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The Superiority of Economists[†]

Marion Fourcade, Etienne Ollion, and Yann Algan

here exists an implicit pecking order among the social sciences, and it seems to be dominated by economics. For starters, economists *see themselves* at or near the top of the disciplinary hierarchy. In a survey conducted in the early 2000s, Colander (2005) found that 77 percent of economics graduate students in elite programs agree with the statement that "economics is the most scientific of the social sciences." Some 15 years ago, Richard Freeman (1999, p. 141) speculated on the origins of such a conviction in the pages of this journal. His assessment was candid: "[S]ociologists and political scientists have less powerful analytical tools and know less than we do, or so we believe. By scores on the Graduate Record Examination and other criteria, our field attracts students stronger than theirs, and our courses are more mathematically demanding."

At first glance, the academic labor market seems to confirm the natives' judgment about the higher status of economists. They are the only social scientists to have a "Nobel" prize, thanks to a grant from the Bank of Sweden to the Nobel foundation. Economists command some of the highest levels of compensation in American arts and science faculties according to Bureau of Labor Statistics data. In fact, they "earn more and have better career prospects" than physicists and

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[†] To access the Appendix and Data Appendix, visit http://dx.doi.org/10.1257/jep.29.1.89

80 Psychology 70 Sociology 60 Life sciences 50 Political science and public administration 40 Economics 30 Physical sciences 20 10 0

Figure 1
Percentage of Doctorates Awarded to Women in Selected Disciplines, 1966–2011

Source: US National Center for Education Statistics, Integrated Post-secondary Education Data System Completion Survey.

mathematicians (as Freeman wrote); only computer scientists and engineers do better. Unlike many academics in the theoretical sciences and humanities, many prominent economists have the opportunity to obtain income from consulting fees, private investment and partnerships, and membership on corporate boards. For instance, Weyl (forthcoming) provides some suggestive evidence that 40 percent of the income of economic authors in the fields of finance and industrial organization comes from consulting activities, either with business (finance) or government (IO). In 2010, the movie documentary *Inside Job* exposed the lucrative and possibly complacent relations between some of the field's most distinguished members and the financial nebulae around Wall Street.

This much better financial position of economists, particularly in top universities, combined with the discipline's emphasis on mastering quantitative reasoning (widely interpreted as a sign of higher intellectual capabilities) certainly stands behind the often dismissive attitude of economists toward the other, less-formal social sciences. But there are other reasons for the distant relations among social scientists. First, the fields differ in their social composition. Self-selection into various disciplines is heavily patterned by social attributes. For instance, economics, like physics or philosophy but in sharp contrast to sociology, is a very male-dominated field (see Figure 1). Thus, cross-disciplinary relations are inevitably permeated by broader patterns of gender difference, stratification, and inequality. And while we do not have good comparative data on the social origins of social scientists in the United States (but see Bourdieu 1984 and Lebaron 2000

on France), we may posit that disparities in the present material conditions of the different fields generate important disparities in lifestyle and worldviews as well as relational strains between them.

Second, the social sciences have experienced fast demographic growth since World War II, which has produced internal differentiation and hyper-specialization. (Abbott 2001; Frank and Gabler 2006). This process has obscured the common heritage—the fact that history and moral philosophy gave birth to political economy back in the nineteenth century (see Haskell 1977; Ross 1991, for a US-focused discussion), while American sociology arose partly from within economics in the early part of the twentieth century (Young 2009).

In this essay, we explore the shifting relationship between economics and the other social sciences in four specific dimensions. First, we document the relative insularity of economics and its dominant position within the network of the social sciences in the United States. Though all disciplines are in some way insular—a classic consequence of the heightening of the division of academic labor (Jacobs 2013)—this trait peculiarly characterizes economics. Second, we document the pronounced hierarchy that exists within the discipline, especially in comparison with other social sciences. The authority exerted by the field's most powerful players, which fosters both intellectual cohesiveness and the active management of the discipline's internal affairs, has few equivalents elsewhere. Third, we look at the changing network of affiliations of economics over the post-World War II period, showing in particular how transformations within higher education (most prominently the rise of business schools) and the economy have contributed to a reorientation of economics toward business subjects and especially finance. Finally, we provide a few insights into the material situation, worldviews, and social influence of economists, which also set them apart from their academic peers. Taken together, these traits help to define and account for the intellectual self-confidence of economists and in turn for their assertive claims on matters of public policy.

When we refer to the "superiority of economists," our *double entendre* has both a descriptive and an explanatory purpose. Economics occupies a unique position among academic disciplines. It is characterized by far-reaching scientific claims linked to the use of formal methods; the tight management of the discipline from the top down; high market demand for services, particularly from powerful and wealthy parties; and high compensation. This position of social superiority also breeds self-confidence, allowing the discipline to retain its relative epistemological insularity over time and fueling a natural inclination towards a sense of entitlement. While the imperialistic expansion of economics into aspects of social science that were traditionally outside the economic canon has spurred some engagement with noneconomics scholarship, the pattern of exchange remains deeply asymmetrical, causing resentment and hostility in return. And while economists' unique position gives them unusual power to accomplish changes in the world, it also exposes them more to conflicts of interests, critique, and mockery when things go wrong.

Insularity

The intellectual trajectories of the social science disciplines have diverged importantly during the post-World War II period. Economics has changed since its continental youth. It left history behind and turned to the paradigmatic fields in the natural sciences, such as physics, for emulation (Mirowski 1989). Unlike their more literary forerunners, modern-day economists attribute their intellectual standing and autonomy to their reliance on precisely specified and parsimonious models and measures. They see the field's high technical costs of entry and its members' endeavors to capture complex social processes through equations or clear-cut causality as evidence of the discipline's superior scientific commitments, vindicating the distance from and the lack of engagement with the more discursive social sciences. In a prominent example, Lazear (2000, pp. 99-100) writes: "The ascension of economics results from the fact that our discipline has a rigorous language that allows complicated concepts to be written in relatively simple, abstract terms. The language permits economists to strip away complexity. Complexity may add to the richness of description, but it also prevents the analyst from seeing what is essential." An eminent professor echoed this view when he described, this time critically, the narrow epistemological demands of his discipline (interviewed by Fourcade 2009, p. 91): "You are only supposed to follow certain rules. If you don't follow certain rules, you are not an economist. So that means you should derive the way people behave from strict maximization theory. . . . The opposite [to being axiomatic] would be arguing by example. You're not allowed to do that. . . . There is a word for it. People say 'that's anecdotal.' That's the end of you if people have said you're anecdotal . . . [T]he modern thing [people say] is: 'it's not identified.' God, when your causality is not identified, that's the end of you."

