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Section Chair's Introduction

The events of the last year and a half, or two if you were watching things closely, have led many to question whether the economy operates as most everyone understood it to operate. The Great Recession has undermined many shibboleths of economic theory and challenged the idea that free markets regulate themselves. The notion that investment bankers and titans of industry would never take risks that might put the economy in jeopardy, because they would pay the price for a collapse, now seems quaint. They did take such risks, and few of them have paid any kind of price. The CEOs of the leading automakers were chided for using private jets to fly to Washington to testify before Congress, and felt obliged to make their next trips in their own products, but the heads of the investment banks that led us down the road to perdition received healthy bonuses this year, as they did last year.

In this issue of Accounts, the editors chose to highlight challenges to conventional economic wisdom. First, we have a first-person account, from UC-Berkeley doctoral candidate Adam Goldstein, of a fall Kellogg School (Northwestern) symposium titled Markets on Trial: Sociology's Response to the Financial Crisis. Organized by Michael Lounsbury and Paul Hirsch, the symposium brought together economic sociologists examining the crisis.

Next we have a piece by Bai Gao, Duke University, reprising a study of the crisis he presented at the ASA meetings in San Francisco. Gao makes a novel institutional argument about the origins of the global savings and liquidity gluts that have been widely identified as contributing to the crisis.

*Sameer Srivastava, a doctoral student at Harvard, then summarizes a new book by David Stark, *The Sense of Dissonance: Accounts of Worth in Economic Life*, that takes an innovative approach to understanding economic valuation. Srivastava follows the summary with an interview with Stark.*

*Finally, Jiwook Jung, another Harvard doctoral student, reviews historian Niall Ferguson's *The Ascent of Money: A Financial History of the World*, which was made into a PBS series. Ferguson investigates the origins of our current financial system, and examines how it has encouraged outsize risk-taking.*

This being the inaugural issue of Accounts for 2009-2010, we had planned to call it the fall issue. But scandals surrounding backdating, of checks for World Series tickets by New York governors and of stock options by CEOs, have given us pause. Welcome to the spring 2009-2010 issue of Accounts

2009-10 Editors

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Markets on Trial: Progress and Prognosis for Economic Sociology's Response to the Financial Crisis.

Report on a Fall 2009 Symposium, by Adam Goldstein, UC Berkeley

It is by now a commonplace observation that the financial crisis of 2007-2008 laid bare the failures of market fundamentalism and the economic theories underpinning it. Indeed, the crisis confirmed what economic sociologists have known for some time: that real markets don't work in the manner their architects, champions, and regulators would like to believe. As policy-makers grope for regulatory responses, economic sociology has an unprecedented opportunity to participate in the development of a new intellectual architecture for economic governance in the United States. At the same time, the recent meltdown also offers an important laboratory for economic sociologists to improve our own understanding of 21st century finance capitalism.

It was with these dual purposes in mind that Mike Lounsbury and Paul Hirsch organized a workshop last October at Northwestern University which brought together several dozen economic sociologists to interrogate the financial meltdown. The organizers' aim was to encourage empirical research on various dimensions of the crisis that could serve as a basis for developing sociologically informed policy proposals. The result is a stimulating and provocative series of papers. Together they outline a range of original insights into the causes the crisis. They highlight economic sociology's relevance by developing new regulatory proposals and providing new rationales for existing proposals. Perhaps most importantly, the contributions offer a starting point for more sustained sociological engagement with the puzzles and policy issues raised by the

crisis. Proceedings from the workshop will appear in a forthcoming special issue of *Research in the Sociology of Organizations* entitled *Markets on Trial: The Economic Sociology of the U.S. Financial Collapse* (draft versions are accessible through Mike Lounsbury's website).

In this essay I critically review the *Markets on Trial* contributions as a sociological response to the crisis. I discuss the approaches adopted and briefly identify strengths and weaknesses of each. I then point to two unresolved questions that are the source of much confusion and misinformation in popular and policy discussions. Answering them offers sociologists the opportunity to fundamentally reshape the terrain of debates about the meltdown.

Overall, the papers presented at the *Markets on Trial* workshop cluster into five groups, each reflecting an alternative sociological stance toward the crisis. The first and most common approach applies the theoretical tools of economic and organizational sociology to illuminate the causes of the crisis in the mortgage-related securities meltdown. The unifying premise of these papers is that economists and policy makers continue to misunderstand how these markets worked and why they unraveled. Papers by Neil Fligstein and myself, and Jo-Ellen Pozner and colleagues provide broad sociological accounts of the development of the mortgage finance industry from the 1980s onward. They chronicle how institutional developments and firm strategies coevolved to produce the rapid rise of the sub-prime MBS market and its

subsequent implosion. Other contributions focus on particular institutions undergirding the market for mortgage-backed securities. For instance, Akos Rona-Tas provides an interesting analysis of how technologies and expertise factored in the development of credit rating institutions for consumers and financial instruments. Richard Swedberg offers a somewhat more social-psychological account of the proximate role of collective confidence through a detailed study of the market's response to the Lehman Brothers collapse.

One particular theoretical perspective that animates several of these papers is Charles Perrow's normal accidents theory. Normal accidents refer to situations in which small failures reverberate through complex, tightly coupled systems to produce disastrous outcomes. By shifting explanatory emphasis from the transactional concept of liquidity to the structural concept of tight coupling, this perspective offers a distinctly sociological portrait of the key features of the financial system which allowed an increase in mortgage defaults to result in worldwide collapse. Particularly relevant is the insight that attempts to create rationalizing safeguards in tightly coupled systems (i.e. default triggers in bond covenants, markets in credit default swaps, etc.) often prove self-defeating. This carries important regulatory implications for how markets ought to be refashioned in order to contain the fallout from future failures.

