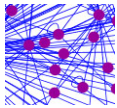


Accounts

ASA Economic Sociology Section Newsletter

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Welcome to the Spring 2008 issue of *Accounts*!

From all of us on the editorial team, we hope you are all well and enjoying an exciting spring semester. We wish to especially thank our contributors for their time and effort in helping provide informative and engaging contributions on the role of networks and trust in markets. In this issue, Nathan Martin interviews Brian Uzzi, who discusses the importance of personal connections to his work, ongoing research in the role of networks of production in the generation of knowledge, and communication of sociology to broad audiences. Akos Rona-Tas discusses the problems in the current system of formalized decision making pertaining to lending to homeowners and its role in the subprime mortgage market crisis. Finally, we feature recent work by Mark Mizruchi. Mizruchi and his collaborators have explored the structure of relationships between banks and corporations with particular attention to the importance of these relationships to conducting business and the effects of the broader shift away from bank finance on the behavior of banks and corporations.

As always, we welcome contributions from readers. To give a preview, our next issue will be centered on ethics in the marketplace, so stay tuned. Have a satisfying semester!

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“The Sources and Consequences of Embeddedness for a Research Program: An Interview with Brian Uzzi”



Brian Uzzi
Northwestern University

Richard L. Thomas distinguished chair in leadership, Professor of Sociology, and Professor of Industrial Engineering and Management Sciences at the Kellogg School of Management

Taking the programmatic statement of social embeddedness and producing award winning research with network analysis and methods, Brian Uzzi’s work explores a wide range of social phenomena. His research has examined, for example, how social networks and structures influence the garment industry (American Sociological Review), Broadway productions (American Journal of Sociology), financial markets (American Sociological Review) and scientific teamwork and collaboration (Science). In a recent interview, Nathan Martin asks Brian about how social networks have influenced his own research, tips for communicating sociological ideas to wider audiences, and the growing prominence of teams in scientific research. As becomes clear, the influence of social networks is hard to escape. Below are excerpts from their conversation.

NM: Your research has investigated, for example, how social embeddedness affects the behaviors and decision-making of firms and price-formation within financial markets. But, I’m interested in hearing if there is an “embeddedness” story to your research?

BU: I think people who know me say that I study only industries that I have a personal connection to. I studied the garment industry as my dissertation work and it turns out that my family, who were Italian immigrants, worked in lower-Manhattan in the garment industry when I was a kid. My father’s father was a tailor ... I grew up in my house having my mother make my clothes for me on her sewing machine ... and I also got a feel for that area of lower Manhattan because we were living down there. So I was always seeing the contractors and the trucks loading and unloading garments and jackets and all that kind of stuff. And I think that always stayed with me my whole life. When I got to Stony Brook and I was looking around for dissertation topics, I wanted to do something on networks and I began to think about the garment industry

again. By that time my family had pretty much gotten out of the industry, but I had a lot of friends’ parents, uncles, and aunts who were still in it. They weren’t tailors, they were more managers – they owned small garment manufacturing companies and they were the ones that originally got me access into the industry. So my best friend Eric had an Uncle Mickey, and Uncle Mickey had a dress company, and Uncle Mickey was my first interview about how this whole world works. And I remember that when I finished the interview, Mickey got on the phone and he called his best friend, who ran another garment firm, and he says, “Oh, you know, I got my nephew here, Brian – which was not entirely true – and he’d like to come over and talk to you about your relationships with your contractors and your designers and stuff. Can you, you know, give him a little bit of your time?” That guy said “ok,” and that pretty much snowballed into the qualitative sample that I was able to use. So it really was through personal connections.

The other way I got the access into the industry was purely by luck. I had contacted one of the vice presidents at the garment industry union ... and I went to see a guy called Karl Cooper. I walked in, said I was a doctoral student, I was really interested in all this network stuff, and I was looking for his help in trying to get access into his industry in two ways. One, I wanted to expand my interviews to some real up-scale manufacturers ... and I thought the union could help me. And I also asked him if he could help me get a list together to send out a survey instrument so I could survey a couple hundred firms. He says to me, “Well what kind of data do you want to collect?” and that’s when I told that that I wanted to collect this network data. It was two seconds after that that I realized that I had a dissertation, because he says to me, “Well, you know, the union already collects some of that data in the form of transactions between manufactures and contractors, and I think you’d be able to get a proxy for all the information you want on relationships.” From the bottom drawer of his desk he pulls out hard copies, and there it was. All the network data I could possible have dreamed about. And I basically said to him, “My god, you’re being so generous to me, you hardly know me.” And he said, “Guess what, my wife is getting her PhD at Columbia, and she’s been trying to get into an industry to talk to the people there to do her own fieldwork, and everybody’s been closing doors on her.” And that was the beginning of it, and Karl and I have remained friends now, fourteen years later, and he recently gave me another big piece of data from the union – this time a time-series dataset – that I got back into to try to extend some of the work I had done as part of my dissertation. So yes, that was a completely personal relationship.

And the stuff I did on banking was also a set of personal relationships. My father – who when I was growing up was a postman in lower Manhattan – when we moved to Long Island he retired from the post office early and started working in a bank and he became a new account executive at the bank. This was only when I was twelve years old, I started to hear all this stuff about banking and relationships and customers, and I think I got really interested in it because of his relationship. And that’s what brought me into banking.

And then I finish banking, and I get into Broadway. Broadway was another set of personal relationships. When my mom was growing up, she was a vocalist on Broadway. So there was a lot I used to hear about that. And then, my ex-wife’s step-father was a star on Broadway. He starred in a number of major Broadway musicals, and I would go to the house to visit, and there would be all these Broadway stars talking about the business and the relationships, collaborations, creativity, and that’s how I got into that study. In each case, it’s really been something that I’ve been close to that perked my interest, but it’s also been a way that I’ve been able to open doors to get into the industry.

