

Collateral Expertise

Legal Knowledge in the Global Financial Markets

by Annelise Riles

This essay offers an ethnographically grounded critique of and an alternative to science-studies-inflected approaches to the social studies of finance. The focus on trading as the core of finance and the analysis of trading as an analog of technoscientific practice unwittingly substantiate one of the core ideological claims of finance, that it is a discrete world whose activities are protoscientific. A focus on the legal, regulatory, and documentary practices that instantiate the world of traders, in contrast, presents a very different conception of finance. Finance, in this view, is an explicit politics (not a hidden politics masked as epistemological practice), a purposeful and stated compulsion of self and others, a realm of must, shall, and will, albeit one always defined by certain temporal limits. Attention to the temporal politics of finance requires an analytical approach that does more than uncover the politics of expertise. The promise of such an approach is that it might help us to apprehend already thriving forms of political response to global capitalism: arrangements of human and nonhuman legal instruments beyond critiques of global capitalism on the one hand and alternatives to global capitalism on the other. One such arrangement is what I term the placeholder.

Preface: Beyond the Social Studies of Finance

In *Capitalism: A Love Story*, filmmaker Michael Moore summarizes the view of derivatives that currently pervades the popular media and political debate:

Derivatives are nothing more than complicated betting schemes. Here is what the math equation of one looks like. Can't figure it out. Ugh! That's OK, you are not supposed to. They made them purposely confusing so that they can get away . . . with murder. (Moore 2009)

In a similar way, early work in the anthropology of finance and associated bodies of social theory opposed then-dominant neoliberal economic understandings of derivatives trading as a natural extension of market rationality, by seeking to articulate an alternative grand theory of capitalism (LiPuma and Lee 2004). In so doing, however, they also often played to the now-popular view of derivatives trading as a virtual practice abstracted from reality (Carrier and Miller 1998; Deleuze and Guattari 1988:454), a realm of infinite circulation (LiPuma and Lee 2002, 2004), a world akin to gambling (Co-

maroff and Comaroff 2001; Strange 1986), and a form of exchange characterized by acceleration, by a "temporally directional dynamic aiming toward the compression of time" (LiPuma and Lee 2004:127; also Harvey 1989).

In the past 10 years, however, a new "social studies of finance" (SSF) has emerged as an important antidote to *both* economic models and popular imaginations of finance. This science and technology studies-inflected work in anthropology, sociology, and cognate fields firmly rejects the grand theorizing of capitalism that characterized early anthropological forays in the field (MacKenzie 2009:83). Instead, the aim is to identify specific nodes of theories, actors, and instruments, specific "assemblages" (Ong and Collier 2005) or portable packages of conceptual and material technologies that make abstract theorizing about markets possible in the first place (Muniesa, Millo, and Callon 2007:4).

To date, research in SSF has been rather narrowly focused on traders and their instruments (Callon 2007; Knorr Cetina and Preda 2007). This narrow focus on trading practices and technologies reflects a deep assumption that markets are more or less analogous to scientific practice, that is, fields of knowledge. From this perspective, the most interesting questions, as in the anthropology of science, are epistemological; for example, How do facts get constructed in markets? This view treats traders as analogs to scientists, who can be shown to be making, in the guise of merely discovering, market realities. This is perhaps unsurprising, given the roots of many SSF researchers in the sociology of science. But markets are more than market makers. They generate and are generated by all

Annelise Riles is Jack G. Clarke '52 Professor of Far East Legal Studies and Professor of Anthropology at Cornell University (120 Myron Taylor Hall, Ithaca, New York 14853, U.S.A. [anneliseriles@gmail.com]). This paper was submitted 25 VI 08 and accepted 12 X 08.

kinds of independent effects and practices beyond trading, economic analysis, and associated technologies, from social theory (Miyazaki 2005) to legal reasoning (Riles 2011). They are also effects of regulation and policy (Holmes 2000, 2009; Mitchell 2002; Riles 2004), including explicit projects of self-regulation.

When SSF has taken notice of the presence of law, it has too often caricatured legal knowledge as just another version of economic knowledge. Mitchell's (2002, 2007) treatment of the role of property law in the construction of markets, for example, explains the nature and effects of legal thought as just another example of the politics of technocratic expertise, alongside economics, yet another process of abstraction that masks its own politics. Callon's (1998) far more cursory allusion to property rights in the construction of markets likewise describes these as simply another set of technologies of calculability. The subjects of this article, in contrast, are some of the people, documents, theories, and institutional practices on the margin of the trading floor as I encountered them during fieldwork in Tokyo from 1997 to 2004. In particular, I focus on the range of work, from academic legal theorizing to rote document filing, that makes up the practice of collateralization, the posting of collateral with one's counterparty so that one can trade.

Once we broaden the view of markets to incorporate actors and activity on the perimeter of trading, we find that the wondrous sociotechnical networks described in SSF quickly begin to crumble and dissipate. For example, in contrast to the view that lawyers are experts because they have access to a specialized body of knowledge, we see that part of what renders these persons legal experts is not their access to knowledge but their *lack* of knowledge of certain aspects of the financial markets. In the nature of markets, I suggest, the breaks in the network, the points of disconnect and mistranslation, are as constitutive as the mechanisms for portability and translatability; the "friction" is as important as the network flow (Tsing 2005).

My aim is not to supplement the SSF approach by adding in law but rather to ask whether SSF is too tethered to its roots in the sociology of science to serve as an overarching framework for understanding markets in the first place. The notion of the financial market as an offshoot of science is an ideological claim that market makers are fond of making—especially in their presentations to retail clients and to politicians whom they consider outsiders to the world of finance—but as Miyazaki (2007) suggests, it is a claim about which traders themselves harbor a great deal of ambivalence, and it is certainly not a claim that holds much sway among many other actors in the markets. Likewise, the central insight of SSF—that financial knowledge is performative and not merely descriptive of markets—belies the question of who actually believes that economic knowledge is merely descriptive and not constitutive in this way, of who is the audience for SSF at this stage. As Douglas Holmes has convincingly demonstrated, central bankers certainly already understand

that the market is a communicative field and a performative effect (Holmes 2009). But SSF unwittingly reifies the ideological claim that markets are protoscientific by the very act of framing the academic project as a counterweight to this claim.

Broadening the frame of the market to include what is on the margins—collateral to—the trading room therefore broadens the analytical frame beyond the anthropology of science and brings it into conversation with a wider set of concerns in the anthropology of gender, politics, exchange, time, and law (Greenhouse 1996; Maurer 2005; Strathern 1999; Verdery 2003) as well as in feminist theory. Attention to a wider set of concerns emerging from ethnography might help us to apprehend political responses to global capitalism that do not fit existing critical-theory paradigms: arrangements of human and nonhuman legal instruments beyond critiques of global capitalism on the one hand and alternatives to global capitalism on the other.

Accordingly, I want to ask what image of markets appears if we foreground not the commodity form but the collateral form. A derivative is simply a contract, a promise between two parties to exchange something of value on a specific date in the future (yen for dollars, crude oil for euros, the value of a certain basket of stocks for the value of a certain stock index). Such derivatives allow parties to take a bet on the future price of a certain commodity (the future value of the yen against the dollar, the future price of crude oil, etc.) by locking someone else into a bargain to exchange one valuable for another at a given future time (LiPuma and Lee 2004:34–35). Some derivatives are traded on exchanges, such as the Chicago Mercantile Exchange. Other derivatives—so-called over-the-counter (OTC) derivatives, the most common of which are swaps—are simply private agreements between two parties (perhaps two banks, or a bank and a hedge fund, or a hedge fund and a large corporation).

In the OTC market—the market in derivatives that are not traded on exchanges—the availability and transferability of collateral is an ever-present concern. Because in legal terms a swap transaction is a private contract between two parties to exchange one kind of asset for another at a future date, there is always a risk—a so-called credit risk—that before the swap date one side will go bankrupt (Hval 1997). If that occurs, then under the bankruptcy laws of most countries, the solvent party is still liable to uphold its side of the bargain, while the bankrupt party is excused from performance. In order to guard against this risk, swap counterparties routinely require each other to post collateral until the swap date. At the time of my fieldwork in the late 1990s and early 2000s, when Japanese banks found themselves saddled with bad debt and hence with low bond ratings, the ability to post collateral of the nature and quantity demanded by their predominantly American and European counterparties became the precondition to swap trading. Japanese banks usually posted either U.S. Treasury bills, Japanese government bonds, or cash denominated in Japanese yen as collateral by depositing it in

computerized book-entry accounts maintained by specialized intermediary financial institutions (Hval 1997).

Finance, seen from this perspective, is a realm of explicit politics (not a hidden politics masked as epistemological practice), a purposeful and stated compulsion, or “regulation,” of self and others, a realm of must, shall, and will, albeit one always defined by certain temporal limits, by the horizon of the near future (Guyer 2007). I refer to the terms of this politics as a “private constitution” in order to capture its candid, pedestrian, and on-the-surface quality. The surprising possibilities of this form of reasoning turn on a mundane modality of market politics that I term “the placeholder.” In the final section, I explore one illustration of its generative postcritical political effect: a project that animated the hopes and passions of so-called documentation people in the Tokyo derivatives markets to create a new collateral document.

From Doctrine to Documents

In legal terms, collateral is a hybrid of property and contract law. Legal rules concerning how collateral rights are created and enforced, who is responsible for maintaining collateral during the period of the swap, and when parties must seek the authority of a judge to dispose of collateral or when they can act on their own differ considerably from one jurisdiction to the next. In the financial markets, however, one first encounters collateral as a mountain of specific preprinted forms that must be completed and filed before trading can begin and confirmation documents that must be exchanged after each trade. A private industry group, the International Swaps and Derivatives Association (ISDA), has produced a preprinted form, the Master Agreement, to be signed by every party to a swap before it enters into any trade. The Master Agreement defines key practices, rights, and obligations, such as the use of confirmation documents or the procedures for cashing out in the event of bankruptcy. A Collateral Annex document (ISDA 1996, 1999; Suetens 1995) further specifies the rules concerning the daily valuation of collateral, the rights of the parties to demand additional collateral from each other as the market fluctuates, and what they can do with another party’s collateral while it is in their possession. Collateral, then, is not just a set of legal doctrines but also a set of practices of document production, filing, and exchange and associated modalities of sociality.

In recent years, the discovery of documents as sites of ethnographic research has energized both SSF and the anthropology of modernity. For SSF, documents are the outcomes of “inscriptions,” crucial steps in the production of epistemological truths (Latour and Woolgar 1986) because of the way their “inmutable, presentable, readable and combinable” nature (Latour 1988:26) can mobilize conceptual, material, and personal networks around certain notions of truth (MacKenzie 2007).

Sometimes, for example, filling in collateral forms presented what my informants described as “difficult problems.”

Swap-trading partners—foreign swap partners—wished to have extensive rights concerning the collateral of Japanese banks they held (Avanzato 1998). They wanted to be able to sell the collateral to a third party or to use it again as collateral of their own in future swap transactions (Johnson 1997; Mapother 1998). And these difficult problems raised further questions of theory and doctrine. American and UK law allowed for this so-called rehypothecation, but the law of Japan provided that the holder of collateral had certain duties of care and hence could not alienate the collateral without the permission of the party that had initially posted it. One threshold legal question, for example, was whether Japanese or American law would govern the rights over collateral posted by a Japanese bank with an American bank (Guynn and Tahyar 1996).

The full answer to this legal question involves complex and murky jurisprudential and even epistemological issues: What law should govern a transaction between a Japanese and a UK bank posted to their subsidiaries in the Cayman Islands and involving a swap of Chinese currency for Singaporean currency? Where, given that in most legal systems the law traditionally attempts to answer such questions in territorial terms, did the transaction take place? Where is the collateral, some numbers in some accounts, “held”? But the lawyers at ISDA headquarters in New York had prescribed a simple solution grounded not in legal theory but in concrete practices of documentation. The Collateral Annex included, among other things, a clause specifying that the parties agreed in advance that all disputes over collateral should be governed by either UK or New York law. The form simply required documentation people to circle “law of New York” or “law of the United Kingdom,” to initial the document signaling their assent, and to file it.

For anthropologists, attention to such practices of documentation and form-filling as distinct genres of textual production and circulation has brought to the forefront questions of agency, of what kinds of creativity documents compel from their users and what kinds of agents they constitute (Biagioli 2006; Brenneis 2006; Miyazaki 2006; Reed 2006). For the users of collateral documents I studied, for example, writing in one’s own paragraphs, outside the blanks, or exploring some theory of collateral rights other than the one instantiated in the document would be out of the question, something only an outsider, a nonexpert, would even consider doing. On the other hand, the document compels its users to make certain choices: to circle one option or another, to choose from a checklist of possible terms, to write certain controversial information in the given blanks.

Experts

In Japan, this paper regime is managed by an army of “back-office” or “documentation” people. These are generally persons who have graduated from prestigious law faculties in good standing but either declined to take the bar examination

or failed it and hence are not qualified to appear in court. Unlike those who pass the bar exam,¹ these other legal experts—described somewhat disparagingly in the English-language literature as “quasi lawyers” or “scriveners”—staff the legal offices of Japanese companies, doing a mix of work that in many other countries is done by professional lawyers as well as work that might in the United States be done by paralegals or company management (Riles and Uchida 2009). In contrast to the more glamorous front office, where well-paid traders revered for their financial genius or their wizardlike intuition about markets work their computer screens and telephones (Miyazaki, forthcoming),² the back office and its employees exist to supply the legal infrastructure for the trades. Before traders from two banks can enter into a swap, it falls upon the documentation people to fill in the forms.

Although separated by a few meters, the traders and documentation people I knew inhabited different universes. Documentation people, men and a handful of women aged 23–46, were not mathematicians but legal technicians. They earned less money than others involved in derivatives trading. They worked long hours, with little chance of advancement, since their expertise in legal documentation had little use beyond the back office. If time is the core disciplining metric of labor in the modern markets (de Goede 2005:110–114), then the labor of the legal expert was temporally disciplined in a very specific way: the plodding temporality of documentation, with its before-the-fact work of negotiating the terms and its after-the-fact work of “papering the trades” with confirmation documents, differed entirely from the up-to-the-minute excitement of trading. In other words, these collateral managers and their work were tethered to but ultimately quite collateral to trading and to the accompanying heroic agency and real-time temporality of the trader. Collateral and collateral managers were human and documentary afterthoughts.