Nonetheless, the main downside I see to the normal accidents perspective is that the reverberation of the mortgage meltdown to the rest of the economy is not the primary puzzle to be explained in this case. The mortgage meltdown was no small, normal failure of the sort Perrow had in mind. It was the complete implosion of a

multi-trillion dollar per year residential mortgage finance business, the largest sector of the American economy. Clearly such a collapse would have wide-ranging systemic effects. It seems the more fundamental question is how we came to ground the largest sector of our economy on an asset bubble fueled largely by risky loans to persons with impaired credit, no down payment, or no documented income.

Indeed, a second sociological approach to the mortgage meltdown is to view it as an important case of a more general capitalist tendency toward speculative bubbles. While the recent crisis is widely regarded as the most severe since the 1930s, residential mortgages were the third financial bubble to pop in the U.S. alone during the past twenty years. What is it about late 20th and early 21st century financial capitalism that foments persistent bubbles? Several of the papers begin to address this issue. Mitchell Abolafia argues that the crux lies not in any mysterious workings of the market, but rather in the resistance of our contemporary regulatory institutions to enact simple, well-understood restraints on accumulation. Frank Dobbin and Jiwook Jung meanwhile point to the pervasive influence of agency theory in orienting corporate behavior toward unsustainable stock price gains. An interesting intellectual project for economic sociology would be to extend this line of inquiry in order to devise a more general sociological theory of bubbles across different types of markets, thereby offering an institutionally-grounded alternative to the psychological accounts of economic behavioralism (Robert Schiller, etc).

A third approach informed by historical sociology takes a more distal view and seeks to tease out historical roots of the

meltdown - crisis in the long durée. Papers by John Campbell, Gerald Davis, Greta Krippner, and Mark Mizruchi all fall in this category. Each provocatively points to a different set of historical factors. Campbell locates the roots in neoliberal financial deregulation. While deregulation is an oft-cited culprit, this is one of the only studies that attempts to systematically trace the various financial regulatory actions (and inactions) which together created the conditions for the meltdown. Krippner adopts a slightly different approach, arguing that policy makers have sought to expand credit markets in order to forestall distributional conflicts and fallout from rising income inequality. Mizruchi focuses on the fracturing of old elite governance networks, which in an earlier era might have stepped in and imposed some collectively rational discipline. Finally, Davis views the unraveling of the financial sector as the result of a broader movement from a bureaucratic organizational society to an ownership society based around entrepreneurial action in markets.

By locating the long-term roots of the crisis in neoliberal institutional transformations, these papers offer a useful corrective to the myopic notion that the crisis emerged from some sudden, episodic bout of Wall Street greed or speculative exuberance. But I would also note that this same historical reach can prove a weakness by obscuring processes particular to the mortgage finance sector that go against the grain of broader institutional currents. For instance, Jerry Davis has argued that the growth of securitization can be viewed as outcome and exemplar of the decline of large integrated organizations in the American economy. However, ongoing research by Neil Fligstein and me shows that, unlike the rest of the economy, mortgage finance actually became

increasingly industrialized after the repeal of Glass-Steagall. Banks sought to harvest fee revenues by building vertically integrated securitization pipelines, stretching from origination to securitization, to underwriting, to servicing. And in an even more ironic twist, the old industrial stalwarts GE and GM were both top-ten players in the sub-prime securitization market through their vertically integrated subsidiaries, WMC and GMAC. Such dynamics are easily lost in broader socio-historical narratives.

Fourth, a few of the *Markets on Trial* papers address the crisis in an international comparative context. Comparative approaches beg the useful question of whether the meltdown ought to be viewed as a primarily American debacle (which brought the rest of the world down with it), or as an outcome of globalized market dynamics. For instance, Doug Guthrie and David Slocum use the contrast between the American experience of deregulated speculation and China's robust growth in order to highlight governance advantages of state participation in markets. Yet global involvement in the American MBS crisis complicates efforts to draw sharp national distinctions. As Monica Prasad pointed out in the Spring 2009 issue of *Accounts*, it was precisely the glut of savings from growing economies like China that supplied the raw capital to sustain the American bubble. By 2007 foreign institutions were the largest class of holders of American mortgage-related assets.

Finally, perhaps the most trenchant and bold chapter in the *Markets on Trial* volume comes from Marc Schneiberg and Tim Bartely. Their approach differs from the others. Rather than developing a sociological explanation of the financial crisis, they instead leverage two decades of existing research in economic sociology in

order to illuminate new regulatory paradigms. Their fundamental premise is that regulatory actors have failed to appreciate the extent to which markets are constructed through regulatory institutions. Realization of this fact suggests moving from a reactive paradigm that takes the existing features of financial markets for granted to one that embraces regulation's ability to shape the very architecture of financial markets, including their localization and segmentation. For instance, Schneiberg and Bartley suggest regulators might devise network-weighted limits rather than treating balance sheets as if firms were atomistic actors. Penalizing network centrality would discourage firms from pursuing strategies that create systemic risk through dense interlinkages with counterparties.

Spurred by Schneiberg and Bartley's prognoses, the Markets on Trial workshop ended with a spirited discussion of how economic sociologists can most effectively shape public understanding and policy debates. Setting aside the tactical question of how to seize the bully pulpit, I would argue that sociologists can best distinguish ourselves from the cacophony of commentaries by devising empirically-grounded responses to the unanswered questions which continue to underlie public debates and plague policy responses. In the remainder of this essay I briefly discuss two such areas where further research is needed. Both are at the core of ongoing debates and both practically beg for a sociological lens.

