7-1-2012

The Flexible Unity Of Economics

Michael John Reay
Swarthmore College, mreay1@swarthmore.edu

The Flexible Unity of Economics[1]

Michael J. Reay
Swarthmore College

In an increasingly knowledge-based global environment, American-style economics may be an especially important form of expertise to understand. Existing studies of the discipline present something of a paradox, however, as some suggest that economic discourse is a logically unified and powerful promarket ideology, while others indicate that in practice it is quite fragmented and constrained. A series of 52 interviews with economists working in various jobs is used to reveal a possible way out of this paradox by highlighting three basic features of economic expertise: cognitive and practical framing via a "core" of relatively simple ideas and techniques, great flexibility in results due to various available "subframes," and dependence of the selection of subframes on local institutional contexts. These underlying features potentially explain how the unified academic discourse of economics produces a variety of outcomes and maybe even plays a range of quite different social roles in different situations.

> The ideas of economists and political philosophers, both when they are right and when they are wrong, are more powerful than is commonly understood. Indeed the world is ruled by little else. Practical men, who believe themselves to be quite exempt from any intellectual influences, are usually the slaves of some defunct economist. Madmen in authority, who hear voices in the air, are distilling their frenzy from some academic scribbler of a few years back. I am sure that the power of vested interests is vastly exaggerated compared with the gradual encroachment of ideas. (John Maynard Keynes 1953, p. 383)

> Council of Economic Advisers Chairman Murray Weidenbaum, when asked directly what weight of influence, on a scale of one to ten, economists had enjoyed in drafting the original tax program of the [Reagan] administration, replied, "zero." (James K. Galbraith 1988, p. 224)

[1] This research was funded by an NSF Dissertation Improvement Grant (SBR-9731162). The author would like to acknowledge indispensible input from the Swarthmore Junior Faculty Reading Group, Ayse Kaya Orloff, Rebekah Peeples Massengill,

0002-9602/2012/11801-0002$10.00

ECONOMIC EXPERTISE

In a global environment increasingly characterized by the competitive exchange of knowledge, expertise seems to be a particularly important phenomenon to understand. The American-dominated discipline of economics, in turn, seems to be a particularly important form of expertise to make sense of, given both its recent success as a worldwide profession and its focus precisely on understanding competitive exchange.

Existing studies of economics present something of a paradox, however. On the one hand, many of them see the profession's academic discourse as a powerful, unified ideology that inevitably narrows political debates, falsely naturalizes capitalist institutions and behaviors, and legitimizes "neoliberal" policies of market deregulation, welfare reduction, union constraint, and government shrinkage. On the other hand, a wide range of case studies, and accounts given by economists themselves, suggest that in practice the profession's political orientation is quite fragmented and its influence often weak.

This paradox, however, may be an artifact of analyses either over extrapolating from general features of academic discourse and neoliberalism or focusing on particular practical cases without looking for overall unified effects. A number of sociological studies have avoided this polarization by exploring the midlevel institutional and organizational factors that have influenced the development of the global profession, but these have not provided any detailed analysis of the daily use of economics within an American-dominated system. The following discussion attempts to remedy this by analyzing 52 interviews with experienced economists employed in a wide variety of academic and nonacademic jobs in the United States at the end of the 20th century. It tries to identify the discipline's characteristic forms of knowledge straddling both academic and nonacademic fields as well as explore the uses to which these are put in various institutional contexts, the ways they relate to different policy options, and the factors that seem to influence the practical results. It suggests that, when analyzed in cross section like this, American economic expertise seems to have three characteristic features:

Robin Wagner-Pacifici, and the *AJS* reviewers. The author also thanks Gary Herrigel, Karin Knorr-Cetina, Andreas Glaeser, and Mary Brinton, as well as the interviewees who graciously took part in the project, and Elyse Shuk who made the Washington, D.C., part of the research possible. Previous versions of the arguments below were presented at meetings of the History of Economics Society, the American Sociological Association, the Society for Social Studies of Science, and the Social Science History Association. Direct correspondence to Michael J. Reay, Sociology and Anthropology Department, Swarthmore College, Kohlberg Hall 232, 500 College Avenue, Swarthmore, Pennsylvania, 19081. E-mail: mreay1@swarthmore.edu

Core framing.—Economics is unified by a cognitive/cultural frame that both academics and nonacademics try to transmit to lay people and get established as part of institutional routines. This frame is not based on promoting markets per se but on a more general "core" of intuitions and techniques concerning quantitative empiricism, macrolevel connections, and microlevel responses to incentives.

Subframe flexibility.—Beyond this, the economic core is quite flexible in terms of the specific knowledge it can produce and the policies it can support, with equally justifiable "subframes" of assumptions resulting in significantly different answers to many policy questions—by no means all of them in favor of free markets.

Context dependence.—Selection between these subframes depends greatly on local conditions, such as the kinds of data available, the expected roles of the relevant individuals and organizations, the layers of feedback and editing involved, and ultimately the relative power of interested supporters and opponents.

Several key ideas from the sociologies of science and organizations can be used to support and even extend this midlevel picture of flexible unity, suggesting that economics might in fact be playing a variety of social roles in different institutional contexts, operating contingently along several "dimensions" of potential influence. This helps resolve the apparent paradox presented by previous research, and it suggests that the involvement of economists in neoliberal regimes may have been contingent/opportunistic rather than the result of any logical inevitability—especially at the level of elite academic theory. In fact, even the discipline's roles in naturalizing capitalism and depoliticizing discourse—processes with which it is especially compatible—may depend strongly on local decision-making situations. These findings about the importance of context even within a U.S.-dominated system reinforce past institutional analyses and provide one possible basis for predicting how things might change in a post-neoliberal future. They could also have implications for predicting how other forms of expertise might ultimately come to operate in the new global knowledge environment.

The analysis is divided into five sections: an overview of the apparent paradox presented by past studies, a methodological discussion of the interview project and its limitations, a presentation of the evidence for the proposed three features of economic expertise, an exploration of theoretical support and extensions of the argument taken from several subfields of sociology, and a concluding discussion of the implications for understanding the varying social roles of American-style economics and possibly even other forms of expertise in contemporary societies.

THE PARADOX OF AMERICAN ECONOMICS

A Global Profession

Recent changes in technology, trade, and governance have created a global environment in which competition over knowledge is increasingly significant (Castells 1996, 2011). In such a setting, it seems particularly important to understand the role of technical expertise, and social scientists have made a number of contributions in this regard. Analysts observing the European situation, for example, have suggested that scientific knowledge may be losing its previous authority as it becomes increasingly produced by corporations as well as by governments and universities (Leydesdorff and Etkowitz 1996; Nowotny, Scott, and Gibbons 2001). They have also explored possible new mechanisms for democratically involving public groups in technical decision making so that all kinds of expertise—formal and informal—receive due consideration (Jasanoff 2003; Nowotny 2007). Researchers focusing on the United States meanwhile have tracked the increasing commercialization of science and higher education (Slaughter and Rhoades 2004; Mirowski 2011) as well as noted the shift of traditional professions like law and medicine toward more market-based activities (Brint 1996). In addition to this, academic sociologists and anthropologists in the United States have started reflexively considering the social role of their own expertise by calling for new ways of reaching out to the public and contributing to policy debates (Burawoy 2005; Checker 2009).

Perhaps surprisingly, however, these discussions of the new world of knowledge have paid little attention to American-style economics, potentially one of the most important types of expertise to understand in the global system, not just because of its supposed ability to explain the very forces of competitive exchange that have made knowledge so central but also because of its unprecedented social success in recent decades. In the late 20th and early 21st centuries, economists in the United States enjoyed a growing presence not just in departments of economics and business (the latter producing far more graduates that any social science discipline) but also in law, political science, and education. At the same time they became deeply embedded in the nonacademic realms of government and business, so that by the early 2000s almost 45% of American economics Ph.D.'s worked outside of education, with up to one-third of these employed by the federal government (NSF 2009). Furthermore, American-trained or American-style economists were numerous and prominent members of the staffs of major transnational organizations, such as the World Bank and the International Monetary Fund (IMF), and were increasingly to be found in national education systems and governments outside the United States (Fourcade-Gourinchas 2001). During an era of widespread transformation, then, Amer-

ican economics appeared to have attained the status of a "global profession," that is, a recognized body of experts relying on a coherent system of formal "scientific" knowledge rooted in academia and embedded to different degrees and in different ways in various local settings across the world (Fourcade 2006; Montecinos, Markoff, and Álvarez-Rivadulla 2009).

Discursive Unity and Power

Assessments of this global profession have typically centered on the methods and theories that characterize its academic branch. These make American economic discourse very different from alternatives based on Marxist or institutional analysis and very different from other social sciences. In terms of methods, the discipline is overwhelmingly oriented toward mathematical modeling and quantitative data analysis, such that economists have to be versed in formal techniques that are far more complicated than those required for anthropologists, sociologists, or political scientists (see, e.g., Simon and Blume 1994). In terms of theory, economics strictly brackets issues of sociocultural context and focuses on identifying universal phenomena to do with supposedly rational decisions made at the individual or corporate level (microeconomics) and growth-producing patterns of consumption, production, and investment found at the national and international levels (macroeconomics). (See the assessments in Hausman [1992] and Guillén et al. [2002].) Perhaps because of these features, economics also stands out among the social sciences for its high degree of consensus, with a unified "orthodox" or "mainstream" approach dominating nearly all academic departments and filling the pages of natural-science-type textbooks—textbooks that present the discipline as a strongly cumulative body of objectively correct knowledge and that form the basis of most undergraduate training in the field (Watts and Schaur 2011).

This unified academic discourse is seen by supporters as boosting the discipline's scientific status and ensuring that economic expertise can only improve policy making in the outside world. To many observers, however, it is thought to produce far less desirable results. At a general level it has been suggested, for example, that it contributes to what Max Weber ([1895] 1994) saw as a tendency for talk of national-level economic interests to narrow and sanitize political confrontations over social issues. Modern economics is thought to be guilty of this insofar as its limited "scientific" definitions of valid problems, analyses, and solutions encourage people to see complex situations in solely economic terms and insofar as its apparently objective, quantitative nature obscures complex issues of authority and accountability (Wiles 1983; Porter 1995; Mitchell 2005). A number of case studies support these claims by showing how economic analyses

narrow the ways government agencies measure economic phenomena (Carson 1975; Breslau 1998) and how certain economic theories and formulae are adopted by financial traders and bankers in part simply to make their actions seem irreproachably rational and responsible (Whitley 1986; Faulhaber and Baumol 1988; MacKenzie 2007).

Other critics have gone beyond this general notion of depoliticization to argue that American economics systematically and falsely naturalizes capitalist institutions and behaviors—just as Karl Marx (1977) saw Adam Smith's ideas obscuring the possibility of noncapitalist social arrangements. In the contemporary case this is thought to be a result of the way economic discourse assumes a particular kind of atomized individual actor, a particular abstract notion of market equilibrium, and a particular form of self-regulating "rational" decision making (Fine 1998; Kanth 1999; Rose and Miller 2010). Some empirical studies support this claim at a quite fundamental level by suggesting that college classes claiming to identify universals of economic behavior may in fact be actively teaching students to act in narrowly defined "rational" capitalist ways (Yezer, Goldfarb, and Poppen 1996; Haucap and Just 2010).

The majority of recent criticisms of economics, however, have made even more specific claims than this, linking particular theoretical developments within the orthodox paradigm over the last 40 years to major policy shifts in the nonacademic world. The theoretical developments in question involved a significant shift from exploring how governments could compensate for market failures to explaining how markets might be universally beneficial. This shift led to articles in top journals and debates in top departments being dominated by highly complex mathematical models and statistical tests of market effectiveness, most prominently concerning the efficient markets hypothesis (in finance), rational expectations (in macroeconomic policy), and real business cycle theory (explaining output fluctuations), all of which asserted the advantages of letting markets work without government interference (Samuelson and Nordhaus 2009). The corresponding real-world developments concerned the rise of neoliberalism, a change that affected not just many advanced industrialized nations (which deregulated markets and reduced provisions for ameliorating their effects) but also poorer capitalist nations (which faced tremendous pressure from foreign states, corporations, and transnational organizations to follow suit) and state socialist countries (which replaced their central planning systems with various forms of market coordination) (Harvey 2005).

Some critical interpretations of this dual development focus primarily on the academic theory side of the equation, suggesting, for example, that economists pursued abstract market models for so long that they ended up simply unable to counter any neoliberal proposals emerging from the

political sphere (Bernstein 2001). A stronger argument along these lines is that the new academic theories were directly responsible for misleading naive policy makers, businesses, and voters into an unsustainable fantasy world of perfect markets and infinite stable growth—a world that eventually fractured catastrophically in 2008 (Kaletsky 2009; Krugman 2009). An even more radical suggestion is that American-style economic theory after the 1960s was simply the "secular ideology of globalization" (Held et al. 1999), that is, a convenient form of pseudoscience for publicly legitimizing the authority of global corporations and neoliberal policy makers (Bourdieu 1998; Dezalay and Garth 2002).