For much of the post-World War II period, flexing one's mathematical and statistical muscles and stripping down one's argument to a formal and parsimonious set of equations was indeed the main path to establishing scientific purity in economics. With the empirical revolution in the 1990s and 2000s, this function has shifted toward a hard-nosed approach to causality focused on research design and inference and often extolling the virtues of randomly controlled trials (for example, Angrist and Pischke 2010). Although this move has not escaped criticism (for example, see Leamer 2010 and Sims 2010 in this journal), it represents a significant departure from the now disparaged over-theoretical orientations of the 1970s and 1980s. The shift toward applied microeconomics, while very real, has not dramatically broadened the network of interdisciplinary connections however. To be sure, economists have started to consider topics that are more traditionally associated with sociology, political science, and psychology—from political institutions to family structure, neighborhood effects, peer effects, or (as of late) social mobility. Yet cross-disciplinary citation patterns continue to offer evidence of the field's relative insularity. Of course, one of the most remarkable facts about US social science (continental Europe tends to be more ecumenical) is the extent to which all its constituent disciplines work in relative isolation from each other: economics,

sociology, political science, and psychology all have high percentages of intradisciplinary citations. But even so, economics stands out markedly, with 81 percent of within-field citations in 1997—against 52 percent for sociology, 53 percent for anthropology, and 59 percent for political science (Jacobs 2013, p. 82, who uses the *NSF Science and Engineering Indicators 2000*, online appendix 6–54, based on a sample of the most cited journals in each field).

There are several reasons for the insularity of economics, most importantly the different epistemological cultures of the various social science disciplines and the power inequalities between them. First, the theory of action that comes with economists' analytical style is hardly compatible with the basic premise of much of the human sciences, namely that social processes shape individual preferences (rather than the other way around). In economics, by contrast, "de gustibus non est disputandum" (Stigler and Becker 1977)¹: preferences are "usually assumed to be fixed" (Baron and Hannan 1994, p. 1116).² Second, the qualitative methods that underpin the work of many interpretive social scientists often do not square well with economists' formal aspirations, with their views on causality, or with their predilection for methodological and theoretical precision over real-world accuracy. Third, even when the substantive terrains overlap, the explicit or implicit pecking order between the disciplines often stands in the way of a desirable form of intellectual engagement.

Examining the structure of interdisciplinary citations in detail reveals sharp differences across disciplines. Surveying academic journals from 1995 to 1997, Pieters and Baumgartner (2002) found sharply asymmetric flows between economics and the other social sciences. Our analysis of citations in flagship journals for economics, sociology, and political science over the period from 2000 to 2009 confirms this pattern. As shown in Table 1, articles in the American Political Science Review cite the top 25 economics journals more than five times as often as the articles in the American Economic Review cite the top 25 political science journals. The asymmetry is even starker with regard to the American Sociological Review. While only 2.3 percent of the sociologists' citations go to their economic colleagues (often in a critical fashion, arguably), just 0.3 percent of economists' citations go to sociologists (again only taking into account the top 25 journals in each discipline). Citation data are, of course, likely to be biased downwards because sociology and political science tend to cast their citation networks more broadly overall and because of the role of books (which we do not account for) in those fields. Even so, it is worth pondering these asymmetrical patterns, especially since the discrepancy is so large and other sources of evidence all point in the same direction. A targeted comparison of citations to important figures in sociology and economics who deliberately engaged the other discipline shows this well. French sociologist Pierre Bourdieu, the top-cited name in US sociology today, received a single mention in the AER during the 2000s

¹ "In matters of taste, there can be no disputes."

² In the last 10–15 years however, a few economists have taken a more active interest in the formation of preferences. For examples, see Bowles (1998) and Fehr and Hoff (2011).

Table 1
Citations from the Flagship Journal to Articles Published in the 25 Top Journals in Each Discipline, 2000–2009

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(nc	1	percentage	nt	total	citations	n	each	1011rn 0	1/)
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	Cited j			
Citing journal	Top 25 economics journals	Top 25 political science journals	Top 25 sociology journals	Total number of papers/citations from this journal
American Economic Review	40.3%	0.8%	0.3%	907/ 29,958
American Political Science Review	4.1%	17.5%	1.0%	353/ 19,936
American Sociological Review	2.3%	2.0%	22%	399/ 23,993

Source: Compiled by the authors from the electronic Institute for Scientific Information's Web of Social Science. The high number of papers and cites in the AER is due to the Papers and Proceedings. We also looked at this data without the Papers and Proceedings. The patterns are not significantly different.

(against 60 times in the ASR), while Gary Becker was reaping 41 citations in the ASR (106 in AER). During the same period Max Weber and Mark Granovetter received four mentions each in the AER, but James Heckman was cited 25 times in the ASR by sociologists, and Oliver Williamson, 13. 3

From the vantage point of sociologists, geographers, historians, political scientists, or even psychologists, economists often resemble colonists settling on their land—an image reinforced by some economists' proud claims of "economic imperialism" (Lazear 2000). Lured by the prospect of a productive crop, economists are swift to probe the new grounds. They may ask for guidance upon arrival, even partner-up with the locals (with whom they now often share the same data). But they are unlikely to learn much from them, as they often prefer to deploy their own techniques.⁴ And in some cases, the purpose has been simply to set the other disciplines straight (Nik-Khah and van Horn 2012). Under the influence, notably, of Chicago price theory, the dominant economic paradigm has successfully conquered a segment of political science, law, accounting, and (for a while) sociology under the label of rational choice theory—thus explaining, in part, the directionality of the citation patterns observed above.

Opinion surveys further confirm this analysis. Table 2 suggests that economists have in general less regard for interdisciplinarity than their social scientific and

 $^{^3}$ The data comes from ongoing research on social science. For preliminary results, see Ollion and Abbott (forthcoming).

⁴ Though economists sometimes also repurpose the techniques of others, as illustrated by the borrowing of network analysis from sociology.