One of my closest informants, a man I will call Saito, was a quiet, portly, balding man in his early forties. When we met, he usually was dressed in the blue polyester suit that for many years had been the standard uniform of Japanese salarymen but that many had by then already scornfully abandoned in favor of more stylish and personalized forms of dress. His rumpled tie betrayed the long hours he spent slumped at his desk. A native of rural Shikoku, Saito had passed the stringent examination for admission to the University of Tokyo faculty of law, an impressive feat for a student from a rural community without an elite secondary-school educational background. By his own account, however, he had graduated in the bottom third of his class. This rendered

him ineligible for the prestigious government positions reserved for the best University of Tokyo law graduates. He had also declined to sit for the national bar examination and hence could not work as a *bengoshi*, or lawyer licensed to work in a law firm and appear at court. And so he had sought the next best thing, a position in the back office of a prestigious financial institution. To his parents' chagrin, he remained unmarried.

Saito's true passion was traveling the world. On his two-week yearly vacation he had already managed to visit more than 100 countries, including Afghanistan, Uzbekistan, Kazakhstan, and Bulgaria, and he confided in me that he planned to visit every country in the world before he retired. His “dream,” as he called it, was to become a board member of ISDA. The ISDA had only two Japanese board members, both of whom were prominent back-office employees, particularly “famous” (as Saito put it) persons who held positions at important banks. He often recounted to me, in envious detail, the stories he had heard from them about wine-tasting trips in Napa Valley and golf outings in Europe. For this, however, he would have to learn to speak fluent English, and he was working hard at his English on train rides to and from work, although his knowledge of English came primarily from his reading of legal documents, which gave it a particularly legalese character.

Documentation was not, however, the only form of legal expertise. Before a document like the ISDA Collateral Annex could come into existence, legal academics and qualified lawyers working closely with them inside the most prestigious law firms read and wrote academic articles about the meaning of the sections of the Civil Code governing collateral relations, drafted legal opinions about collateral issues on behalf of their clients (domestic and foreign banks), and held extensive meetings with government officials and ISDA lawyers overseas to devise “solutions to problems.” Collateral, then, was both a set of theoretical and doctrinal maneuvers and a set of material artifacts.

In both anthropology and SSE, the challenge and excitement surrounding documents as a subject of study stem from the sense in which such documents are “post-social” (Knorr Cetina and Bruegger 2002; Maurer 2008; Riles 2006c), in that their uses and effects exceed midcentury analyses in terms of the social, cultural, or economic context in which documents are created and used (Macaulay 1963). Hirokazu Miyazaki has suggested that the postsocial relationality of the financial markets often takes the form of an as-if sociality of roles—roles such as “speculator” or “hedgor,” “dealer” or “client”—which in market participants' own understanding are not “real” (anyone can occupy any of these positions at various points) and yet are nevertheless constitutive of a range of social, material, and conceptual artifacts (Miyazaki 2007:408). In much this way, as collateral crossed orders between legal analysis and legal artifact, it also concretized a sociality of two sides (Strathern 1988). Some experts, the “more academic”—prototypically, university professors—made theories and fic-

1. The pass rate for the bar exam in recent years has been between 2% and 5%. The vast majority of law graduates never even attempt the examination.

2. The contrast is from the point of view of back-office legal staff. From the point of view of the front office, of course, there is much internal differentiation. On the difference between “quants” and “traders” in the front office in a French bank, for example, see Lépinay (2007:91).

tions. Others, the “practicing lawyers,” completed documents. In practice, who was an academic and who was a practicing lawyer differed somewhat from situation to situation; some “famous” back-office staff worked closely with academics and practicing lawyers, and one could be a practitioner vis-à-vis a university professor but position oneself as an academic vis-à-vis one’s colleagues. For example, in conversations with me, Saito routinely described himself as an academic. He explained the personal importance of a contact in New York, an American lawyer prominent in the swap business, by saying, “He is my professor. I often ask him questions.” His greatest professional pride was his book, a how-to book referenced by nearly all back-office staff on the details of filling in ISDA documents, now in its fourth edition. From nine to five each day, he worked “as a teacher,” he told me, explaining to people in both his own and other banks how to complete ISDA documentation. After five, however, he became a “kind of scholar” as he researched new documentation problems.

One prominent member of the Japanese back-office world, a board member of ISDA, commanded the general respect of others, in part because of his protoacademic status. The son of a revered law professor at the University of Tokyo, he had spent several years as a child in Boston while his father visited the Harvard Law School. He spoke English flawlessly and insisted that everyone in Tokyo call him “Tony.” He himself had failed to gain admission to the University of Tokyo as a student, however, and so had attended a respected private university, but he had not sat for the bar exam. When he repeatedly, indeed almost compulsively, brought up his own failure of the Tokyo University entrance examination, he would usually emphasize that he had been too busy playing soccer in high school, like an American kid. Once, after we had known each other for some time, he asked to meet me outside the gates of the University of Tokyo for lunch. He arrived in a taxi with a junior employee in tow, and in what felt to me like something of a performance for the latter’s benefit, he led us through narrow back alleys to an unmarked gate, timidly slid open the door and disappeared inside. He returned to motion for the two of us to follow. It was a private sushi bar, and as we sat at the counter, he told us, in hushed tones, that this was a secret place reserved for University of Tokyo professors that he had come to know through his father. In a polite speech, he thanked the owner for her service to his father and asked her to look after me if I should ever come again alone. Tony was a great man, Saito often told me, and so he was allowed to travel the world, to engage in “more academic” projects free of responsibility for mundane matters. Others praised the bank he worked for as “the academic bank” and explained the special status Tony held in the market and his special freedom from ordinary duties and “management support” for his “research projects” in these terms.

The SSF frame would make sense of all that I have described so far as a “standardized package” of expertise, a “theory and a standardized set of technologies” that together make it possible “to locally concretize the abstraction in different practices

to construct new problems” (Fujimura 1992:169–179). This perspective would aptly draw attention, for example, to the way the entity called “collateral” depended on the existence of standardized documents that could travel across national borders, from one technical trading environment and one regulatory system to another, through certain institutional networks and with the help of certain technologies (word processing, printing, e-mail, etc.).

But there is also something askew, ethnographically speaking, in this account of grand networks that enable global portability. Contrary to Bruno Latour’s (1988) claims about the powers of “immutable mobiles,” for example, the materiality of these documents did not in any way guarantee their portability. Rather, the translatability of these documents was quite literally an artifact of the work of the documentation people. At meetings of a “documentation committee” sponsored by ISDA Tokyo, back-office staff from various Japanese and foreign banks discussed how to adapt forms drafted by American and British lawyers and laden with assumptions about market practices in the American and British markets to what they saw as the technological, legal, and institutional limits of the Japanese market. For example, the New York documents prescribed that collateral should be transferred within 3 days, as was the practice in New York, but at the time, neither the Japanese banks nor the clearing system for Japanese government bonds maintained by the Bank of Japan was sophisticated enough to achieve this. If from a distanced sociological position SSF is able to see the creation of grand networks, always at the forefront of the minds of those who inhabited these are the failures of the network, the points of nonfit, miscommunication, dislocation, and nonportability.

The same is true of expertise. In the SSF tradition, expertise is access to a specialized body of knowledge not accessible to others. The expert’s authority and power derive from a certain unreflexive confidence, on his or her own part and among others, in the value of this expertise. For example, Mitchell (2002:55–56) describes the arrogance of legal experts working in colonial and postcolonial Egyptian government who, in his account, transparently and absolutely believed in the uniform and universal applicability of abstract rules of property to concrete cases. For him, failure to see the misfit between expert knowledge and reality is the source of the expert’s “techno-power” (52).

This is itself a powerful diagnosis, but it does not sit well with an ethnography of legal experts in the financial markets. For the experts I knew, what was at the forefront was the incongruence between disparate forms of expertise. For example, the stability of “collateral” depends not only on law but also on inherently ambiguous questions of portfolio valuation (MacKenzie 2003). In order to determine how much collateral must be posted for a given swap transaction, the parties must agree on the value of the “exposure” (the amount of risk) at issue in the underlying transaction as well as on the value of the collateral itself. This valuation process is by definition an impossible exercise since, by the very terms of

the efficient-market hypothesis, if the parties agreed on the value of a swap they would have no reason to enter into the transaction in the first place (Miyazaki 2003).³ However, despite the limitations of the computer models, indeed despite the fact that there were no ultimate answers to the question, what is the value of this portfolio at this moment? the mathematicians and computer experts, not the legal experts, had emerged as the masters of these impossibilities (Dezalay and Garth 2002). It was their expertise that had become the “obligatory passage point” (Callon 1986; Latour 1987). Valuation was performed with complex computer systems and programs run by another group, experts in advanced mathematics and computer science.

As lawyers, the documentation people did not understand the mathematical details of valuation, nor did they understand the humans and machines that performed these calculations. Yet their work depended in concrete and ubiquitous ways on valuation. For example, one core project at the time of my fieldwork involved the problem of “booking collateral globally,” of accounting for all the collateral transactions of a bank’s various offices around the world in one “book.” This project to standardize collateral records depended, in turn, on having standard ways of valuing collateral in each office. Legal standardization required institutional standardization, which in turn required collaboration with those who dealt in computer technologies and numbers.

Once, Saito told me about the emergence of a new kind of figure within American banks, a collateral manager. This person, he said with admiration, understood both systems and law and hence could operate “globally.” Collateral managers commanded enormous salaries and led glamorous existences as they moved between global offices of a bank, following the flow of collateral from one office to the next. I asked Saito whether becoming such a character might not be a dream for him, alongside becoming an ISDA board member. He refused the suggestion: “I am not good at math. It would be too much for me. Such a big person does not exist in Japan.” If the documentation people experienced themselves as collateral to the action of trading, then they also felt alienated from a key aspect of collateral relations themselves. One of the features of this form of legal expertise was that it locked them into a relationship with a set of machines and persons that they were acutely aware that they did not understand, a relationship premised on a lack of knowledge.

3. In fact, by the time of my fieldwork, the ironies inherent in the limitations of collateral valuation had caught the eye of traders, who had begun to see that there was little difference, in economic terms, between the kind of speculation that characterized the swap transaction and the risks and bets parties had to take in evaluating and accepting the collateral that they posted to guarantee those transactions. They entered into swap transactions in order to engage in certain kinds of activities parallel to the collateral transactions, which allowed them to take certain kinds of risks in the market. For these traders, collateral had become inseparable in economic terms from the logic of the underlying transaction, even if it was legally imagined as distinct from and collateral to the transaction itself.

From an institutional point of view, these legal experts’ lack of knowledge of the financial details had many advantages. First, they remained at arm’s length from certain details banks might want to keep under wraps—from proprietary information about trading technologies to problematic trading strategies—and hence posed relatively less threat to their firms as they went about interacting with regulators, academics, and other outsiders. Of equal importance, however, was that the resolution of certain kinds of problems resulting from the failure of other financial technologies—for example, coming to an agreement about whether more collateral should, in fact, be posted on a given transaction when two banks’ valuation models produced vastly different analyses—required an ability to step back and see the transaction from another point of view. To see something from a different (legal) point of view is much easier if one does not already inhabit the dominant trader’s frame of analysis. In a global market in which complexity is the taken-for-granted epistemological and aesthetic starting point (Strathern 1991), a practice that steps back, that makes the picture simple by shutting off the flow of information (Stinchcombe 2001), is value for money indeed. Thus, part of what rendered the documentation people experts was their lack of knowledge of certain aspects of the financial markets.

Unlike the experts that populate SSF accounts, in other words, these particular nodes in the network were painfully aware of the limits of their own expertise. Indeed, what an ethnography of legal knowledge that sustains the market elucidates is the personal toll of a form of knowledge that proceeds from an awareness of its limitations (Miyazaki and Riles 2005) and of the hierarchies that result. My own work among lawyers in a variety of other market settings, from the bureaucracy to the law firm to the academy (Riles 2011), suggests that this ethnographic observation has some generalizability: the constant awareness of the fact that one must act without knowing finance, without knowing trading, without even fully knowing law, is the burden (as well as the condition of empowerment) of the legal expert in the financial market.

Finally, this material demands that we rethink one prominent idea about expertise not only in SSF but in sociolegal studies and anthropology as well. Sociolegal studies often celebrate the “creative capacities of lawyers” (Cain and Harrington 1994:2) as problem solvers, solution builders, crafters of new arguments and new ways of imagining market transactions, and translators between industry and government. This way of celebrating expertise has its analogs in anthropology, where in recent years, the discipline has tried to value indigenous forms of knowledge as forms of expertise by pointing to their (valuable) effects. The turn to such categories as appropriation (Coombe 1998), invention (Wagner 1981 [1975]), bricolage, free play, combination (Leach 2004), translation, and assemblage (Ong and Collier 2005) demonstrates that knowledge is valuable because it is creative: it takes pieces of practices and relates them into a new and different whole. The same kind of celebration of creativity appears in SSF

accounts of expertise. For Michel Callon (2007:151), for example, the defining feature of *Homo economicus* in the contemporary economy is that he is “summoned to innovate.” But legal expertise is not all about creativity. It is also about repetition, rote memorization, filing, precision in the details of copying terms from one set of documents to another, being on time, and cleaning up after yourself and others.

In the Near Future

If we put to one side for a moment these visions of markets as primarily networks and flows, as collections of powerful knowledge, and as sites of creative agency, what else emerges? Finance is, of course, first and foremost an exercise within and upon modern conceptions of time and, in particular, futurity (de Goede 2005:107–114). From Keynesian analyses of the contrasts between short- and long-term market rationality to Hayekian assertions about the problems that real-time market temporality poses for bureaucratic planning, the temporal quality of the market is an explicitly salient feature of market participants’ own debate about market governance.

I draw attention to this obvious temporal constraint because in the SSF focus on epistemological questions, and hence the effort to show how market truths are performatively created by economic theories, market time somehow fades from view. Seen through the lens of performativity (MacKenzie, Muniesa, and Siu 2007), market phenomena are always emergent; the market is an ongoing processual flow of performative utterances and artifacts. But this temporality of emergence leaves to one side the financial market’s own hard and explicit constraint of temporal form, what distinguishes it from, say, the temporality of scientific practice.