Other critiques have focused more on practical professional involvement, looking at how economists using the new theories seemed to become an increasingly influential section of the global neoliberal elite. As noted above, though American economic theory was being produced in rarified educational settings, economists themselves were spreading across the globe via employment in major nonacademic institutions, not just as occasional advisers and decision makers but also as permanent bureaucrats (Fourcade 2006). Significantly enough, many of the institutions involved—corporations, states, and transnational organizations—were precisely those promoting neoliberal globalization or undergoing transformations in that direction. This institutional alignment of economists and neoliberalization has been observed in cases as diverse as the Chilean, Hungarian, and Mexican governments (Montecinos 1998; Bockman 2000; Babb 2001), the British healthcare system (Ashmore, Mulkay, and Pinch 1989), French financial institutions (Lebaron 2001), and key sections of the IMF (Chwieroth 2007*b*, 2010).

A third line of research linking economic discourse to promarket changes comes from anthropologists and others studying development projects, several of whom have tracked how the framing of issues in American-style economic terms can confuse and dominate non-Western constituents, ideologically justify iniquitous and ineffective modernization projects, demolish non-Western ways of life, and promote global marketization as a natural inevitability (Miller 1998; Mitchell 2002; Goldman 2005).

Finally, a branch of research in science studies has pursued the even more radical idea—not always framed as a criticism—that in the neoliberal era economics has become a "performative" discourse, that is, a cultural blueprint that aggressively reshapes practices, institutions, and even individual identities in its own image. From this point of view, the situation at the turn of the 21st century required almost a complete reversal of Karl Polanyi's (2001) famous assessment that economic theories were unrealistic because they ignored the social embeddedness of markets. Instead, market reality was becoming increasingly embedded in those very theories (Callon 1998, 2008; Guala 2007).

Practical Fragmentation and Weakness

The analyses described above all seem to suggest that the social role of American economics is closely tied to its unified academic discourse and that the profession can be treated as a relatively monolithic whole. They also seem to suggest that the discipline's discursive power is strong, inevitable, and essentially obvious given its logical affiliations with dominant procapitalist and/or promarket policies. However, there is also a wide range of evidence that goes against these impressions, suggesting that American economics is in fact considerably fragmented and that at a practical level it can be somewhat weak or irrelevant.

In terms of fragmentation, it seems clear that academic theory cannot simply be making economists support neoliberal policies, because right up to the present day there have been thoroughly orthodox members of the profession who oppose laissez-faire. For example, two of the most widely known and respected economic experts in the United States today, Joseph Stiglitz and Paul Krugman, actively criticize unrestrained policies of globalization and financial deregulation, even though they are both phenomenally successful mainstream academic researchers and winners of the Nobel Memorial Prize in Economic Science. In addition to this basic fact, and perhaps explaining it, there are numerous indications that the claims and policy recommendations produced by economists actually vary greatly according to a host of subjective judgments and tacit assumptions that cannot be automatically derived from their academic theories and methods. This phenomenon has been pointed out by critics of the profession's claims to scientific status (Klamer 1984; McCloskey 1994) and observed in experimental and ethnographic studies of academic paper writing (Magnus and Morgan 1999; Yonay and Breslau 2006). An intrinsic subjectivity of expert pronouncements—something Neil Stephens (2008) calls "interpretative flexibility"—has also been observed among economists working on macroeconomic policy and forecasting (Evans 1999; den Butter and Morgan 2000; Harper 2000) and in studies of U.S. Federal Reserve Board committee meetings, where major policy shifts have apparently depended not on any inherent features of orthodox economics but on selecting from among various ad hoc lenses through which to view the situation (Edison and Marquez 2000; Abolafia 2004). The fragmentation or flexibility of mainstream economics has also been seen in studies that show American economists' policy preferences and beliefs about key economic parameters to be very far from uniform (Kearl 1979; Alston, Kearl, and Vaughan 1992; Fuchs, Krueger, and Poterba 1997; Fuller and Guide-Stevenson 2003; Colander 2007), even though they generally claim that their opinions are based on scientific theories and data rather than "normative" biases (Samuels 1980).

In terms of practical weakness, there are numerous cases where observers or participants have seen the application of academic theory to be significantly dependent on the motives of powerful decision makers and/or upstaged by alternative rhetorics. In the United States, these cases include early shifts toward deregulation in the 1970s (Breyer 1982; Derthick and Quirk 1985), the later working of the National Committee on Unemployment Compensation (Hamermesh 1982), the passing of the 1986 Tax Reform Bill (Minarik 1989), the establishment of the North American Free Trade Agreement (NAFTA; Klamer and Meehan 1999), the use of game theory in Federal Communications Commission spectrum auctions (Mirowski and Nik-Khah 2008), the operation of Washington-based international development banks (Babb 2009), and the design of auctions at the Federal Energy Regulation Commission (Breslau 2011). In all of these situations it seems as if the acceptance or rejection of academic expertise depended not on any inherent features of academic knowledge so much as on political will and opportunity or the perceived strength of more popular discourses—like the simplistic "devspeak" favored by international development agencies (Ferguson 1994). The reminiscences of frustrated U.S. advisers throughout the postwar years further illustrate this phenomenon, suggesting that John Maynard Keynes's famous dictum concerning the importance of "academic scribblers" certainly should not be taken to mean that economists are technocratically driving the policy process (Coats 1986; Friedman 1986; Nelson 1987; Sawhill 1995; Stiglitz 2000).

Some observers and experienced insiders also suggest that post-1960s academic theories did not in fact penetrate all that rapidly or deeply into the daily routines of U.S. policy and business and that more interventionist approaches and measures remained the primary basis of practical macroeconomics even into the 2000s (Brenner 1992; Brainard and Perry 2000; Mankiw 2006). Furthermore, a vocal minority of economists over the years have worried that academic economics has become so hopelessly unrealistic as to be essentially useless for playing any real-world role whatsoever—procapitalist, neoliberal, or otherwise. These critics of academic standards of modeling and testing have included not just heterodox sympathizers (Klamer and Colander 1990) but also staunch mainstream economists (McCloskey 1996), monetarists (Mayer 1993), and even some of the original architects of the new market-focused approaches themselves, as well as policy advisers involved in the promotion of deregulation (Summers 1991; Hansen and Heckman 1996; Sims 1996). Impressions of the questionable relevance of academic work are further bolstered by recurrent claims that in the world of policy and business the bulk of economists' input is based on simple "undergraduate-level" insights that have hardly changed since the 1950s (Enthoven 1963; Allen 1977; Hamilton 1992).

Finally, although the shift toward laissez-faire policies in several parts of the world was clearly championed by U.S.-style academics, there is considerable evidence that this was not the case in the United Kingdom, nor in the United States itself, where the neoliberal transformation seems mainly to have involved politicians taking ideas from mavericks, journalists, and propagandists rather than mainstream economists (Parsons 1989; Hall 1992; Blyth 2002; Prasad 2006). In other words, it seems as if at least some of the major transitions to neoliberalism have happened without the help of any "epistemic community" of promarket academic economists and officials such as the one identified by Chwieroth (2007*a*) at the IMF.

A Paradox and a Midrange Solution

These two bodies of research clearly present something of a paradox. On the one hand, they suggest that American economics has served powerful ideological and naturalizing functions closely related to the logic of its unified academic discourse—especially in support of recent promarket policy regimes. On the other hand, they suggest that orthodox economists in practice adopt a variety of policy positions and that their impact can be quite limited—even in situations where neoliberal reforms are taking place. This paradox may, however, be simply an artifact of analyses either overextrapolating from a limited range of general phenomena or looking only at specific cases without drawing conclusions about the profession as a whole. Studies showing unified discursive power clearly tend to restrict themselves to considering how elite advisers have supported laissez-faire and/or to very general assessments of discursive logic, and critics have noted how this can lead them to leave out crucial details and ignore contrary evidence coming from other studies (MacKenzie and Millo 2003; Mirowski and Nik-Khah 2007). These other studies, however, are generally scattered and unsystematic, often produced by economists only in their more reflective or "anecdotal" moments, and not usually aimed at producing overall assessments of the profession's social role and practical impact.

What this polarization of approaches may be obscuring—by either overgeneralizing or undergeneralizing—is a possible midrange strategy, that is, a comparison of American economic expertise in different settings that investigates how its unified academic discourse might be producing a variety of outcomes. Inspiration for such a project comes from a small group of sociologists who have done something closely related, namely, explore how the rise of the global profession in different countries varied according to a number of institutional and organizational factors. Fourcade-Gourinchas and Babb (2002), for example, show how differences in national political

climate and degree of international influence made neoliberalism an "ideological" project led by maverick economists in some Western countries but a more "pragmatic" transition carried by orthodox technocrats in others. In a similar vein, Bockman and Eyal (2002) suggest that the marketization of former Soviet countries involved complex interactions of politics with both neoliberal experts in leadership positions and orthodox economists playing bureaucratic roles, with the former eventually dominating because of a popular preference for radical transformation over gradual reform. Fourcade (2009), by contrast, looks at how alternatives to the American approach were also affected by national institutions that trained economists in different theoretical traditions and gave them advisory roles quite unlike those of the typical scientific expert in Washington.[2] At a more detailed level, Markoff and Montecinos (1993) consider how the growing influence of economics in many cases may have been an unintended consequence of bureaucratic structures, with organizational and governmental chiefs employing American-style experts simply to reflect international standards and to have someone within the system to blame for policy failures, only discovering later that this meant they were effectively giving away a lot of their own control. An even more specific argument about organizational factors is made by Babb (2003), who suggests that it was bureaucracies with deliberately ambiguous mandates designed to satisfy multiple constituents that were the most likely to "slip" away from their founders' intentions and end up—as did the IMF—run by economic technocrats biased in a particular direction.

While these studies examine institutional and organizational causes of variation, however, they are all focused primarily on explaining how American-style economics rose to prominence alongside neoliberalism rather than on exploring what factors influence its operation once it dominates. The following analysis therefore works in the spirit of institutionalism, but at a smaller scale, and with a specific focus on American-style expertise. It seeks a midrange explanation for both unity and difference in the application of orthodox economics in a setting where this approach was clearly dominant: the United States at the end of the 20th century. It does this by considering a relatively broad anatomical cross section of the profession, comparing the experiences of long-serving economic experts in a range of academic and nonacademic settings in order to map out the kinds of activities they engaged in, the kinds of expert knowledge they used, and the kinds of influence they seemed to have. As will be seen, this approach does indeed lead to a possible solution of the paradox

[2] Bockman and Eyal (2002) complicate this further by highlighting the role of international research networks that blur the boundary between "American" and other economic theories.

of American economics, explaining how the discipline is simultaneously unified by a common discursive logic and highly flexible or fragmented in its practical influence, such that even within the orthodox tradition economists can support a variety of different policies and be powerful advocates in some contexts but not in others. When interpreted and extended using ideas from several other sociological subfields, the analysis also suggests that economic expertise may actually be capable of playing several different social roles, that is, working along several different "dimensions" of influence. In fact, while the discipline does indeed promote a unified, quantitative worldview consistent with currently dominant institutions, the degree to which it effectively naturalizes capitalism and depoliticizes decisions may also depend on a range of local contextual factors. These findings add depth to a key part of the institutionalist story, and they may also indicate how economics and even other forms of expertise could ultimately come to operate in the new global knowledge environment.

INTERVIEWS WITH ECONOMISTS

The data for the analysis come from 52 interviews with experienced economists working in the United States at the end of the 20th century in a variety of academic and nonacademic settings, from small colleges to elite research universities, local to national and transnational governance organizations, and small to elite business schools, as well as corporations and financial institutions. As noted above, the hope is that this anatomical cross section of the profession can shed light on how economic expertise might be varying in different situations but also exhibiting unity through common features of knowledge use.

Talking to experts is only one narrow channel through which to explore the production and use of economic knowledge, but it may not be a bad route to take in this instance given the need to balance level of detail with number of cases. Interviews may also be one of the best sources of information about professional work when the latter takes place in settings of considerable privacy and privilege—from the closed meetings of faculty and editorial boards in academia to the proprietary discussions of business clients and the smoke-filled rooms of governmental negotiations. In other words, insofar as analyzing professional economics is an exercise in "studying up" or "sideways" rather than "down" (Plesner 2011), direct observation may be practically impossible, and documentary traces nonexistent, or at least as subjective as any verbal report. This problem can be especially severe when powerful institutions like the IMF are involved, as seen in Richard Harper's (2000) ethnography (which has to rely on in-

terviews to establish how economic reports are ultimately used) and Jeffrey Chwieroth's (2010) history (where interviews are the only way to clearly establish "what it was really like" in certain departments at particular times).