Table 2
Agreement or Disagreement with the Proposition: "In general, interdisciplinary knowledge is better than knowledge obtained by a single discipline."

American university professors in	% Agree/ Strongly agree	% Disagree/ Strongly disagree	% No answer/ Don't know
Economics	42.1	57.3	0.6
Sociology	72.9	25.3	1.8
Political science	59.8	28.0	12.2
Psychology	78.7	9.4	11.9
Finance	86.6	9.6	3.8
History	68.2	31.7	0.1

Source: From Gross and Simmons' survey about the politics of the American professoriate. The survey was conducted in 2006. The authors sampled 100 individuals in each field. Return rates are low (though not unusually low for this kind of survey) and varied importantly across disciplines (economists: 44%; sociologists: 55%; political scientists: 54%; psychologists 49%; finance professors: 37%; historians: 54%). We are grateful to Neil Gross for running the cross-tabulations on this survey for us here and elsewhere in the paper. See Gross and Simmons (2007) for details about the survey and Gross (2013) for a broader analysis.

even business school brethren. Economists are the only ones in this group among whom a (substantial) majority disagree or strongly disagree with the proposition that "in general, interdisciplinary knowledge is better than knowledge obtained from a single discipline." Such results are consistent with the notion that economists, with their distinctive confidence in the superiority of their own discipline, are less likely to feel the need to rely on other disciplines or even to acknowledge their existence.

As sociologists know well, this dynamic is characteristic of unequal situations: those in a central position within a field fail to notice peripheral actors and are also largely unaware of the principles that underpin their own domination (Bourdieu 1984). Instead they tend to rationalize power and inequality as a "just" product of merit, justified by effort or talent. A good example of this kind of rationalization would be citing higher average scores on the Graduate Record Exam for graduate students in economics, or the higher impact factors of economics journals. Sociologists, however, might point out that such differences between fields are strongly structured by social determinants such as class, gender, and race. Meanwhile, peripheral actors compulsively orient themselves toward dominant ones, whether positively or negatively.⁵

⁵ As another example of this general phenomenon, Fourcade (2006) notes that non-US-based scholars are much more likely to define their identities around the recognition they receive (or fail to receive) from American academic institutions than the other way around.

Hierarchy Within

The intellectual structure within the discipline of economics is often evoked to explain these asymmetric relations: because economists have managed to preserve a more unitary disciplinary core than other social science fields, other fields will find it easier to refer to economics, if only to establish a counterargument, than the other way around. In other words, the arguments of a unitary discipline are clearly identifiable from the outside, while those of a fractious discipline are more uncertain. Table 1 showed that citations in the American Economic Review are both less interdisciplinary and more concentrated than citations in the political science and sociology flagship journals. This suggests that economics more than the other fields looks both inward and toward the top of its internal hierarchy. This pattern may be interpreted in two ways: there is more consensus in economics than in sociology or political science; and there is more control. Of course these two interpretations are not mutually exclusive: there might be more consensus because there is more control (for instance if a consistent view of what constitutes quality research is promoted by those who control the top journals); conversely, control might be more effective and enforceable because there is more consensus.

There is substantial evidence that notwithstanding deep political differences amongst themselves, economists are more likely to think in a strongly integrated and unified framework than other social scientists. For instance, economists agree widely on the core set of principles and tools that structure PhD training. They also rely on textbooks much more than the other social sciences do, including at the graduate level—and graduate textbooks tend to be written by faculty from elite departments. In a survey conducted in 1990, graduate education was found to be "amazingly similar" across economics PhD programs (Hansen 1991, p. 1085).

In the interdisciplinary fellowship attribution panels studied by Lamont (2009), economists had more homogeneous standards of evaluation within, greater confidence in their judgment about research excellence even in other fields, and a higher likelihood to stick together as a group than panelists from other disciplines. Only historians were similar to economists in the consistency and cohesiveness of their judgments about good historical craftsmanship, but even they were more divided internally along political lines, as well as more open to considering a variety of criteria when judging other disciplines. Judgments about the scholarly merit of proposals were more dispersed and less consensual in the humanities and other social scientific fields, making it harder to identify important works both within and without.

On the control side, economists manage their field tightly. Scholars have long noted that top departments in economics exert a remarkably strong influence over the discipline's internal labor market (Cole 1983; Whitley 1984). The most convincing

⁶ Studying how mainstream economists established their position within the interdisciplinary School for Advanced Studies in the Social Sciences (EHESS) in Paris, Godechot (2011) finds a similar pattern of strong cohesion within and asymmetric relations and exclusion without.

empirical study on this point comes from the comparison by Han (2003) of the hiring process in seven disciplines (their "tribal regimes"): two from the humanities—history and English; four from the social sciences—economics, political science, psychology, and sociology; and mathematics. Using Lingua Franca's annual compilations in Job Tracks: Who Got Hired Where (1993–2000), Han found, unsurprisingly, that all of the disciplines follow a "prestige principle": hires are strongly dependent on the prestige of departments as reported by sources such as the National Research Council and US News and World Report. The flows of students between departments provide unequivocal evidence: they show that universities only hire from institutions that are like-ranked or higher-ranked. Academia hence resembles the kinship systems once described by Claude Lévi-Strauss ([1949]1969), in which some alliances (between students and departments) are preferred while others, being taboo, simply can not exist. This correlation between prestige and placement, however, is strongest in economics. There, the distinctions between clusters are more clearcut than in any other discipline. Economics departments at the very top of the pecking order exchange students amongst themselves in higher proportions than in other fields, including mathematics. Three conclusions emerge. First, hierarchy is much more clearly defined in economics. Second, the field of economics is horizontally more integrated, with strong norms of reciprocity and cohesion in recruitment processes. Third, these norms sustain a high stability of interdepartmental prestige hierarchies over time. By contrast, psychology and sociology are the most decentralized, least cohesive fields and have the least stable prestige rankings.