So first we have to attend to a temporal problem at the heart of the swap transaction. Unlike many other market transactions, a swap is an agreement in the present to exchange something at a definite point in the future. It thus triangulates the common temporal bifurcation of gift and commodity exchange, in which the gift is defined by the fact that it is to be reciprocated at some unspecified future moment and hence engenders relations of debt and trust, while market exchange is an immediate form of exchange and hence can be abstracted from such relations. The temporal risks associated with the attenuated exchange of the gift and the hope entailed in taking those risks, as well as the asymmetries of debt and dependence that ensue, constitute a classic anthropological subject (Bourdieu 1977; Davy 1922; Mauss 1990), albeit one that has long been tethered to a particular obsession with what it means to be human and hence is usefully rethought in terms of the nonhuman agency of global financial institutions (Miyazaki 2004).

In this context, we might think of the swap as a temporally stretched form of market exchange, an exchange with an attenuated but definite temporal horizon. Hence, its salient feature, relative to other forms of market exchange, is a problem of uncertainty about the future reliability of one’s exchange

partner. If a trader at Paribas Bank agrees with a trader at Sanwa Bank to swap a certain amount of currency at a certain price in a year’s time, what assurance does the risk-management staff at Paribas have that Sanwa will be willing or able, in a year, to fulfill its side of the bargain (LiPuma and Lee 2004:133–134)? The crucial difference with the gift, what makes this a market transaction in this context, is that (at least in theory) each individual swap has a definite temporal horizon, a point of exit at which the parties become once again strangers. In the “meantime,” however, as with the gift, the parties to a swap are *involved*. Their fates are intermingled. They influence one another, govern one another, and submit to being governed. The given structure of this temporality, the swap’s temporal constraint of form, then draws attention to a *near future*, a *future with limits*: this is a time of risk, the time of mutual entanglement, and a time that will at some clearly determined point come to an end.

For the legal-knowledge workers I knew, this temporal structure, in turn, demanded a specific rhythm or temporality of work, what we can call the “temporality” of projects. The question of the legality of the rehypothecation of collateral, for example, was only the latest in a string of problems. It was the problem of the moment, and the moment was defined by the problem. It demanded a solution in and for the near future. As back-office staff at different banks, through committee meetings and informal conversations, reached consensus on how to “solve” such problems, each problem disappeared and new ones appeared on the scene. I was made aware of the difference between this temporality of projects and my own work as an anthropologist when a Tokyo University law professor specializing in financial law discouraged me from interviewing participants about a doctrinal problem that had occupied attention the previous year with one simple word, “Owarimashita.” (It is over). For him, the fact that someone he would expect to relate to as a colleague would take any interest in something finished and over was puzzling and perhaps even a bit suspicious: the problem had been resolved.

This temporality of projects ran alongside, tethered to but collateral to, the temporality of the near future with limits. Like other market participants, legal experts focused their attention just a few steps ahead, but they did so in the modality of the engineer, using a set of tools as means to the end of solving real-world problems of the moment for the user/client (Posner 2001; Silverman 1993). Legal knowledge responds to market-derived problems, in this view. It is after the fact, but close behind. The expert crafts a solution, a new legal argument. When a solution is crafted, it is concretized in a document and handed over to others, and at that point one no longer needs the theory, nor does one need to know who solved the problem or how. For example, the problem of what law should apply to collateral relations was solved by invoking the legal fiction of an *ex ante* free choice of law by the parties, which is based on the principle of party autonomy (Johns 2008); this solution was then concretized in an option simply to circle “New York” or “UK” on the ISDA form. And indeed, as my colleague’s

suspicion would suggest, one should not reopen the problem. The temporality of legal knowledge, in other words, is a temporality in which knowledge, if used correctly, ultimately erases itself as it is concretized in other forms.

So what is collateral from this point of view? We have seen that in the near future, the parties to a swap transaction are involved, "exposed," at risk from one another. In the lawyers' textbook explanations, collateral is a tool for foreclosing those uncertainties, for making limits on those mutual entanglements. If Sanwa Bank posts collateral today, my informants point out, Paribas does not have to think further about Sanwa's whereabouts tomorrow, to inquire about whether it has its financial house in order, to know the messy details of what executives are on the outs with government regulators or who has been making payoffs to whom. Paribas's risk-management staff needs to know only that their positions are fully collateralized. That is, by collateralizing their transactions, the parties agree to a swap of a different order: in a remarkable act of substitution, they agree to swap the politics of their relationship—the nature of their mutual entanglements, its asymmetries, and intrigues—for a known quantity, the collateral. In the definite but attenuated present of the swap, Paribas will hold Sanwa's collateral, and that collateral will precisely stand for, be the measure of, the extent to which it can compel Sanwa to act as promised. For its part, Sanwa's hope (Miyazaki 2004) is that at a finite moment in the future, it will be released from Paribas's domination, that is, that its property will be returned. In ethnographic terms, then, "collateral" is an explicit modality of (temporally delineated) politics, a form of consequential engagement phrased in terms of "protection" from entanglement but that in fact produces further regimes of domination of its own. It is a compact for a political arrangement, a kind of private constitution (Macaulay 1986), something as akin to indentured servitude (Kelly 1991) or the written and unwritten rules of taxation and seizure of goods (Roitman 2005) as it is to a scientific instrument.

Like all constitutions, however, collateral stages further problems of governance. Consider once again what a collateral relationship entails. The Sanwa Bank and the Paribas Bank enter into a swap transaction through their traders, but now Paribas insists that Sanwa post collateral to cover the transaction. If, within the coming year, Sanwa Bank should prove unable to meet its obligations, Paribas will lay full claim to the collateral. But what about right now, in the present? What can Paribas do with the collateral? How must it be maintained, accounted for? What if, as we have seen, Paribas wants to rehypothecate it? Far from separating the interests of Sanwa and Paribas, in other words, collateralization involves them in a particular way: in the management, the care for, this *thing*, as this political relationship is reified now, the collateral.

At the heart of collateral, in other words, is the same kind of political instability and ambiguity that characterizes the debt-like relations of the swap. As the American realist legal theorist Roscoe Pound put it, pledge rights are "rights of one with respect to the property of another" (Pound 1959:185): mixed-

up rights, explicitly entangled rights. Collateral, then, is both a technology and a political problem, both a means to an end and a special kind of relationality. Contrary to the popular image of financial markets as spheres of acceleration, collateral raises a problem of an attenuated, seemingly interminable (albeit ultimately finite) present of mutual entanglement.

Placeholders

So how to manage this mutual entanglement? Here the lawyer introduces what is known as a "legal fiction": acting as if the collateral already belongs to Paribas in the present, that is, as if the future moment has already arrived and Sanwa has been unable to meet its obligations, giving Paribas full rights over the collateral. In lawyers' terms, a legal fiction is a factual statement that a judge, a legal scholar, or a lawyer makes while simultaneously understanding full well—and also understanding that the audience understands—that the statement is *not fact* (Fuller 1930). Examples include the notion that a corporation is a person or the fiction that an adopted parent is the biological parent of the adopted child (Yngvesson 2007).

The legal fiction takes a refreshingly ambivalent epistemological stance. As Hans Vaihinger explains in *The Philosophy of "As If"* (Vaihinger 2001 [1924]), a text that has had as much following among legal scholars as among anthropologists, the legal fiction is an "As If," a kind of knowledge that is consciously false and for this very reason irrefutable. Vaihinger tells us that a fiction differs from a hypothesis because the latter is "directed toward reality" and demands verification. The fiction, in contrast, "induces only an illusion of understanding." The As If is a kind of subjunctive position, therefore: it is neither true nor not true, Vaihinger insists, but rather is itself the tension between what is true and what is not true. In the temporal folding of the present to the future, the instability of collateral relations is transposed onto the instability of the legal fiction. The instability at the heart of debt relations is displaced onto another terrain, the terrain of analytical relations. This is the way marketeers govern themselves.

But why would market participants and their lawyers fail to look behind the veil, to expose the patent falsehood in an assertion that the rights of the parties with respect to a certain quantity of collateral are clearly defined? How could they believe such a fiction? The answer is that they do not, in the traditional sense of "belief." A fiction is rather a technique, more like a machine than a story, a tool for practical intervention. The legal fiction to which lawyers appeal in rehypothecation, for example—the fiction that the future moment of the swap's completion has already arrived—does not pretend to resolve, in actuality, the indeterminacy of future risks associated with collateral; it is rather a command, or a mutual agreement, a normative constraint, simply to act as if. What documentation people understood only too well was that such attempts to foreclose some issues opened up indeterminacies

elsewhere. For example, is collateral a legal fiction of Japanese property law, with its own particular calibration of as-if obligations, or a fiction of New York secured-transactions law, with its very different working assumptions? As solutions, then, legal fictions replicated the problems they solved on other terrains (Miyazaki 2004).

Thus, the legal fiction is not really so much an epistemological claim as it is a special kind of pause, for the moment, and so I prefer to think of this move as a “placeholder” in order to direct primary attention toward questions of temporality rather than epistemology. In mathematics, a placeholder is a “symbol, frequently an empty box, used in teaching to denote a missing quantity or operator in an expression” (“placeholder,” definition 3; Oxford English Dictionary [OED] Online, <http://www.oed.com/>). One creates a placeholder in order to overlook it for the moment. In other words, it is a technique for working with and in the meantime. As such, it has no particular content or meaning, except that it defines and manages the near future, the time for which this particular commitment holds true. But it is also a political device, a kind of collective commitment. The original meaning of the term was overtly political: “a person who acts as deputy for another; a lieutenant, a proxy. A person who holds office, esp. in the government or in government service” (“placeholder,” definitions 1 and 2; OED Online).

In this sense, the placeholder’s central feature is that it forecloses the question of the moment for the near future, not by resolving it, but by papering over it, we might say, by creating a dummy solution subject to future reevaluation. The placeholder is the precise opposite, then, of pragmatist ways of thinking about the ambiguity or open-endedness of the present as an open zone of endless possibility and unpredictability (Rorty 1989) that have so inspired SSE. For the placeholder, in contrast, the present is as if already resolved.

As a tool of legal work, the placeholder thus shares with the temporality of projects that define legal work a clear sense of limits placed around the near future. But it also obviates (Wagner 1986*b*) that temporality: if for the project the near future is the time of frenzied intellectual activity, in contrast, the placeholder is a tool of forgetting, of putting to one side. For the moment, the near future, the problem is resolved; it is more like the “archived” project than the current project. In contrast, the future will be the time of possible action, when the validity of the assumptions (e.g., that collateral rights are held by the collateral taker) will be open to reevaluation.

What is important is that this placeholder is always effectuated in an as-if modality; it is only a working assumption, a subjunctive. The claim, for example, that it is as if the pledgee already has full future rights to the collateral in the present is simply a provisional claim, one that holds for the meantime, that is, for the near future. And this is what also differentiates the placeholder from technocratic ways of thinking about future risk. Andrew Lakoff (2008:401) has described the “scenario based thinking” of disaster-preparedness projects as a “fictional experience of the future in the present,”

undertaken in an “affect of urgency.” Clarke (1999:16) terms the documents produced from such simulations “rationality badges,” signals to the public that things are under control. In these projects, present-day politics requires making truth claims about a secure, predetermined future. In contrast, the placeholder makes no actual assurances about the security of the future at all. The rationality badge of the As If is by definition only for the present, subject to future reevaluation.

As we have seen, the placeholder is a material, sociotechnical phenomenon, not simply a concept. The documents that define collateral relations are not just instantiations of legal doctrine or government policy, as legal theory would have it. Rather, as SSF suggests, they are indispensable elements of a singular sociotechnical network. Recent ethnographic work draws attention to the temporality of such documents, as artifacts that engender distinct moments of creation, form-filling, filing, analysis, and circulation and encourage certain kinds of anticipatory or retrospective analysis and certain experiences of the present (Brenneis 2006; Heimer 2006; Knorr Cetina and Prada 2007; Miyazaki 2006; Riles 2006*a*). Mario Biagioli (2006:127) has suggested, for example, that a document serves as a “hinge between two distinct moments” of productive work.

In this sense, collateral is a material compact for a politics of the near future, defined by the way it is also a handoff to the time beyond the near future, that is, to what cannot be predicted and who should not be controlled from the present (Teubner 2004). As such, it is an instrument of trust in future political selves: any as-if assertion is made with the appreciation that it will be subject to later reevaluation, renegotiation, or downright abandonment in the future, and yet it is made nonetheless. When one completes and files the document, it is for others to do with as appropriate for their time. The placeholder does not simply demand such trust, it also engenders trust; it frames and packages the state of thought in the present, entextualizes it in documentary form, and hands it off to future others in a finished form that subtly but powerfully suggests that one need not reinvent the wheel.

If we turn to the legal argument that is entextualized (Silverstein and Urban 1996) within collateral documents, however, we find another temporality at work. The legal argument, with its as-if assertion that the rights are clear, is in fact a kind of perspective from the end. In the example of collateral rights viewed from the point of view of the termination of the relationship, for example, it is as if the very near future that the placeholder stabilizes has already come to an end and we already know what the outcome of that near future is. So while documents as placeholders move *through* time, linking one moment with the next, as Biagioli suggests, the as-if assertions entextualized in those documents also *fold* the future into the present. In fact, the placeholder has a kind of double temporality. It is temporally self-contextualizing even as it moves through time (Riles 2006*c*).⁴

4. As I explain elsewhere, legal documents can be seen to collapse

As an alternative to more utopian feminist political projects, Donna Haraway (1997:268) has proposed the image of the cat's cradle, a game of string in which one person creates a form only to hand it off to the next, who then transforms it in other ways and passes it on. In much the same way, we can think of the private legal technologies of collateral as a decidedly antiutopian handoff to the future. A placeholder is a commitment created simply in order to pass it on to our future selves, the selves just beyond or at the threshold of the near future, whoever they may be, to make of it whatever they might choose. Unlike the American market ideologies and new religious movements critiqued by Guyer (2007), legal technique has little to say about and little interest in the utopian time of the distant future. In contrast, it directs endless attention and produces great fascination about all the possible intricacies surrounding the near future, the immediate moment just around the corner.

I want to dwell for another moment on the radical ethics and politics of this stance of holding the future open, of refusing to speak for the long term, one that, in its definitional provisionality, ironically makes it possible to speak with singularity and clarity about the near future. In her call for a "feminism in the meantime" (Wiegman 2000), Robyn Wiegman writes "against generational time and the apocalyptic narrative that it writes," in which present-day struggles are about guaranteeing certain changes in the future and future generations let us down when they do not continue our struggles. Wiegman writes that thinking in other terms "demands something other from the political than what we already know; it . . . holds out the possibility that . . . any particular future and 'our' knowledge will have no necessarily productive relationship, no narrative that makes us live in the present of some future feminist time" (Wiegman 2000:821).