The first concerns the institutional structure of the financial sector and the mortgage finance industry in particular. Much lay and learned commentary on the crisis is based on flimsy conceptions of the market from which it emerged. For

instance, there is a widespread and woefully unempirical debate about the extent to which the crisis emerged from within the regulated banking sector or within the unregulated "shadow finance" sector (see for instance the recent exchange between Jeff Madrick and Jeffrey Freidman in the January 14th issue of the *New York Review of Books*). Such debates point to the need for a better understanding of the transformation and decoupling of regulatory boundaries in the banking sector. Indeed, while one set of arguments focus on the role of regulatory agencies and regulatory arbitrage by firms, there is also evidence to suggest that nominal distinctions between different types of financial institutions became increasingly moot as banks reconstituted and adopted hybridized forms after the repeal of Glass-Steagall. Insufficient analysis of these institutional dynamics is one reason why even the Obama administration's most politically willful attempts at financial reregulation (e.g. the recently proposed "Volcker rule") appear so confused.

Second, one topic largely absent from the markets on trial discussions concerns the sociology of credit consumption. We know some basic facts about sub-prime borrowers from loan-level datasets, but we still do not understand what prompted individuals to take out mortgages they could not afford. This issue has attracted surprisingly little empirical research given its centrality in public debates. There are several stories out there: a culture of profligacy and associated mythology of ever-rising home prices; victimization by predatory lenders; and the use of credit as a necessary income supplement in an era when wages stagnated and housing prices increased. Probably the most pervasive account points to the cultural reconstruction of homes as stable, lifelong

dwellings into homes as short-term investments. This, according to many popular and academic commentators, prompted individuals to purchase large new McMansions they could never afford or seek out entrepreneurial activities such as flipping houses. Loan-level datasets tell a more complex story. Over 90% of sub-prime loans since the late 1990s were for non-investment properties, and over 60% were refinances rather than new home purchases. This suggests the most common type of sub-prime borrower was using existing home equity as an income supplement. Ultimately, sorting out these alternative accounts will require additional multi-method research. Given the importance of residential real estate in the economy and in the lives of

individuals and families, sociologists should be at the fore of understanding demand-side responses to the expansion of consumer credit.

Of course, the financial meltdown raises many other interesting and important sociological questions. But the two above both get to the core of what happened. Further, both questions address issues on which economists have either been questioned or silent. Filling this void offers economic sociologists a unique opportunity to shape the terrain of wider debates about the sources of the crisis and, hopefully, point to lessons that reorient policies to achieve more sustainable and equitable outcomes in the future.□

The Dollar Standard and the Global Production System: The Institutional Origins of the Global Financial Crisis by Bai Gao, Duke University

The global financial crisis that started with the sub-prime loan crisis in the United States in 2007 has done severe damage to the world economy. Stock markets have fallen, large financial institutions have collapsed or been bought out, and governments in even the wealthiest nations have had to come up with rescue packages to bail out their financial systems.

In the current debate on the global financial crisis, both the global glut of saving argument and the global glut of liquidity argument attribute the origins of the crisis to structural factors. The former argument maintains that the global outflows of capital from the rest of the world to the United States elevated real exchange rates in the United States and led to the shrinkage of U.S. sectors that produce tradable goods and services. The Fed cut interest rates in an effort to expand the economy and reduce unemployment; however, the interest rate cut fueled excess demand for tradable goods and services. In contrast, the latter argument contends that the low real interest rate was caused by the United States'

excessive money supply, which led to the rapid growth of credit for American consumers and a collapse in household savings. The excess spending generated huge trade deficits and a corresponding outflow of dollars. When the dollar weakened, floating currencies were forced up to uncompetitive levels, while pegged currencies were kept down by foreign currency intervention. This has led to a massive accumulation of foreign currency reserves.

Both arguments highlight the immediate causes of the global financial crisis. Nevertheless, they both fall short in response to a more fundamental question: what has contributed to the formation of these structural factors in the first place?

Two factors emerge when we approach the global gluts of saving and liquidity through the lens of institutional analysis: one is the global production system, and the other is the dollar standard. At the center of the global saving glut lie the huge foreign currency reserves in East Asia and in oil producing countries. In order to understand these huge

reserves, we need to analyze the ways in which the global production system has profoundly changed the nature of international trade in the past three decades. At the center of the global liquidity glut lies the dollar standard, which has provided cash to the global economy. As the only currency used to price oil, the dollar is the key reserve currency in the world. In contrast to the Bretton Woods system, with its gold and gold-dollar standards, under the current international monetary regime the dollar is not backed by gold. The dollar's special status as the key reserve currency has enabled the United States to borrow globally by supplying dollar-based financial assets. This is the key to understanding the origin of the global liquidity glut.

The oversupply of both saving and liquidity can be linked to two distinct patterns of political economy: one is characterized by the domination of finance in the economic structure, whose major representatives include the United States and Britain, and the other is characterized by the domination of manufacturing, whose major representatives include Japan, Germany, and China. These two patterns differ in both government priorities in international economic policy and guiding principles of corporations. According to the Mundell-Flemming trilemma, in an open economy, a government can at best simultaneously achieve two of three major goals in international economic policy; stable exchange rates, currency convertibility, and the autonomy of pursuing domestic policy objectives. All industrialized countries support currency convertibility. Governments in finance-dominant political economies tend to focus on the autonomy of domestic policy making, while governments in manufacturing-dominant political economies tend to emphasize stable exchange rates. Moreover, private corporations in the former focus on efficiency in research allocation, while those in the latter emphasize building competitiveness in manufacturing..

The practice of relying upon one country's currency as the key reserve currency leads to a glut of that currency, driven by dynamics of interaction between the two

patterns of political economies. This pattern is nothing new; it also occurred under the Bretton Woods system.