Of course, this does not get around the fact that interviews with expert economists give only one side of the story and must be read in light of the subjects' expected cultural and interest-based biases. Many of the statements quoted below, however, clearly go against what one would expect in this regard if economists were indeed the purveyors of a neoliberal technocratic ideology based on inevitable discursive bias. It should also be remembered that while the subjects may have expected a sociologist to be critical of their discipline, there is little indication that they were reluctant to be interrogated as the overall positive response rate of selected and eligible subjects was 52 out of 67, or nearly 78%. In addition to this, the interviews were conducted between June 1999 and July 2000, a time when the confidence of neoliberal technocrats would presumably have been at an all-time historical high, predating as it did the full bursting of the dot-com bubble, the Enron scandal, and, of course, the financial and economic crisis of 2008. Under these conditions, it seems unlikely that the interviewees were unaware of the possible connection between their skills and the promotion of free markets, or that they were particularly embarrassed or defensive about it.

The interviews were conducted and audiotaped by the author with subjects working mainly around Chicago and Washington, D.C.—a constraint that was set for funding reasons but that seemed to leave room for considerable contextual variation. "Chicago" meant far more than the influential and maverick University of Chicago economics department, and 10 of the Midwesterners in fact worked completely outside the city. The Washington, D.C., subjects were less geographically dispersed, and they could have been part of a single "Washington Consensus" concerning economics, but given the massive concentration of important nonacademic economists in the region, this may not have produced a misleading bias with respect to what nonacademic economics involved.

The initial aim was to have half academics and half nonacademics in order to reflect the rough distribution of working Ph.D. economists, as estimated by both the American Economic Association and the National Science Foundation and surveys (American Economic Association 1997; NSF 1997). The academics were selected randomly from departmental listings, while the nonacademics were selected from the 1997–98 membership directories of the American Economic Association and the National Association for Business Economics. All subjects have been practicing for around 20 years, having finished their highest degree between 1978 and 1982. In the end, 20 worked in academic settings, in eight

different economics departments and six business programs, including schools from the top 20, the next 50, and even lower, as ranked according to their representation in the economics literature (Scott and Mitias 1996). Thirty-two subjects worked outside academia, in 12 different parts of the federal government, two think tanks, two major international organizations, five financial institutions, and six other private sector organizations. The interviews were semistructured, with a list of common questions aimed at getting the subjects to recount their experiences and opinions concerning what they did, what role economic theory played in their activities, how they were trained, and what made economics a science. The interviews usually lasted around an hour and 10 minutes, with the shortest being 50 minutes, the longest two hours. They were confidential, but in the following discussion each interviewee is assigned a general occupational identifier so that the reader can to some extent gauge the range of support for different claims. Overall, the quotes come from 26 of the 52 subjects, with no subject being cited more than four times.

THREE FEATURES OF ECONOMIC EXPERTISE

As stated above, the interview data suggest that economic expertise might best be characterized not in terms of its elite academic discourse but in terms of three more basic features: cognitive framing with a core of relatively simple principles, a highly flexible range of possible "subframes" that turn this core into specific pronouncements, and a strong dependence of expert authority on local context. These three underlying features could be used to explain how American-style economics is coherent and unified at the level of discursive logic but also capable of producing a wide range of different outcomes in different practical settings.

Core Framing

The interviews reveal American economists at this time to have been engaged in a wide variety of work activities, with several subjects stating that variation itself was one of the most attractive features of their profession. Some of these activities seemed exclusive to either academic or nonacademic jobs, while others were present in both. Academia was more or less the place for teaching students and for doing theoretical research with an eye to peer-reviewed publication—around half of the academics describing the latter as a major part of their work. Government, consulting, and business were by contrast the exclusive realms of vetting prospective policies (around one-fifth mentioning it) and assessing past

practical actions (around one-quarter).[3] In terms of activities common to academics and nonacademics, around a third of both groups were spending considerable time on administration, whether in faculty committees, editorial boards, research groups, or other organizational units. More interestingly, however, both groups were also involved in research aimed at discerning empirical facts rather than developing theories (three-quarters of the academics and over half the others) and in transmitting these facts—along with attendant interpretations—to bosses, subordinates, clients, members of the public, and media outlets (a little over one-quarter of both groups mentioning this). This meant that, while the segregation of theoretical and practical work tasks between academics and nonacademics was to some extent as one would expect, there was also a definite unity to the profession working in both directions in terms of the kind of knowledge being produced and the kind of lay people being affected.

Most importantly of all, it seemed as if work activities in the different types of jobs were generally based on the same use of economic expertise, namely, as a cultural/cognitive framing device for highlighting particular features of any given situation. This came out especially clearly when the interviewees were asked to characterize what lay at the heart of their work—what they knew that noneconomists did not and what they most consistently found themselves having to explain to outsiders:

> [Economics is] more a way of thinking, versus that we know this, that, or the other—that I know what causes the GNP to go up, that I know what causes Cisco Systems to go up and down. I really don't know the answers to those questions. But it's a framework for thinking. (Business school professor)

> I don't know that economists necessarily *know*, in terms of raw knowledge, anything that noneconomists don't. I think what economists *do* have is a certain way of solving problems, a certain way of looking at the world, that noneconomists often do not. So it's a different way of approaching a problem, and certainly a different set of criteria for making decisions. . . . And many times that's lost on noneconomists. (Nonacademic in finance)

The application of this cognitive frame clearly required considerable effort, especially with respect to educational tasks. Academics, for example, referred to the difficulty of getting across a way of thinking that was second nature to them but alien to their students, and most of them agreed that this often involved not just repetition but also couching in more familiar, commonsense terms. As the business professor quoted above went on to explain,

[3] Academics could get involved in assessment and vetting when they were sequestered to think tanks or government agencies, but their ongoing consulting work was more likely to fall into the category of deliberate promotion of particular policies or institutions—something that only a half dozen or so of the interviewees described doing.

> I am forced to always think "Can I explain this to my mother?" . . . to try and tell stories that explain the equations. And I've always admired my colleagues who could do that. In fact one of your colleagues at Chicago presented a paper here once, and it had 30 equations in it, but he would take each equation, and there'd be a story, a very down-home story of, you know, "you have a guy on a farm and he's doing this," and that's explaining this huge equation. And they were excellent insights.

The ultimate goal of this repetition and connection to lay experiences was apparently to reshape students' common understandings, creating people who "really understand" the importance of the economic aspect of any given situation. A similar process of getting people to internalize an unfamiliar frame was also seen to operate in nonacademic settings:

> You just keep chipping away. You read the literature, you talk to people, you get as much information as possible, you process it to the best of your ability, and then you simply have to report on what you found to others and try to influence their thinking as much as possible, or help them in their thinking as much as possible. You have to kind of get them thinking about, "Okay, if I do this, what are the consequences of doing it? And the consequences are more than just the first thing that hits me, and I see that there are other consequences attached to this. And once I think about that, then maybe I don't want to do it, and maybe that kind of makes me unhappy at first because what you're essentially telling me is, I can't do what I want to do." (Federal banking official)

At the same time as encouraging individual internalization, economists in practical settings could also start to embed their frame—and their persons—in routine institutional procedures:

> If we have an operation on health or education, we ask them to incorporate an [economic] analyst, to ex ante really incorporate them, to become second nature. We don't want to come in at the end and say, "Well, we haven't looked at this or that," so we try to make the analyst part of the overall process. We don't just wait until the end to bring objections or to bring demands that would jeopardize what they're trying to do. . . . Over time, with continuous interaction, some balance is reached. Economists become more sensitive about the achievement of various goals, and people from other disciplines have become aware that they have to take into consideration those constraints that *we* are concerned with. (TNO researcher/administrator)

To this extent, then, the interviews seem to confirm critical analyses of the unitary influence of economic discourse, with work in both academic and nonacademic settings aiming at a common shaping of taken-for-granted lay consciousness and practice. But the statements of economic experts diverge from many critical appraisals when it comes to identifying the specific nature of the economic frame. This is because they contain relatively few references to market efficiency, as opposed to much more general ideas about empiricism, statistics, abstract thinking, macrolevel interconnections, and microlevel behavior—ideas that could easily en-

courage depoliticization and support capitalism but that do not seem necessarily in favor of extreme laissez-faire policies.

Five interviewees—two of them academics—did see economics as intrinsically about promoting free markets. One business school professor was quite outspoken in this regard, suggesting that rudimentary economic training was an antidote to the left-wing assertion that "the private sector serves no useful purpose at all in our society other than to rob people." He was thus particularly enthusiastic about one of his teaching responsibilities:

> We have a program here where we take managers from former communist countries and they come here for a year. . . . And . . . basically what I'm doing is giving them some knowledge about how the free enterprise system works, how a democratic system works. And this is information that they've been taking back home and hopefully, over the years, will have an impact on what happens there as well. . . . So I think I've had more success in communicating to these people, these communists, than I have with the American communists that are in government.

Market efficiency, however, was just one of a much wider range of things the interviewees cited as characterizing the core of economic expertise or mentioned when describing their daily activities.[4] Not surprisingly, these things included very general notions of realist empiricism, quantitative analysis, and abstract model-based thinking, none of which in themselves need be biased in favor of free markets. They also included a lot of equally general ideas about the existence of macrolevel systemic connections, unintended consequences, and long-range effects:

> Economists usually have at the back of their mind some kind of a model where a lot of parts of the economy are interrelated, so they're thinking, "Well if you take this action, it's going to have another action over here," whereas a lot of the noneconomists are just thinking about a particular policy. (Congressional researcher)

> I think a lot of decisions—particularly governmental kinds of decisions—are just basically wrong not because they are intended to be wrong but because there's no sort of looking through to see what the results of something are going to be. You know, it's just blindly "Well, let's just throw some money at this," and there may be some unintended consequences that if you just had a rudimentary economic education you could at least flag those and say, "Well wait a minute, before we do this we ought to think about what the implications might be." (Financial market analyst)

Beyond these general characteristics and macrolevel ideas, interviewees

[4] As I discus elsewhere (Reay 2007*b*), the interviewees also did not seem to use market metaphors very much in their general speech, a fact that goes somewhat against the idea that they had internalized laissez-faire discourse to such an extent that they habitually saw the world in those terms.

also cited a wide range of principles taken from basic microeconomics, again not necessarily to do with market efficiency. These included the insistence that costs need to be considered (including sunk, opportunity, and marginal ones), the idea of inevitable trade-offs, the nature of risk calculations, and—most commonly of all—simply the idea that people respond to things they care about. Interestingly enough, the terms "rational" or "rationality" were only used by three academics and one other interviewee when discussing this, the much commoner approach being to talk simply of incentives:

> One thing I think is incredibly important that people tend to ignore is the power of incentives. And economists typically have a sense of that, while other people seem not to. Washington I think is probably a bad place for this, because the general notion here is that you can tell somebody what to do and they will do it, regardless of what their incentives are. And you know, I don't believe that. And I suspect that most economists you would talk to would say the same thing. But it's very hard to get people who are in that other mold to recognize the power of incentives. And how, you know, people will ignore "the law" if it's not in their best interest. (Government regulator)

It is worth noting, furthermore, that academics were just as likely as their real-world colleagues to identify these kinds of microeconomic principles as lying at the heart of their expertise:

> Economists are always trained that there are costs and benefits to everything and that appropriate action is action where the benefits exceed the costs and inappropriate action is where the costs exceed the benefits. And it seems to me that frequently what I hear from people in making arguments about "this is what should be done," or whatever, is kind of "this is something that has *a* cost and therefore it's not a good thing to do" or "this is something that has *a* benefit and therefore it's a good thing to do," whereas economists seem to be much more, in a way, list makers. That is, before they're tempted to say "yes" or "no," they tend to make lists, "here are the pros, here are the cons," and try to weigh them out. And that's something that I sense differentiates economists from other people. (Business school professor)

Overall, then, economists identified a diverse but coherent set of features they thought helped them contribute to economic understanding and policy making. These included some ideas about market efficiency, but only as one element alongside basic notions of realism, quantitative empiricism, and analytic abstraction, as well as more specific theoretical propositions such as the simultaneous importance of costs and benefits, the responsiveness of people to perceived incentives, and the systemic interdependence of economic phenomena at the macrolevel. Furthermore, economists in both academic and nonacademic settings indicated that their work involved transmitting this core frame to other people and embedding it—and themselves—in institutional routines.

All of this is clearly consistent with both positive and negative assessments

of the profession as an important contributor to liberal democracies, either as a promoter of truth and common sense or as a depoliticizing ideology supporting oppressive, self-governing capitalist behavior. At the same time, however, it suggests that the profession's most basic unifying discourse was not simply an aggregation of elite academic theories committed to neoliberalism. In order to see if such a promarket bias nevertheless existed with respect to specifics, that is, particular tasks and knowledge claims, it is necessary to consider the second characteristic of economic expertise described by the interviewees: subframe flexibility.