In precisely this way, the placeholder is a political project premised on the fact that the project already exceeds what we already know and do in the present. This is the irony—the farce, we might even say—of collateral as a guarantee of something that by definition cannot be guaranteed, that is, the politics of the future. But it is a consequential farce, because just as the claims about the future at stake in disaster preparedness are political claims in the present, collateral documents call forth a particular present "we" (Teubner 2004): the we whom, *for the moment*, the as-if assumption holds. It is in this sense that the claims and practices of legal technique are constitutional moments.

Amateurs

In the late 1990s, a handful of back-office employees took on a new project: they would draft a Japanese version of the American and British collateral agreements they had been

dutifully translating and signing. This would require something different from form-filling; it would require *theorizing* as yet unsettled questions of Japanese law. The project was not entirely untethered from more habitual tasks: the output of this theory was to be a new document. But this time they would *produce* a document for others to complete and use rather than working out how to complete, circulate, and file existing ones.

In monthly meetings, the group debated how to construct a solid legal argument that rehypothecation was protected under the existing provisions of the Japanese Civil Code. They studied the code, translated and read numerous foreign commentators' articles, and presented and debated various legal theories of the problem. Participants in this project usually described it to me and to one another with academic metaphors. They referred to their monthly meetings as a *kenkyukai*, an academic research group on a specific topic. I was told that later public meetings of the documentation committee explaining this work were, in fact, more like seminars led by certain "teachers," respected documentation people, and that the representatives of other banks simply "learned" the procedures from these teachers.

There was, however, something askew in the affect and positioning of these would-be theorists. These documentation people were only too aware that they were not actually legal theorists. They enlisted professors at elite universities to test the "validity" of their arguments. They repeatedly commented that their low test scores at university had permanently foreclosed the possibility of an academic career, and Saito-san often commented that he was not even a professional lawyer. In their effort to replicate the work of legal theorists, documentation people lived with a considerable degree of self-doubt, a constant anxiety, a need to check with professionals to see whether they had got it right.

Out of this work, the group produced a Japanese collateral agreement (the "Japanese Credit Support Annex" [CSA]; Ono et al. 1998). The specifics of the legal argument for the enforceability of rehypothecation that the group constructed are complex and technical. What is important for present purposes is that the "logic" of the document seemed extremely technical and difficult to understand to most back-office employees as well, not to mention to collateral experts working for foreign banks. In fact, the document presented not one, but two legal theories under which U.S.- and UK-style collateral relations should be enforceable in Japan. This is because the group could not agree on which of two possible legal rationales was preferable. The document refused to hide these disagreements, to erase their theorization in the concretized form of the document, as legal knowledge should. Instead, these alternative arguments appear as two different sections of the form, and back-office staff were asked to choose to complete one of them. In order to use the form, therefore, employees needed to understand the theories and make a choice between them, and this caused considerable confusion. The document was rarely used and eventually was discontinued. One documentation person

time and analysis, two kinds of units usually imagined to be of different orders, and this condition can be a problem as much as a solution for legal practice (Riles 2006c:18).

explained the failure in terms of its ambitious but ultimately failed approximation of the technologies of academic legal expertise: "It was a beautiful argument, but it was too academic, so people did not understand."

At this point, I must make explicit one fact about this flurry of activity that was obvious to the participants but is quite counterintuitive from an observer's point of view: there was simply no market need for this document. Collateral documents were something that foreign counterparties demanded, and foreign banks had no use for a document that would submit them to Japanese law. From foreign parties' point of view, all they needed to know about the logic of Japanese law was that it would *never apply to them*. In other words, this massive project did not satisfy any readily identifiable market demand. In form, it looked like any other exercise in legal means, but what the end might be remained open, undefined (Navarro-Shin 2007).

Now in the context of global articulations of market power between center and periphery (Pollard and Samers 2007), in which the burden of the expert is that "truth must scale down—particularize—at the same point as it scales up—universalize" (Choy 2005:9), it is easy to see how the production of a local version of a global artifact becomes an important performance of expertise. What is interesting about this demonstration of market expertise, however, is that it took the form of amateurism. Amateurism is work whose logic is not defined by the time value of money. Instead, the relevant constraint of amateurism is the relation the amateur creates to the work of professionals: one cannot be an amateur in a practice that does not already exist as a professional practice, and the amateur is "oriented by standards of excellence set and communicated by [professionals]" (Stebbins 1992:41). What the market value of this project was remained open-ended and unclear. What defined it instead was its relationship to the other "side" of collateral expertise, the academic side.

If amateurism seems like a counterintuitive modality of legal professionalism, consider this: it is by definition as-if professional work. As such, it is also a placeholder, a kind of pause. In the placeholder, something omnipresent that has no resolution in the present (such as risk) is simply put on hold, papered over, until a definite future moment, with the help of the as-if assertion (such as the assertion that party X clearly holds certain property rights). Here, likewise, the question of the usefulness of expert work—the market value of professional time—was placed on hold, for the moment, with the help of an as-if performative assertion: "We are doing academic work."

Naoki Kasuga has analyzed the scandalous Japanese social problem of "freeters": young people who defy the strong social imperative to seek career employment. Freeters, Kasuga explains, are people who steadfastly, if evasively and without explicit ideological elaboration, refuse to choose this or that company, this or that career. Like collateral, freeterism has a definite horizon; it is a position for the meantime. Kasuga (2005) refers to "the generally accepted idea in Japan that

being a 'formal employee' [*seishain*] is proof of being a proper adult, and a person can only become a formal employee up till around the age of 30 in most cases even now." Freeterism, then, is an activity that forecloses, day by day, other possibilities. Freeters are people who steadfastly maintain the freeter position as time runs out. They do not drop out and rebel, they do not critique, they do not organize; rather, they continue to wait and to try this and that, with the thought that "perhaps I can find something interesting" (Kasuga 2005). Although the politics of such a move are hard to grasp in academic terms, they do not go unnoticed by the neoliberal state. In popular discourse and in numerous state-sponsored projects, the moral degeneracy of freeters is framed as a very serious social problem and, more than that, as a threat to the authority of the state.

In much the same way, the documentation people I knew remained aware that there was an implicit limit on the amount of time they could devote to their para-academic work. It was always a temporary suspension of one's engaged, marketable activities, a kind of pause in which one withdrew from the demands of the market, undertaken with the understanding that the moment of pause would soon come to an end. This is actually a quite radical reversal of the instrumental valuation of professional labor, one achieved not by refusing that logic but by pushing it beyond its own temporal limits. Rather than limiting future risk, as collateral is assumed to do, this work embraces it. Throwing one's energies into as-if academic work—rather than, for example, taking on the mathematicians in a political struggle to wrestle away from them control over the indeterminacies of valuation and demonstrate that law is better able than mathematics to control market risk—disposes of any faithlike commitment to the ideology that self-instrumentalization reaps proportional economic rewards. It suspends that logic by finding present means that are not easily tethered to future ends. It is a strange, even maddening response to the overinstrumentalized conditions in which these experts find themselves. It is decidedly not a critique, but I gained a very personal appreciation for it because it was these experts' willingness to suspend this logic long enough to waste time with an anthropologist that made my fieldwork possible.

What is perhaps most challenging about freeterism as a modality of engagement with market demands to make one's labor available is that it does not refuse those demands: freeters work for wages, often for the same companies they might join as career employees, but they do so only for the meantime. Likewise, these legal experts' response to the demands of the temporality of legal projects—the demand that they remain just one step behind but always in step with the market—was to immerse themselves in an as-if legal project.

There was one twist. Recall that if completely successful, academic legal work is expected eventually to erase itself as theoretical problems are concretized in statutes, opinions, or documents and experts move on to the next market-driven project. The Japanese CSA, by contrast, asked users to remain

aware of the theoretical debates that had preceded the drafting of the document and in fact to enter into them by making a choice between sections in the form. The result was not a properly functioning collateral document but an ongoing and hence illicit debate (Holmes 2000).

In order to appreciate the power of this move (Wagner 1986a), recall that as a tool of legal work, the temporality of the placeholder actually obviates the temporality of projects. Both work with the hard temporal limits set by the market on the near future, but while a given project entails frenetic activity in the near future, for the placeholder, the near future is a moment in which activity is on hold. The as-if collateral document, in contrast, actually occupied both of those positions at once: it was a pause from present professional activities (a placeholder) that took the form of a project, of diving in and opening up the present. It took on the governance structure of the placeholder—the ability to foreclose questions of value for the near future—and worked it into a modality of projects, of frenetic activity in the present. We might call this the redeployment of the temporality of collateral toward unexpected purposes and potentialities (Maurer 2008). Recall that the As If is neither true or untrue: it is the tension between what is true and what is untrue. It is both positions at once. What Vaihinger observed about the epistemology of the As If applies equally well to its temporality.

What does it mean to pause from professional work and immerse oneself in professional projects at once? What is foreclosed, in such amateurism, is the ends and hence the endpoint of the project itself: the trusting handoff to others in the future. This collapse of two legal temporalities into one thus actually subverts the very structure of the temporality of the near future, the very constitutional arrangement of collateral; by refusing the givenness of the endpoint of the present, the moment at which the project should be handed over and closed down, it rejects the relations of trust that the endpoint announces and engenders. No wonder that the document, in turn, failed to engender the trust of users.

Conclusion

Law is by its very definition collateral knowledge. It exists on the sideline of the market, bolstering market practices in much the same way that collateral provides the pretext and infrastructure for swap trading. Yet I have tried to show that law matters to markets, in far more surprising and consequential ways than this sideline self-image might suggest. More generally, I have argued that the now-dominant sociotechnical approach to markets gives us an insufficiently rich account of the nature of politics, of the intermingling of fates, within a market form shaped by legal expertise. An ethnographic approach to financial markets, in contrast, requires coming to terms with the market as a realm of explicit politics: of compulsion, of must, shall, and will, of purposeful government of self and others. The challenge of this simple and explicit politics, as I have suggested, is its imperviousness to

social-scientific techniques for rooting out the hidden politics of ostensibly neutral market practices. This direct and dreary domination of self and others, in which nothing of the political remains to be unmasked, is something that social science and critical theory more generally are painfully ill equipped to engage.

So how else might we respond? In this experiment, I have taken a page from my informants, for whom the pat, snug, all-commanding structure of market temporality is the condition of work and subjectivity. Working collaterally to their knowledge, I have described in my own terms the various qualities of time engendered by the simple and explicit compulsion, the normative “must” of the equation “time is money” as it plays out in the near future of market transactions: the temporalities of projects, amateurism, and the placeholder. I intend the placeholder, then, as both an example of what we might find and a model of how we might find it when we choose to see the market as more than an analog to technoscience.

Comments

Carol J. Greenhouse

Department of Anthropology, Princeton University, Aaron Burr Hall 116, Princeton, NJ 08544, U.S.A.
(cgreenho@princeton.edu). 13 VII 10

Classic legal anthropology was based on the premise of law's superiority, as the essence of the social principle, cultural norms, social consciousness, and legitimate power.⁵ Such assumptions reflect the wide circulation of the idea (and, for some, the ideal) that law's production and efficacy are mutually derived and, similarly, are bound up in (indeed, binding) social circumstances over time. From this perspective, the “time-binding” quality ascribed to law reinforces an axiomatic association of law with social organization, imputing the status of law to whatever is stabilizing or enduring in institutional practice, especially in relation to questions of institutional autonomy and authority. Indeed, from this standpoint, whatever holds superior force might, metaphorically, be law.

Broad associations such as these had multiple genealogies and traveled widely across the disciplines. They continue to have long extensions in the present, wherever culture and law are assumed to mirror each other. Readers unfamiliar with legal anthropology need look only as far as the business pages of the newspaper or political blogs to find related ideas spelled out in everyday language. For example, the association of law

5. For critical elaboration of these classic formulations, see Collier (1975), Moore (1969), and Nader (1965).

with self-regulating sociocultural systems is a tenet of the U.S. conservative movement, distinguishing law “made” by “judicial activists” from law that crystallizes some collective moral sentiment of “the people.” The association of culture and self-regulation has also been widely taken up by corporations as an approach to management and as armor against governmental regulation (Micklethwait and Wooldridge 2005 [2003]; Shamir 2004). Vernacular versions of this discourse can be found all along the political spectrum in the United States as expressions of democratic principles. Such pervasiveness tends to blur the ways that this very discourse may render law secondary to other modalities of power, such as the global financial institutions Riles analyzes, a social or technical function, facilitating means but not governing ends.

In this sense, the global capitalism emergent from the antiregulatory movement gives anthropology another version of itself, as Riles (2004) has influentially written. In “Collateral Expertise,” Riles shows us the literal back rooms where state-made law supports global finance from deep inside a major Tokyo bank. In the process, she “unwinds” (her Bergsonian usage in the earlier work) key propositions of anthropological knowledge, particularly anthropology’s axiomatic association of law with binding effects. She upturns the presumed binding qualities of time, text, and social force, prompting constructive rethinking. For example, that bureaucratic rationality entails the substitutability not only of bureaucrats but also of the objects of their administration is a significant critical extension of Weber’s thesis and its legacy in the sociology of modernity. Riles’s attention to the temporal arts of administration relative to the durational aspects of personal expertise suggests new ways of thinking about time and memory, as well as time and law. In Mr. Saito’s world, apparently, neither time nor law is binding; rather, the collateral agreement, once achieved, is a vanishing point where time “erases itself.” What is exchanged between the parties is their mutual (differential) insecurity, concretized not in collateral itself but in the collateral agreement, the “legal fiction” documenting their constitution of “another terrain, the terrain of analytical relations.” Legal text emerges in fresh light here, “more like a machine than a story,” registering the analytical relation between the parties in a hypothetical temporality specific to their interests; hence Riles’s “placeholder” for the lacunae where lawyers work to document the conditional substitutability of the artifacts of global trade without regulating global trade itself. The essence of their work supports those who work the bank’s front rooms by filling in the blanks of a “near future” in which “handing off” insecurity is the norm. This setting is very different from the image of power and judgment that social anthropology classically associates with law, yet it does not do away with that image. It remains, for example, in Saito’s self-image as a cosmopolitan scholar, honing his expertise in the ethnographic present of his private study.