Did you find that these network ties were pretty integral to your research? Would you have been able to accomplish these projects without these close, personal ties?

It’s a good question, I’ll never know that for sure, but I think that the close, personal ties really facilitated the research by lowering the cost of all the fieldwork. One of the things about ethnographic fieldwork that’s a real challenge, at least in my opinion, is it is a lot more work than getting historical data that someone else has already recorded and began analyzing, because the data collection phase is so much more time-intensive. And it’s a phase in which you’re trying to create a framework for understanding all the variance in the ethnographic data – yet another time consuming process. It’s not as if you have variables in a regression, and you have a linear model in which you can begin to look at these relationships that you just take off the shelf and apply to your historical observational data, so ethnographic work is, I think, much more time-intensive. Without these ties, I might have shied away from the investment in the ethnographic work because of that.

Were there many instances of CEOs or financial officers being reluctant to share private information with you when you were conducting interviews?

Well, you know, I’d have to say that I never got that feeling from them. I was always very surprised at how much people would open up to you when they don’t believe you’re collecting this information from them for your own profit, but for the betterment of society or the advancement of science. They really see it as being part of a higher-order goal that they’re willing to contribute to, even though they don’t get any direct benefits back from it. So I think that they wound up telling me a lot of stuff that was very candid and very open, and for me it made the research thrilling, but it also gave me a lot of really good findings to report.

Were you surprised by the level of candor and openness?

At first I was, because I assumed that people would want to get to know me more, or would say things like, “Well, I can’t talk about that,” or, “Shut off the recorder at this point,” but they never really did that. They never really did that. And, I think what was also a clincher for me in being surprised was that when I would talk to one person, and they would reveal candid aspects of a relationship, and then I would talk to a person on the other side of the relationship, they would also talk about it. And it gave me some sense of validity across observations, in that both were bringing it up, both thought it was important even though it didn’t always say the nicest things about the other person or about themselves.

Your more recent work has examined the underlying network structure of creative production and research teams. What role do you think the Internet and other communication technologies have had on this shift towards more teamwork?

Yeah, so that’s very interesting. We put together a piece that was recently published in *Science* in 2007 [“The Increasing Dominance of Teams in Production of Knowledge”, with Stefan Wuchty and Benjamin F. Jones] where we went back through all recorded publications in science and engineering, the social sciences and the humanities from 1945 until the present [over 19 million research papers in total]. And we found some very interesting things ... if you look at teamwork over this period, what you find is that more and more work is being done in teams across all the different areas, and the teams are growing in size over time. So you have more teamwork being done by larger teams, and ... we also showed that this work was, in fact, the highest cited work: that teams write better papers, as measured by the impact factor of the paper, than do individuals. And this was kind of startling, because we have this myth in our minds of the great minds alone at

the workbench coming up with the big breakthrough paper. And in fact that happens, but statistically it's more and more unlikely to happen. Back in the beginning of the period, from 1945 to 1950, the biggest papers in science and engineering fields, social science fields, etc., were in fact written by individuals, but we're able to show is that by the end of this period, that is today's time, that is no longer true. Teams overwhelmingly write the best papers.

So, one of the things we wanted to look in finding these three basic facts was, did the internet make a difference? Because you might argue, well look, maybe teams are doing better because the cost of collaboration has gone down with the internet and collaborative software and other types of technology. When we look at the data, we can't find evidence for that. There is absolutely no change in any of these trends before or after the advent of the internet.

So this greater teamwork isn't just the result of people being able to email drafts back and forth, and ...

No. It's something else about the collaborative process that's been driving this trend, and this in fact is our second paper, currently under review at *Science* where we've tried to look at an aspect of this. And what we've looked at is the comparison of collaboration that people do at their home university versus collaboration with people at other universities. Here's where you can expect to see this collaborative software having its biggest effect. Again, we look at millions of papers, and we look at it from 1960 to the present – we had to shorten the time period for this paper because of the availability of data. And here again we find some interesting things exactly on this topic. First of all, we find that when we look at the shared work that scientists do with teams at their home university, that share hasn't changed across fields at all in the last 30 years. It's remained entirely flat. The real big growth in teamwork has occurred with people who work with people at other universities. That is shown to have a remarkably fast growth. And it keeps growing at a slightly increasing rate since 1970, when the rate was almost zero. And 1970 is way before the internet or collaborative software ... the reason for its rapid growth is not only because it's been taking shares of work away from solo work, but it's also that more and more papers are being written every year, and as more and more papers are being written a greater share that gets written is being done by people at different universities working together on the same paper...

Now, to get back to the Internet, we look at when the internet comes online, which is really the mid-1990s, and it seems to have no effect on these trends. The big upward trend in the rate being done by individuals at different universities is climbing at the same rate before and after the

internet comes on board. So, I think that the Internet can enhance collaboration, but I don't think that it is essentially the thing that is driving collaboration.

What's the story about disciplinary boundaries with this increased emphasis on teamwork? Are they becoming less relevant as more research is done in teams?

Well, we haven't been able to examine that in detail, but we do have some preliminary findings that I think speak to that. One thing that you find out about these multi-university collaborations is that they are much more likely to be highly cited papers than are within-university collaborations or solo work. So, we get a team made up of all Harvard professors versus a team made up of a Harvard professor and some professors at other schools, and you find out that the latter produces the more highly cited paper on average ... One of the things that we do find, when we analyze multi-university teams, is that when we look at the work they cite, relative to the work cited by collaborations done only with other people at your home university, the citations in the multi-university papers are in fact more diverse. They come from different pools of knowledge. In terms of interdisciplinary work, I think ... that finding suggests that [multi-university teams] are doing more interdisciplinary-like work.