Subframe Flexibility

Certain practical tasks engaged in by the interviewees definitely seemed to inherently involve supporting or creating markets, for example, designing new financial instruments, promoting deregulation, enlightening communists, and setting up auction systems for solving energy, pollution, or communication problems. But other general tasks, such as developing laws, informing financial or business strategies, and simply measuring and calculating costs and benefits, seemed potentially more neutral in terms of how the basic core frame could influence them. Furthermore, tasks such as prosecuting antitrust cases, measuring bank-lending discrimination, and advocating consumer protection seemed to involve defensive Polanyi-esque embedding of markets in social constraints, rather than aggressive performativity.

On top of this, the interviews contain evidence that, within the framework of capitalist democracy, core economic framing may have been compatible with multiple practical and political agendas simply because it was highly flexible in how it answered particular questions—just as Neil Stephens and others found with respect to macroforecasting. As one federal agency official put it, "Economic theory doesn't give you a whole lot of answers that you know are wrong with a capital W; there's always alternative points of view." A local government researcher and an academic with legal experience concurred:

> I really think there will always be economists on both sides of every issue. You know, even one as basic as raising the minimum wage. The vast preponderance of the well-trained economists say that it costs jobs, but there are a few who are on the other side of the issue. In a court case you'll always find economists on each side, and they'll often kind of agree on their analysis–y'know, kind of use the same model and stuff. And then they'll just say, "Yeah there are four factors and I think *this* is the most important one." And the other guy will say, "I think *this* is the most important one." And the theory itself can't really tell you whether the merger's bad or not. I mean, the theory usually says, "Oh, it could be good or bad, there are five or six factors, probably depends which one's most important," y'know? So eco-

> nomics isn't really much good at coming up with really precise answers to that kind of thing.

This last quote is an example of how the flexibility of core economics seemed to involve combining data and rigorous theory with less formal assumptions—"subframes"—concerning likely causes, plausible parameter sizes, and standards of proof. One business school professor described this in a common way when he suggested that "good economics requires a lot of judgment, because the answers are never cut and dry." This judgment could even play a role when deciding simply what part of a problem to focus on or what to consider as a valid problem. As a professor at a top-ranked economics department put it, "Some people have this conception that there's this bag of tools, and you just throw in the input and hammer away with your tools and out pops the answer, whereas a lot of the creativity is really in thinking about how to pose the question in the first place."

Subframes could also take the form of competing analogies chosen to address particular issues, as one business professor found when he was pitted against a more prestigious opponent in a court case: "What he did was he drew an analogy between a certain situation and the particular kind of economic arrangement, and I think it was a bad analogy. But it wasn't obvious it was a bad analogy. It was actually quite hard. It was a *clever* analogy, so you had to think quite hard to puncture it."

A full-time expert witness, on the other hand, noted how even simple alterations to technical details could make all the practical difference, since "you estimate one thing, but then if you change the model slightly, you get wildly different results." Given all of this, it was not surprising to encounter interviewees who actually felt that discerning and assessing subframes was a central part of their professional expertise:

> An important part of listening to an economist talk is understanding what his basic assumptions are. Because he could be saying something that flows quite naturally from whatever assumptions he started with, and if you don't understand those you might reach a conclusion that's really unjustified at the end. So you've gotta be attentive right at the start to see where he's coming from, and if you *change* those assumptions, he'll run you through his logic and come to a different conclusion. And . . . they can both be correct, depending on where the scenario begins in terms of your premises and so on. (Financial economist)

Of course, this all raises the question of why such practical flexibility existed. A few subjects blamed it on the presence of subpar economists who allowed their normative commitments to corrupt their positive scientific analysis. But more made statements about the necessary limitations of positive theory itself, given that it could not be based on controlled

experiments and had to focus on complex social systems involving conscious human beings:

> [In economics] you don't have a laboratory to confirm absolutely whether something is factual or not; I don't have a cell to look at to examine what's going on; I don't have a linear accelerator to confirm or disconfirm the notion of the usefulness of the weak force. So you're a *social* scientist, which means you're always putting things at a distance and working at them using a variety of other tools. And by nature you're dealing with human beings, and human beings are very complex; they're not rats, making choices, you know, based on the right incentives. Humans are changing, complex, beings. . . . [So] the very notion of a science in the sense of describing a very detailed phenomenon and being able to kind of prove it absolutely is not possible. And that automatically makes one very suspect if one says "I'm a scientist. I'm doing it in a bias-free way." (Professor in an economics department)

An even commoner way of explaining subframe flexibility, however, was to focus on the problems arising from the kinds of questions that an intrinsically policy-relevant science like economics was necessarily called upon to answer—questions that encouraged the notoriously frustrating "two-handedness" of economics. For one thing, these questions tended to be those for which, in a government banker's words, "there genuinely is not an answer," at least in terms of a precise textbook response or conclusive data. As a private researcher put it, "These are not simple, 'look it up' kinds of answers. If you could look it up, we would've given you the book and you wouldn't need us. But you can't look it up." A congressional researcher portrayed the basic problem in the following way:

> Sometimes they want us to model things that are just impossible to model. There are some areas of economics like tax policy where you can build a pretty good model, and look at the effects of change. And there are certain parts, for example, trade policy, where you can say that if you protect this industry, certain things are going to happen. But there are other policies where it's impossible to say what's going to happen exactly. If you raise the import duty on tomatoes, what really is going to happen? It's going to make the Mexicans mad because they ship tomatoes to the United States, and it's going to help Florida, so you can sort through some of those things. But what effect is it going to have on the exchange rate? You *think* you know, you can give a direction up or down, but you can't give a *magnitude*.

In addition to this fundamental uncertainty, work in the real world also often involved temporal and practical constraints that made some kind of decision inevitable, even when economists felt that theory and data could not provide definitive guidance:

> When push comes to shove, it's a timing thing. . . . If you're given "we need an answer by end of day," well the answer you're gonna get at end of day is different than the answer you're gonna get at end of week, all right? . . . I see "by close of business," and I still have to think what that means, because

> I'm not used to thinking like that. (Private sector researcher as quoted above)

> The point is to come to a business decision, and you know, there's always a trade-off between how deeply you look at a subject and how much time and money you're willing to spend on it, and I think you would typically in a business setting pull the trigger on the decision more quickly than you might reach a conclusion in an academic setting. (Financial analyst)

In these kinds of situations it was clear that subframing assumptions and judgments simply had to be invoked:

> We deal with policy makers in developing countries a lot, . . . and they have real, difficult questions that are *hard*. They're too hard for me and probably too hard for the profession, but they really wanna know the answer right away. And the truth of the matter is that we just can't give it to them. When *forced* to give it to them, we either rely on ideology—not necessarily economic based—or conventional wisdom of the moment, fads included. Or we just stop working as economists. . . . Well, the decisions have to be taken anyway. Like some of these decisions are "so how much *do* we invest in infrastructure in Papua New Guinea this year?" Well, I mean, it's a real question. They really do have to decide that. We really don't know the answer, and won't be able to figure it out for some time to come. (TNO economist)

To summarize, then, the interviews show widespread awareness among economists that in practice their unified logical frame could be—in fact often had to be—combined with a variety of subframes in order to produce specific pronouncements. Rather than somehow limiting core-based knowledge to supporting only one kind of policy, this subframing seemed to give it the flexibility to cover a wide range of possible positions. Once again, then, even though economists were unified by a common discourse consistent with capitalism, and even though their work involved pushing that discourse out into the world, they did not seem bound to legitimize neoliberalism. As will now be shown, the subframes they used, and hence the policies they did support, seemed instead to depend greatly on local contextual factors beyond the basic logic of their expert discourse.

Context Dependence

In describing their daily activities, many of the interviewees with nonacademic experience indicated that they had encountered or engaged in the selective use of answers generated by different subframes. At perhaps the most innocent level, one financial research coordinator admitted that "we don't obviously constrain the academics to come out one way or another, but if something turns out to be particularly favorable to use in argument, we use it." More extremely, it was often accepted that some economists deliberately adopted subframes to produce particular answers, a kind of behavior that was sometimes viewed as a form of corruption or moral failing,

caused by personal weakness or an inclination to "slide in with the snake oil," "make heroic assumptions" to achieve a particular result, or "stretch the size of [a] parameter to suit [their] purpose." Not surprisingly, this corruption was usually observed in other people, not the interviewees themselves, with only one person being candid enough to wonder if they themselves might be guilty:

> It's a pretty rare occasion, almost as rare as hen's teeth, when they say, "OK, should we do A or B?" and you do an analysis and make a recommendation to us whether we should do A or B. Ninety-nine percent of the time it's "We're going to do A, and we want you to tell us why that's a good decision, and give us the facts and figures we need to sell it to the public, to prove that we're doing the right thing." It's just the way it is; it's the way it works here. . . . I think it works pretty much the same way in [other] places as it does here, that they tailor their analyses to match foregone conclusions. . . . I guess . . . it's a good thing that there's two answers to every question, because many many times you will not be given the freedom or the ability to come up with one of the answers, so you better be able to come up with the other one. . . . I mean I could be advocating being wishy-washy or selling out your principles, but, I hope I'm not. I hope I'm saying, "Remember that there's often more than one right answer to a question." Again, if I had always insisted on what I thought was the right answer, or resigned every time I was told to justify something rather than really analyze it, I would've been gone a long time ago. (Government analyst)

Even in this case, however, it is noticeable that the interviewee refers to more than one "right" answer, that is, to flexibility in justifiable analysis rather than outright fabrication or incompetence. The fuzzy nature of the boundary between corruption and valid subframing was in fact recognized by a wide range of others:

> There are some things that are clear in the simple world, in the world of simple physics. There aren't as many things that are clear in the world of frontier physics. Economics is a little more like frontier physics. So it's harder to find the cases where you can just obviously say somebody's doing something that's clearly bogus. In the heat of the battle between expert witnesses, I think people tend to believe that somebody else is sort of cheating on the analysis, but once you step back, after you get out of the fight, it's oftentimes a little less clear. (Government researcher)

> If you're working for a client who may have some proprietary interest, and really wanna sorta advocate a position, you may make assumptions, which are reasonable, but which *move* your finding in a particular direction. Y'know, it's a defensible direction, but it's not the only direction that you could've ended up with from that starting point. (Think tank economist)

> I think a lot of it is where you place the burden of proof and where you make judgment calls, and what direction you lean. I mean certainly there are good, talented, and virtuous consultants out there who won't take cases when it requires them to say something that they think is wrong. But, at the same time, there are plenty of people who—if they're hired by a party—will

> make the regular presentation as to why that party's desire is completely correct. And I don't think it's because they don't understand economics, I think it's because they're giving all the benefit of the doubt, and all the doubtful cases, and all the doubtful questions, to the way they're being paid to do it. (Economist in finance)

To these experts, then, even quite biased subframe selection could take place within the logical bounds of the core. It is important to note, however, that none of the interviewees seemed to think this meant flexibility was infinite, many of them instead suggesting that subframe selection depended on a variety of elements making up a complex and contingent local environment that constrained and directed knowledge production in any given situation. These elements included the nature of accepted data, the importance of reputation for particular work tasks, the institutionally mandated role of particular organizations, and the presence of various organizational layers of input to the production of any given piece of economic knowledge. The latter, in particular, meant that political power, not economic discourse, could ultimately call the shots as to which way the flexible core would bend.

With respect to the role of data, it was not surprising that empirical reality was seen to provide a baseline limit to flexibility in some situations:

> We once had a case where the lawyers had fixed damages—before we even got the case—at 4 million dollars, and this was going to be tripled; they were looking at 12 million dollars. And it was getting real hard to come up with even a *million* dollars in damages, and their viewpoint was, "We put it in writing, we said it was 4 million, you've got to come up with 4 million!" It was like, "there's no way we can come up with 4 million in damages! It doesn't exist!" (Government economist with legal experience)

> There have been times when we thought things would come out and we'd be able to find support for a certain policy based on this development that took a year, and we find at the end of the year that, "Hmm, I think we've done everything right, but we were wrong. It doesn't support this, it shows something else." Or it shows the opposite. (Private organization researcher)

With respect to the role of reputation, it was clear that flexibility could be limited by the details of particular kinds of work, especially those dependent on the consistent behavior and perceived neutrality of individuals or whole organizations:

> [In law] our biggest advocate is our reputation, so if we take a myopic view and say a particular thing to make one client happy, that's pretty foolish. You just get shredded down the road and your credibility for a long time after in this business is destroyed. So what happens is several-stage filtering: the first filter is when the client calls and they describe the case to you. It's not uncommon for us to say, "Uh, you know, I just don't think this is gonna work; thanks for the call." (Expert witness)

> This agency has built up trust over the years—a reputation. And part of my

> responsibility to the agency is to not harm that reputation. That would be one of the worst things I could do. And I have to be conscious of it; everyone here is conscious of it. . . . We deal with two sets of clients: economists of various agencies [and] community affairs people . . . and in some of these cases the economists are ideologues—they're all *right*-wing ideologues, that's just the way it works—and they have lost credibility because the community affairs people believe that they have no interest in doing their job and will distort the data and so on and so forth. I think they are foolish. (Government regulator)

Some organizations were also recognized both by insiders and outsiders as operating more like "the truth police" or "an honest broker" than others, simply because of their particular institutional role. One example of this was the federal government's (then) General Accounting Office, with its inherent mandate to assess and compare analyses across different agencies.