Ellen Hertz

Institut d’ethnologie, Université de Neuchâtel, 4 rue St-Nicolas, CH-2000 Neuchâtel, Switzerland (ellen.hertz@unine.ch). 20 VII 10

There is one thing one learns at law school that one cannot learn anywhere else, and that is that there is nothing one learns at law school that one cannot learn anywhere else. Yes, law students are exposed to legal doctrines, famous cases, a complex system of textual authority, and electronic resources, but all of this can be readily learned by nonlawyers, as the existence of paralegals attests. Going to law school is what Bourdieu (1982) has identified as a *rite d’institution*: a process by which those who endure it are transformed not so much in relation to who they were before they participated in the ritual as in relation to those who cannot participate and are deprived of the title that it alone is empowered to attribute.

This opposition—between knowledge on the one hand and institutionalized authority on the other—is precisely the opposition that Annelise Riles wishes to explore in this original and provocative contribution to the social studies of finance (SSF). She promises us two things: “an ethnographically grounded critique of” and “an alternative to” science-studies-inflected approaches to SSF. On the first promise, she delivers nicely. She points to the risk of fetishizing specialized knowledge in the SSF literature, and although her target may be something of a straw man, it is easy to see why this risk exists, for “knowledge” in financial markets is quite simply sexy. It can be very hard to understand, even for other specialists, and taking it on lends academic writing an aura of real-worldliness. Riles writes against this temptation by pointing to all of the routine but crucial acts of institutionalized authority that undergird the high-flying practices of traders and mathematicians.

In making this argument, Riles brings us back to the origins of the financial enterprise, born from a need not to create knowledge but to manage property over time. According to the OED, “finance” stems from the Latin *finis*: “OF. *finance*, n. of action f. *finer* to end, to settle a dispute or a debt, pay ransom, to bargain for, to furnish, procure, f. *fin*: see FINE n.” As Riles argues, although finance connotes the undifferentiated and endless circulation of value, it is possible only because it includes mechanisms that temporarily put an end to circulation in foreseeable ways. Taken not as a threat but as a pledge, finance’s motto might be summed up by the paradigmatic apocalyptic phrase “the end is near.”

Riles also promises us an alternative, but I found this part of her argument less convincing. In presenting her ethnographic material on financial collateral and the “army” of Japanese lawyers who manage it, Riles implicitly mobilizes the stereotype of the *sarariman*, hardworking and unrecognized, performing the grunt work of market bureaucracy in the back office. There are two collateral (if I may) risks here, even

beyond the risk of stereotyping. The first is not a mistake that Riles makes but one that her readers could be drawn into; this entails imagining the relation between lawyers and traders in financial markets as merely oppositional, as if all of the stabilizing practices could be attributed to law and all of the destabilization to “economics.” In fact, legal, computational, and institutional mechanisms all contribute to creating the combinations of fluidity and stability that make financial markets work (Hertz and Lépinay 2003; Lépinay and Hertz 2005).

The second risk is one that Riles seems to take deliberately: that of dazzling us with law as an antidote to our having been dazzled by science. My opening paragraph was an allusion to this, and I feel strongly that the social study of law must take pains not to play “the law card” in this way (Hertz 2004). In fact, contrary to the story Riles tells, it does not seem to me that there is anything all that “complex” or “murky” about the legal instruments at issue here. That the same instrument might have different implications in different legal systems is quite standard, and there are standardized means for dealing with this. As for collateral, as she herself points out, it protects OTC traders against the risk of bankruptcy, not against market risk per se. While it is a vital part of what makes financial markets work, it is neither hard to understand nor “ambiguous,” nor am I convinced that it harbors much political potential. To turn Riles’s critical question against her, who is [her] audience at this stage? Is it really necessary to exoticize the reflections and practices of these Japanese lawyers in order for them to receive the attention they deserve?

To her credit, Riles may have yielded to this temptation in response to another characteristic of SSF, to which I can do justice only by invoking that wonderful image of the Wall Street trader made famous by Michael Lewis (1989) in *Liar’s Poker*, the “Big Swinging Dick.” SSF has its share of academic BSDs, some of whom may even be nonmen. Like the mathematicians on Wall Street, they have moved from science to finance because it is (even!) sexier. One admires Riles for taking them on with such combative creativity.

Douglas R. Holmes

Department of Anthropology, Harpur College of Arts and Sciences, State University of New York, Binghamton, New York 13902-6000, U.S.A. (dholmes@binghamton.edu). 21 VII 10

Annelise Riles is pushing forcefully on what are, I think, the key issues in research in virtually all technocratic settings, not merely those focused on finance. The essay reveals the particular tensions and excitement of working without a net, as it were, under circumstances where neither the anthropolog-

ical archive nor the dominant approaches in SSF provide much in the way of scholarly support or direction.

The central trope in the essay is “collateral” as the technical means for foreclosing uncertainties in financial transactions, in this particular case the exposures inherent in swap contracts. Counterparty risk is managed prospectively by a guarantee. If an element of the swap agreement is violated before the completion of the transaction, a sum is set aside to cover the failed promise. Simple, prosaic, so what?

To begin with, as Riles compellingly demonstrates, the construction of collateral agreements represents a decisive form of intellectual labor pursued by personnel in the back-office operations of major financial institutions; these agreements are part of the deep plumbing of the financial system, in that they facilitate market transactions and yet are more or less invisible. The generation of these documents casts financial transactions within an intellectual ambit tethered to legal knowledge, revealing an “explicit politics,” the terms of which underwrite “a private constitution.”

Collateralization employs legal models that typically do not come under the purview of SSF, and more importantly, these practices make clear that there is far more to the world of finance than is encompassed by the role of the trader and the transactions on the trading-room floor. In a similar vein, Riles has examined the creation of a new payment system for the Bank of Japan, which along with the similar projects by the People’s Bank of China and the European Central Bank, constitutes the major infrastructural development in the contemporary history of finance. Opening up these spheres of global finance to anthropological scrutiny is, of course, enormously important, but the essay goes significantly farther.

In pursuing what looks like the anthropology of law, Riles broaches something truly innovative. Here is how she describes a hypothetical swap agreement between two banks, PNP Paribas and Sanwa Bank:

That is, by collateralizing their transactions, the parties agree to a swap of a different order: in a remarkable act of substitution, they agree to swap the politics of their relationship—the nature of their mutual entanglements, its asymmetries, and intrigues—for a known quantity, the collateral. In the definite but attenuated present of the swap, Paribas will hold Sanwa’s collateral, and that collateral will precisely stand for, be the measure of, the extent to which it can compel Sanwa to act as promised.

Riles demonstrates how anthropology operates *in* the law before and independent of her appearance in the ethnographic scene. In the back office of a Japanese bank, anthropological labor is continually being performed: cultural codes and relational idioms are actively under scrutiny. She elucidates this unmarked labor at the intersection of law and finance—the operation of placeholders and the role of amateurism—without domesticating these practices with *our* theoretical pre-occupations.

Why? Well, not to be too flatfooted about it, this world is

richly endowed with theory and with actors, “documentation people,” fully capable of employing theory for pragmatic and fanciful ends. Her subjects are fully aware of the “fictions” they employ to engage pragmatic issues of temporality and of epistemology. They understand the nature of critique, the plasticity of social and cultural forms, and the possibilities of recrafting institutional practices. By taking this kind of intellectual labor seriously, Riles is, I think, challenging emphatically the representational conventions of ethnographic inquiry and analysis.

What do we do when theory is alive in the scene of fieldwork? Riles treats her subjects as colleagues with whom she shares analytical insights, and she makes us, the readers, privy to these creative exchanges. She contextualizes the ideas unfolding in her collaborative engagements, links them together in provocative ways, and thereby captures the generation of anthropological problems in situ.

This style of inquiry makes analytical closure provisional and, in some measure, arbitrary, and yet it has the capacity to yield surprise at every turn. More importantly, it makes the ethnographer an active participant in the making of representational forms, fully exploiting the performative possibilities of anthropology in concert with her subjects.

What we get from this superb essay are glimpses of experimentation and activism in which the ethnographer is fully implicated and her creative capacities fully engaged. Experts are willing “to waste time with an anthropologist” because she has something to offer; they recognize the value of her collateral knowledge as it unfolds in their midst.

Naoki Kasuga

Department of Social Anthropology, Hitotsubashi University, Tokyo 186-8601, Japan (kasuga@hus.osaka-u.ac.jp). 12 VII 10

This paper indicates the essential flaws in “science-studies-inflected approaches to the social studies of finance” while also proposing in a highly convincing fashion the “placeholder” as an appropriate example and model in a new analysis of financial markets. The social studies of finance (SSF), which have led the way in recent research, take as point of reference science and technology studies, modeled on the natural sciences, which are predicated on the reiterativity and quantification of phenomena; from the start, SSF has little interest in how persons as actants experience assemblages, which every moment continue an irreversible transformation. This becomes a fatal flaw when SSF depicts financial markets and causes market time to fade from view.

Annelise Riles’s elegant argument starts from the claim that “markets are more than market makers.” She focuses on law,

which exists on the sideline of the market, and legal experts, who work diligently on documents in the back offices of financial institutions. Thanks to the activities of these collateral forms of knowledge, market movements transform from commodities to literal collateral. In order to deal with the unpredictable flow of time in the collateral business, legal fictions are introduced as “techniques” or “tools.” Under this fiction, in which the subjunctive world of “as if” is substituted for reality, the problem of time is provided a temporary pause and dealt with by fixing the endpoint of the future and linking it as such to the present. This method puts into practice what Bergson criticized as spacialization of time—recomposing matters that are in progress from the side of things that have already passed—in a kind of extreme way, with a candor that recognizes it as fiction. However, by scrutinizing this extreme method, Riles succeeds in presenting the multiple temporalities conferred on actual financial markets.

On the one hand, “the temporality of projects,” which has already solved problems, appears in a frenzy about the present; on the other, we recognize “the temporality of the placeholder,” which does not forget that problems are merely foreclosed or that there is an unknown that surpasses the known. Further, the documentation people in the back office understand well that the foreclosure of issues opens up indeterminacies in other realms, and they live a type of irrational temporality that has something in common with “freeterism.” Here I would like to add a few opinions of my own regarding this third temporality. Freeterism splendidly embodies Bergson’s paradox concerning “the virtual”: even though the virtual is not yet actualized, it can be expressed only by the actual. The as-if world, which substitutes the subjunctive for reality, attempts to transcend this by means of a subtle mode. By contrast, freeterism—not caring about the transformation of the mode of reality—awaits the time when its own virtual will shift to the actual in an open—or one might say, passive—posture befitting the unknown.

Riles’s assertion that the placeholder is an example and model for future research on financial markets is accurate, when one compares the three temporalities. The temporality of the placeholder, which presupposes the indeterminacy of the future and accepts reality and fiction, on the one hand guides the conversion of the temporality that substitutes fiction for reality and on the other hand deploys the temporality unsuited to the market, which attempts to eradicate the fictional character of reality in an indeterminate situation left as such.

The deletion of fictionality is not easy in any of the temporalities, and the attempts at eradication will be reiterated in various forms. In this way, research on financial markets that situates the placeholder at its core does not criticize virtuality as detachment from reality, as grand theories of capitalism used to, but it can usher in the virtual as “not yet” directed at construction of a new reality.

Vincent Antonin Lépinay

Science, Technology and Society Program, Massachusetts Institute of Technology, E51-186, 77 Massachusetts Avenue, Cambridge, Massachusetts 02139, U.S.A. (lepinay@mit.edu). 19 VII 10

This article is a fascinating and insightful, despite its inner complexity, piece of scholarship that uses apparently dry fieldwork, Japanese regulators worried about the consistency of the collateral rule to apply in swaps between Japanese and foreign banks. In keeping with her long interest in the subtle forms of life deployed by legal “documents” and her philosophically informed reading of legal fictions, Riles casts light on the institution of collateral. In so doing, she revisits a growing current in social sciences, social studies of finance (SSF) scholarship, and offers amendment to its STS (science and technology studies)-inspired principles.

Riles rightly points to the paradox of STS scholars who have endeavored to study finance: they have vowed to move away from grand theorizing and cheap public accounts of finance, but they have mostly stuck to the most popularized site of finance hubris, the trading room and its intense and fast world of billion-dollar transactions. Riles legitimately points to the counterproductivity of a strategy of dwelling on the trading rooms and pits of exchanges for scholars who have themselves made an academic revolution by leaving the fancy and mythologized world of “scientists” for the less glamorous sites of standards and protocols. Instead of asking for an overhaul of STS creed applied to SSE, Riles reminds STS scholars that the lure of the trade (sites of ambiguous transactions, risky exchange, and obscene bonuses) is a betrayal of their own agenda. By becoming prey to mesmerizing qualities of the financial exchanges, scholars have forgotten that the post-Kuhnian turn in the history and sociology of science was premised on the idea of documenting the back stage of agile but disembodied scientists. Against the trend of looking at markets as technoscientific engines, Riles foregrounds the convention of the collateral, a “private constitution” of finance that complicates the tale of markets as equations.

The “collateral form”—as opposed to the commodity form—is a mode of relationship that unfolds in a folded time through a convention—the “As If”—that sets the roles of actors of the swap in unique terms. The collateral form describes a sticky relationship. Far from freeing the agents from worrying about the whereabouts and strategies of the bank they swap with, collateral involves them in further cycles of hypothecations. The quantity that traders would want to confine themselves to is elusive: models must be chosen to come up with estimates, and with models come relentless discussions as to the proper value of the contract. In addition, the ownership of the bank’s posted collateral is in question, challenging the integrity of the partners in a transactional figure

that recalls more the long transactions of the gift exchange than the sleek and clean terms of a swap.

The commodity form is premised on an essential myth, that commodities are social relationships exceeding the sheer amount of labor spent to engender them. By contrast, the collateral form is fully literal: no veil here, no hidden power relations made legitimate by the hard work of class dominations. That feature, according to Riles, “this direct and dreary domination of self and others, in which nothing of the political remains to be unmasked,” is the main challenge facing social scientists tackling legal work.

Essential to the collateral form is the exteriority of legal tools. They are obviously created *in order to* achieve something and *in order to* lay the groundwork for smoother over-the-counter transactions. Yet—and this is the quality of Riles’s ethnographic study—these tools quickly take on a life of their own. This is the main concern that Riles voices to the growing body of scholarship around the entanglement of technoscientific and legal innovations, such as Tim Mitchell’s *Colonising Egypt* (1988) and *Rule of Experts* (2002). This criticism is a subtle one and must not be missed for what it is not. Riles does not advocate a disembodied account of legal and regulatory innovations. As a legal scholar, she knows too well the dreariness of these stories, but she also wants to make space for a mode of existence for these regulations/laws that stresses their agency, in a way that recalls Andrew Pickering’s (1995) struggle for a proper description of the simultaneously intimate and public lives of formalisms. Much like quarter-nions, at once products of human creativity and constraints of subsequent scientific moves in their field, the collateral exceeds the tale of a sheer engine for profit making.