In the early postwar period, the United States served as the major provider of liquidity to the international economy through the Marshall plan. Many countries suffered from a shortage of dollars. Such a special role in the international monetary order, however, enabled the U.S. government to aggressively pursue its global strategic interests by financing, through budget deficits, extravagant defense budgets, overseas military bases, military aid to its allies, and wars in Korea and Vietnam. Meanwhile, driven by efficiency in resource allocation, U.S. corporations shifted their focus from products to finance and many of them began to invest heavily overseas. The continuing outflows of capital weakened the competitiveness of U.S. manufacturing and contributed to the deterioration of U.S. payments.

By contrast, Germany and Japan relied heavily on exports to promote economic growth. Their governments preferred stable exchange rates and were reluctant to raise the value of their currencies. At the same time, German and Japanese corporations made great strides in building comparative advantages in manufacturing production. This had significantly improved their trade balances.

These trends had led to the continuing deterioration of the U.S. payments. Eventually, these factors eroded international confidence in the dollar and the dollar faced crises in 1960 and 1968. Driven by the fear of a gold run, the United States closed the gold window in 1971, which led to the collapse of the Bretton Woods system.

Under the dollar standard that emerged in the 1970s, the dollar has maintained its key reserve currency status but it is no longer backed by gold. Since oil is priced with the dollar, it has allowed the United States, with big current account deficits, to print dollars not only to finance its oil imports but also to exchange for

tradable goods and services with other countries that need dollars to purchase oil.

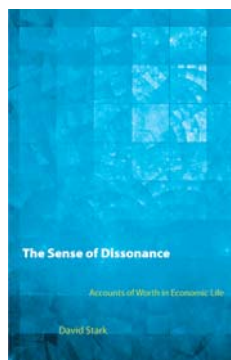
Without the fear of a gold run, the U.S. began to aggressively use debt financing to maintain policy autonomy. The massive tax cuts and aggressive spending in defense in the early 1980s generated huge budget deficits and the government increasingly relied upon foreign capital to finance debt. The Fed's monetary policy to contain inflation strengthened the value of the dollar and resulted in a rapid increase in U.S. trade deficits in the first half of the 1980s. At the same time, private corporations significantly increased their outflows of capital, launching waves of off-shore production and outsourcing, and the financial sector started the process of securitization. As a result, the role of manufacturing in job creation has continued to decline. Both trends contributed to the formation of the global glut of liquidity.

Japan and China, as the largest trading partners of the United States, have recycled their trade surpluses back to the United States by purchasing U.S. debt. The Plaza Accord of 1985 triggered the Japanese bubble. Under the pressure of a rising yen, Japanese corporations began to shift their production bases first to South East Asia and then to China. In the early

1990s, China began to attract massive inflows of foreign direct investment from multinational corporations, especially from East Asian multinationals. The intra-firm trade practiced by multinational corporations greatly expanded exports from China, especially after it joined the WTO at the turn of the 21st century. This has enabled China to generate huge trade surpluses and foreign currency reserves. The emergence of a world factory in China and a world office in India lifted the prices for oil and commodities in international markets, which stimulated economic growth not only for Brazil and Russia, but also for OPEC, and African and Latin American countries that produce oil and raw materials. This snow-ball effect helped create another global savings glut, from countries beyond the major East Asian exporters.

In short, the origins of the global financial crisis have to be traced back further than the 1980s. A parallel imbalance in the international economy occurred in the early 1960s. This suggests that the practice of relying upon one country's currency is fundamentally unsound, and that the adoption of floating exchange rates after the collapse of the Bretton Woods system has not repaired the fundamental weakness in the international monetary regime. □

The Sense of Dissonance: Accounts of Worth in Economic Life (2009, Princeton University Press) Book Summary and Interview with Author, David Stark
by Sameer Srivastava, Harvard University Organizational Behavior Program



Book Summary:

At its core, *The Sense of Dissonance: Accounts of Worth in Economic Life* is about the process of search – in particular, the kind of search one undertakes when problems are ill-defined and the value of potential solutions is difficult to judge. This kind of search – which Stark traces to John Dewey's notion of “inquiry” – typically entails a

clash of competing orders of worth, or evaluation criteria. It demands “reflective cognition,” or the ability to recognize when a new solution category has emerged from a recombination of existing categories (e.g., the parking meter as a recombination of a hitching post and a clock mainspring). These concepts form the basis for Stark’s provocative definition of entrepreneurship: “the ability to keep multiple evaluative principles in play and to exploit the resulting friction of their interplay” (15).

To cope with the uncertainties associated with this form of entrepreneurship, organizations often attempt to displace inquiry with top-down, problem-solving oriented search. They do so, Stark argues, at the cost of missing out on potential breakthrough innovations. He instead counsels organizations to embrace, and even actively reproduce, the “perplexing situations” that give rise to novel recombination. To do so routinely and reliably, organizations must articulate multiple conceptions of what is worthy and use multiple criteria to define organizational “goods.” Stark refers to this organizational form as “heterarchy.” He uses the term to contrast the governance system used by such organizations from a hierarchy of command and a conceptual hierarchy of cognitive categories. He suggests that heterarchies have at least two defining features: they distribute the task of exploration throughout the organization, while coordinating this activity through lateral accountability; and they systematically organize the diversity of coexisting logics and frames of action.

To develop and illustrate the principles of inquiry-driven search and heterarchical organization, Stark and his collaborators (Daniel Beunza, Monique Girard, and János Lukács) once again take

John Dewey as a point of departure. In particular, they follow Dewey’s advice to study processes of “actual valuation” in cultural settings and to emphasize the situations, rather than just institutions, in which the valuation occurs. This guidance yields textured ethnographic accounts of three disparate workplaces: a Hungarian factory workshop employing about 100 people; a converted loft serving as an open-layout office for 80 new-media employees; and an arbitrage trading room of a major Wall Street investment bank.