Beyond this, however, interviewees also invoked a variety of more microlevel features of the context of knowledge production that limited and directed their use of subframes. It was clear, for example, that in many nonacademic settings economic analysis and advice was filtered through what one government regulator called "many, many levels of review and editing and massage and revision, et cetera." As a private advocacy group researcher put it:

> We have multiple layers within [this organization] in terms of those kinds of communications, where things are signed off and approved, but they always come back as well. If somebody doesn't approve something or someone has a question on, y'know, what this is saying or how you're saying it, it will come back to you. . . . So because of that sort of management communication system, there's *rounds* of revisions and rewrites at times.

As a result of this layering, policy assessments and recommendations were often a collective organizational output, combining the influence of multiple relatively powerful actors and interests rather than reflecting the straight product of individual economists or unified orthodox theories. As one government financial researcher put it:

> When you're at an agency or when you're working for a corporation, you know, what you disagree with, you disagree with behind the scenes. I certainly had plenty of arguments with supervisors over reports, about where we would come out on a particular issue. But when it came down to it, you know, the agency is going to take a position. And you can certainly disagree with that position, but you disagree with that position as an individual. As part of the agency, *that* is your position.

Once again this suggests that the influence of economic expertise was more complicated and contingent than the mechanical imposition of a single academic logic. At the extreme it could add up simply to local practical/political authority being the most important factor for either promoting or repressing particular kinds of input:

> The economic forecaster has to be in the correct position in the company, where their work is usually pushed by what we call a "forecasting champion." This might be the president of the company or it might be the vice president . . . , and he's the one that really has to go to other organizations and say, "This is what I believe." And then the other people accept this. . . . I think that the position where the economist [has been] very important—like in AT&T's case—is one where they had the direct ear for the president of the company on a weekly, monthly basis, and told him what was going on, and he was a firm believer in using economics. 'Cuz if you run into a situation where management doesn't believe in economics, you can do the best work but it's not going to be well received, and it probably won't even be used. (Corporate forecaster)

> *Rarely* on anything do we not know how the commissioners are going to vote. So where they have problems that have been thought out or argued out, or hopefully compromised (sometimes the compromises cause you to grind your molars!), it's been worked out ahead of time. We write something and send it up [to] the commissioners. . . . We do write it first, but then their assistants at least are very active in getting things changed. You usually know what's gonna happen. Occasionally there are surprises, but you usually know what's gonna happen. (Government regulator)

In these situations it seems as if not just economists but also their clients and bosses were quite aware of subframe flexibility, and it was here that requests from superiors often "implied what they would like to find" and politicians, administrators, and managers could actively pick and choose results from different subframes to "use whatever they want to justify what they've decided on doing." Interestingly enough, in the experience of some interviewees, this sort of cynical political determination was a feature precisely of the shift toward neoliberalism. One suggested, for example, that the adoption of market-based policies at his agency was due to political pressures to raise money and balance the budget, "not because they saw the brilliance and the rightness of the efficiency analysis." Another recalled a radical shift in agency leadership during the 1980s that resulted in "some *real* right-wing zealots running things," zealots who would not let economic-based research stand in their way. A third described the neoliberal political trumping of orthodox economics as follows:

> We're going through this right now, for whatever reason; political pressures, the various sorts of pressures just like everybody else [toward] market economics and open market and all these things. . . . The commissioners—at least the majority of commissioners—would . . . like very much to have us [say the market is] competitive, and the assumption is that "gee, economists automatically think everything's competitive." It's *not* competitive, dammit! So there's a huge problem there, and quite frankly we'll see how this works out. But the people who have taken over are trying to rule, and the economists are, not *totally* shut out, but pretty much shut out of this process. (Different government regulator)

Equally rigid and cynical processes of institutional constraint and se-

lection were also seen to exist in the media, where writers, editors, and producers have the authority to select which experts are exposed to the public. While some forums were admired for their judicious presentation of differently subframed analyses, others were thought to be driven simply by a search for particular opposing viewpoints to "balance" a discussion or by the desire for especially assertive or extreme statements that could make an entertaining splash given limited column space or air time. One academic recounted his personal encounter with this, again in connection to neoliberalism:

> [In the early 1980s] I always got called with, "Do you have something good to say about [neoliberal] supply-side economics?" And the fact of the matter was these guys had gone through lists and lists of people who basically told them that there was no solid economic research to support the supply-side stuff; it was a conjecture which was consistent with economic theory but had no empirical foundation, and that's not very interesting. So I got the impression they just kept calling people. And I was *way* down on the list, being a brand new young prof, but they'd been through everybody who was above me on the list and they were *still* going. . . . So it seems like the people you get throwing things out there, the talking heads, are really the people that are accessible to the press that tell the story the press wants to tell. It's not clear to me that what you see then is an accurate reflection of what the profession is; it's more an accurate reflection of what the press wants to have put out there.

Two other interviewees voiced common overall assessments of the media context when they suggested that "if I want to get into that business . . . my optimal strategy is to make interesting predictions" and "it's a Darwinian process in this case where people who are willing to say something without hedging it can get on the news, . . . overstepping what economics really has to say about something."

Finally, lest it be thought that academia was radically different in this regard, it is worth noting that many interviewees in education described similar-sounding layers of constraint and conscious selection, observing that untenured faculty in particular had to tailor their work in response to more powerful departmental colleagues, school administrators, professional peers, and editors and reviewers in the strictly hierarchical journal system. The result of this institutional constraint was again often thought to be something like a bias in acceptable subframing insofar as it encouraged complex mathematical and statistical pyrotechnics at the expense of realistic modeling, and even at the expense of the kind of basic data gathering that might in the long run make difficult policy problems more tractable. In total, more than a third of the academics—including some from high-ranked schools—thought that their discipline would greatly benefit from relaxing this system of constraints, though none of them seemed to think this would be easy to achieve.

Overall, then, the economic experts interviewed for the project saw their selection of subframes, and hence their support of particular policies, as depending on a complex and contingent patchwork of local constraints that could shape their analyses in various ways—sometimes in favor of complex formal models and neoliberal policies, but sometimes not. Once again, they indicated that there was more to the use of economics than the logic of its unified academic discourse, suggesting instead that the content of their supposedly objective scientific advice depended in practice on factors such as individual moral choices, organizational imperatives, and in many cases simply the authority of political, economic, and academic decision makers. Furthermore, they implied that both economists and those who constrained them were often quite aware of this.

THEORETICAL SUPPORT AND EXTENSIONS

The three features of economic expertise described above portray the American-style profession as unified by a common discursive core, but also highly flexible in its specific pronouncements. While this picture of flexible unity is based on just one set of interviews, it is nonetheless consistent with a number of key ideas from broader sociological literatures, most notably the sociologies of science and organizations. These ideas both strengthen the plausibility of the claims made above and potentially extend them by suggesting how the three features of economic expertise could allow the unified core of economics to play a number of different social roles.

Starting at the most basic level, while some might see claims about flexibility as self-serving, or simply as proof that economics is an intellectually bankrupt pseudoscience, there is actually long-standing support for the claim that all scientific knowledge involves subjective norms about reasonable assumptions and standards of evidence and that this produces not just flexibility in major frames or paradigms during times of "revolutionary science" but also significant variation in theoretical interpretations across disciplines, subfields, schools, institutions, and even different laboratories during relatively stable periods of "normal science" (Polanyi 1946; Fleck 1979; Knorr-Cetina 1999).

On top of this, sociologists of science have also noted that these differing standards and assumptions tend to become especially prominent in policy settings, basically for precisely the kinds of reasons cited by the interviewees above. While scientists can be relatively sure of their knowledge within the "republican" setting of academia—where the costs of error are low, various competing schools are tolerated, and a "right to be wrong" prevails (Fuller 2000)—in the unforgiving policy world, with limited data

and time, the making of high-stakes calls about complex realities inevitably emphasizes uncertainty and judgment. This means that the key role of competing economic subframes in nonacademic settings does not necessarily indicate incompetence or avoidable bias so much as simply a practical situation of "trans-" or "post-normal" science, in which scientists have to give their best shot at answering questions concerning very specific states of affairs and possible outcomes, questions that simply have no universally accepted answer (Weinberg 1972; Wynne 1991; Funtowicz and Ravetz 1992). Put simply, then, even the most prestigious natural sciences involve subframing judgments, and these can come especially to the fore when questions are not like Does force equal mass times acceleration? so much as Will the benefits of this policy definitely outweigh the costs?

While these ideas lend support to notions of core flexibility and subframing, other analyses of policy expertise are in accordance with the idea that local contexts have an inevitable and important influence. Sociologists studying the utilization of science by government agencies have long recognized the shortcomings of purely "linear" models of application, meaning those asserting that decisions are always determined in a switch-like manner by the explicit invocation or taken-for-granted use of theories and data (Weiss and Bucuvalas 1980; Stehr 1992). Instead, they advocate treating the role of expert knowledge as essentially a "soft" one (Caplan, Morrison, and Stambaugh 1975) affected contingently by multiple factors in complex decision-making situations. One could, of course, see this idea as merely giving up in the face of how difficult it is to gauge the precise influence of any particular piece of knowledge, but alternatively, one could see it as a positive assertion that expert knowledge operates in an inherently complex and variable way, perhaps even playing significantly differently social roles in different situations.

One such role could certainly be that of contributing to straightforward conscious negotiations in which the possible meanings of expert advice are openly considered in good faith. By contrast, another role could indeed be that of taken-for-granted framing, as when the core economic "way of thinking" becomes incorporated into everyday routines in a way that depoliticizes debates and naturalizes capitalist institutions. In economics, however, this role may be neither as prevalent nor as important as some critics think, given the degree of context dependence described by the interviewees. If most economists and many of their clients are quite aware of the flexibility of their expertise, and if many powerfully situated decision makers are able to consciously ignore, select, or even commission economic advice as they see fit, then clearly there are important institutional contexts in which people are not taking for granted the truth of the theories and measurements of economics so much as taking for granted the possibility of cynically manipulating and exploiting them. As one expert witness suggested with respect to court cases, "The judges aren't fools, and they

understand. I think they are concerned about there being advocacy and, y'know, one side's got *its* expert, and the other side's got the *other* expert, and they're just advocates of different positions. [So] there's a *discounting* that goes on."[5]

Even if subframe selection and context dependence are inevitable and widely acknowledged by insiders, however, expert knowledge could still be playing a number of important roles. As several of the institutionalist analysts of economics have noted, classic work in the sociology of organizations suggests that one such role is cynical or pragmatic signaling to outsiders that decision makers are acting responsibly and rationally, conforming to prevailing "myths" about what kinds of knowledge ought to be used (Meyer and Rowan 1977; Feldman and March 1981; DiMaggio and Powell 1983). This would presumably be most likely in situations where decision makers have access to experts but are otherwise dependent on powerful external interests that demand conformity. Conversely, in situations where outsiders have less power, and where they do not themselves have access to appropriate expertise, studies of scientific authority suggest that knowledge can play yet another role, namely, that of excluding from decision making those who cannot provide the appropriate signals (Epstein 1995; Gieryn 1999).

When competing parties enjoy roughly equal amounts of authority, and have more or less symmetrical access to experts, another role of skeptically regarded knowledge could be simply to "neutralize" any expertise-based advantage of potential opponents (Nelkin 1975; Wynne 1991). An interesting version of this was in fact proposed by one interviewee:

> My feeling is that the role that economic analysis plays, especially if you've got a relatively equal power balance—political power balance—on the subject, is that it can keep you from being ruled out. Like the Office of Management and Budget can't point to some figures and say, "Here you're showing net losses in every case. That idea's dead. We're not going to go ahead with something that shows revenue losses as far as the eye can see." But if you can fight them to a draw, and they can't knock you out of the box on economic matters, then it can go up to the next level, which would be a deputy's meeting. Then it's not so much economics as it is just "Who's got

[5] The interviews do not, of course, show how people less powerful than judges receive economic knowledge, but even there the degree of taking-for-granted may vary by local context. For example, people who have experienced the flexibility of economics themselves in college classes, or who have independent experience of relevant economic processes, may not assume the truth of economic statements or the naturalness of economics-based systems so much as cynically accept the futility of resisting them when they are imposed by powerful authorities. Precisely this phenomenon has been described with respect to natural science by Brian Wynne (1996), who suggests that it may in fact be quite common, overlooked simply because the absence of overt complaint is typically interpreted as indicating credulous acceptance or lack of awareness rather than skeptical resignation.