This feature is also the limit of the expertise paradigm in vogue among STS scholars. The “documentation people” were not experts in any literal sense of the word. In the wake of the financial crisis and its Manichean hunt for the fake expert, this is a refreshing take because it repoliticizes finance without trivializing it.

R. C. Lim and Nomi M. Stolzenberg

16 North Marengo Avenue, Suite 616, Pasadena, California 91101-1833, U.S.A./University of Southern California Law School, Los Angeles, California 90089, U.S.A. (nstolzen@law.usc.edu). 2 IX 10

What is the relationship between ideas and markets? In the wake of the recent financial turmoil, this has become a question with extremely broad appeal. With this in mind, Professor Riles’s promise that we might “apprehend political responses to global capitalism that do not fit existing critical-theory paradigms” is exciting. Indeed, Riles delivers much food for thought, not least in redirecting our attention to obscure fea-

tures of the financial markets whose importance the public has only recently come to understand. She sheds light not only on how markets operate in Japan but also on how they work—and fail to work—in general. Too often, however, she seems only to be winking at us from the margins.

“The margin of the trading floor,” where “the documentation people” toil ignominiously at the “rote document filing” that accompanies the posting of collateral, is where Riles set up shop. This shift of focus from the glamour of the trading floor to the back office is reminiscent of science studies’ focus on the lab technicians who “help” to carry out scientific experiments. That the back office now carries its own kind of glamour can be seen in the recent fascination with the TV show *Mad Men*. In both *Mad Men* and science studies, thrusting back-office workers into the spotlight reveals not only the teamwork that belies the myth of the lone creator but also the *dependency* of acts of creation (be it wealth creation or art creation) on low-status work and workers.

Riles demonstrates that relations of debt, dependence, and trust pervade the derivatives market, making the interesting point, in this regard, that capitalist societies are more like the gift society than anthropologists have posited. This is an important point, for where there is trust, there is always the potential for trust to be abused, as recent events make painfully clear. Riles paints a lively picture of the chain of relations of trust engendered by “swaps,” in which derivatives traders depend on the back-office lawyers to produce the requisite documents, the lawyers depend on mathematicians and computer experts to spit out valuations, and the parties to each swap are dependent on each other. As Riles sees it, the risk each party poses of not coming through in the future and the steps taken to protect against this risk amount to the establishment of “a realm of explicit politics,” by which she seems to mean simply a regime in which the parties are subject to compulsion to carry out their contractual duties.

That private contracts constitute regulatory relationships of trust, dependency, and authority is, of course, an old legal-realist point, developed in relational contract theory, which raises the question, how do derivative exchanges differ from any other contract with regard to their “political” nature? Questions about the present alienability of contingent future interests have existed since time immemorial, and lawyers have had little trouble devising solutions, just as an easy solution to the “difficult problem” of rehypothecation was found (just check the box). All that makes derivatives different from the classic contingent future interest is their vast potential for proliferation: not a trivial difference, to say the least, but one of degree, not of kind.

This leaves us to wonder what *kind* of politics is involved in collateral and the market for swaps. Riles rejects SSF’s view of the hidden politics of traders, who create what they purport merely to discover, suggesting that we focus on nonepistemological practices instead, but this is a false dichotomy. The focus on legal fictions and the view that lawyers are rendered experts by their *lack* of knowledge are intriguing ideas, but

they confirm rather than disconfirm the centrality of epistemological claims, and they point toward a different view of the nature of legal fictions and the work that people involved with collateral do.

Lawyers spend their time thinking through remote contingencies. In doing so, they often end up imagining that there is a high likelihood of remote outcomes. Pick through any contract prepared by a lawyer, and you notice the dominant mode of legal reasoning: list making. More specifically, lawyers tend to lovingly prepare long lists of remote contingencies and then to treat each occurrence as having a high likelihood. Lawyers are inculcated to think this way in law school, where they are steeped in such important questions as what happens to the will if the nonagenarian mother gives birth to offspring? Markets must necessarily do otherwise. To move lawyerly thinking into commercial life would be to end all commerce.

The world of finance creates models to manage and hopefully mitigate risk. Instead of attaching certainty to remote outcomes, finance manages risk by analyzing scenarios to produce probabilities. If one accurately knows the probabilities, then one could say with some certainty what something is worth. But the probabilities are nearly always simply guesswork in a process of ascribing value. To know the value of a pool of bonds, for example, one needs to know a set of probabilities: what percentage will prepay, what percentage will default, and so on.

This is the knowledge that Riles’s subjects are said to lack. Yet even for the computer experts, these valuations are guesswork. The mathematicians’ work is guesswork, the lawyers’ work (packaging the mathematicians’ expectancies into boilerplate) is guesswork, and the traders’ work is guesswork, too. Does this mean that the whole process is a “legal fiction”? Perhaps, but then every instrument that uses probabilities to mitigate risk is a “legal fiction.” (One could call this “betting,” but one might just as well call it an insurance function.) All contracts “fold the future into the present” by assigning known quantities to uncertainties, substituting predictions for certain truths, and in this they *are* analogous to the scientific truths that science studies show us rest on social relations of trust and authority. There is no opposition between this pragmatist picture of knowledge claims and legal fictions. Riles’s focus on legal fictions is interesting, but her analysis leaves their political content still hidden from view.

Nigel Thrift

University of Warwick, University House, Coventry CV4 8UW, United Kingdom (nigel.thrift@warwick.ac.uk). 31 VII 10

I well remember going to see Caryl Churchill’s play *Serious Money*, a searing critique of loose money in the City of Lon-

don after the so-called Big Bang, in 1987. The play starts with an excerpt from a 1692 play by Thomas Shadwell condemning the venality of stock jobbers and then asks, in effect, "What has changed?" the implied answer being "not much." Naively, I had expected to be surrounded by a *Guardian*-reading, left-wing audience, but, in fact, the audience was crowded with what were then called "yuppies," all having a boisterous time. Wearing the regulation red tie of the time, many of them the worse for a surfeit of champagne, they just loved the play and took its critique as affirmation of their importance.

What I learned from this experience was never to believe that critique by itself changes minds. The yuppies had nearly all been educated in the finest universities, many no doubt by left-leaning professors, but they just did not care. They were making serious money, or had the prospect of making serious money, and that, truth to tell, was their motivation. In a sense, the play confirmed that one should not take people's reasons too seriously. The audience was not acting out the economy; they were acting out *political* economy. The economy they were in gave all of the spoils to them, and boy, were they happy about it.

There is, of course, another way of looking at the economy. It is temperate. It believes that the economy is a matter of calculation. But my argument would be that although calculation figured in these people's lives, it was secondary to their desire to get rich quickly and then spend the money on the spoils of war: country houses and all the other expensive accoutrements of wealthy living (Thrift and Leyshon 1992). The economy of international finance was spurred forward by their desire.

Spool forward to the present, and what has changed? Not all that much, I would hazard. To be sure, the calculating machines are more sophisticated, and there is a war of the robots, with 18 months to 2 years being the maximum advantage an equation is likely to give you; there are more financial products to trade; the skills base has multiplied; the things to spend money on have diversified. But at the root is the same old international finance, leaning into the moment, as Riles makes clear, and harvesting it for profit. There is not much that parallels science here and a lot more that does not. There is no search after clean certainties, no controlled experiments, no end point. There is just an endless round of epistemic consumption (Knorr Cetina 2010; Thrift 2010).

Riles makes valuable points about the "science-studies" take on international finance, but perhaps she is too polite about the science metaphor. Certainly, one way to look at international finance is as a sophisticated industry populated by sophisticated people and sophisticated calculating machines, all joined together in assemblages. But is that right? Look at the current fiasco. Is this the work of smart people? Only in the sense that these people ought to know better.

So let me try to switch metaphors to make the point. For another way to look at international finance is as a smokestack industry. This is what the respected financial commentator

Martin Wolf likens it to in his columns in the *Financial Times*. It may employ highly intelligent people, but that does not stop it from having all kinds of externalities. Too much of this industry simply produces pollution. Too much of it is a bad thing.

The science metaphor produces a technical sense of what is wrong with international finance. We can revel in the complexities of derivatives, get lost in the industry's equations, explain what went wrong in the minutest of detail, and take pleasure in our command of the vernacular, but that is not enough. The science-studies account ends up producing a deracinated version of the world, without, dare I say it, any normative sense. Let me say straightaway that I do not believe that this is what the science-studies model is trying to achieve. Rather, it is an artifact of the approach that leaves out a crucial element of the economy, the passions.

It is better by far to turn to a commentator like Tarde, who puts the passions back into the economy while retaining calculability: "Nothing will cool passionate interests. Imagining an economy that is wise at last, reigning coolly over individuals who are rational and reasonable at last, ruled by good governance, is like imagining an ecological system with no animals, plants, viruses, or earthworms" (Latour and Lépinay 2009:42). It is time to change our imaginary.

Mariana Valverde

Centre of Criminology, University of Toronto, 14 Queen's Park Crescent West, Toronto, Ontario M5S 3K9, Canada (m.valverde@utoronto.ca). 17 VII 10

Within legal studies, Riles is known for her leading role in borrowing analytical tools from science studies and actor-network analysis to study legal and administrative processes (Riles 2000, 2006*b*). The main thrust of the present paper, however, is not to wave the flag of science studies but, on the contrary, to encourage social scientists studying finance to not blindly "apply" science-studies methods and insights.

The methodological advice that she proffers, arising from empirical research in the "back offices" of Japanese banks, could be summarized in four points. First, Riles underscores the importance of studying the "margins" of networks. Choosing to focus on back-office employees, who do the much maligned "paperwork" for the higher-profile traders that are the subject of most social studies of finance, demonstrates that studying the margins of the market—and, presumably, the margins of other networks—is much needed.

Second (and relatedly), in contrast to the creativity and innovation stressed in most existing studies of financial markets, repetitive rote work is exactly what the employees who measure and post the collateral required to back up certain trades do all day. Riles shows that filling in forms is more

than filling in forms, through an exemplary story about a group of lowly back-office “paper” people who boldly decided to open up the central black box of their work, namely, the forms used to document collateral, and make it do its work. Riles suggests that we should highlight not only the agency of scientists, bacilli, scallops, and so on, but also that of real or metaphorical lab assistants.

The third point concerns how temporality becomes not only a site of contestation but also a pawn in the game. Posting collateral involves declaring a network to be stable even though everyone knows that the future will bring unexpected changes. The commodities that make up the collateral are regarded *as if* they already belonged to the party with whom they are being posted (rather than still belonging to the original “poster”), a fiction that confuses future and present ownership. This knowledge move, here called a “placeholder,” seems very similar if not identical to the standard “legal fiction” analyzed by Riles in other work.

The legal fiction is a kind of toy black box. Law requires that a corporation be treated as if it were a person, for example, but since in law epistemology and ontology are regarded as independent of each other, no trouble arises from the fact that everyone knows that corporations are not people. Perhaps because I have long been interested in how legal fictions enact postmodern ontologies, I did not find the discussion of the “placeholder” as full as I would have liked. The key insight here is that the back-office collateral technicians manage to avoid fights about the “essence” of collateral or about its true owner by shifting the focus away from legal ontology and onto temporality. This is interesting, but it is not clear whether Riles believes that this is a feature of “technical” back rooms or an instance of a widely practiced move.

The same ambiguity as to the status of the conclusions characterizes the fourth and final point, which is that, contrary to the usual Foucauldian emphasis on the will to knowledge, Riles’s study emphasizes that the work done by collateral technicians relies centrally on a lack of knowledge. The back-room staff are painfully aware of the fact that “not being good at math” and not knowing much about finance define their identity.

It is not clear whether not-knowing’s role as capital is characteristic of lower-status “technical” workers or a knowledge move also found in “higher” places. In courtroom networks, for example, expert witnesses can act effectively only if they disavow knowledge of law, so as not to tread on the toes of judges and juries. In reality, expert witnesses often know a lot about “the law,” at least the law of the type of cases in which they appear, but the not-knowing-the-law fiction is an actor in its own right in their network. Probably their not-knowing is different from the “not-knowing” of Riles’s Japanese bank lawyers who failed the bar exam, but more studies of not-knowing will have to be undertaken before we can see whether not-knowing has as many different modes and effects as knowing.

That not-knowing makes networks move as much as know-

ing, that the actors in a particular network may well be as aware as any sociologist of the “pretend” character of the ontological and temporal assumptions that are required to get things done, and that studying the work of the supposedly “technical” folks doing routine work is fruitful are insights that are useful not only for studies of banking and law but also for the anthropology of knowledge generally. This particular article is aimed mainly at social studies of finance, but its insights are relevant to all social studies of knowledge in the making.

Reply

It is truly an honor, and also a humbling experience, to have the opportunity to engage the comments of eight scholars whose work, in different ways, has profoundly influenced me. Since at its core this article is about professional collegiality—about the joys of it, its transformative potentialities, but also the risks and the temporal challenges it poses—I want to sincerely thank professors Greenhouse, Hertz, Holmes, Kasuga, Lim, Stolzenberg, Thrift, and Valverde for taking the time to engage so seriously with this piece. The comments cluster around six principal themes: (1) the nature of law and how it should be studied and theorized by anthropologists; (2) closely related to this, the centrality of legal technology and legal technicality in my account; (3) the implications of the paper for how we conceptualize economic exchange; (4) the nature of the legal fiction; (5) implications and critiques of my arguments concerning temporality; and (6) questions of ethnographic method, purpose, and epistemology. Each deserves much more lengthy treatment than I can give it here.

1. Carol Greenhouse crystallizes the essence and effect of the as-if legal practices at issue here when she writes that “this setting is very different from the image of power and judgment that social anthropology classically associates with law, yet it does not do away with that image.” Greenhouse captures the problem that such practices pose for the anthropology of law: neither the old critiques of the power of law nor an insistence that there is nothing special or unique about legal knowledge brings adequate insight to such phenomena.