Synthesizing the insights from these three cases, Stark then turns to the implications of his project for the field of economic sociology. He sees great potential for recombinant innovation among new institutionalism, organizational ecology, and network analysis. Adopting the narrative of retrospection and projection, Stark points to several promising recombinant trajectories. The first is a shift from *classification*, which undergirds the rationality of hierarchy, to *search*, which emphasizes the temporary nature of categories that are formed from diverse information sources and user interests. Next is the shift from the *diversity of organizations*, which organizational ecology has shown to matter at the level of economic systems, to the *organization of diversity*, which contributes to adaptability by enabling the recombination of already-known solutions. Third is the move from *unreflective taken-for-granted*s, which emphasize the institutional scripts, rules, and classifications that serve as resources for action, to *reflexive cognition*, which enables people to not only react to, but even actively produce, situations that lead to innovation. Next is the transition from the study of *shared understandings*, which have long been understood to enable coordinated activity, to *coordination through*

misunderstanding, which results when people make conflicting attributions about objects, artifacts, and concepts. Finally, Stark argues for the need to move from *single ethnographies* to the study of *broader sites of situations*. He sees promise in hybrid forms of ethnography and network analysis and also calls for the study of innovation across organizational boundaries and in less well examined settings (e.g., military organizations).

In the concluding chapter, Stark returns to his central themes of search, inquiry, and discovery. He also addresses the broader social implications of the move to “hyperentrepreneurial capitalism”; e.g., the potential for employee burnout, the need for organizations to engage user communities in a “permanently beta” mode, and the need to embrace “heterarchical politics” based on alternative principles of worth beyond market value. Stark believes that the principles of inquiry-based search and heterarchy can be extended to the societal level, where they can help generate novel solutions to our most challenging problems (e.g., the destruction of our natural and social environment).

Interview with David Stark:

Given the book’s emphasis on the process of search, would you comment on the search you yourself undertook in writing it? What were the ideas you drew upon and recombined in novel ways and how did you identify the contexts in which you develop the theory?

I think it’s important to note that my search began in Eastern Europe, even though much of the material in the book is not set there. I arrived there in the 1980s during a very interesting time. At the macro-societal level, there was an active effort to suppress diversity. So much of the economic activity was organized around one organizational

form: the state-owned enterprise. The economy and polity were all governed by a single party with monopolistic rules. Yet the particular organization that I was studying, which I describe in an early chapter of the book, had remarkable internal diversity. The workers were leasing equipment from their factory and running it in the off hours. Within this firm, there were two very different ways of doing things. So there was not a diversity of organizations at the level of the economy, but there was this curious diversity inside the organization. That sparked me to think about diversity, dissonance, and difference inside of organizations. I was doing that while I was reading new work that was coming out of Paris. Pierre Bourdieu, who importantly influenced my thinking, invited me to come to Paris. I was also reading Boltanski and Thevenot’s work on orders of worth and Latour’s thinking on what would become known as actor network theory. I was also influenced by the American pragmatists – in particular, John Dewey. So the search led me to look at new forms of influence outside of American sociology.

Could you say a bit more about John Dewey’s influence on your work?

There were several ideas from Dewey that were especially important. The first was the notion of inquiry. Dewey sees inquiry as a collaborative endeavor: it is not just something that an individual does. Second, for Dewey, inquiry is open-ended. The idea of open-ended and collaborative inquiry prompted me to think about the nature of search and the kinds of search I find most interesting. Search is, of course, the watchword of the information age. Search engines are the counterparts of the steam engine and the internal combustion engine for the information age. With search engines, though, you know what you are

looking for. I might, for example, be searching for someone's telephone number. Dewey talks about a different kind of search. He draws the distinction between problem-solving search, which requires working out the right method of analysis to solve a known problem, and problem-generating search, which requires figuring out what problems need to be solved. The search that I think is most interesting is not the search done by search engines. It is this second kind of search: when we don't know what we are looking for but can recognize when we have found it. This is a central challenge for organizations and individuals. We have a word for this kind of search in science: we call it "research." In organizational settings, including NGOs and the public sector, it is commonly referred to as "innovation." Dewey's word for it was inquiry. So inquiry is collaborative and open-ended. The third defining feature for Dewey is that inquiry takes place in perplexing, even troubling, situations. So I started to wonder whether this search – when you don't know what you are looking for – might be facilitated by organizations that do not flee from perplexing situations. What if they do not simply tolerate perplexing situations but actively facilitate them? Then I asked myself: "What is the most perplexing situation one can be in when working collaboratively with other people?" The answer I came up with was situations when people don't share the same principles about what is valuable. Their task is to define collectively what is valuable, but they don't start out with the same criteria or evaluation of what is valuable. That is really perplexing, but it can also be a basis for discovery. That is, in a sense, what the whole book is about.

Why are situations so central to Dewey's thinking and why have they played such an important role in your work?

I see two kinds of movement in thinking: from methodological individualism (for example, a focus on rational choice models of human behavior) and from methodological institutionalism (that is, a focus on steady institutions) to methodological situationalism. By situations, I mean very concrete settings. We might even think of them as moments, although they don't literally have to last moments of time. But we know what we mean when someone says, "We have a situation here." It suggests something is problematic. It's almost redundant to say a situation is perplexing or troubling. Situations are methodologically privileged because they are moments when the open-ended character of the world is revealed. The analyst can get in and see what people are trying to make sense of. Because they are trying to make sense of situations, you have access to the problems and orientations they are working with. The moment of discovery for people in perplexing situations often also constitutes the element of discovery for the ethnographer.