Getting a Job

Not simply the outcome, but also the conduct of the annual junior job market confirms these differences across the social sciences. In economics, the process is very organized, with most departments collectively deciding on the rank ordering of their own students applying for positions. This procedure, which is uncommon in many academic fields, is possible only in the context of economists' strong internal agreement on quality criteria and because of the field's belief that search and placement processes can be more efficient that way, without altering outcomes. Once a department's own students have been ranked, market intermediaries ("placement officers") are delegated with the task of helping to make matches, by proactively selling the products on offer (so to speak) to potential buyers at the other end. Finally, a ritualized evaluation process progressively filters the vetted candidates, starting with interviews at the annual meetings of the Allied Social Science Associations held in early January. For the aspiring PhD graduate, the real action at the ASSA conference takes place in the hotel suites where the hiring parties—other academic departments, but also government agencies, international institutions, and private sector firms—interview job candidates for several days on end. Meanwhile, in the public meeting rooms, the more-established scholars present their papers to their peers.

The sociology junior labor market stands in sharp contrast to this careful orchestration of the circulation of students. To job applicants and faculty in

sociology, the very notion of a collectively managed process of matching students to job positions would be both unworkable in practice and objectionable in principle. To be sure, social networks play a role and informal contacts sometimes precede on-site "fly outs," but they rarely take the form of a formal interview by a full committee, as they do in economics. Hierarchies between sociology departments are also more uncertain. A vertical structure does exist—sociologists, too, have "market stars" and keep a close eye on commonly referenced departmental rankings. But one would be hard-pressed to define the principles that underpin the pecking order in sociology. Devoid of consensual criteria for generating a putative hierarchy, and perhaps also less trusting of their colleagues' judgment, sociologists must keep the process more open in order to build up consensus from below, inclusively. In economics, consensus is much stronger from the start; "information" about candidates is deemed homogeneous and therefore inherently reliable. As a result, the range of possible options is more tightly defined and determined much earlier.

Getting Published

The economics publications market is also comparatively more concentrated than in other social science disciplines in the sense that the most-cited journals exhibit a heavier concentration of papers coming from elite departments in economics than in sociology. This is true both in terms of the departments where authors work and the departments from which those authors graduated. For instance, according to our calculations, the top five sociology departments account for 22.3 percent of all authors published in the *American Journal of Sociology*, but the top five economics departments account for 28.7 percent of all authors in the *Journal of Political Economy* (*JPE*) and 37.5 percent in the *Quarterly Journal of Economics* (*QJE*). The contrast is even starker when one turns to the institutions from which the authors got their PhDs, with the top five sociology departments now totaling 35.4 percent in the *American Journal of Sociology*, but 45.4 percent in the *Journal of Political Economy* and a sky-high 57.6 percent in the *Quarterly Journal of Economics*.

An economist might tend to regard this concentration as evidence that, across economics departments, intellectual strength is more concentrated in the top departments than is the case across sociology departments. Others might highlight alternative metrics that are also used for evaluation (books may be more important in some disciplines) and the existence of multiple criteria of worth, which are only imperfectly reflected in the hierarchy of scholarly journals. Economists, by contrast, tend to see institutionalized hierarchies as emergent, truthful indicators of some underlying worth, and consequently are obsessed with them. For instance, in no other social science can one find the extraordinary volume of data and research about rankings (of journals, departments, and individuals) that economists

 $^{^7}$ On the role of books in academic careers for sociologists, see Clemens, Powell, McIlwaine, and Okamoto (1995). While the data used in this study are now 20 years old, there is no evidence that the two-pronged situation has changed much.

produce—not to mention the centralization of economic research in RePEc (an international research archive) and the continued existence of a substantial, if marginalized, subfield focused on the history of economics.

This intense awareness of hierarchies in economics breeds a fierce competition for individual status, which may explain some of the most unsettling aspects of the field's operating procedures. One notable fact is that several leading economic journals edited at particular universities have a demonstrable preference for in-house authors, while the American Economic Review is much more balanced in its allocation of journal space. Looking at home bias figures since the 1950s, Coupé (2004, p. 27) finds a consistent pattern of over-representation of in-house authors over time. Between 1990 and 2000 for instance, the Harvard-based Quarterly Journal of Economics "assigned 13.4% of its space to its own people" and 10.7 percent to neighboring MIT (against 8.8 percent to the next most prominent department, Chicago). Conversely, 9.4 percent of the pages of the Chicago-based Journal of Political Economy went to Chicago-affiliated scholars. This was equivalent to the share of Harvard and MIT combined (4.5 and 5.1 percent, respectively). Wu (2007) shows that these biases actually increased between 2000 and 2003.8 Our data (2003-2012) confirms this domination of Cambridge, Massachusetts, over the Quarterly Journal of Economics and (to a lesser extent) Chicago over the Journal of Political Economy. The supremacy of Cambridge is even more striking when one looks at where the authors obtained their PhDs. In 2003-2012, the proportion of Harvard graduates publishing in the QIE was 20.5 percent, just edging MIT graduates (16.4 percent). Both were way ahead of the third contributor, Princeton (7.4 percent). In the IPE, Harvard, MIT, and Chicago graduates all hover around 10–11 percent of the authors pool.

To be sure, there are many reasons for home biases in economic journals, such as higher levels of submissions from faculty and graduate (or former graduate) students if the journal is edited in-house; a higher likelihood of being encouraged by the editor, part of whose job is to bring in good papers through interpersonal connections (Laband and Piette 1994; Medoff 2003); or journal philosophical style leading to self-selection biases in submission. But similar processes are also at play in other fields without producing the same dramatic effects. Thus, even if the social structure of the field may explain some of these differences, it does not explain them *away*: the structure itself stands at the core of the phenomenon that interests us here, which is the stable supremacy of three departments—Chicago, Harvard, and MIT—over the rest of the field, bolstered via control over two university-based journals. As a point of comparison, such home bias is virtually

⁸ Wu (2007) finds that 14 percent of *JPE* pages published over that period went to Chicago authors, and a whopping 28 percent of *QJE* pages went to Harvard–MIT authors (specifically, 15 percent for Harvard and 13 percent for MIT). Our data for the 2003–2012 period shows that the University of Chicago still ranks first with 10.8 percent of the total authors published in the *Journal of Political Economy*, followed by Harvard (6.1 percent) and the MIT (4.1 percent). During the same period, the *Quarterly Journal of Economics* published almost twice as many authors (14.9 percent) from Harvard than from Chicago (7.0), with the MIT coming third (6.2 percent).

nonexistent in the main sociology journal edited out of a university department, the American Journal of Sociology, which is based at the University of Chicago. ⁹ This suggests that the pattern of home bias in top economics journals, together with the stability of rankings of top departments, is not just a coincidence of geography and authors, but stems instead from a particular form of social organization and control.

