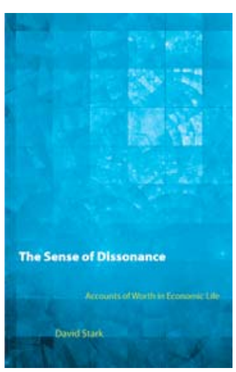
tradable goods and services with other countries that need dollars to purchase oil.

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-granteds*, 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).

<u>Interview with David Stark:</u>

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 than 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 hold 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.

About the Author:

David Stark is Arthur Lehman Professor of Sociology and International Affairs at Columbia University where he is Chair of the Department of Sociology and also directs the Center on Organizational Innovation. Please see www.thesenseofdissonance.com/index.php for more information about David Stark and *The Sense of Dissonance: Accounts of Worth in Economic Life.*

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.