> the horses?" So I think it's unrealistic to think that deputy secretaries are sitting around talking about "Well, this is economically optimal" or "Did we get net benefits of this?" I mean, in the few deputy's meetings that I've been at, you know, the figures come up but that's not how it's carefully weighed. It's not whether you say, "Well, we can see that there's net benefits so I'll go along with it." (Government economist working in market regulation)

Finally, a diverse body of work on pidgin discourses, intergroup "boundary objects," and other commensuration devices suggests that in such situations of rough equality, skeptically regarded expert knowledge could also serve to coordinate and articulate different commitments and practices in a cooperative way (Starr and Griesemer 1989; Galison 1997; Espeland and Stevens 1998). In some situations, then, discourses like American economics could be allowing parties to negotiate around a common metric starting point without having to explicitly lay out and communicate all their differences, and again without having to directly believe in or be mechanically directed by the results of expert analyses. Such situations could easily appear to outsiders as sterile depoliticization and technocratic determination, but to insiders they could embody something quite different.

Overall, then, theories and observations from a number of sociological fields are consistent with the idea that economic expertise could operate as a flexible unity via a core frame, alternative subframes, and great dependence on local contexts. They suggest furthermore that this could be allowing economics to play a variety of different social roles in different situations, potentially involving not just positive belief or assumed framing (as in honest explicit negotiation or implicit predetermination) but also precisely the kind of agnosticism and cynical manipulation found in the interviews (as in signaling and excluding). As one last point of support, it is interesting to note how this possibility resonates strongly with the general theory of power put forward by Steven Lukes (2005). While Lukes is concerned with defining power itself rather than just the influence of expert knowledge, his three "dimensions" of explicit negotiation, exclusion of weaker parties, and implicit cultural framing are very similar to the potential functions of economics outlined above. Furthermore, his treatment of these dimensions as relevant to different degrees in different situations fits the idea that the role of economic expertise may always depend on local practice rather than be simply deducible from its unifying discursive logic.

DISCUSSION AND CONCLUSIONS

The cross-sectional data and theoretical interpretations presented above suggest a midrange explanation of how American-style economics could

be based on a common discursive logic yet capable of generating a variety of practical outcomes and even of playing a range of different social roles. It therefore provides one possible resolution of the apparent paradox of the discipline being discursively unified but practically fragmented, as well as strong in some situations but weak in others.

It suggests that economic expertise is characterized by a multifaceted but coherent "way of seeing the world" that economic experts work to transmit to others and embed—along with themselves—in institutional routines. What distinguishes this core frame from other worldviews is not an overwhelming focus on market efficiency, but more generally a use of quantitative data and modeling techniques, a concern for comparing costs and benefits, ideas about people responding to incentives, and the treatment of major economic phenomena as being systematically interconnected. For better or for worse, this is the basic notion of economic expertise to which the American-based profession has limited itself and which defines what it considers to be the economic aspect of any given situation.

Simply promoting such a definition does, of course, create the potential for narrowing public debates and government practices, channeling them to focus on "the economy" in a way that more institutionally and culturally oriented social sciences might not. On top of this, the core's specifically quantitative nature may indeed give it a symbolic "scientific" authority above and beyond its basic status as an arcane discourse of expertise, and this may serve to enhance its usefulness for ritually signaling competence and for ruling out arguments not couched in similar terms.[6] Its focus on both quantitative measurement and large-scale systemic connections may also increase its potential for depoliticizing explicit public discourse, reducing it to apparently objective technical discussions of numbers and abstract connections.

Beyond this, it is also clear that the economic core is—as critics suggest—quite consistent with the specific ideological biases of business and government in capitalist democracies. Its narrow definition of what counts as "economic" can be applied without questioning wider cultural and institutional contexts, and this again distinguishes it from most work in the other social sciences, making it an ideal resource for encouraging the impression that current norms of production, employment, and consumption are natural and inevitable. Its focus on quantitative measures of things that seem relatively concrete and easy to understand—employees, commodities, and monetary values—is another thing that makes

[6] The interviews, however, contain evidence that explicit invocation of the "scientific" nature of economics may not be a particularly powerful resource in most situations (see Reay 2007*a*).

it different from its fellow social sciences, at least those branches not centered on counting network ties, votes, or populations. Coupled with its microlevel ideas of individual decision making, this would seem to make American-style economics—like modern psychology—especially consistent with ideologies, projects, and institutions that promote calculable "governmentality," that is, the characteristic capitalist/democratic form of self-policing behavior that appears to be the epitome of freedom but that actually helps obscure and perpetuate many aspects of political and class-based domination (Rose 1992; Rose and Miller 2010).

At the same time, however, the interviews suggest that while the core can also support specifically neoliberal policies of deregulation, welfare reduction, and marketization, its actual mobilization in this direction is probably contingent on the other two fundamental features of economic expertise: flexibility and context dependence. This in turn explains why economics has been only loosely connected to laissez-faire in some settings but tightly aligned with it in others. In the United States, for example, it seems as if the development of the core and much of its penetration into government and business happened during the Keynesian interventionist era, and it was only after the 1960s that the subframes favored by decision makers shifted—along with high-profile academic theories—toward marketization. Thus, the same basic expertise—and even some of the same experts themselves—went from coordinating and justifying Keynesian policies to operationalizing laissez-faire. In some other countries, however, market reformers clearly relied on the status of American-style professionals who had been recently home grown or imported preequipped with neoliberal subframes, hence creating a much stronger correlation between their expertise and marketization. This did not, of course, require that economics be inherently neoliberal underneath it all, only that supporting experts, politicians, and popularizers could use promarket subframes and successfully claim that the results were inevitable—a strategy that presumably worked most effectively when their opponents did not have access to their own American-style experts and hence could not "neutralize" the exclusionary role being played by economics.

The degree of subframe flexibility and contextual dependence indicated by the interviews in fact suggests that even the basic depoliticizing and naturalizing effects of economics may be far from inevitable and uniform, especially if expertise can play multiple different roles. While the study reveals little about how comprehensively the core frame was internalized by lay people or embodied in organizational routines, its portrayals of powerful decision makers using economic knowledge agnostically, or cynically manipulating it, suggest important limits to how much economic theory per se can be assumed to shape the world in its own image. In other words, when powerful actors were ignoring economic experts, in-

terpreting, selecting, or commissioning their output as they saw fit, and even building new economic institutions contrary to their theories (sometimes in the name of neoliberalism), there was clearly something more going on than straight performativity or the naturalization of institutional arrangements. Perhaps the main issue here is that cynical uses of economic expertise can easily look like taken-for-granted framing, and hence obscure just where performativity ends and contrary "overflowing" begins, or where technologies of governmentality persist and where they start to fail in the face of alternative projects (Callon 2007; Rose and Miller 2010). Thus, while economics clearly can and clearly does play important social roles involving taken-for-granted framing, these must always be looked for in specific local contexts rather than assumed to be universal and inevitable, since what is taken for granted may not be the objective truth of the economic core but precisely its subjective flexibility and cynical use. Put differently, the degree to which economic expertise operates along a taken-for-granted Lukesian third dimension rather than in another kind of role cannot be reliably deduced from the mere involvement of economic expertise in daily routines.

One could even argue that while economics is certainly consistent with legitimizing and masking many contemporary forms of domination, and while its methodological and theoretical focus may even make it especially prone to such uses, this does not necessarily preclude the core from playing less problematic roles when combined with appropriate subframes and institutional settings. A number of progressive economists have in fact tried to address major issues of gender domination, global inequality, and environmental degradation not by totally abandoning quantitative techniques, cost-benefit analyses, or models of interconnection but simply by more actively questioning what kinds of social relations constitute coherent economic "actors," what kinds of things should be measured, and what counts as economically valuable in the first place (e.g., England 2003; Lawn 2003; Scott-Cato 2009). While these researchers face a monumental uphill struggle given prevailing professional, political, and economic contexts, their arguments at least suggest that the economic core has the logical potential to pay more reflexive attention to social, cultural, and institutional contexts, and hence contribute less to contemporary forms of domination. It might therefore be better to treat the core not as a seamless discursive formation with fixed, uniform effects but as a more free-floating element that could perhaps be incorporated into a number of wider articulatory practices, some of which might be antagonistic to current hegemonic projects (compare Laclau and Mouffe 1985).

On a less speculative note, the analysis presented above can clearly accommodate, but also contextualize, observations suggesting that economics is fragmented and weak. It is quite consistent, for example, with

observations that elite economic theories are often irrelevant, that "merely undergraduate-level knowledge" often suffices in practical settings, that academically unfashionable models often persist for a long time in the policy world, and that expert advisers are often ignored. It furthermore accords with findings concerning the considerable diversity of opinion among economists and the importance of interpretations and assumptions in both academic research and macreconomic forecasting. It does all of this, however, without implying that the profession is therefore fragmented to the point of incoherence or that the overall role of economic expertise is random, politically neutral, or so weak as to register "zero on a scale of one to 10."

Instead, the analysis vindicates and augments the institutional approach to economic expertise pursued by Montecinos, Markoff, and others. By suggesting that economic expertise is intrinsically flexible and perhaps able to work along multiple dimensions and play multiple different roles in different contexts, it further grounds narratives of how American-style economics has been involved in a range of different neoliberal transitions—from the ideological intervention of committed promarket experts to the more pragmatic framing-based development of a technocratic bureaucracy. In other words, the analysis helps explain how the same basic features of economics could feed into a variety of institutional processes associated with neoliberalization, such as the "contagious" adoption of American-style discourse by relatively weak states (by signaling core competence and enabling access to important global forums) and the domination by those states of even weaker internal opponents of marketization (by presenting a false impression of the scientific inevitability of free-market subframes).

More importantly, however, the analysis might help institutionalist research shift from exploring how the new global profession has spread and supplanted its rivals to how it operates once dominant. By showing how local factors continued to influence the role of economics even within the United States at the height of the neoliberal era, the study certainly suggests that institutional variation must still be analyzed in such settings and that various unintended "slippages" could still be occurring. Furthermore, by showing widespread awareness of flexibility, it also suggests that an era of "economics triumphant" might actually be one in which, as one think tank researcher put it, "the days when an economist could say with authority 'this is right and that's it' are long gone." This would add an important twist to the institutionalist story, namely, that when the profession is dominant to the point where "everyone has their own economist," opportunities for using economic experts to simply exclude weaker parties from power may actually decline, replaced not necessarily by taken-for-granted, automatic routines but also potentially by situations

where expert knowledge is cynically discounted and political struggles have to be played out along other dimensions.

Exploring these kinds of phenomena might also provide a point of departure for further institutionalist research on the possible role of economics in the post-financial-crisis world, a world in which laissez-faire hegemony seems to be failing (Montecinos, Markoff, and Álvarez-Rivadulla 2009). For example, the analysis suggests that, even if neoliberalism declines as a political force, many uses of the core will likely remain, along with their attendant framing effects. At the same time, however, increased access to American-style expertise, and increased experience with its cynically exploitable flexibility, could in many contexts mean that its potency as a tool for depoliticization and symbolic exclusion will be left relatively low. This might indeed then lead to significant crisis and reform in institutions that currently rely heavily on technocratic expertise for their authority, just as Babb and Chorev (2009) predict will happen at the IMF.

Finally, by covering contexts where many competing decision makers have access to expertise and are quite aware of its flexible nature, the analysis could also be useful for predicting how other forms of technical and scientific knowledge might ultimately come to work in the new global environment of knowledge-based competition. Several of the research programs examining new forms of expertise and decision making—especially in Europe—struggle precisely with the problem of how science can be influential and ideological as well as plural and uncertain, so they could perhaps benefit greatly from paying more attention to how this particular global profession can comfortably embody such an apparent paradox, operating flexibly but stably along different dimensions in different contexts. Sociologists and anthropologists in the United States concerned with moving their academic work further into the public sphere might similarly benefit from looking at how their colleagues/rivals in economics have actually been received there—not necessarily in order to copy them, but certainly to help avoid any unintended negative consequences. Most generally of all, the examination of American-style economics presented above may simply be useful for reminding academics not to accept too readily the flattering claim that policy is ever ultimately driven by "scribblers" like ourselves and for emphasizing instead how institutional contingencies and vested interests will likely always mediate the encroachment of our ideas, no matter how scientific, unified, and logically constraining those ideas seem to be.