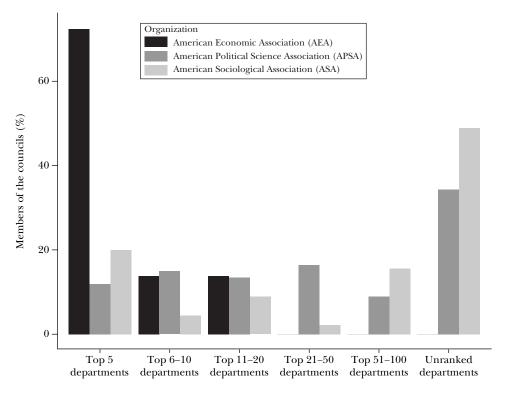
Getting Together

Finally, looking at professional associations across social scientific fields confirms the more cohesive and hierarchical organization of economics, and the more fractious character of its sister disciplines. A rapid comparison of the by-laws of the American Economic Association (AEA), the American Sociological Association (ASA), and the American Political Science Association (APSA) shows vast disparities in the distribution of political power across the disciplines. Despite being 18,000 members strong, the AEA is a minimalist organization based out of Nashville, Tennessee. Dues are low, at \$20-\$40/year as of 2014. The by-laws are short, at 1,770 words, and procedures are centralized. There are only six elected officers, and only one candidate typically runs for president-elect. As Figure 2 shows in dramatic fashion, the AEA leaders are drawn disproportionately from the discipline's elite departments: that is, 72 percent of the AEA nonappointed council members are from the top five departments, in contrast with only 12 and 20 percent respectively for APSA and ASA. The president-elect and program committee run the program for the annual meetings, which involves selecting ahead of time the sessions to be conducted and the papers from a subset of the sessions to be included in the "Papers and Proceedings" issue of the American Economic Review (the May issue following the annual meeting). This procedure ensures a flagging of topics and authors deemed most important by the organization's leadership.

This approach contrasts with the more internally balkanized and also more grassroots nature of the American Sociology Association and the American Political Science Association. Although these professional associations have fewer members than the American Economic Association (about 15,000 for APSA and 13,000 for ASA), their staffs are larger. Procedures are more complex, as reflected in the length of their by-laws: 4,657 words for the ASA, 5,529 for APSA. While the AEA is a unitary organization, community life among sociologists and political scientists revolves around "sections" or organized subfields, each of which has its own procedures, dues, awards, and program at the annual meeting. The ASA solves the political problem of internal divisions by having contested elections at both the central and section levels while the APSA has long resorted to institutionalized horse-trading between the dominant constituencies. In both cases, the organizations' leaders are

⁹ If anything, our data suggest that there might instead be a bias against Chicago faculty in the American Journal of Sociology, who barely make it to the top 20 with a mere 1.4 percent of published papers. Although this proportion rises to 6.9 percent for former Chicago sociology graduates, they are still topped by both Harvard PhDs (9.4 percent) and Stanford PhDs(8 percent).

Figure 2
Institutional Composition of the Executive Council of Three Disciplinary
Organizations by Ranking of Departments of the Nonappointed Officers, 2010–2014



Notes: The ranking of departments is based on the *U.S. News and World Report* 2012 ranking of best graduate schools, by discipline. The "unranked" category comprises mostly departments that do not have a graduate program, and a very small number of foreign institutions.

drawn primarily from nonelite institutions, as shown in Figure 2. Because the disciplinary core is less identifiable and more contested, members of the ASA and the APSA also *identify less* with it: the rank-and-file is less bound to the elite and both associations fulfill primarily a democratic purpose of integration across the board, an openness that is also reflected in the structuring of their conference programs. However, the marginalization of most of the association leaders at the ASA and the APSA from the high-prestige core of the discipline, and also from political power, also explains both organizations' frantic striving for influence, manifested, among other things, in their Washington addresses. To support this more elaborate infrastructure and expensive residence, dues for both organizations are among the highest in the social sciences: \$50 to \$350/year for the ASA; and \$40 to \$320 for the APSA—not counting section dues.

The Rise of Finance

For all the relative insularity and autonomy of economics, economists still do engage other disciplines. Our analysis of five top economics journals shows that between 19 and 25 percent of citations are outside the discipline, a fairly stable pattern since the end of World War II. But when economics goes interdisciplinary, where does it turn? Have the disciplinary connections of economics changed over time, and if so, what does this tell us about the evolution of the field?

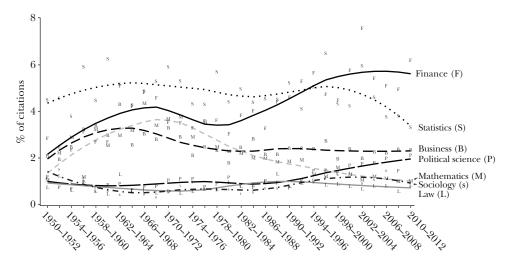
This framing provides us with a different road into the recent history of economics than much of the literature, which is often focused tightly on trends within economies: examples include the transformation of publishing patterns in economic journals (Card and DellaVigna 2013), the rise and fall of fields within economics in volume (Kelly and Bruestle 2011) and in relative prestige (Ellison 2010), or the downward trend in the use of mathematics and in the publication of theoretical papers (Hamermesh 2013). Instead, we begin by analyzing the network of relations between economics and other disciplines over time. In other words, we start from the assumption that who you cite says something about who you are. We find that changing patterns of external citations indeed tell us quite a lot about the inner situation of the discipline and the changing relative power of different constituencies.