As you noted earlier, perplexing situations can give rise to inquiry-driven search, which is linked to innovation and entrepreneurship. In the book, you lay out a particular definition of entrepreneurship. How would you contrast your conception of entrepreneurship with other prevailing perspectives?

First I should say that my definition of entrepreneurship is novel but builds on other people's work. In the most general terms, it is similar to Schumpeter's definition

because I argue that entrepreneurship entails recombination and disruption. It also goes back to ideas of Frank Knight, for whom the problem of entrepreneurship was very important. He saw the discipline of economics as moving away from the study of entrepreneurship. Economics was looking at all situations as situations of risk – that is, the future could always be expressed in probabilistic terms. For Knight, there were situations that were not just ones of risk but ones of genuine uncertainty. Situations in which all bets were off: that is, the future could not be thought of in probabilistic terms. That is what entrepreneurship is about. The entrepreneur is not just managing risk; he is taking advantage of uncertainty. With these two ideas in mind – that entrepreneurship is exploiting uncertainty and that entrepreneurship is recombination – I asked, “What is the uncertainty the entrepreneur exploits?” I should note that the entrepreneur need not be an individual. If you start with Dewey’s notion of collaborative inquiry, the unit of entrepreneurship is already some social form – not the individual. Entrepreneurship is then about exploiting the uncertainty about which principles of evaluation are operating in a situation. When there is more than one way of looking at what is worthy, then we are more likely to be able to get out of the cognitive conceptual hierarchies we work in and reflect on our situation and be able and open to see new kinds of solutions that would not be given within any one frame of worth. That is how the idea of entrepreneurship as recombination and entrepreneurship as exploiting uncertainty can come together.

Let me now contrast this perspective to that of other contemporary sociologists who study entrepreneurship. The currently dominant idea in economic sociology is that innovation happens through a combination

of brokerage and closure -- of connectivity and cohesion. That perspective assumes that innovation is about gaining access to ideas, which you then need to implement.

Connectivity, or long distance ties, gives you access to ideas, and cohesion allows you to implement them. This is a nice idea.

There is a lot of terrific work out there on this point – for example, Brian Uzzi and Jarrett Spiro’s paper in *AJS* and Ron Burt’s work on brokerage and closure. The problem is that it works like a germination theory. Connectivity gives you access to ideas that are out there in the environment, and then you plant them in the nurturing soil of cohesion. But this perspective does not answer the question: where do new ideas come from? That itself is a kind of action problem. Ron Burt’s notion of structural holes emphasizes the act of brokerage, which occurs at the gap between groups. In my work, entrepreneurship happens at the overlap, not at the gap. It happens where multiple evaluative principles are at play. The friction that comes from ideas battling it out with each other helps create innovation. We can think about this as a discursive mapping but also in network analytic terms. This point about overlap is also made in a paper that Balazs Vedres and I have coming out in *AJS* on the notion of structural folds. We argue that entrepreneurship is a group-level process and that the location of innovation is in the overlap between groups, not necessarily the gap.

In the book, the discussion of entrepreneurship and innovation leads you to define and characterize a specific organizational form that can foster inquiry-driven search. You refer to this form as “heterarchy.” Could you say more about how you define this form – that is, how would one know if a particular organization is a heterarchy?

Heterarchy is an organizational form, which is not hierarchical or at least has less hierarchy than one would typically find in an organization. Instead of vertical accountability, units and actors are accountable laterally inside the organization (though there may still be vertical reporting). I borrow from Charles Sabel and others who talk about practices of simultaneous versus sequential engineering to show how lateral accountability comes about. To solve the challenges of organizations that are operating in a very fast changing environment, direct and lateral ties between units can't just work up and down through the hierarchical reporting structure. So that's the first feature of heterarchy: it is about who is accountable to whom. We saw this in the new media start-up that I describe in the book. One person who joined from a large technology firm said, "There is just one thing I can't figure out about working here: who is my boss?" That person was eventually laid off. In contrast to that, there was a young interactive designer. I asked him to whom he was accountable. He said, "I report to two project managers. But in the end, I'm accountable to everyone who counts on me." I thought that was just a great, prescient understanding of life in one of these heterarchical organizations. The other characteristic is that heterarchies don't just flatten the organization and iron out differences. They don't just flatten diversity. In fact, there is an ongoing, often spirited contestation over what is valuable. So those are the two defining features. The book has three very different examples of these organizations, including one – the firm in Eastern Europe – that is not entirely successful. In general, though, we are likely to find heterarchies in environments where there is a lot of uncertainty and in organizations where the strategy horizon is

relatively compressed. So that's the definitional side of the answer to your question.

Going back to the discussion of brokerage and closure, how do heterarchies manage to implement the innovations they produce?

The rivalry of ideas within a heterarchy is not petty or personal; it is principled. A good project manager will know when what he is hearing is about personalities versus principles. There are some examples of that in the book. How do you get things done? Well, deadlines help a lot. You have to be able to know when to come to a settlement, which doesn't mean that we agree on the substance. Instead, we agree that we will make a temporary settlement. Note that this is very different from ironing out our differences. The pop sociology version is that we get things done when we all sit down and reach consensus. Coordination is then a function of what we share. In this heterarchical world, people recognize that there is a time to dispute and then a time to settle our differences, meet the deadline, and get the job done. But even when we make a settlement, we know that this rivalry is still there and will be a basis for dynamism the next time we work together on a project.

Does that suggest that heterarchies somehow oscillate between different modes of working?