For this reason, I disagree with Ellen Hertz’s critique of what she views as my embrace of a macho, exoticized view of law in order to score points against an equally macho SSF view of science and finance. I certainly did not mean to imply that legal expertise is dazzlingly complex or incomprehensible to outsiders. In fact, quite to the contrary, I sought to show how exceedingly simple, even analytically thin, are the legal solutions to problems that, epistemologically or politically (not legally) speaking, do raise tremendous complexities (problems such as “where is a security?”). In my view, it is the outsider stance Hertz champions that unnecessarily empowers the law by repackaging a standard account of its au-

thority (in the guise of critique) and thereby ignoring the quiet complexities hidden in plain view but accessible to ethnography. It is telling, for example, that Hertz focuses on how one should understand lawyers but fails to notice that this is not an article about lawyers but an article about legal technicians on the margins of professional law. In the rush to critique the arrogance of law, she has lost an opportunity to understand how legal knowledge is appropriated and transformed by the very outsiders she wishes to champion.

I do agree with Hertz, and also with Lim and Stolzenberg and Valverde, that the knowledge practices I describe are not unique to financial law but are standard aspects of legal expertise in many of its applications and subjectivities. I regard this material as, ultimately, an ethnography of legal expertise, and elsewhere (Riles 2011) I flesh out some of the implications of the fact that the regulation of markets proceeds according to very standard tricks and tools of private and public legal governance.

2. In a somewhat related vein, Nigel Thrift takes me to task for paying too much attention to technical details and thereby foregoing an opportunity to adequately critique financial practices. This critique gives me an opportunity to acknowledge what is perhaps too implicit in this article, my tremendous debts to many of the contributions of science-studies-inflected work.

In Thrift's view, the SSF approach (and my approach as well) obscures the simple politics of the financial markets, in which a group of elites self-consciously game the system for their own benefit. As intuitively appealing as this view may be at present, the increasingly rich body of solid ethnographic data on various aspects of the financial markets in diverse cultural and market contexts suggests a quite different picture of the subjectivity, commitments, intellectual ambitions, and hopes of financial actors. The studies of Holmes (2009), Lépinay (forthcoming), Miyazaki (2007), and Maurer (2005), for example, all depict much more constrained, epistemologically and morally conflicted individuals—thinking persons (Miyazaki, forthcoming)—whose collaborations with their own tools (intellectual, material, and human) produce effects that are far less predictable and far more ethically ambiguous than the popular story would suggest.

In *this* respect, the SSF analogy of finance to science is indeed appropriate. SSF has demonstrated how an appreciation of the detailed workings of economic knowledge is its own valuable form of political intervention (Callon 2005). By analogy, it points the way for the anthropology of law to move away from a standard line of critique toward a more ethnographically grounded modality of critical engagement.⁶

6. In response to what she perceives as my fetishizing of legal technologies, Hertz writes, "That the same instrument might have different implications in different legal systems is quite standard, and there are standardized moves for dealing with this." I could not agree more. But if to Hertz the fact of standardization makes legal knowledge unremarkable, I start from the assumption, following STS, that how standards are produced and maintained and where they break down and become

Mariana Valverde masterfully describes the activities of my informants as a "toy black box." In its attention to the affect and modality—and in particular to the epistemology of playfulness—in which technical knowledge is performed, the phrase both takes SSF to task for earnestly exposing what the players already understand in more subtle terms and registers appreciation for the political courage and the transformative consequences of small moments of playful articulation with one's techniques.

3. I want simply to underline and commit to thinking more with Carol Greenhouse's magnificent redescription of the swap transaction, one that is both technically precise and epistemologically and ethically profound. She writes, "what is exchanged between the parties is their mutual (differential) insecurity, concretized not in collateral itself but in the collateral agreement." Greenhouse's description is phrased as a commentary on law, but it points to how anthropologists might creatively theorize market transactions outside the existing paradigms of social theory. Her description evokes for me Marilyn Strathern's (1992) description of barter as an exchange of perspectives.

4. It is a delight to apprehend the contours of a new conversation about legal fictions emerging after at least a generation of relative inattention. What makes this debate so much fun is that Valverde, Stolzenberg, and I share many epistemological, theoretical, and political commitments. We are attracted to legal fictions for the way they entail "neither simple credulity, nor the complete absence of belief" (Stolzenberg 1999:233–234), and we share an intuition that this complicated epistemological stance challenges certain tenets of and perhaps even points the way forward for critical social theory.

Lim and Stolzenberg and I do have a friendly but important disagreement, however, about the epistemological status of the legal fiction. Lim and Stolzenberg reject my assertion that fictions foreclose factual inquiry. That is, they reject my explicit and purposeful turn in this piece away from describing the legal fiction as only an epistemological device (albeit a very complex and subtle one) and toward thinking of the legal fiction as a political act, not in the Foucauldian sense in which truth claims always entail a certain politics but as simple, straightforward politics, what I term a private constitution. I remain fascinated by the epistemological status of the legal fiction, but I have come to understand that this status is an effect of agentive behavior elsewhere and hence that focusing solely on an epistemological analysis of legal fictions in finance ultimately fails to elucidate the very phenomenon we seek to understand.

In her previous writings, Stolzenberg has described legal fictions as pragmatic tools for knowing. She has described the fiction as "probabilistic thinking" (1999:225) and hence as essentially undifferentiable from legal presumptions (state-

open to new translations forms a crucial nexus for ethnographic research and engaged critique.

ments that hold until they are rebutted with contrary evidence). Legal fictions, in her view, are tools for knowing the unknown (a presumption invites refutation) and also tools for dealing with the anxiety surrounding the unknown (her example is the legal fiction of paternity, which she analyzes in psychoanalytic terms; Stolzenberg 2007). Stolzenberg's pragmatist and functionalist explanation of the legal fiction conforms to the mainstream view of legal fictions among lawyers and law professors (although she obviously articulates it in much more learned terms). Like Judge Richard Posner, for example, she and Lim argue here that there is nothing unique about legal knowledge; it is just another mechanism for managing probabilities. From this vantage point, their critique, in direct counterposition to Thrift's, is that the STS paradigm is indeed entirely applicable. For them, law is like science in that it is just a probability game, and hence the critique of science also applies to the critique of law (note also that STS suits them because it, too, is profoundly pragmatist in its theoretical orientations).

This argument unfortunately does not work as an empirical description of the ISDA contracts in this article. Their description of these contracts as simply "assigning known quantities to uncertainties, substituting predictions for certain truths" misses one key aspect: the way one kind of politics (framed in the language of one probabilistic conception of financial risk) is *transformed* into a politics framed in terms of a known quantity of an entirely different order (rights and obligations). These two quantities cannot be probabilistically related to one another—cannot be predictions about one another—because they are apples and oranges, so to speak. It is as though the players of a game agreed to transpose their competition onto a different competitive event midway into the play. Of course, the parties could ask questions about probabilities, but the point is that this is not what they actually do in this move. Rather, they direct their attention to the status of the fiction itself: What is the claim about the parties' rights and obligations? What further legal issues does it raise? What further legal steps are now required? None of this involves making predictions about what actually will happen,⁷ but it does involve entering into a kind of structured relationship, submitting to a set of forms of activity (analysis, communication, institutional politics), and it is this practice (this politics) that now emerges as the focus of their concern.

Ultimately, I want to defend the view (contra Lim and

Stolzenberg and Hertz) that there is something unique about legal thought (which is not to say that only qualified lawyers can engage in such thought; on the contrary, as the legal-consciousness tradition of sociolegal scholarship has taught us, legal thought can be quite dispersed). As I explain elsewhere (Riles 2011), I believe that this ability to transpose one kind of politics onto another technical terrain produces a qualitatively different kind of faith in one's tools, a different experience of ethics, crisis, culpability, human judgment and fallibility, of possibility, and of solution than the ethnographic record suggests is the experience of doing science or finance.

5. Valverde asks, then why use the term placeholder, rather than legal fiction? My first answer is that the scholarly debate about legal fictions is so embedded in epistemological and functional concerns that another term helps to focus attention on other facets of the practice. To be more precise, the ambiguity surrounding the legal fiction that critical theorists might capture as epistemological ambiguity is in fact imagined by its users not as ambiguity but as "for the time being-ness." It is not that things are unsettled, not that we need to direct our attention to further inquiry (probabilities); it is just that they are settled *only for the time being*. It will be up to future actors to decide what is the state of affairs at that time. This is, in fact, a very radical and courageous power-sharing claim between present and future selves, one analogous, I think, to what Robyn Wiegman seeks to describe when she speaks of alternatives to the heteronormative temporality of utopia. It is also challenging, as Greenhouse suggests, to an anthropology of law that has assumed that legality is defined by a "time-binding" arrogance.

6. This leads us back to ethnography. Naoki Kasuga illuminates the methodological significance of the placeholder through his critique of my comparison of placeholders and freeters. As he argues, freeterism entails a passivity vis à vis the relationship between reality and utopia, whereas the placeholder is an active, creative embrace of the tension between the two. For this reason, he argues, the placeholder stands as a model for a postreflexive ethnography in a way that freeterism could never be.

Kasuga offers an eloquent description of the move that Doug Holmes effectuates in his comment. Holmes encapsulates the challenge for a postpositivist anthropology: "This style of inquiry makes analytical closure provisional and, in some measure, arbitrary, and yet it has the capacity to yield surprise at every turn." One of the lessons of the placeholder for me is that the politics and promise of intellectual collegiality in a postreflexive world inhere in how the artifacts of one kind of intellectual project become the ground for another. Holmes argues that this is true of the ethnographic enterprise, but his comment even more persuasively demonstrates and performs how this is equally true of the act of scholarly evaluation, appreciation, and judgment. He demands that we be alive, creative, and engaged in the act of scholarly reception and response in the same manner as in

7. I loved Lim and Stolzenberg's attention to "list making" concerning remote contingencies as a dominant mode of legal reasoning. This kind of list making was not an activity of the legal technicians in this article, but it was the dominant modality of thought produced by qualified lawyers periodically hired to review ISDA contracts. As I suggested in the article, this focus on possible legal problems concerning remote contingencies was a source of tension between the qualified lawyers and the legal technicians, because the latter viewed such thought as wasteful grandstanding that created needless problems in the market. What this suggests is that this list-making behavior is *not* attentive to probabilities but instead focuses equally on a problem that is sure to occur and a problem that has almost no chance of ever occurring.

postreflexive fieldwork. To me, this is what an ethically engaged anthropological response to financial crisis looks like.

—Annelise Riles

References Cited

- Avanzato, Paul. 1998. How to use the collateral carousel. *International Financial Law Review* 17(1):29–32.
- Biagioli, Mario. 2006. Documents of documents: scientists' names and scientific claims. In *Documents: artifacts of modern knowledge*. Annelise Riles, ed. Pp. 127–157. Ann Arbor: University of Michigan Press.
- Bourdieu, Pierre. 1977. *Outline of a theory of practice*. Richard Nice, trans. Cambridge: Cambridge University Press.
- . 1982. Les rites comme actes d'institution. *Actes de la Recherche en Sciences Sociales* 43:58–63. [EH]
- Brenneis, Don. 2006. Reforming promise. In *Documents: artifacts of modern knowledge*. Annelise Riles, ed. Pp. 41–70. Ann Arbor: University of Michigan Press.
- Cain, Maureen E., and Christine B. Harrington. 1994. Introduction. In *Lawyers in a postmodern world: translation and transgression*. Maureen E. Cain and Christine B. Harrington, eds. Pp. 1–12. New York: New York University Press.
- Callon, Michel. 1986. Some elements of a sociology of translation: domestication of the scallops and the fishermen of St. Brieuc Bay. In *Power, action and belief: a new sociology of knowledge?* John Law, ed. Pp. 196–233. London: Routledge.
- . 1998. Introduction: the embeddedness of economic markets in economics. In *The laws of the markets*. Michel Callon, ed. Pp. 1–57. Oxford: Blackwell.
- . 2005. Why virtualism paves the way to political impotence: a reply to Daniel Miller's critique of *The Laws of the Markets*. *Economic Sociology* 6(2):3–20.
- . 2007. An essay on the growing contributions of markets to the proliferation of the social. *Theory, Culture and Society* 24(7–8):139–163.
- Carrier, James G., and Daniel Miller. 1998. *Virtualism: a new political economy*. Oxford: Berg.
- Choy, Timothy K. 2005. Articulated knowledges: environmental forms after universalism's demise. *American Anthropologist* 107(1): 5–18.
- Clarke, Lee. 1999. *Mission improbable: using fantasy documents to tame disaster*. Chicago: University of Chicago Press.
- Collier, Jane Fishburne. 1975. Legal processes. *Annual Review of Anthropology* 4:121–144. [CJG]
- Comaroff, Jean, and John L. Comaroff, eds. 2001. *Millennial capitalism and the culture of neoliberalism*. Durham, NC: Duke University Press.
- Coombe, Rosemary J. 1998. *The cultural life of intellectual properties: authorship, appropriation, and the law*. Durham, NC: Duke University Press.
- Davy, Georges. 1922. *La foi jurée, étude sociologique du problème du contrat, la formation du lien contractuel*. Bibliothèque de philosophie contemporaine. Travaux de l'année sociologique. Paris: Librairie Félix Alcan.
- de Goede, Marieke. 2005. *Virtue, fortune and faith: a genealogy of finance*. Minneapolis: University of Minnesota Press.
- Deleuze, Gilles, and Félix Guattari. 1988. *A thousand plateaus: capitalism and schizophrenia*. London: Athlone.
- Dezalay, Yves, and Bryant Garth. 2002. *The internationalization of global palace wars: lawyers, economists, and the contest to transform Latin American states*. Chicago: University of Chicago Press.
- Fujimura, Joan. 1992. Crafting science: standardized packages, boundary objects, and "translation." In *Science as practice and culture*. Andrew Pickering, ed. Pp. 168–211. Chicago: University of Chicago Press.
- Fuller, Lon L. 1930. Legal fictions. *Illinois Law Review* 25(4):363–399.
- Greenhouse, Carol J. 1996. *A moment's notice: time politics across cultures*. Ithaca, NY: Cornell University Press.
- Guyer, Jane. 2007. Prophecy and the near future: thoughts on macroeconomic, evangelical, and punctuated time. *American Ethnologist* 34(3):409–421.
- Gwynn, Randall, and Margaret Tahyar. 1996. The importance of choice of law and finality to PvP, netting and collateral arrangements. *Journal of Financial Regulation and Compliance* 4(2):170–177.
- Haraway, Donna J. 1997. *Modest_Witness@Second_Millennium .FemaleMan⁹_Meets_OncoMouse: feminism and technoscienceTM*. New York: Routledge.
- Harvey, David. 1989. *The condition of postmodernity: an enquiry into the origins of cultural change*. Cambridge: Blackwell.
- Heimer, Carol A. 2006. Conceiving children: how documents support case versus biographical analysis. In *Documents: artifacts of modern knowledge*. Annelise Riles, ed. Pp. 95–126. Ann Arbor: University of Michigan Press.
- Hertz, Ellen. 2004. Le déjà-su: regard ethnologique sur un tribunal de district neuchâtelois. <http://www.unine.ch/ethno/hertz/hertz.html>. [EH]
- Hertz, Ellen, and Vincent Antonin Lépinay. 2003. The markets of the laws: from relationships to mechanisms in securities fraud cases. Paper presented at the Constance International Conference on Social Studies of Finance, Konstanz, Germany, May 16–18. [EH]
- Holmes, Douglas R. 2000. *Integral Europe: fast-capitalism, multiculturalism, neofascism*. Princeton, NJ: Princeton University Press.
- . 2009. Economy of words. *Cultural Anthropology* 24(3):381–419.
- Hval, Nina. 1997. Credit risk reduction in the international over-the-counter derivatives market: collateralizing the net exposure with support agreements. *International Lawyer* 31(3):801–822.
- ISDA (International Swaps and Derivatives Association). 1996. *Guidelines for collateral practitioners*. <http://www.isda.org/press/pdf/colguide.pdf>.
- . 1999. Instructions to external counsel from the ISDA Collateral Documentation Working Group. Pp. 1–40. New York: International Swaps and Derivatives Association.
- Johns, Fleur. 2008. Performing party autonomy. *Law and Contemporary Problems* 71(3):243–272.
- Johnson, Christian A. 1997. Derivatives and rehypothecation failure: it's 3:00 PM, do you know where your collateral is? *Arizona Law Review* 39(3):949–1001.
- Kasuga, Naoki. 2005. Hope between "inside" and "outside": freeters in Japan. Paper presented at the annual meeting of the American Ethnological Society, San Diego, CA, April 10.
- Kelly, John D. 1991. *A politics of virtue: Hinduism, sexuality, and countercolonial discourse in Fiji*. Chicago: University of Chicago Press.
- Knorr Cetina, Karin. 2010. The epistemics of information: a consumption model. *Journal of Consumer Culture* 10(2):171–201. [NT]
- Knorr Cetina, Karin, and Urs Bruegger. 2002. Traders' engagement with markets: a postsocial relationship. *Theory, Culture and Society* 19(5–6):161–185.
- Knorr Cetina, Karin, and Alex Preda. 2007. The temporalization of markets: from network to flow. *Theory, Culture and Society* 24(7–8):116–138.
- Lakoff, Andrew. 2008. The generic bioterror, or how we became unprepared. *Cultural Anthropology* 23(3):399–428.