Figure 3 offers a representation of economics' extra-disciplinary references, based on our extensive study of citations in five top economics journals that were all founded well before World War II: the Quarterly Journal of Economics (founded in 1899), the Journal of Political Economy (1899), the American Economic Review (1911), Econometrica (1933), and the Review of Economic Studies (1933). The figure tells a story that is partly familiar, partly less so. The points in the figure show the share of outside-the-field citations in economics journals going to journals in the fields of finance (F), statistics (S), business (B), political science (P), mathematics (M), sociology (s), and law (L). Because there is considerable fluctuation from year to year, we show the patterns of the data as smoothed curves. The figure shows the dramatic rise of economics' engagement with mathematics and statistics in the post-World War II period. The high point of this engagement, in the mid-1970s, coincides with the low point of engagement with the other social sciences (such as political science and sociology), as well as with practical enterprises, such as law and, with a slight delay, business. Notwithstanding the foundations' and government's efforts to promote interdisciplinary ventures under the "behavioral sciences" label in the 1950s, the social sciences became clearly more estranged from one another in the 1960s-70s. Nor was economics the only driving force in this process: cross-disciplinary experiments at Harvard (the Department of Social Relations) and Carnegie-Mellon failed, and all the various fields retreated into their own distinctive form of abstraction and high theory (Steinmetz 2005; Isaac 2010).

¹⁰ Citations were obtained from the Institute for Scientific Information's Web of Social Science. The lines were drawn using a smoothing coefficient. See the online Appendix available with this paper at http://e-jep.org for details.

Figure 3

Extradisciplinary Citation in Five Top Economics Journals
(to papers in fields of finance, statistics, business, political science, mathematics, sociology, and law)



Source: The raw citation data were collected from the Institute of Scientific Information's Web of Social Sciences.

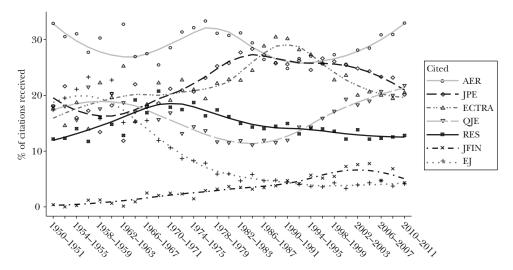
Notes: The points in the figure show the share of outside-the-field citations in five economics journals going to journals in the fields of Finance (F), Statistics (S), Business (B), Political Science (P), Mathematics (M), Sociology (s), and Law (L). The top five economics journals are the Quarterly Journal of Economics (founded in 1899), Journal of Political Economy (1899), American Economic Review (1911), Econometrica (1933), and Review of Economic Studies (1933). We show the patterns of the data as smoothed curves. The lines were drawn using a smoothing coefficient. See the online Appendix available with this paper at http://e-jep.org for details.

The interdisciplinary ecology as it stood toward the end of the period depicted in Figure 3 looks very different. Citations to mathematics in the leading economics journals are practically gone and those to statistics have faltered. The other social sciences have made a modest comeback, particularly political science (which has had a partial conversion to rational choice theory). But the most striking trend from Figure 3 in recent decades is the continuous rise of finance as a purveyor of "interdisciplinary" references for economics.

In judging the magnitude of this trend toward finance, it is important to note that our estimate of the rise of the role of finance within economics in Figure 3 is very conservative. Our list of five top economics journals does not include any finance journal. Figure 4 presents an analysis of citations among our list of five top economics journals plus two more: the *Journal of Finance* (founded in 1946) over time; and the British-based *Economic Journal* (founded in 1891)—a core generalist publication for economists for much of the twentieth century, on par with the *JPE* and *QJE* at the beginning of the period. Self-citations are not counted in the total of cross-citations. Reading the graph, we see that in 2010–2011, the AER got 33 percent

Figure 4
Citations among Six Economics Journals and One Finance Journal

(excluding self-citations; (Quarterly Journal of Economics (QJE), Economic Journal (EJ), Journal of Political Economy (JPE), American Economic Review (AER), Econometrica (ECTRA), Review of Economic Studies (RES), and Journal of Finance (JFIN))



Source: The raw citation data were collected from the ISI's Web of Social Sciences.

Notes: Figure 4 presents an analysis of citations among six economics journals plus the Journal of Finance. Self-citations are not counted in the total of cross-citations. Reading the graph, we see that in 2010–2011, the AER got 33 percent of the cross-citations among that set of journals, self-citations removed. In addition to the data points, the graph shows lines drawn using a smoothing coefficient.

of the cross-citations among that set of journals, self-citations removed. The graph shows a lot of action at the top—the meteoric return of the *QJE* to prominence, the relative decline of *Econometrica* and *JPE*—but two other salient transformations over the very long run are the constant decline of the British journals (*RES* and *EJ*), particularly the *EJ* (which disappears into near-oblivion) and the rise of the *Journal of Finance*. Our bibliometric network data (not shown) indicates that by the 2000s, the *JF* was most closely integrated with the core US-based publications, receiving between 7 and 11 percent of all the cross-references (excluding self-citations) in the *AER*, *QJE* and *JPE*. In other words, the *JF*, which would not have been considered an economics journal when it was first founded, has become an integral part of the economics disciplinary matrix. Other finance journals have followed suit, too, as financial economics has become the dominant approach in the field (Jovanovic 2008). ¹¹

¹¹ The first issue of the *Journal of Financial Economics* came out in 1974, and it is now ranked as the eighth economics journal by impact factor. The *Review of Financial Studies*, first published in 1988, ranks twelfth. The *Journal of Finance* now ranks fifth by impact factor overall in economics, edging ahead of the much older *Review of Economic Studies*.

The institutional rise of finance as an intellectual powerhouse within economics follows from the establishment of a teaching base in business schools in the second half of the twentieth century. Over that period, business schools, which control the production of certified managers (through the MBA degree), have evolved from practitioner-dominated programs struggling for academic legitimacy to become the largest employers of trained social scientists, now rivaling traditional academic departments in the size and distinction of their faculties. A survey from 2004 found 549 economics PhDs teaching in the top 20 US business schools, as compared with 637 economics PhDs in the top 20 economics departments (Blau 2006). This absorption of increasingly large contingents of economics PhDs has turned business schools into formidable players within economic science itself—a transformation that is attested by the remarkable string of Nobel Prizes in economic science awarded to scholars based in business schools since 1990 (Fourcade and Khurana 2013), including Eugene Fama, Oliver Williamson, Robert Engle, Michael Spence, Robert Merton, Myron Scholes, Merton Miller, John Harsanyi, and Robert Fogel.