Yes. But it is not that they shift from heterarchy to hierarchy. Rather, there are oscillations between settlement and rivalry. We show this in the case of the new media firm. They are producing web sites all along. They are not just arguing with each other. Hierarchies are hierarchies of concepts and positions. It is categorical in

both cases. The idea here is that we can keep more than one thing going on in our heads at the same time. There is a cognitive reflexivity that happens inside heterarchical organizations.

In the book, you also talk about the implications of inquiry-driven search and heterarchy for the way in which research in economic sociology is conducted. What are the specific implications you see – such as for the choice of research methods or units of analysis?

It's interesting to think about whether my inclinations as a sociologist led me to these theoretical views or whether my theoretical views have led me to these reflections on methods and approaches in sociology. Whichever one it is, my answer would have to be that exciting new work in economic sociology is not going to stay within the existing grooves of the three dominant theoretical orientations in the field: institutionalism, network analysis, and organizational ecology. I think innovation is going to happen in the friction among these. So we should encourage new kinds of research strategies, problem articulation, and concept formation that are not within any of those paradigms. That would be entrepreneurial. But it's not going to be easy.

What do you see as the biggest barriers to doing this kind of work?

I think the challenges are like the challenges of all types of innovation. It's not only that you need to be able find this thing that you are not looking for, but you also have to be able to recognize it when you find it and then present it to others in a form they can recognize. But because things work so much in a conceptual hierarchy, one has to be able to somehow articulate novelty using

existing questions and existing forms. At the same time, one has to break out of the existing questions and forms. That's tough. But that is where interesting work is going to take place. It's a challenge for everyone. It's a challenge for young people because they are the ones who will do the actual work. That's the exciting place to be right now: being a young person writing a dissertation or starting a new job. It will also be a challenge for more senior people in the field to recognize the value of work that does not fit within the existing frameworks.

Toward the end of the book, you broaden the discussion from organizations to society as a whole. You talk about the problems of "hyperentrepreneurial capitalism" and about the potential for inquiry-driven search and heterarchy to address societal-level problems. Could you give some examples of what you have in mind?

Heterarchy, or the organization of dissonance, is awkward and difficult. It's not a purely rosy world, and it's not some panacea. As the epilogue of the new media case goes into, it is not easy to live or work in a heterarchical setting. If there are multiple performance criteria operating and there is ambiguity about which one is operative, it can create personal difficulties for people. It can be unsettling. In the very last chapter of the book, I explore these questions at the societal level. I conceive of "hyperentrepreneurial capitalism" as a high performance capitalism. In so many domains of life, we find an emphasis on high performance. The organizations we work for have to be high performing. Surgeons have to be high performing. Our car is a high performance car. Our cat litter is advertised as high performance. Regional governments are supposed to be high performing. The net result is that we live in

an era of performance anxiety, whether it's the 18 year old studying for the SAT exam or the athlete under pressure to break a record. From the bedroom to the boardroom, there is this performance anxiety. That is partly the problem of living in a society that has multiple performance criteria. There is ambiguity about what is a good performance. I'm really struck by the extent to which performance is a frame for something that happens in so many walks of life.

Let me say a bit more about the challenges of operating under multiple frames of what is worthy. One of the really interesting areas is user-generated innovation. Think about Wikipedia. The user is generating the knowledge. Think about social networking sites. The producers of value are not the employees of the organization. They are the people who post their content. The network relations among them are the valuable thing in the organization. Market value is not just embedded in social relations; instead, market value *is* the social relations. I also started to think about what it means that employees are not performing the labor they once used to perform. I started to think in very simple terms, starting with routine examples. I thought about when I go to shop, and I take an item off the shelf and put it in my cart. Then I go and check out. We don't think about that act as the performance of unpaid labor. But my grandfather would have taken me to a general store or hardware store, where the employees would have gone in the back and brought us back a jar of pickles or a tool we needed. We can see this also in the process of checking out. When we go to Amazon or any online retail outlet and enter in our address and credit card information, we are performing labor that would have been performed by an employee

in the past. To be clear: I'm not encouraging people to go on strike. But I am encouraging us to think about organizations that are Möbius strip organizations: ones that have no clear inside or outside. The interesting challenge is how to mobilize the creative energies of the users, the people who are not even employees. We see greater socialization of production but still private appropriation of the rents. The challenge is to figure out, as a society, how to develop these productive energies in forms that are not just market forms.

Could you say more about the challenges you see at the societal level?

I started thinking about the solutions to the challenges of high performance capitalism. The easy ones that are posed have two broad forms. Let's have one system of value: the market. And let's have one system of values: family values. So we have market value and family values. The answer seems simple. I'm obviously not going in that direction. I'm wondering if, paradoxically, the answer to high performance capitalism is not just more entrepreneurship but entrepreneurship that is based on the multiplicity of performance criteria in all walks of life. So we don't take our universities and organize them according to market principles of performance. We don't subject our regional planners to market principles alone. We are genuinely entrepreneurial in saying that we will not only advance our wealth but our worth as a society. That will happen when there are more and multiple voices speaking about what is worthy – not just the market voice.

Take, for example, the question of how we value nature. That is a very interesting problem. The answer is not that we figure out how to put a dollar value on it.

It's more that we bring into our economy alternative measures of value that are precisely not ones that could be captured with price. If we only go the route of profit criteria and market criteria, we destroy our world.