REFERENCES

Abolafia, Mitchel Y. 2004. "Framing Moves: Interpretive Politics at the Federal Reserve." *Journal of Public Administration Research and Theory* 14:349–70.

Allen, William R. 1977. "Economics, Economists, and Economic Policy: Modern American Experiences." *History of Political Economy* 9:48–88.

Alston, Richard M., J. R. Kearl, and Michael B. Vaughan. 1992. "Is There a Consensus among Economists in the 1990s?" *American Economic Review* 82:203–9.

American Economic Association. 1997. "Survey of Members." *American Economic Review* 87 (special issue): 31–685.

Ashmore, Malcolm, Michael Mulkay, and Trevor Pinch. 1989. *Health and Efficiency: A Sociology of Health Economics*. Philadelphia: Open University Press.

Babb, Sarah L. 2001. *Managing Mexico: Economists from Nationalism to Neoliberalism*. Princeton, N.J.: Princeton University Press.

———. 2003. "The IMF in Sociological Perspective: A Tale of Organizational Slippage." *Studies in Comparative International Development* 38:3–27.

———. 2009. *Behind the Development Banks: Washington Politics, World Poverty, and the Wealth of Nations*. Chicago: University of Chicago Press.

Babb, Sarah L., and Nitsan Chorev. 2009. "The Crisis of Neoliberalism and the Future of International Institutions: The IMF and the WTO in Comparative Perspective." *Theory and Society* 38:459–84.

Bernstein, Michael A. 2001. *A Perilous Progress: Economists and Public Purpose in Twentieth-Century America*. Princeton, N.J.: Princeton University Press.

Blyth, Mark 2002. *Great Transformations: Economic Ideas and Institutional Change in the Twentieth Century*. New York: Cambridge University Press.

Bockman, Johanna. 2000. *Economists and Social Change: Science, Professional Power, and Politics in Hungary, 1945–1995*. Ph.D. dissertation. University of California, San Diego, Department of Sociology.

Bockman, Johanna, and Gil Eyal. 2002. "Eastern Europe as a Laboratory for Economic Knowledge: The Transnational Roots of Neoliberalism." *American Journal of Sociology* 108:310–52.

Bourdieu, Pierre. 1998. *Acts of Resistance: Against the Tyranny of the Market*. New York: New Press.

Brainard, William C., and George L. Perry. 2000. "Making Policy in a Changing World." Pp. 43–69 in *Economic Events, Ideas, and Policies*, edited by George L. Perry and James Tobin. Washington, D.C.: Brookings Institute.

Brenner, Reuven. 1992. "Macroeconomics: The Masks of Science and Myths." Pp. 123–152 in *Educating Economists*, edited by David Colander and Reuven Brenner. Ann Arbor: University of Michigan Press.

Breslau, Daniel. 1998. *In Search of the Unequivocal: The Political Economy of Measurement in U.S. Labor Market Policy*. Westport, Conn.: Praeger.

———. 2011. "What Do Market Designers Do When They Design Markets? Economists as Consultants to the Redesign of Wholesale Electricity Markets in the United States." Pp. 379–404 in *Social Knowledge in the Making*, edited by Charles Camic, Neil Gross, and Michèle Lamont. Chicago: University of Chicago Press.

Breyer, Stephen G. 1982. *Regulation and Its Reform*. Cambridge, Mass.: Harvard University Press.

Brint, Steven. 1996. *In an Age of Experts: The Changing Role of Professionals in Politics and Public Life*. Princeton, N.J.: Princeton University Press.

Burawoy, Michael. 2005. "American Sociological Association Presidential Address: For Public Sociology." *American Sociological Review* 70:4–28.

Callon, Michel. 1998. "Introduction: The Embeddedness of Economic Markets in Economics." Pp. 1–57 in *The Laws of the Markets*, edited by Michel Callon. New York: Blackwell.

———. 2007. "What Does It Mean to Say Economics Is Performative?" Pp. 311–56 in *Do Economists Make Markets? On the Performativity of Economics*, edited by Donald MacKenzie, Fabian Munesia, and Lucia Siu. Princeton, N.J.: Princeton University Press.
———. 2008. "Economic Markets and the Rise of Interactive *Agencements*: From Prosthetic Agencies to Habilitated Agencies." Pp. 29–56 in *Living in a Material World: Economic Sociology Meets Science and Technology Studies*, edited by Trevor Pinch and Richard Swedberg. Cambridge, Mass.: MIT Press.
Caplan, Nathan, Andrea Morrison, and Russell J. Stambaugh. 1975. *The Use of Social Science Knowledge in Policy Decisions at the National Level: A Report to Respondents*. Ann Arbor, Mich.: Institute for Social Research.
Carson, Carol S. 1975. "The History of the United States National Income and Product Accounts: The Development of an Analytic Tool." *Review of Income and Wealth* 21:153–81.
Castells, Manuel. 1996. *The Rise of the Network Society: The Information Age: Economy, Society, and Culture*, vol. 1. Cambridge, Mass.: Blackwell.
———. 2011. *Communication Power*. New York: Oxford University Press.
Checker, Melissa. 2009. "Anthropology in the Public Sphere, 2008: Emerging Trends and Significant Impacts." *American Anthropologist* 111:162–69.
Chwieroth, Jeffrey M. 2007*a*. "Neoliberal Economists and Capital Account Liberalization in Emerging Markets." *International Organization* 61:443–63.
———. 2007*b*. "Testing and Measuring the Role of Ideas: The Case of Neoliberalism in the International Monetary Fund." *International Studies Quarterly* 51:5–30.
———. 2010. *Capital Ideas: The IMF and the Rise of Financial Liberalization*. Princeton, N.J.: Princeton University Press.
Coats, A. W., ed. 1986. *Economists in International Agencies: An Exploratory Study*. New York: Praeger.
Colander, David. 2007. *The Making of an Economist, Redux*. Princeton, N.J.: Princeton University Press.
den Butter, Frank A. G., and Mary S. Morgan, eds. 2000. *Empirical Models and Policy-Making: Interaction and Institutions*. New York: Routledge.
Derthick, Martha, and Paul J. Quirk. 1985. *The Politics of Deregulation*. Washington, D.C.: Brookings Institution Press.
Dezalay, Yves, and Bryant G. Garth. 2002. *The Internationalization of Palace Wars: Lawyers, Economists, and the Contest to Transform Latin American States*. Chicago: University of Chicago Press.
DiMaggio, Paul J., and Walter W. Powell. 1983. "The Iron Cage Revisited: Institutional Isomorphism and Collective Rationality in Organizational Fields." *American Sociological Review* 48:147–60.
Edison, Hali J., and Jaime Marquez. 2000. "US Monetary Policy and Econometric Modeling: Tales from the FOMC Transcripts, 1984–1991." Pp. 187–205 in *Empirical Models and Policy-Making: Interaction and Institutions*, edited by Frank A. G. den Butter and Mary S. Morgan. New York: Routledge.
England, Paula. 2003. "Separative and Soluble Selves: Dichotomous Thinking in Economics." Pp. 33–60 in *Feminist Economics Today: Beyond Economic Man*, edited by Marianne A. Ferber and Julie A. Nelson. Chicago: University of Chicago Press.
Enthoven, Alain C. 1963. "Economic Analysis in the Department of Defense." *American Economic Review* 53:413–23.
Epstein, Steven. 1995. "The Construction of Lay Expertise: AIDS Activism and the Forging of Credibility in the Reform of Clinical Trials." *Science, Technology, and Human Values* 20:408–37.
Espeland, Wendy Nelson, and Mitchell L. Stevens. 1998. "Commensuration as a Social Process." *Annual Review of Sociology* 24:313–43.

Evans, Robert. 1999. *Macroeconomic Forecasting: A Sociological Appraisal*. New York: Routledge.
Faulhaber, Gerald R., and William J. Baumol. 1988. "Economists as Innovators: Practical Products of Theoretical Research." *Journal of Economic Literature* 26:577–600.
Feldman, Martha S., and James G. March. 1981. "Information in Organizations as Signal and Symbol." *Administrative Science Quarterly* 26:171–86.
Ferguson, James. 1994. *The Anti-politics Machine: "Development," Depoliticization, and Bureaucratic Power in Lesotho*. Minneapolis: University of Minnesota Press.
Fine, Ben. 1998. "The Triumph of Economics; or, 'Rationality' Can Be Dangerous to Your Reasoning." Pp. 49–74 in *Virtualism: A New Political Economy*, edited by James G. Carrier and Daniel Miller. New York: Berg.
Fleck, Ludwik. 1979. *Genesis and Development of a Scientific Fact*. Chicago: University of Chicago Press.
Fourcade, Marion. 2006. "The Construction of a Global Profession: The Transnationalization of Economics." *American Journal of Sociology* 112:145–94.
———. 2009. *Economists and Societies: Discipline and Profession in the United States, Britain, and France, 1890s to 1990s*. Princeton, N.J.: Princeton University Press.
Fourcade-Gourinchas, Marion. 2001. "Politics, Institutional Structures, and the Rise of Economics: A Comparative Study." *Theory and Society* 30:397–447.
Fourcade-Gourinchas, Marion, and Sarah L. Babb. 2002. "The Rebirth of the Liberal Creed: Paths to Neoliberalism in Four Countries." *American Journal of Sociology* 108:533–79.
Friedman, Milton. 1986. "Economists and Economic Policy." *Economic Inquiry* 24: 1–10.
Fuchs, Victor R., Alan B. Krueger, and James M. Poterba. 1997. *Why Do Economists Disagree about Policy? The Roles of Beliefs about Parameters and Values*. NBER Working Paper no. 6151. National Bureau of Economic Research, Cambridge, Mass.
Fuller, Dan, and Doris Geide-Stevenson. 2003. "Consensus among Economists: Revisited." *Journal of Economic Education* 34:369–87.
Fuller, Steve. 2000. *The Governance of Science*. Philadelphia: Open University Press.
Funtowicz, Silvio O., and Jerome R. Ravetz. 1992. "Three Types of Risk Assessment and the Emergence of Post-Normal Science." Pp. 251–73 in *Social Theories of Risk*, edited by Sheldon Krimsky and Dominic Golding. Westport, Conn.: Praeger.
Galbraith, James K. 1988. "The Grammar of Political Economy." Pp. 221–39 in *The Consequences of Economic Rhetoric*, edited by Arjo Klamer, Donald N. McCloskey, and Robert M. Solow. New York: Cambridge University Press.
Galison, Peter. 1997. *Image and Logic: A Material Culture of Microphysics*. Chicago: University of Chicago Press.
Gieryn, Thomas F. 1999. *Cultural Boundaries of Science: Credibility on the Line*. Chicago: University of Chicago Press.
Goldman, Michael. 2005. *Imperial Nature: The World Bank and Struggles for Social Justice in the Age of Globalization*. New Haven, Conn.: Yale University Press.
Guala, Francesco. 2007. "How to Do Things with Experimental Economics." Pp. 128–62 in *Do Economists Make Markets? On the Performativity of Economics*, edited by Donald MacKenzie, Fabian Munesia, and Lucia Siu. Princeton, N.J.: Princeton University Press.
Guillén, Mauro F., Randall Collins, Paula England, and Marshall Meyer. 2002. "The Revival of Economic Sociology." Pp. 1–32 in *Economic Sociology: Developments in an Emerging Field*, edited by Mauro F. Guillén, Randall Collins, Paula England, and Marshall Meyer. New York: Russell Sage.
Hall, Peter. 1992. "The Movement from Keynesianism to Monetarism: Institutional Analysis and British Economic Policy in the 1970s." Pp. 90–113 in *Structuring Politics*, edited by Sven Steinmo, Kathleen Thelen, and Frank Longstreth. New York: Cambridge University Press.