- Latour, Bruno. 1987. *Science in action*. Cambridge, MA: Harvard University Press.
- . 1988. Drawing things together. In *Representation in scientific practice*. Michael Lynch and Stephen Woolgar, eds. Pp. 19–68. Cambridge, MA: MIT Press.
- Latour, Bruno, and Vincent Antonin Lépinay. 2009. *The science of passionate interests: an introduction to Gabriel Tarde's economic anthropology*. Chicago: Prickly Paradigm. [NT]
- Latour, Bruno, and Steve Woolgar. 1986. *Laboratory life: the construction of scientific facts*. Princeton: Princeton University Press.
- Leach, James. 2004. Modes of creativity. In *Transactions and creations: property debates and the stimulus of Melanesia*. Eric Hirsch and Marilyn Strathern, eds. Pp. 151–175. New York: Bergahn.
- Lépinay, Vincent Antonin. 2007. Decoding finance: articulation and liquidity around a trading room. In *Do economists make markets? on the performativity of economics*. Donald MacKenzie, Fabian Muniesa, and Lucia Siu, eds. Pp. 87–127. Princeton, NJ: Princeton University Press.
- . Forthcoming. *Codes of finance: deriving value in a global bank*. Cambridge: MIT Press.
- Lépinay, Vincent Antonin, and Ellen Hertz. 2005. Deception and its preconditions: issues raised by financial markets. In *Deception in markets: an economic analysis*. Caroline Gerschlager, ed. Pp. 267–300. Houndsmill: Palgrave Macmillan. [EH]
- Lewis, Michael. 1989. *Liar's poker: rising through the wreckage on Wall Street*. New York: Norton. [EH]
- LiPuma, Edward, and Benjamin Lee. 2002. Cultures of circulation: the imaginations of modernity. *Public Culture* 14(1):191–213.
- . 2004. *Financial derivatives and the globalization of risk*. Durham, NC: Duke University Press.
- Macaulay, Stewart. 1963. Non-contractual relations in business: a preliminary study. *American Sociological Review* 28(1):55–67.
- . 1986. Private government. In *Law and the social sciences*. Leon Lipson and Stanton Wheeler, eds. Pp. 445–518. New York: Russell Sage Foundation.
- MacKenzie, Donald. 2003. An equation and its worlds: bricolage, exemplars, disunity and performativity in financial economics. *Social Studies of Science* 33(6):831–868.
- . 2007. Is economics performative? options theory and the construction of derivatives markets. In *Do economists make markets? on the performativity of economics*. Donald MacKenzie, Fabian Muniesa, and Lucia Siu, eds. Pp. 54–86. Princeton, NJ: Princeton University Press.
- . 2009. *Material markets: how economic agents are constructed*. Oxford: Oxford University Press.
- MacKenzie, Donald, Fabian Muniesa, and Lucia Siu, eds. 2007. *Do economists make markets? on the performativity of economics*. Princeton, NJ: Princeton University Press.
- Mapother, Bill. 1998. Get double duty from collateral. *Credit Union Magazine* 64(2):74.
- Maurer, Bill. 2005. *Mutual life, limited: Islamic banking, alternative currencies, lateral reason*. Princeton, NJ: Princeton University Press.
- . 2008. Resocializing finance? or dressing it in mufti? calculating alternatives for cultural economies. *Journal of Cultural Economy* 1(1):65–78.
- Mauss, Marcel. 1990. *The gift*. W. D. Hallis, trans. London: Routledge.
- Micklethwait, John, and Adrian Wooldridge. 2005 (2003). *The company: a short history of a revolutionary idea*. New York: Modern Library. [CJG]
- Mitchell, Timothy. 1988. *Colonising Egypt*. Berkeley: University of California Press. [VAL]
- . 2002. *Rule of experts: Egypt, techno-politics, modernity*. Berkeley: University of California Press.
- . 2007. The properties of markets. In *Do economists make markets? on the performativity of economics*. Donald MacKenzie, Fabian Muniesa, and Lucia Siu, eds. Pp. 244–275. Princeton, NJ: Princeton University Press.
- Miyazaki, Hirokazu. 2003. The temporalities of the market. *American Anthropologist* 105(2):255–265.
- . 2004. *The method of hope: anthropology, philosophy, and Fijian knowledge*. Stanford, CA: Stanford University Press.
- . 2005. The materiality of finance theory. In *Materiality*. Daniel Miller, ed. Pp. 165–181. Durham, NC: Duke University Press.
- . 2006. Documenting the present. In *Documents: artifacts of modern knowledge*. Annelise Riles, ed. Pp. 206–226. Ann Arbor: University of Michigan Press.
- . 2007. Between arbitrage and speculation: an economy of belief and doubt. *Economy and Society* 36(3):396–415.
- . Forthcoming. *Arbitraging Japan: traders as critics of capitalism*. Berkeley: University of California 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.
- Moore, Michael, dir. 2009. *Capitalism: a love story*. Traverse City, MI: Dog Eat Dog Films.
- Moore, Sally Falk. 1969. Law and anthropology. In *Biennial review of anthropology*. Bernard Siegel, ed. Pp. 252–300. Stanford, CA: Stanford University Press. [CJG]
- Muniesa, Fabian, Yuval Millo, and Michel Callon. 2007. An introduction to market devices. In *Market devices*. Michel Callon, Yuval Millo, and Fabian Muniesa, eds. Pp. 1–12. Malden, MA: Blackwell.
- Nader, Laura, ed. 1965. The ethnography of law. Special issue, *American Anthropologist* 67(6). [CJG]
- Navarro-Shin, Yael. 2007. Make-believe papers, legal forms, and the counterfeit: affective interactions between documents and people in Britain and Cyprus. *Anthropological Theory* 71(1):79–98.
- Ong, Aihwa, and Stephen J. Collier, eds. 2005. *Global assemblages: technology, politics, and ethics as anthropological problems*. Malden, MA: Blackwell.
- Ono, Suguru, Hideki Kanda, Yukihiko Tanaka, Seichi Yamada, and Akihiro Wani. 1998. Kinyu shisutemu kaikaku o meguru hoteki shomondai (Legal problems surrounding the financial system reforms). *Kinyu Homu Jijo* 1522 (Aug. 5):26–52.
- Pickering, Andrew. 1995. *The mangle of practice: time, agency, and science*. Chicago: University of Chicago Press. [VAL]
- Pollard, Jane, and Michael Samers. 2007. Islamic banking and finance: postcolonial political economy and the decentring of economic geography. *Transactions of the Institute of British Geographers* 32(3): 313–330.
- Posner, Richard A. 2001. *Frontiers of legal theory*. Cambridge, MA: Harvard University Press.
- Pound, Roscoe. 1959. *Jurisprudence*, vol. 5. St. Paul, MN: West.
- Reed, Adam. 2006. Documents unfolding. In *Documents: artifacts of modern knowledge*. Annelise Riles, ed. Pp. 158–180. Ann Arbor: University of Michigan Press.
- Riles, Annelise. 2000. *The network inside out*. Ann Arbor: University of Michigan Press. [MV]
- . 2004. Real time: unwinding technocratic and anthropological knowledge. *American Ethnologist* 31:392–405.
- . 2006a. [Deadlines]: removing the brackets on politics in bureaucratic and anthropological analysis. In *Documents: artifacts of modern knowledge*. Annelise Riles, ed. Pp. 71–92. Ann Arbor: University of Michigan Press.
- , ed. 2006b. *Documents: artifacts of modern knowledge*. Ann Arbor: University of Michigan Press. [MV]
- . 2006c. Introduction: in response. In *Documents: artifacts of modern knowledge*. Annelise Riles, ed. Pp. 1–38. Ann Arbor: University of Michigan Press.
- . 2011. *Collateral knowledge: legal reasoning in the global fi-*

- nancial markets. Chicago: University of Chicago Press. Forthcoming.
- Riles, Annelise, and Takashi Uchida. 2009. Reforming knowledge: a critique of the Japanese legal profession reforms. *Drexel Law Review* 1:3–51.
- Roitman, Janet L. 2005. *Fiscal disobedience: an anthropology of economic regulation in central Africa*. Princeton, NJ: Princeton University Press.
- Rorty, Richard. 1989. *Contingency, irony, and solidarity*. Cambridge: Cambridge University Press.
- Shamir, Ronen. 2004. Concept of corporate social responsibility. *Law and Society Review* 38(4):635–644. [CJG]
- Silverman, Alexander E. 1993. *Mind, machine, and metaphor: an essay on artificial intelligence and legal reasoning*. Boulder, CO: Westview.
- Silverstein, Michael, and Greg Urban. 1996. The natural history of discourse. In *Natural histories of discourse*. Michael Silverstein and Greg Urban, eds. Pp. 1–17. Chicago: University of Chicago Press.
- Stebbins, Robert A. 1992. *Amateurs, professionals, and serious leisure*. Montreal: McGill-Queen's University Press.
- Stinchcombe, Arthur L. 2001. *When formality works: authority and abstraction in law and organizations*. Chicago: University of Chicago Press.
- Stolzenberg, Nomi M. 1999. Bentham's theory of fictions: a "curious double language." *Cardozo Studies in Law and Literature* 11(2): 223–261.
- . 2007. Anti-anxiety law: Winnicott and the legal fiction of paternity. *American Imago* 64(3):339–379.
- Strange, Susan. 1986. *Casino capitalism*. Oxford: Basil Blackwell.
- 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*. Association for Social Anthropology in Oceania (ASAO) Special Publications, no. 3. Savage, MD: Rowman & Littlefield.
- . 1992. Qualified value: the perspective of gift exchange. In *Barter, exchange and value: an anthropological approach*. Caroline Humphrey and Stephen Hugh-Jones, eds. Pp. 169–191. Cambridge: Cambridge University Press.
- . 1999. *Property, substance and effect: anthropological essays on persons and things*. London: Athlone.
- Suetens, David. 1995. Collateralization and the ISDA Credit Support Annex. *International Financial Law Review* 14(8):15–16.
- Teubner, Gunther. 2004. Societal constitutionalism: alternatives to state-centered constitutional theory? In *Transnational governance and constitutionalism*. Christian Joerges, Inger-Johanne Sand, and Gunther Teubner, eds. Pp. 3–28. Oxford: Hart.
- Thrift, Nigel J. 2010. Lifeworld Inc., and what to do about it. *Environment and Planning D. Society and Space*. Forthcoming. [NT]
- Thrift, Nigel, and Andrew Leyshon. 1992. In the wake of money: the City of London and the accumulation of value. In *Global finance and urban living: a study of metropolitan change*. Leslie Budd and Sam Whimster, eds. Pp. 282–311. London: Routledge. [NT]
- Tsing, Anna Lowenhaupt. 2005. *Friction: an ethnography of global connection*. Princeton, NJ: Princeton University Press.
- Vaihinger, Hans. 2001 (1924). *The philosophy of "as if": a system of the theoretical, practical and religious fictions of mankind*. Charles K. Ogden, trans. New York: Harcourt, Brace.
- Verdery, Katherine. 2003. *The vanishing hectare: property and value in postsocialist Transylvania*. Ithaca, NY: Cornell University Press.
- Wagner, Roy. 1981 (1975). *The invention of culture*. Chicago: University of Chicago Press.
- . 1986a. *Asiwinarong: ethos, image, and social power among the Usen Barok of New Ireland*. Princeton, NJ: Princeton University Press.
- . 1986b. *Symbols that stand for themselves*. Chicago: University of Chicago Press.
- Wiegman, Robyn. 2000. Feminism's apocalyptic futures. *New Literary History* 31(4):805–825.
- Yngvesson, Barbara. 2007. Refiguring kinship in the space of adoption. *Anthropological Quarterly* 80(2):561–579.