, and Toni Negri
  1991 Travail immaterial and subjectivité. Futur Antérieur 6:86–89.
McSherry, Corynne
  2001 Who Owns Academic Work? Battling for Control of Intellectual Property. Cambridge, MA: Harvard University Press.
Miller, Daniel
  1995 Consumption as the Vanguard of History: A Polemic by Way of an Introduction. *In* Acknowledging Consumption: A Review of New Studies. Daniel Miller, ed. Pp. 1–57. London: Routledge.
Mirowski, Philip
  1989 More Heat than Light: Economics as Social Physics, Physics as Nature's Economics. Cambridge: Cambridge University Press.
  2004 The Effortless Economy of Science? Durham, NC: Duke University Press.
Miyazaki, Hirokazu, and Annelise Riles
  2005 Failure as an Endpoint. *In* Global Assemblages: Technology, Politics, and Ethics as Anthropological Problems. Aihwa Ong and Stephen J. Collier, eds. Pp. 320–331. Malden, MA: Blackwell.
Nowotny, Helga, Peter Scott, and Michael Gibbons
  2001 Rethinking Science: Knowledge and the Public in an Age of Uncertainty. Cambridge: Polity.
Ortega y Gasset, José
  1992[1958] La idea de principio en Leibniz. Madrid: Revista de Occidente en Alianza Editorial.
Polanyi, Michael
  1962 The Republic of Science: Its Political and Economic Theory. Minerva 1(1):54–73.
Popper, Karl
  1945 The Open Society and Its Enemies. New York: Harper and Row.
Readings, Bill
  1996 The University in Ruins. Cambridge, MA: Harvard University Press.
Riles, Annelise
  2001 The Network Inside Out. Ann Arbor: University of Michigan Press.
Schaffer, Simon
  1994 Babbage's Intelligence: Calculating Engines and the Factory System. Critical Inquiry 21(1):203–227.
Scott, Peter
  2005 Universities and the Knowledge Economy. Minerva 43(3):297–309.
Secretaría Dirección Instituto de Filología
  2000 Acta de la Reunión de la Junta Ordinaria del Instituto de Filología, 19 October 2000. Departmental Board Minutes, Secretaría Dirección Instituto de Filología, Centro de Humanidades,   Consejo   Superior   de   Investigaciones Científicas, Madrid.
Sen, Amartya
  1999 Global Justice: Beyond International Equity. *In* Global Public Goods: International Cooperation in the 21st Century. Inge Kaul, Isabelle Grunberg, and Marc A. Stern, eds. Pp. 116–126. New York: Oxford University Press. [Electronic document, Oxford Scholarship Online, http://dx.doi.org/10.1093/0195130529.001.0001, accessed May 2007.]
Slaughter, Sheila, and Gary Rhoades
  2004 Academic Capitalism and the New Economy: Markets, State, and Higher Education. Baltimore: Johns Hopkins University Press.
Stiglitz, Joseph E.
  1999 Knowledge as a Global Public Good. *In* Global Public Goods: International Cooperation in the 21st Century. Inge Kaul, Isabelle Grunberg, and Marc A. Stern, eds. Pp. 308–324. New York: Oxford University Press. [Electronic document, Oxford Scholarship Online, http://dx.doi.org/10.1093/0195130529.001.0001, accessed May 2007.]
Strathern, Marilyn
  1988 The Gender of the Gift: Problems with Women and Problems with Society in Melanesia. Berkeley: University of California Press.
  1991 Partial Connections. Savage, MD: Rowman and Littlefield.
  2002 Externalities in Comparative Guise. Economy and Society 31(2):250–267.
Thompson, Edward P.
  1971 The Moral Economy of the English Crowd in the Eighteenth Century. Past and Present 50:76–136.
Thompson, Grahame
  2004 Getting to Know the Knowledge Economy: ICTs, Networks and Governance. Economy and Society 33(4):562–581.
Thrift, Nigel
  2006 Re-Inventing Invention: New Tendencies in Capitalist Commodification. Economy and Society 35(2):279–306.
Toobin, Jeffrey
  2007 Google's Moon Shot. New Yorker, February 5:30–35.
Ulin, Robert C.
  2002 Work as Culture Production: Labour and Self-Identity among Southwest French Wine-Growers. Journal of the Royal Anthropological Institute (n.s.) 8:691–712.
Weiner, James F.
  2001 Tree Leaf Talk: A Heideggerian Anthropology. Oxford: Berg.

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