Hamermesh, D. S. 1982. "The Interaction between Research and Policy: The Case of Unemployment Insurance." *American Economic Review* 72:237–41.
Hamilton, Lee H. 1992. "Economists as Public Policy Advisers." *Journal of Economic Perspectives* 6:61–64.
Hansen, Lars Peter, and James J. Heckman. 1996. "The Empirical Foundations of Calibration." *Journal of Economic Perspectives* 10:87–104.
Harper, Richard. 2000. "The Social Organization of the IMF's Mission Work: An Examination of International Auditing." Pp. 21–53 in *Audit Cultures: Anthropological Studies in Accountability, Ethics, and the Academy*, edited by Marilyn Strathern. New York: Routledge.
Harvey, David. 2005. *A Brief History of Neoliberalism*. New York: Oxford University Press.
Haucap, Justus, and Tobias Just. 2010. "Not Guilty? Another Look at the Nature and Nurture of Economics Students." *European Journal of Law and Economics* 29:239-54.
Hausman, Daniel M. 1992. *The Inexact and Separate Science of Economics*. New York: Cambridge University Press.
Held, David, Anthony McGrew, David Goldblatt, and Jonathan Perraton. 1999. *Global Transformations: Politics, Economics, and Culture*. Stanford, Calif.: Stanford University Press.
Jasanoff, Sheila. 2003. "Technologies of Humility: Citizen Participation in Governing Science." *Minerva* 41:223–44.
Kaletsky, Anatole. 2009. "Economists Are the Forgotten Guilty Men." *London Times*, February 5.
Kanth, Rajani. 1999. "Against Eurocentered Epistemologies: A Critique of Science, Realism, and Economics." Pp. 187–208 in *Critical Realism in Economics: Development and Debate*, edited by Steven Fleetwood. London: Routledge.
Kearl, J. R., Clayne L. Pope, Gordon C. Whiting, and Larry T. Wimmer. 1979. "What Economists Think: A Confusion of Economists?" *American Economic Review* 69: 28–37.
Keynes, John Maynard. 1953. *The General Theory of Employment, Interest, and Money*. Orlando, Fla.: Harvest/HBJ.
Klamer, Arjo. 1984. *Conversations with Economists: New Classical Economists and Opponents Speak Out on the Current Controversy in Macroeconomics*. Totowa, N.J.: Rowman & Allanheld.
Klamer, Arjo, and David Colander. 1990. *The Making of an Economist*. Boulder, Colo.: Westview.
Klamer, Arjo, and Jennifer Meehan. 1999. "The Crowding Out of Academic Economics: The Case of NAFTA." Pp. 65–85 in *What Do Economists Know? New Economics of Knowledge*, edited by Robert F. Garnett Jr. New York: Routledge.
Knorr-Cetina, Karin D. 1999. *Epistemic Cultures: How the Sciences Make Knowledge*. Cambridge, Mass.: Harvard University Press.
Krugman, Paul. 2009. "How Did Economists Get It So Wrong?" *New York Times*, September 2.
Laclau, Ernesto, and Chantal Mouffe. 1985. *Hegemony and Socialist Strategy: Towards a Radical Democratic Politics*. New York: Verso.
Lawn, Philip A. 2003. "A Theoretical Foundation to Support the Index of Sustainable Economic Welfare (ISEW), Genuine Progress Indicator (GPI), and Other Related Indexes." *Ecological Economics* 44:105–18.
Lebaron, Frédéric. 2001. "Economists and the Economic Order: The Field of Economists and the Field of Power in France." *European Societies* 3:91–110.
Leydesdorff, Loet, and Henry Etkowitz. 1996. "Emergence of a Triple Helix of University-Industry-Government Relations." *Science and Public Policy* 23:279–86.
Lukes, Steven. 2005. *Power: A Radical View*, 2d ed. Basingstoke: Palgrave MacMillan.

MacKenzie, Donald. 2007. "Is Economics Performative? Option Theory and the Construction of Derivatives Markets." Pp. 54–86 in *Do Economists Make Markets? On the Performativity of Economics*, edited by Donald MacKenzie, Fabian Munesia, and Lucia Siu. Princeton, N.J.: Princeton University Press.
MacKenzie, Donald, and Yuval Millo. 2003. "Constructing a Market, Performing Theory: The Historical Sociology of a Financial Derivatives Exchange." *American Journal of Sociology* 109 (1):107–45.
Magnus, Jan R., and Mary S. Morgan. 1999. *Methodology and Tacit Knowledge: Two Experiments in Econometrics*. Hoboken, N.J.: Wiley.
Mankiw, N. Gregory. 2006. "The Macroeconomist as Scientist and Engineer." *Journal of Economic Perspectives* 20:29–46.
Markoff, John, and Verónica Montecinos. 1993. "The Ubiquitous Rise of Economists." *Journal of Public Policy* 13:37–68.
Marx, Karl. 1977. *Capital: A Critique of Political Economy*, vol. 1. New York: Vintage.
Mayer, Thomas. 1993. *Truth versus Precision in Economics*. Brookfield, Vt.: Elgar.
McCloskey, Dierdre N. 1994. *Knowledge and Persuasion in Economics*. New York: Cambridge University Press.
———. 1996. *The Vices of Economists—The Virtues of the Bourgeoisie*. Amsterdam: Amsterdam University Press.
Meyer, John W., and Brian Rowan. 1977. "Institutionalized Organizations: Formal Structure as Myth and Ceremony." *American Journal of Sociology* 83:340–63.
Miller, Daniel. 1998. "Conclusion: A Theory of Virtualism." Pp. 187–215 in *Virtualism: A New Political Economy*, edited by James G. Carrier and Daniel Miller. New York: Berg.
Minarik, Joseph J. 1989. "How Tax Reform Came About." Pp. 141–55 in *The Spread of Economic Ideas*, edited by David C. Colander and A. W. Coats. New York: Cambridge University Press.
Mirowski, Philip. 2011. *Science-Mart: Privatizing American Science*. Cambridge, Mass.: Harvard University Press.
Mirowski, Philip, and Edward Nik-Khah. 2007. "Markets Made Flesh: Performativity, and a Problem in Science Studies, Augmented with Consideration of the FCC Auctions." Pp. 190–224 in *Do Economists Make Markets? On the Performativity of Economics*, edited by Donald MacKenzie, Fabian Munesia, and Lucia Siu. Princeton, N.J.: Princeton University Press.
———. 2008. "Command Performance: Exploring What STS Thinks It Takes to Build a Market." Pp. 89–128 in *Living in a Material World: Economic Sociology Meets Science and Technology Studies*, edited by Trevor Pinch and Richard Swedberg. Cambridge, Mass.: MIT Press.
Mitchell, Timothy. 2002. *Rule of Experts: Egypt, Techno-Politics, Modernity*. Berkeley and Los Angeles: University of California Press.
———. 2005. "Economists and the Economy in the Twentieth Century." Pp. 126–41 in *The Politics of Method in the Human Sciences: Positivism and Its Epistemological Others*, edited by George Steinmetz. Durham, N.C.: Duke University Press.
Montecinos, Verónica. 1998. *Economists, Politics and the State: Chile, 1958–1994*. West Lafayette, Ind.: Purdue University Press.
Montecinos, Verónica, John Markoff, and Maria José Álvarez-Rivadulla. 2009. "Economists in the Americas: Convergence, Divergence, and Connection." Pp. 1–62 in *Economists in the Americas*, edited by Verónica Montecinos, and John Markoff. Northampton, Mass.: Elgar.
Nelkin, Dorothy. 1975. "The Political Impact of Technical Expertise." *Social Studies of Science* 5:35–54.
Nelson, Robert H. 1987. "The Economics Profession and the Making of Public Policy." *Journal of Economic Literature* 25:49–91.

Nowotny, Helga. 2007. "How Many Policy Rooms Are There?" Evidence-Based and Other Kinds of Science Policies." *Science, Technology, and Human Values* 32:479–90.
Nowotny, Helga, Peter Scott, and Michael Gibbons. 2001. *Re-thinking Science: Knowledge and the Public in an Age of Uncertainty*. Cambridge: Polity.
NSF (National Science Foundation, Division of Science Resources Statistics). 1997. *Characteristics of Doctoral Scientists and Engineers in the United States, 1995*. Working paper no. 97–319. National Science Foundation, Arlington, Va.
———. 2009. *Characteristics of Doctoral Scientists and Engineers in the United States, 2006*. Working paper no. 09–317. National Science Foundation, Arlington, Va.
Parsons, Wayne. 1989. *The Power of the Financial Press*. New Brunswick, N.J.: Rutgers University Press.
Plesner, Ursula. 2011. "Studying Sideways: Displacing the Problem of Power in Research Interviews with Sociologists and Journalists." *Qualitative Inquiry* 17 (6): 471–82.
Polanyi, Karl. 2001. *The Great Transformation: The Political and Economic Origins of Our Time*, 2d ed. Boston: Beacon.
Polanyi, Michael. 1946. *Science, Faith, and Society*. Chicago: University of Chicago Press.
Porter, Theodore M. 1995. *Trust in Numbers: The Pursuit of Objectivity in Science and Public Life*. Princeton, N.J.: Princeton University Press.
Prasad, Monica. 2006. *The Politics of Free Markets: The Rise of Neoliberal Economic Policies in Britain, France, Germany, and the United States*. Chicago: University of Chicago Press.
Reay, Michael. 2007*a*. "Academic Knowledge and Expert Authority in American Economics." *Sociological Perspectives* 50:101–29.
———. 2007*b*. "Using Autobiographical Statements to Investigate the Identity of American Economists." Pp. 134–53 in *Economists' Lives: Biography and Autobiography in the History of Economics*, edited by E. Roy Weintraub and Evelyn L. Forget. Durham, N.C.: Duke University Press.
Rose, Nikolas. 1992. "Engineering the Human Soul: Analyzing Psychological Expertise." *Science in Context* 5:351–69.
Rose, Nikolas, and Peter Miller. 2010. "Political Power beyond the State: Problematics of Government." *British Journal of Sociology* 61:271–303.
Samuels, Warren J. 1980. "Economics as a Science and Its Relation to Policy: The Example of Free Trade." *Journal of Economic Issues* 14:163–85.
Samuelson, Paul, and William Nordhaus. 2009. *Economics*, 19th ed. New York: McGraw-Hill.
Sawhill, Isabel V. 1995. "The Economist vs. Madmen in Authority." *Journal of Economic Perspectives* 9:3–13.
Scott, Loren C., and Peter M. Mitias. 1996. "Trends in Rankings of Economics Departments in the U.S.: An Update." *Economic Inquiry* 36:378–400.
Scott-Cato, Molly. 2009. *Green Economics: An Introduction to Theory, Policy and Practice*. Sterling, Va.: Earthscan.
Simon, Carl P., and Lawrence Blume. 1994. *Mathematics for Economists*. New York: Norton.
Sims, Christopher A. 1996. "Macroeconomics and Methodology." *Journal of Economic Perspectives* 10:105–20.
Slaughter, Sheila, and Gary Rhoades. 2004. *Academic Capitalism: Politics, Policies, and the Entrepreneurial University*. Baltimore: Johns Hopkins University Press.
Starr, Susan Leigh, and James R. Griesemer. 1989. "Institutional Ecology, 'Translations' and Boundary Objects: Amateurs and Professionals in Berkeley's Museum of Vertebrate Zoology, 1907–1939." *Social Studies of Science* 19:387–420.
Stehr, Nico. 1992. *Practical Knowledge: Applying the Social Sciences*. Newbury Park, Calif.: Sage.

Stephens, Neil. 2008. "Political Interpretative Flexibility and the Economics of Inflation and Unemployment." Working paper no. 114. Cardiff School of Social Sciences.
Stiglitz, Joseph E. 2000. "The Insider: What I Learned at the World Economic Crisis." *New Republic*, April 17 and 24, 56–60.
Summers, Lawrence H. 1991. "The Scientific Illusion in Empirical Macroeconomics." *Scandinavian Journal of Economics* 932:129–48.
Watts, Michael, and Georg Schaur. 2011. "Teaching and Assessment Methods in Undergraduate Economics: A Fourth National Quinquennial Survey." *Journal of Economic Education* 43:294–309.
Weber, Max. 1994. "The Nation State and Economic Policy (Inaugural Lecture)." Pp. 1–28 in *Weber: Political Writings*, edited by Peter Lassman and translated by Ronald Speirs. New York: Cambridge University Press.
Weinberg, Alvin M. 1972. "Science and Trans-Science." *Minerva* 10:209–22.
Weiss, Carol H., and Michael J. Bucuvalas. 1980. *Social Science Research and Decision-Making*. New York: Columbia University Press.
Whitley, Richard. 1986. "The Transformation of Business Finance into Financial Economics: The Role of Academic Expansion and Changes in U.S. Capital Markets." *Accounting, Organizations and Society* 11:171–92.
Wiles, Peter. 1983. "Ideology, Methodology, and Neoclassical Economics." Pp. 41–60 in *Why Economics Is Not Yet a Science*, edited by Alfred S. Eichner. Armonk, N.Y.: M. E. Sharpe
Wynne, Brian. 1991. "Knowledges in Context." *Science, Technology, and Human Values* 16 (1):111–21.
———. 1996. "May the Sheep Safely Graze? A Reflexive View of the Expert-Lay Knowledge Divide." Pp. 44–83 in *Risk, Environment and Modernity: Towards a New Ecology*, edited by Scott M. Lash, Bronislaw Szerszynski, and Brian Wynne. Thousand Oaks, Calif.: Sage.
Yezer, Anthony M., Robert S. Goldfarb, and Paul J. Poppen. 1996. "Does Studying Economics Discourage Cooperation? Watch What We Do, Not What We Say or How We Play." *Journal of Economic Perspectives* 10:177–86.
Yonay, Yuval, and Daniel Breslau. 2006. "Marketing Models: The Culture of Mathematical Economics." *Sociological Forum* 21:345–86.