If you somehow had the power to completely restructure the academy how would you organize colleges and universities in order to capitalize on this "small world" effect and maximize creative output.

How would I restructure the academy? Well this is a very big question. I'm not sure my work up to this point with my colleagues Ben Jones and Stefan Wuchty can really answer that question just yet, but I think it's got some provocative suggestions that go along with it. One is all universities are trying to figure out a way to get an edge in their research business, and if our findings hold true that the way in which you get an edge in what is written in terms of impact factors is by having faculty do multi-university publications ... a strategy there is for the school to facilitate and promote their own faculties' ability to work with faculty at remote locations. Restructuring at the academy might be a way to design universities that promote this kind of interaction. What that might be, I'm not even sure. It may be that the internet isn't doing it, but if you go out and look at faculty that do these multi-university collaborations and do it across fields, what turns out to be pretty important is not technology but people. Scientists will often tell you that the thing that facilitates these kinds of interactions is a third-party, like a PhD student or a post-doc that is actually the bridge between the two other faculty. For instance, I have a colleague, Felix

Reed-Tsochas, at Oxford. He's a physicist, he works in the management school, and he and I started a collaboration around statistical mechanics and networks. He's all the way over at Oxford, I'm here at Northwestern. When we met, when I was there giving a talk, we had a meeting of the minds – we really liked each other's ideas, but we both had our plates pretty full ... How are we going to start collaborating with each other? The way we made it work is that we found a post-doc who is interested in both of our points of view, and that post-doc was the mechanism that found the time and resources to actually put our ideas together, and operationalize them in terms of analysis, writing papers, etc. So the human element becomes pretty important. This suggests to me that if you want to do more inter-disciplinary work, you might not look to just technological advances, which obviously can be facilitative, but you really need to think back to people in the sociology of relationships.

In your work, you have a lot of experience presenting sociological ideas and concepts to business departments and audiences. First, how receptive do you find these audiences to your perspective? And second, what advice could you give others who would like our work to reach broader audiences and cross disciplinary boundaries?

From my individual point of view, what I have experienced is that most business people really think about their capabilities as being degrees, certificates, training, expertise that they themselves possess. And their ability to succeed depends on how well they make decisions between their ears. There had been very little attention to sociological mechanisms of how relationships and networks and social categories like gender do in fact affect the information that people get, how they process that information, how they're going to get other people behind their ideas, and so on and so forth. With people, with that as their baseline way of viewing the world, their exposure to sociology and their acceptance of it basically takes two things. One, you have to show them the limits of that individual point of view. And two, you have to be able to show them how they could get added advantages for thinking sociologically. And that's really the entire challenge of it. Now, once you kind of get the sense of how to show people the limits of the individual stuff, and think more about the social stuff, they often become true believers in the social stuff and begin to think very little about the individual stuff ... In fact, as I've worked over the years with executives at "c-level" positions in the organization – CEO, COO, CFO and people at the very top – the further you go up in the organization, the more they actually appreciate the sociological point of view, because the more they understand

the limitations of their own knowledge-set that they themselves can possess. And they realize that they need diverse input, they need expertise in lots of different areas, but they're never going to be able to learn all those different areas of expertise that they need so they have to rely on networks and other aspects of social structure to really be successful.

And this isn't just happening in our field. I think it's a real opportunity for sociologists to build a much bigger footprint in terms of helping make decision-makers in the world do better, so I can talk about this in management and leadership, but I also do things on marketing, as do many people in this field and other professional schools. And marketing is going through a tremendous shift towards the whole sociological point of view. Marketing for the longest piece of time was all about how people processed information, how they recall things easily, how you affect their emotions, and it was all thought of as individual people. With the access of the web and understanding the interconnectedness of people and how they get affected by each other's moods and how information spreads through friendship networks, marketing is now as hungry as it can be for sociological ideas. And that's why we find something like Facebook, which is a company that doesn't have R&D labs, it doesn't have international operations, it didn't have a business plan, and it never even turned a profit – it's valued at \$15 billion, an astronomical sum. Just because it's laying out a roadmap for how to use applied sociology to create wealth and to help people get things they want to get. So, when you look at where does sociology fit in and what the challenges are, I think they come down to bringing up examples like this, that people can really see and relate to in their own lives as their own limitations as individuals and why you need to understand social structure, and the mechanics of how to use it to be successful.



“Rational Calculation and Trust: Theoretical Lessons from the Subprime Mortgage Crisis”

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Associate Professor of Sociology

The Theoretical Puzzle

Both economic theory (Arrow 1951/1968, Debreu 1959) and cognitive psychology (Dawes et al 1989, Grove et al. 2000) suggest that rational formalization of decisions, in-

volving careful, objective quantification and calculation, improves the quality of choices and both economic theory and common sense imply that the higher the stakes, the less actors will put up with inferior methods of decision making. Therefore, it seems obvious that the incentive to formalize decision making should be much greater when corporations borrow tens of millions than when consumers ask for a loan of only tens of thousand dollars. It comes as a surprise, then, that corporate lenders rely on the art of subjective judgment from credit rating agencies while consumer rating agencies assess their loan applicants deploying the science of highly formalized decision making.