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BOOK REVIEWS



Book Review:

The Ascent of Money: A Financial History of the World (2008, Penguin Books)

Jiwook Jung
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Recommending Charles P. Kindleberger's classical book, Nobel laureate Paul A. Samuelson once said that "sometime in the next five years, you may kick yourself for not reading and re-reading Kindleberger's *Manias, Panics, and Crashes*." Against the backdrop of the latest financial crisis in 2008, this almost sounds like a prophecy. In the aftermath of the crisis, investors around the world who were elated by what the free market seemed to have achieved ended up kicking themselves and even each other. What caused all this mess in recent years? We don't quite have a clear answer yet. We have just begun to realize that the global financial market is much more integrated than we thought it to be and, more important, is much less secure from unexpected shocks than we hoped it to be. However, the crisis in 2008 is not the first time that people have failed to fathom the depth of risk inherent in the financial system that they built. In fact, history is full of such stories, and these are what Niall Ferguson introduces to us in his recent book, *The Ascent of Money: A Financial History of the World*.

This book aims at something almost impossible. It tries to cover, in one stroke, the entire history of finance from ancient Mesopotamia to modern microfinance. Obviously, much should be

omitted; no single book can plausibly cover all of the details. Nonetheless, this almost unlikely task achieves one important goal; it brings the modern financial system into sharper focus. This helps deepen our understanding of the latest financial system meltdown. Although grasping the complexities of the modern financial system is still a daunting task, it will be easier once we understand its historical origins. Hence, Ferguson traces the origins of key components of the modern financial system—money and credit, the bond market, the stock market, insurance, the real estate market, and finally international finance. Along the way, he attempts to convince us that finance has been the foundation of human progress.

More important, however, he also demonstrates when and how things could go wrong in finance. He walks us through historical moments when various financial instruments, when abused and mismanaged, have led to disastrous consequences. Such moments are abundant in history: successive debt crises and the ultimate decline of the Spanish empire in the sixteenth century, the Mississippi Bubble (arguably the first stock market bubble which caused, indirectly, the French Revolution), the Argentine hyperinflation and debt crisis in the late 1980s, the collapse of US Savings and Loans associations in the 1980s, and the latest subprime loan crisis. These events illustrate how finance amplifies our tendency to overreact, to swing from exuberance when things are going well to deep depression when they go wrong.

Why, then, are we human beings so prone to make similar mistakes over and over again? History matters here again. It is not just because we can learn valuable lessons from the past. It matters even more because we often fail to learn from history. Ferguson says, “Nothing illustrates more clearly how hard human beings find it to learn from history than the repetitive history of stock market bubbles” (p. 123). To be sure, many of the recurring bubbles and crashes were attributable to the greed of some opportunistic groups or individuals. Like conquistadors in the sixteenth century, people, generation after generation, went in search of their own El Dorado in the ever-expanding world of finance, often winding up with ruinous results. But this is not the whole story.

As the modern financial system expands, so does our understanding of and, more importantly, our confidence in our ability to control the system. With every new invention of a state-of-the-art financial instrument, it was thought that we came one step further to the ultimate dream of finance—the state of zero risk. But the crucial lesson from the history of finance is that this is an unlikely aspiration. Every time people thought they had achieved the unlikely goal, they learned the lesson in a very hard way. One recent, and probably the most dramatic, example is the failure of Long-Term Capital Management (LTCM). Led by a dream team of finance (including two soon-to-be Nobel Laureates—Stanford’s Myron Scholes who developed, with Fisher Black of Goldman Sachs and Harvard Business School’s Robert Merton), LTCM once thrived with its so-called dynamic hedging, which was assumed to hedge its funds from significant movement in any of the major stock, bond, or currency markets. The success of LTCM’s business was so great that the firm’s assets reached \$134 billion in 1998 in only four years. However, in the same year (and less than a year after Merton and Scholes were awarded the Nobel Prize in economics), the shock initiated by Russian default left LTCM with a largely illiquid portfolio of assets that could not be sold at any price. In the long-term, it might be true that the market moves according to some elegant mathematical model. In the short-term,

however, the market can become volatile beyond anyone’s imagination.

Therefore, the history of finance is not just about the evolution of money, credit, bond, stock, and insurance markets. It is also a history of people, involving a few geniuses who struggled but often failed to overcome inherent instability in finance, some of those who attempted to manipulate finance in search of a bonanza, and the majority of others who swayed between craze and panic as markets fluctuated. Because of these human factors, no financial system in history has ever been perfectly secure from unexpected shocks. This inherent volatility in financial systems can be clearly seen in the uneasy relationship between finance and politics. Throughout history, Ferguson repeatedly asserts, politics and finance have been inseparable. War and state-building were a crucial factor in the expansion of the modern financial system, such as the global bond market. But at the same time, politics could also crash the modern financial system. The First World War put an abrupt end to the first era of financial globalization, and it took almost half a century before another round of financial globalization unfolded in the late 1960s.

The vulnerability of global finance to geopolitical conflicts draws our attention to its recent, peculiar aspect—the emergence of “Chimerica”, probably the most provocative claim in this book:

In 2007, the United States needed to borrow around \$800 billion from the rest of the world; more than \$4 billion every working day. China, by contrast, ran a current account surplus of \$262 billion, equivalent to more than a quarter of the US deficit. And a remarkably large proportion of that surplus has ended up being lent to the United States. *In effect, the People’s Republic of China has become banker to the United States of America.* (p. 335, emphasis added)

Ferguson likens this rather unusual symbiotic relationship to a similar one at the dawn of the First World War, between the world’s financial center, Britain, and continental Europe’s most

dynamic industrial economy, Germany. It might be too much of a stretch. The global financial market today is substantially different from the global financial market a hundred years ago. However, an important lesson from the history of finance is that we must not underestimate the risk that is endemic to any financial system. Risk-taking may be a virtue in the modern financial market, but the history of finance reiterates that risk-taking without due caution can be devastating.

About the author

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www.niallferguson.com. Also, to see a television series based on the book, visit www.pbs.org/wnet/ascentofmoney □