Our own analysis of papers published in the *American Economic Review* since the 1950s reveals a rapid rise in business school affiliations among authors, and a simultaneous and sharp decline in government-based authors. The share of authors whose primary affiliation is to a business school has increased steadily from a low 3.2 percent in the 1950s to 17.9 percent in the 2000s. Conversely, contributions from scholars located in government agencies have become marginal.¹²

As the academic field of economics shifted toward business schools—and away from government—economists faced a new set of practical, intellectual, and political entanglements: higher levels of compensation, new connections and consulting opportunities, and often different politics as well (Jelveh, Kogut, and Naidu 2014). In the 1980s, suspicion of government action grew markedly within the field, and economists arguably supplied part of the intellectual rationale for the deregulatory movement in public policy and for the expanded use of price and market mechanisms in education, transportation, healthcare, the environment, and elsewhere (Blyth 2002). Financial economists argued forcefully that the purpose of corporations was to maximize shareholder value, and provided a scientific justification for the management practices favored by a new generation of corporate raiders: leveraged buy-outs, mergers and acquisitions, and compensating corporate executives with stock options. In a recent indictment of the "pervasiveness of the capture of economists by business interests," Zingales (2013) found that, when none of their authors worked in a business school, economics articles were significantly

¹² Measures are based on self-declared affiliations on the articles we surveyed. When authors mentioned several affiliations (a trait that has increased over time), we adopted the following procedure: If there was a clear order, we opted for the first institution. Otherwise, and in an attempt to not artificially increase the share of secondary affiliations, we gave priority to "economics department" when mentioned equally with any another institution. See the online Appendix available with this paper at http://e-jep.org for details. ¹³ For instance, see Fligstein and Shin (2007), Jung and Dobbin (2012), Fourcade and Khurana (2013), and Heilbron, Verheul, and Ouak (2014).

"less likely to be positive on the level of executive compensation, and significantly more likely to be negative" (p. 139).¹⁴

A Life of Their Own

Economists have distinctive opinions, beliefs, and tastes compared to academics in other fields and to the broader American public. Evidence on this topic is dispersed and must be pieced together from various sources. A sizeable share comes from economists themselves: the home-grown literature on the topic is abundant. The field is filled with anxious introspection, prompted by economists' feeling that they are powerful but unloved, and by robust empirical evidence that they are different. In some classic examples, Marwell and Ames (1981) found that first-year graduate students in economics at the University of Wisconsin were less likely to make contributions to a public good in a structured laboratory game. In this journal, Frank, Gilovich, and Regan (1993) cite a range of evidence suggesting that studying economics inhibits cooperation. The extent to which such differences persist across the contexts of different laboratory studies, and the underlying cause of any differences that do persist, remains controversial. Is it that learning economics makes people more accepting of self-interested behavior in themselves and others? Or perhaps it is that the discipline attracts more egoistic people? Frey and Meier (2005) look at voluntary student contributions to social funds at the University of Zurich, and find that those who will later choose economics as a field of study are less likely to contribute—even before their economic studies begin. Whatever the underlying dynamic, there is suggestive and convergent evidence that economists are either more candid about pursuing their self-interest, or simply more selfish (by disposition or as a result of training).

Economists are likely to find themselves in a minority position on some of their dearest ideas. Sapienza and Zingales (2013) argue that the more American economists agree among themselves, the more distant they grow from average Americans. In general, of course, economists favor using market-based solutions to address social issues (Whaples 2009). They support allowing payments to be made to organ donors, but the public finds the very thought distasteful. A sizeable majority of economists believes that trade protectionism is economically harmful, but when asked whether "buying American" is good for the economy, the average American agrees it is (Sapienza and Zingales 2013, p. 638). Economists think that a market mechanism such as a carbon tax or a cap-and-trade system of pollution permits is a more cost-effective mechanism to curb climate change than regulatory steps such as car emissions standards, but most of their fellow citizens beg to differ. Economists may advise governments, but they often do not convince the people.

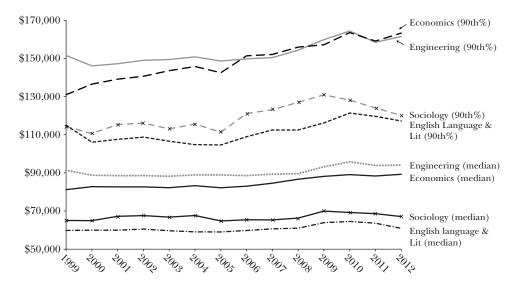
¹⁴ The sample included 150 of the most cited downloaded SSRN papers prior to 2008 using the search key word "executive compensation" (excluding survey papers).

Academic economists vote more to the left than American citizens, like most of their university-based peers. They have been doing so for as long as political opinion surveys have been administered in this setting: Ladd and Lipset (1976) offer a classic early survey. Even though on average the contingent of libertarians among economists is much larger than among the US voting public, as a group, economists still claim to trust the government more—with some important institutional variations. According to the Gross and Simmons survey of the American professoriate (see Gross 2013), economists are situated about halfway between humanities scholars and other social scientists to their left and business schools professors to their right in most of their political opinions. For example, two-thirds of sociologists say that corporations make too much profit, but only one-third of economists and virtually no finance professors think so. The overwhelming majority of sociologists (90 percent) endorse the proposition that "the government should do more to help needy Americans, even if it means going deeper into debt," but barely one-half of the economists and one-third of the finance scholars agree with that proposition.

The worldviews of economists, like those of all individuals, are in part the product of their particular social entanglements—the material and symbolic situation and trajectory of their group, and that of each individual within it. Relative to other academics, economists do better in terms of income. According to the Bureau of Labor Statistics, the mean salary for the 11,000 economics teachers in colleges, universities, and professional schools was \$103,000 in 2012, and \$160,000 for the top 10 percent. For comparisons, the mean figure for sociologists was \$76,000, with the top 10 percent at \$118,000. These totals do not count additional sources of income from consulting work or other activities, which can be substantial (Weyl forthcoming). Furthermore, economists' material situation has improved noticeably over the last two decades, particularly for the best-paid members of the profession, who now narrowly outstrip the best-paid engineers; by contrast, the median real wage in many academic professions (the humanities, mainly) and in the United States at large barely rose over the same period, as we see in Figure 5 (which also covers teachers at junior colleges in addition to colleges, universities, and professional schools). How this experience of group social mobility and growing intrafield inequalities may have affected economists' appreciation of the deteriorating relative economic situation of their less-fortunate fellow academics and citizens is an open question.