Corporate ratings are, of course informed by formal calculations but the final decision is judgmental. Moody's, one of the big three corporate rating agencies, begins its explanation of its rating methodology:

“Because it involves a look into the future, credit rating is *by nature subjective*. Moreover, because long-term credit judgments involve so many factors unique to particular industries, issuers, and countries, we believe *that any attempt to reduce credit rating to a formulaic methodology would be misleading and would lead to serious mistakes.*”¹ (emphasis added)

By contrast, consumer ratings are completely formalized. Equifax, one of the large three consumer rating agencies describes the Fair, Isaac Co (FICO) score used by all three big consumer rating agencies this way:

A [FICO®] credit score is a rating used by a lender to help determine whether you qualify for a particular credit card, loan, or service. Based on information in your credit file, the credit reporting company analyzes your information using a complex mathematical model to yield your credit score. [...] The higher the score, the less risk you represent. Your score is calculated by a mathematical equation that evaluates many types of information found in the credit file.²

If formalized decision making is superior, why do corporate credit rating agencies use less formal methods than agencies that rate consumers? In our research on credit card markets, we have identified some of the strengths and weaknesses of both rational calculation and trust based judgment and have argued that whether formal calculation is superior to human judgment that inevitably includes an element of trust (Moellering 2006) depends on the social context.

The Subprime Crisis

The subprime crisis that has been unfolding since 2007 gives us a deeper insight into the weaknesses of both the corporate and the consumer rating method because both are intricately involved in the disaster in a two-step process. Residential mortgages were issued to consumers who were typically rated by their FICO® scores provided by the consumer rating agencies. The debts then were bundled and rated by corporate raters such as Moody's and were sold to investors. A by-and-large automated system of underwriting was used in originating the mortgages, and a judgmental system was deployed to securitize them.

The Weaknesses of Formal Calculation and Strengths of Judgment

Since the onset of the crisis, FICO and its score have come under strong criticism. One study by Fitch shows that the difference between the average FICO® score of defaulting and non-defaulting loans in 2006 was only 10 points, a very small difference given the scale of the score (Table 1). What is even more puzzling is that, countering the usual narrative of the subprime crisis that talks about increasingly aggressive lenders reaching deeper in the applicant pool granting loans to ever riskier borrowers, the FICO® scores of borrowers not only did not drop but steadily *increased*. And, finally, the overall predictions of the FICO® score became highly inaccurate, too. Lehman Brothers sold a \$1.2 billion subprime loan portfolio in 2006, predicted to have a default rate of 5% on the basis of its FICO® scores, but in 18 months the default rate was already 15% (Maiello 2007).

FICO's debacle points to three generic weaknesses of formalized models: increased vulnerability to “gaming the system,” the “omitted variable” problem and correlation among outcomes.

Gaming the System

No measurement is perfect. There is always a gap between an indicator and the concept it intends to capture. The FICO® score is an indicator of creditworthiness but it is by no means a perfect one. Formalization creates transparency and that allows borrowers to exploit the gap by finding ways of increasing their score without improving their creditworthiness. The score can be formally correct but substantively misleading. Unlike formalized models, expert judges have the flexibility to question formally correct data that seems suspicious. Corporate raters do that all the time.

¹ <http://www.moodys.com/moodys/cust/About-Moodys/AboutMoodys.aspx?topic=rapproach>

² http://www.equifax.com/cs/Satellite/EFX_Content_C1/1165255680769/5-1/5-1_Layout.htm?packedargs=Locale%3Den_US

Table 1: Average FICO® Score of Defaulting and Non-Defaulting Loans, 2003-2006

Vintage	Average Balance (\$)	FICO	LTV (%)	CLTV (%)	% of Low Docs	% With Piggybacks	% of Purchase Loans	% in Calif.	WAC (%)
Mortgages That Defaulted by Month 12 (90+ Days Delinquent)									
2003	146,219	589	82	83	41	19	33	20	8.44
2004	157,827	593	82	85	43	22	40	19	7.82
2005	180,730	604	82	88	48	36	50	22	7.78
2006	221,148	615	82	89	54	46	56	31	8.40
Mortgages That Performed Through Month 12 (Never 90+ Days Delinquent)									
2003	155,236	620	80	81	34	14	27	32	7.59
2004	174,634	624	81	83	38	20	34	34	7.07
2005	194,163	627	81	85	40	28	39	31	7.13
2006	205,773	625	80	85	43	33	42	27	7.94

LTV – Loan to value. CLTV – Combined loan to value. WAC – Weighted average coupon.

Source: Fitch, *Subprime Collateral trends and Early Payment Defaults, April 2007*

FICO - Fair Isaac Co. score

LTV - Loan to Value

CLTV - Combined Loan to Value (including second mortgages etc.)

Low Docs - Low Documentation

% With Piggybacks - % of people with second liens on their house

% Purchase - % of loans for purchase a new home rather than refinance an existing one

% in Calif. - % in California

WAC (%) - Weighted average coupon. It is the weighted-average gross interest rates of the pool of mortgages that underlie a mortgage-backed security (MBS) at the time the securities were issued

FICO, minding the gap -- and protecting its proprietary interests³ – tried to keep its algorithm secret. Until recently, it was quite successful, and even the right to know one’s FICO® score was limited. Since 2002, when a California law forced lenders to disclose scores, FICO changed tactics. Now people can purchase their score. FICO even supplies a general description of its various components.

Today, there are countless web sites advising people how to improve credit scores in just a few days through tricks that can add enough points to make the difference between acceptance and rejection or better or worse terms. As those with lower scores are more motivated to play these games, the difference in the scores between good and bad borrowers dropped from 31 to 10 points between 2003 and 2006. Gaming the system explains the upward trend in FICO® scores and the declining difference in scores between risky and safe customers despite the increasing riskiness of borrowers overall. Reacting to this debacle, FICO has rolled out a new scoring method in March 2008.

³ The FICO algorithm is patented.

Gaming the system is a form of reactivity (Espeland and Sauder 2006) an example of the self-frustrating mechanism. In the long run, system gaming makes formal models worse.

The Omitted Variable Problem

Another weakness of formalized scoring is that the algorithm depends on a pre-specified set of variables (Avery et al. 2000). The model assumes that we know upfront what the relevant variables are and their list can change only by subtraction. There is no such constraint on judgmental decision making. Experts can always decide to add new factors when they mull over a particular case, if they think it is necessary.

In the subprime meltdown, one missing variable was income. Because the FICO® does not include income (or assets), it is usually checked separately by mortgage lenders. A simple formula where the maximum loan payment is set as a percentage of the applicant’s income adds this information to the decision process. Loans with low documentation in most cases imply that the applicant’s income was not verified.⁴

It is also important to remember that the FICO® score is a generic score. It does not distinguish between various types of loans and the same score is used for credit cards and residential mortgages. Consequently, the conditions of the various loans are also missing from the credit history and therefore from the FICO® score.

Correlation among Outcomes

Scoring algorithms assume that each borrower is statistically independent of all others. This amounts to assuming that one’s default depends only on one’s own characteristics and it is unaffected by defaults of others. However, defaults are often strongly correlated (Cowan and Cowan 2004). In a real estate market, this correlation is very clear. Foreclosure affects housing values in a neighborhood depressing real estate value, making the neighborhood de facto poorer which, in turn, increases the probability of further foreclosures.

Correlation can also emerge through imitation. Seeing that others walk away from their loans makes it more acceptable to do so resulting in a cascade of defaults. In fact, once defaults reach a critical mass, the problem becomes

⁴ Another missing variable is assets. Although not directly measured in this table, first time buyers, who tend to be younger with less accumulated wealth, are more likely to default. Those who purchased their residence include both first and non-first time buyers. Those who refinance already own property.

redefined as a collective, political problem that requires government intervention.⁵ That further increases the temptation for bailing out.

In corporate lending, the relationship among cases is more direct. If a bank lends two companies with business ties or simply in competition, the fortune of one will influence that of the other. To model correlated defaults makes modeling extremely complex, and unless some simple assumptions can be made about the correlations, small errors can have momentous consequences for the predictions.

The Strengths of Formal Calculation and the Weaknesses of Judgment

If compared to judgmental systems, formal models being more transparent are more prone to wide-scale gaming, being more inflexible they handle the omitted variable problem more poorly especially in changing circumstances, and having to make consistent simplifying model assumptions such as statistical independence they are more likely to break down in times of crisis. Why are they still preferred in consumer lending? They may not be more accurate, but they are cheaper and faster than expert judgment and – since the Equal Credit Opportunity Act of 1974 – the only way consumer lenders can avoid discrimination suits.

But human judgment is not without its flaws either. Being less transparent it is more prone to discriminatory bias and corruption. Since the 1970s, corporate raters are paid by debt issuers, a potential conflict of interest that is currently being investigated by Congress. Moreover, the quality of judgment depends on the quality of the judges. The last two decades, corporate rating agencies expanded personnel from under a hundred to many thousands, while not keeping their pay competitive and experiencing growing turnover.

Why the theoretical bias towards formal calculation?

This is a far greater question than we can answer here, therefore we have to end with two assertions. Cognitive psychology gives advantage to formal calculation by experimental fiat. Experiments are tilted towards formal, statistical models because they match the collective expertise embodied in the model against the isolated individual expert, and also because the experiments control for and thus exclude some of the mechanisms that would trip models up, such as the three discussed above. Economic theory, on the other hand, favors formalization because its

rational actor model conflates formalization as a successful hermeneutic device of scientists with formalization as an effective instrument for economic actors.

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Research Perspectives:

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Each newsletter, we focus on the work of a sociologist that contributes to our understanding of current events. Recent attention to the difficulties faced by financial institutions dovetail with this issue’s network focus through the work of a number of sociologists. Ryan Denniston focuses on the recent work and research perspective of Professor Mark Mizruchi, an expert on corporate borrowing, the finance industry, and the role of the social in organizations.

⁵ The Bush administration already offered measures to help people whose low, introductory interest rates are about to reset to their actual, higher level.

Recent attention to the financial downturn in the United States not only focuses attention on the rapidly-evolving practices of the banking industry, but draws attention to how banks play a role in the operation of the economy, how this role has changed, and the importance of environment to behavior of banks and corporations. The social is a part of the relations established between banks and corporations and impacts business decisions in a number of ways, a finding supported by Rona-Tas's contribution in this issue as well as the size of the literature on corporate interlocks. Mizruchi and his collaborators have explored several aspects of this relationship by studying the interorganizational networks that exist among and within banks and corporations, with special attention to the influence of banks on corporate decision-making, the utility of networks in managing uncertainty, and the wider institutional changes that have affected the prominence and power of banks.

Traditionally, commercial banks controlled access to capital through lending, which provided an important cohesive force among business for much of the past century through access to resources as well as through the formation of connections among business leaders. Their role as gatekeepers is reflected by their ability to encourage consolidation or stability among corporations in different eras (Davis and Mizruchi 1999, Mizruchi and Kimeldorf 2005), and through their influence on specific corporate strategies, such as borrowing in the case of financial institutions more broadly (Mizruchi and Stearns 1994).

A key mechanism of this influence is interlocks, where representatives from one company serve as board members for another. For example, the presence of financial representatives on the boards of corporations increased corporate borrowing as a source of capital, even adjusting for economic factors behind capital investment. Interlocks with banks serve to facilitate access to capital for corporations. On the banking side, interlocks can foster increased business for banks, increase the ability to monitor loans (Mizruchi and Stearns 1994), and are vital conduits for extensive economic information (Davis and Mizruchi 1999). But even within a company, networks are vital tools for coping with risk and uncertainty. In the operations at a particular bank (Mizruchi and Stearns 2001), higher levels of uncertainty for a specific transaction raised the strength of ties of those a banker would consult for advice or seek approval from. Ironically, these same sparse networks were negatively associated with the successful completion of deals. As important as these findings are, what is of special interest is the degree to which uncertainty and social means to mitigate it are present in a field as seemingly rational as commercial banking.

The scope of embeddedness of business is revealed through the exploration of change in the system of financial intermediation. The decline in the prominence of commercial banking as a source of capital and as an influence on corporate decision-making corresponded with a number of developments during the 1970s that served to change the context in which these relationships existed, including increasing foreign competition and general economic instability (Mizruchi 2004, Mizruchi and Kimeldorf 2005), competitively priced capital from sources outside commercial lending, and the availability of the information traditionally possessed only by commercial banks through new information technologies (Davis and Mizruchi 1999). The effects, apparent especially throughout the 1990s, were numerous and included a decline in the centrality of commercial banks in interorganizational networks of interlocks, a diminution of the mediating role banks often play, and the increasing emphasis in commercial banking on fee-based service and off-the-books transactions (Davis and Mizruchi 1999). Importantly, banks reduced their interlocks with other corporations except in poorly-performing cases as a strategic adaptation to a changing business environment, and the former primacy of banks in these networks has not been replaced by others, with consequences for corporate behavior.

In the present financial context, the shift away from corporate borrowing has increased the population of banks currently at risk due to the shift among commercial banks toward operations similar to those conducted by investment banks. What Mizruchi adds to this picture is the decline of the social aspects of this relationship due to this change. While banks served as only one of several potential mediators, their erosion in this role may reduce the restraint on corporate activity and lead to greater malfeasance (Mizruchi 2004; Mizruchi and Kimeldorf 2005). Corporations exist in a more volatile and atomized environment today, carrying multiple impacts, from the prioritizing of the short-term perspective, to the inability to act collectively for shared interests, to the rise of the CFO and the finance perspective as significant in decision-making (Mizruchi, Stearns, and Marquis 2006). Finally, researchers should take seriously the methodological question of whether network effects depend on the time period and historical context of the subject (330). The role of interlocks and banks on capital accumulation through debt cannot be separated from the rise of the finance perspective and the increasing availability of other options at the system level.

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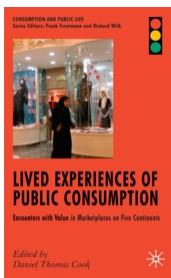
sites, the contributions in *Lived Experiences of Public Consumption* highlight the importance of recognizing that “there are only market places, not the Marketplace” (5).

This volume’s contributions are as specifically eclectic as they are broadly coherent in illuminating what is accomplished with consumption, the multiple meanings behind choices, what imparts value, and the multiple meanings conveyed by ‘globalization’. In part, this is endemic to ethnographic pieces oriented toward different research subjects and, in some cases, different theoretical influences. However, the strength of the volume lies in breadth of research scope, an empirical focus that supports the central aim of the volume while illustrating how easily meaning is overlooked, and in the comparative picture that develops across the contributions. The volume is divided into four general sections: the creation of value in the marketplace by both producers and consumers, the interrelation between marketplaces and families, the creation of ‘formal’ and ‘informal’ marketplaces, and the impact of the global on meaning. Having said this, these divisions are loose, as many of the pieces span categories in contribution. While this review cannot detail each contribution, it will focus on several of the recurrent themes running throughout many of the contributions.

The importance of creating value is central to producers, but is also dependent on the participation of consumers in order to be successful. Several accounts detail how value is constructed, and each is immersed in the context of audience, location, and semi-scripted interaction. Wherry (pp. 13-30) details the performance of ‘authenticity’ on the part of Thai handicrafts producers for a largely foreign audience. Authenticity in this context entails tradition-bound and original (14) and is differentiated by how it is produced, exchanged, and the interaction between buyer and seller (16-17). Relationships must be constructed in a short time, and artisans accomplished this through the conveyance of personal attachment to crafts, tours of production facilities, the trading of stories and hospitality, and in some cases the expression of aversion to profit and the use of the Lanna Kingdom as a marker of ‘culture.’

Stillerman’s (pp. 31-49) study of consumption in Santiago’s informal street market also illustrates the importance of relational work in the creation of the marketplace and even short-term credit from vendors. Importantly, the dynamics of the flea markets stands in opposition, a location governed by one-time interactions, written estimates, and high risk, where consumers seek the ‘thrill of the hunt’ and not the provision of basic necessities (45). The centrality of the consumer’s role is emphasized in Huberman’s (pp. 50-68) study of interaction between tourists and children tour guides in India. Tourists who sought children as guides to Banaras “in their efforts to create and consume

New Books



Cook, Daniel Thomas (ed.). 2008. *Lived Experiences of Public Consumption: Encounters with Value in Marketplaces on Five Continents*. Houndmills, Basingstoke Hampshire (UK): Palgrave MacMillian.

Reviewed by Ryan Denniston
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Social and cultural influences on economic interaction are widely acknowledged and evidenced through a variety of fruitful research perspectives and contributions. However, the sheer number of influences that contextualize markets, the concept of value, and the interaction between producers and consumers defies easy capture. This volume understands consumption and interaction as inseparable from place, an irreducible feature from the meaning contained by specific interaction. Space and place contextualize consumption with many different effects, from the attribution of meaning beyond the instrumental or objective, to the recreation of societal orders and hierarchies, to the ability of social actors to escape ingrained social roles. Through detailed ethnographic fieldwork in a variety of

more compelling and 'authentic' travel experiences in India [...in order to...] distinguish themselves as particular kinds of consumers/travelers in India." Ironically, money-as-payment destroyed the authenticity sought after, while gift giving, even including money, reinforced the conception of a relationship and not a service. Not only do the interactions in each of these accounts stand in contrast to arms-length transactions, each illustrates a construction of value largely separate from the intrinsic properties of an object, and one largely generated by the consumer.

Beyond the instrumental, however constructed, exists the intangible aspects of shopping at particular locations. While the Western form of shopping has spread globally in the form of malls and big box retailers, this form does not contain the same meaning for consumers as traditional markets, street vendors, and other established venues, entailing strategic outings to upscale stores, strategic choices as to when to shop, and even conflict between these different types of vendors. Chen (pp. 71-91) details the differing impressions on the part of mothers as to the utility and ambiance of traditional markets and department stores, where traditional markets are not only relatively convenient to busy schedules, but do not require the elaborate construction of an image to meet the gaze of others (76). But shopping mixes with leisure in different ways, so that the rigors of projecting an image also creates a sense of control and of shedding the mother image.

Multiple meanings take the form of spectacle in the case of the new malls of Mumbai (Anjaria, pp. 203-220), where the need for public space provided by the mall was not matched by an equal centrality of the mall to consumption, much of which takes place outside the mall among street vendors. This detail led to a successful reduction of vendors for a time, a conflict repeated between vendors and formal businesses in Kingston, Jamaica (Brown-Glaude, pp. 111-136), albeit through racial and classist stereotypes employed by the formal sector. In the case of Turin's Porta Palazzo (Semi, pp. 137-157), conflict with police does not depend on the dichotomy between formal and informal, but between the informal and illegal. The informal is generally tolerated during the day, when the market is frequented by Italians and formal merchants are present, but by afternoon, the informal is no longer a nuisance to the formal market, but is associated with the illegal narcotics market that emerges, conflated with the arrival of Moroccan clients and despite the presence of many of the same merchants, goods, and police officers present earlier in the day (151-152). This, in turn, alters the behavior of clients and vendors, for example "[t]he telephone cards seem more illegal than those sold in the morning. The sellers hide them in their pockets more carefully and check out their potential customers more suspiciously (154)." In

each case, what meaningfully constitutes the market is not associated with the same space designated as the market.

Many of these contributions center on consumption in the developing world, which contains both benefits and drawbacks. As suggested, a central benefit is the interaction between the global and the local, as represented by the introduction of Western market exchange forms, the tourist, and new and different products, such as imports and mass manufactured products. These introductions reshape the forms of identity construction but not the social bases behind the market as formative. A drawback is the perception of anachronistic forms of market interaction in these locations, especially when behavior is at odds with widely shared perceptions in the United States. However, these processes are as present in the developed world, as evidenced by several contributors.

Value construction is essential to the fair trade movement due to the price premium attached to fair trade goods (Brown, pp. 179-202). In the United States, fair trade retailers accomplished this through face-to-face interaction aimed at instilling a social value, the emphasis on other intrinsic values such as quality and authenticity, and the projection of an image of authenticity, represented by independence and not driven entirely by profit. Similarly, the introduction of a global retail sector in Australia imparted trepidation regarding culture effects as much as concern for local business (Humphrey, pp. 161-178). This reflects a perceived loss of social connection otherwise present when shops are embedded in the local (175). Phillips (pp. 92-108) details the negotiated, often protracted process of family grocery shopping, where all family members contribute to ultimate consumption, in the process forming and reproducing existing relationships and interactions. In contrast, Baladauf (pp. 221-240) points to the limited success of women's only shopping centers in Dubai as a product of an erroneous view of public spaces as oppressive due to rigid gender customs, rather than as liberating places of integration, which thematic and segregated shopping venues defeat.

The primary strength of this volume is to resituate our understanding of markets and consumption in context, though the diversity of the contributions indicates that context varies considerably. What ethnographic work adds in depth and richness of understanding is balanced by this variation and by some difference across contributions in theoretical perspective and discussion. One of the most important concepts to draw from this book is that the rational actor still exists, but rationality is not all in operation, and detail with which that concept is illustrated makes this an engaging read for those interested in consumption and its construction.



Goyal, Sanjeev. 2007. *Connections: An Introduction to the Economics of Networks*. Princeton, NJ: Princeton University Press.

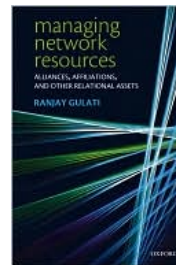
Reviewed by Lane Destro
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Goyal's comprehensive elaboration of network models and their determinative power for individual preferences and group welfare is simultaneously easily-accessible and overwhelming in its detail and scope. Although the book's clear layout and straightforward language serve to make it appropriate for any undergraduate or graduate student new to network analysis, the presented range and complexity of network models make it equally suitable for more-established scholars of network-analysis methodology. The book is divided into three parts: a chapter detailing the major definitions of networks and their aspects, a section devoted to the effects of various network structures on individual preferences and behavior, and several concluding chapters that examine the diffusion of information and network formation more generally. Goyal also specifically discusses network implications for individual-level job attainment and firm collaboration, topics which economists and sociologists alike actively pursue.

Goyal briefly establishes the interdisciplinary breadth of network analysis, illustrating this through examples of network analysis in sociology, economics, physics, and other disciplines, and identifies key questions for the study of social networks with particular reference to the economic perspective. Recent students to the subject would benefit from a more elaborate and detail-oriented introduction, despite Goyal's much-appreciated use of clear real-life examples of networks' relevance. However, chapter two clearly defines network terms and provides graphical illustrations, making this section especially well-suited as a teaching tool for those new to network analysis. Each subsequent chapter begins with topic-specific examples or empirical evidence attesting to the role of networks for the particular topic, including for example networks and labor markets, social learning, and strategic network formation. Goyal then details specific theorems, accompanies these with models and propositions, and includes a chapter-specific appendix complete with proofs and further model details.

This structure makes the book a particularly strong resource for scholars looking for detailed, straightforward model specifications for a range of network scenarios. It is

important to note that a number of assumptions guide model formation throughout the book, as scholars of different disciplines may choose to adopt different theoretical frameworks than presented. Goyal emphasizes individuals' access to imperfect information and utilizes a Rational Choice Theory framework, which states individuals will exploit their network position to their own advantage. Particular emphasis is also placed on the difference between "neighbor" ties, i.e. direct ties between individuals, as opposed to "neighborhood" ties, which are defined as the ties which influence the neighbor ties closest to the subject node of analysis. Although *Connections* emphasizes the role of the network for determining individual outcomes, preferences, and values more so than the typical sociological study of networks, Goyal has provided an excellent tool for detailed analysis, model reference, and introduction to network research.



Gulati, Ranjay. 2007. *Managing Network Resources: Alliances, Affiliations, and Other Relational Assets*. Oxford: Oxford University Press.

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In the face of growing cooperation between firms, the study of interorganizational relations has become a popular research area in the last two decades. From the sociological perspective of social embeddedness, Gulati (2007) identifies a valuable but neglected social factor in this burgeoning literature, "network resources." In this book, Gulati synthesizes his previous works over the last ten years under the single umbrella of network resources. Aiming at a more socialized explanation of organizational behavior, Gulati analyzes the positive role of network resources in shaping firm behaviors and performances.

Gulati defines network resources as "resources that accrue to a firm from its ties with key external constituents including—but not limited to—partners, suppliers, and customers" (3). He distinguishes traditional resources from network resources, the former existing "within a firm's boundaries" and the latter existing "outside a firm's boundaries and within its social networks" (8). Gulati proposes that network resources, embedded in both interorganizational ties and interpersonal connections, benefit firms through one major mechanism, the transmission of valuable, rich, and timely informational resources. Informational resources, in turn, help raise firms' reliability and reputation, increase their mutual familiarity and trust, signal their quality and legitimacy, and further help reduce

firms' uncertainty concerns with opportunistic risks, and decrease their search cost for new alliances and coordination costs.

Gulati examines this proposition through its effect on four outcomes: alliance formation, alliance governance, the performance of firms and their alliances, and entrepreneurship. He uses prospective quantitative data sometimes in combination with evidence from qualitative fieldwork. As this book is a collection of previously published studies, his specification of network resources varies with his different research concerns across chapters.

A firm's network resources (i.e., clique membership and closeness with other firms in alliance networks) increase its chance of entry into new alliances (chp.2). Firms' network resources (measured by prior alliances, common partners, and proximity in prior alliance networks) increase the possibility of alliance with other firms (chp.3). Network resources embedded in interpersonal ties (i.e., independent board control and CEO-board cooperation) also influence alliance formation (chp.4).

More network resources (i.e., prior alliances, prior equity alliances, and international alliances) also have an effect on alliance governance, specifically generating more nonequity alliances (chp.5). More network resources (i.e., repeated, domestic, bilateral alliances) also produce alliances with less hierarchical governance structure (chp.6). Concerning the performance of firms and their alliances, network resources (i.e., the size of prior direct joint-venture ties) increase the total value creation of joint ventures (chp.7). Firms can create more returns to shareholders by accumulating network resources from four sources: customers, suppliers, alliances and internal units (chp.8). With regard to entrepreneurial firms, network resources (i.e., upper echelon horizontal and downstream affiliations, range of upper echelon affiliations) help them to attract prestigious underwriters. Network resources (i.e., TMT affiliations, top manager background, and underwriter prestige) also help these firms to capture high-quality investors (chp.9). Furthermore, network resources (i.e., venture capital partner prominence, underwriter prestige) help these firms to achieve successful initial public offerings (chp.10).

This book represents Gulati's early and extensive efforts to develop the construct of the network resource. Gulati concludes this book by highlighting many unresolved issues and important future challenges (chp.11). Future studies should pay attention to the curvilinear or negative functions of network resources, their theoretical typology and empirical examination, their multilevel nature and across-level associations, their interplay with intrafirm resources, their heterogeneity in terms of multiple levels, diverse ties, and different partners, their accumulation

through multiple partners, their embeddedness within constellations of firms, and their variation with institutional contexts.

This book is praiseworthy for its insightful expansion of social network studies. The sociological perspective of embeddedness was originally concerned with the micro-level social processing, that is, how network resources embedded in interpersonal relationships determine individual behavior and outcomes. Prior research on organizational behavior and outcomes was focused on the functions of intrafirm resources. This book contributes to extending the embeddedness dimension into the meso level and to demonstrating the social dynamics behind how network resources, derived from prior interorganizational relationships and beyond intrafirm resources, ultimately serve firms through the use of a series of longitudinal studies on multiple outcomes as well as the proposition of future directions.

A systematic theorization of network resources at the organizational level, beyond the goal of this book, remains a sizable challenge. It asks for elaborate deliberation on the relationship between this meso-level network resources perspective and relevant theoretical traditions, and the micro-level network resources perspective is one relevant tradition. Gulati succeeds in extending the micro-level perspective into the meso level, but he does not draw on relevant micro-level sociological studies and in particular their discussion of network resources' multiple mechanisms at the individual level. This meso-level network resources approach will be more convincing with the inclusion of diverse mechanisms, including information. Transaction cost theory is another relevant tradition. Gulati criticizes this theory for its overlooking the factor of network resources, while also implicitly using it to support his principal proposal that network resources have positive functions because their resultant informational resources reduce various measures of transaction costs. This theory should be more explicitly incorporated into the meso-level network resources arguments. In addition, a systematic theorization also asks for coherent conceptualization, specification and causality. Gulati conceptualizes ties as sources of network resources, while also using ties or tie properties to indicate network resources. He theorizes information and trust primarily as benefits of network resource, while sometimes also as elements of network resources. This incoherence is partly due to the loose conceptualization necessary to bring separate works under a single common theme of network resource (258) but ultimately does not detract from its contributions to our understanding of social networks.