This growing social distance of economists from the public at large would be irrelevant if economists were not making it their mission to maximize the welfare of ordinary people. Economics as a profession is prominently intertwined with public administrations, corporations, and international organizations; these institutions not only provide economists with resources and collect their data, they also foster a "fix it" culture—or, as sociologists would put it, a particular "habitus," a disposition to intervene in the world (Bourdieu and Wacquant 1992). Economists, particularly modern economists, want to fix things, which is both a product of their theoretical confidence and of the position of their discipline within society (Mitchell 1998). For instance, economic models routinely invoke the mythical figure of the benevolent

Figure 5
Annual Median and 90th Percentile Wages in Selected Disciplines, 1999–2012 (2012 constant dollars)



Source: Bureau of Labor Statistics (BLS) Occupational Employment Statistics, http://www.bls.gov/oes/tables.htm.

Note: Figure 5 covers teachers at junior colleges in addition to colleges, universities, and professional schools.

"social planner," imagining what this entity would do to make the world richer, healthier, and less vulnerable to shocks. Economists have developed a precise theoretical framework for evaluating when markets produce efficiency and when market failures can occur, and they have a vast econometric arsenal at their disposal to parse out the effects of actual policy proposals. In the last quarter of the twentieth century, they also started running narrowly specified field experiments, increasingly putting the administration of social policy or development aid at the service of research (for example, Banerjee and Duflo 2013). (One may note in passing that the experiments of economists are quite different from those of sociologists, who tend to run experiments to understand how people live.) Finally, economists are fairly certain about their ultimate judgment criteria—their predilection for efficiency over fairness, the eliciting of preferences from behavior, and the design of experiments around a tight menu of choices. These criteria positively sanction both an orientation toward policy adjudication and advice, and a distinctive willingness, even eagerness to serve and intervene. If things don't work the way they should, then a smart readjustment, a "nudge," may even be called for (Thaler and Sunstein 2008).

Here again, a comparison with sociologists is telling: sociologists might vie for the position of the prince's counselor too, but they have been much less successful at securing influence. First, economics and sociology have different orientations to time. Economists generally pay little attention to history, "live in the now," and

"see trajectories from the present forward," while sociologists have the reverse intellectual attitude, looking at the present as the outcome of a set of past processes (Abbott 2005). Thus, sociologists often find themselves both effectively marginalized and shying away from direct policy involvement. Their intellectual habits center around social critique precisely because they are already outside: in the words of sociologist Pierre Bourdieu, they "make a virtue of necessity." Self-perceptions reflect these differences well. In Gross and Simmons's (2007) survey of the American professoriate, economists described themselves mainly as "intellectuals" and "scientists." Sociologists were most comfortable with the terms "social critics" and "scientists," unconsciously embracing their own peripheral position but without abandoning the mantel of science. The combination of sociologists' desire for relevance with their deep ambivalence toward power produces a very different set of dispositions: sociologists analyze critically, sometimes rouse and stir, but they rarely venture to propose fixes and remedies (they are not in a position to do so and would perhaps be reluctant to even if they had the opportunity). Political scientists, interestingly, saw themselves primarily as "intellectuals," but perhaps reflecting their much closer proximity to the political game, they were also somewhat more likely to distance themselves from the label "scientists" than either sociologists or economists.

The upshot of economists' confident attitude toward their own interventions in the world is that economics, unlike sociology or political science, has become a powerful transformative force. Economists do not simply depict a reality out there, they also make it happen by disseminating their advice and tools. In sociological terms, they "perform" reality (Callon 1998). Aspects of economic theories and techniques become embedded in real-life economic processes, and become part of the equipment that economic actors and ordinary citizens use in their day-to-day economic interactions. In some cases, the practical use of economic technologies may actually align people's behavior with its depiction by economic models. By changing the nature of economic processes from within, economics then has the power to make economic theories truer. For example, MacKenzie (2006) discusses how academic financial theories gave rise to enormous markets in futures, options, and other derivative financial instruments: the use of the Black–Scholes–Merton formula by market actors altered economic processes in such a way that it improved the fit of the model to the reality of option prices.

The world has changed in important ways under the influence of economists. Economic reasoning, expertise, and technologies permeate capitalist activities, culture (including the media and best-seller lists), and institutions, from hospitals through courts to universities (Hirschman and Popp Berman 2014). Economists dispense their expertise on practically all matters of public policy and have made steady gains in business and government, often in top political positions (Montecinos and Markoff 2009). Finance ministries, central banks, government agencies, international organizations, and dominant consultancies harbor large concentrations of professionally trained economists, who claim tutelary power over "the economy" while viewing societies as involved in a never-ending but ultimately beneficial

process of economic reconstruction. Finally, the rational-formalist language of the economics profession underpins its universalistic aspirations. Economic fashions circulate across borders, drawing people and techniques in their wake. Much more than sociology or political science, economics is a symbolically and materially globalized discipline (Fourcade 2006).

Thus, most economists feel quite secure about their value-added. They are comforted in this feeling by the fairly unified disciplinary framework behind them, higher salaries that many of them believe reflect some true fundamental value, and a whole institutional structure—from newspapers to congressional committees to international policy circles—looking up to them for answers, especially in hard times. In fact, the recent economic and financial crisis has arguably made the discipline of economics as a whole more, not less, visible, and its expertise more sought-after: the deep recessions of the early 1980s and the Great Depression of the 1930s had the same effect.

But because economics is a transformative force, and because its operatives tend to be in charge, economists are also more exposed. The financial and economic maelstrom of 2008, which few in the economics profession had anticipated (but whose institutional roots could be traced back, in part, to actions some of them had lobbied for), led many economists to engage in soul-searching about their lack of awareness, their intellectual bullishness, and the reliability of their claims to expertise. Following discomforting interviews in the 2010 movie documentary *Inside Job*, in which prominent members of the profession emphatically denied the possibility of conflicts of interest for economists, the American Economic Association promoted a set of ethical guidelines. From his powerful tribune at the New York Times, Nobel-prize winner Paul Krugman (2009) aired the dirty laundry of macroeconomics—usually buried in esoteric models—in a fierce and very public manner. Economists also began to talk about distributional issues, the bread and butter of that other social science, sociology, in a way that was unimaginable just two or three decades before. To be sure, the changing facts of inequality warrant this newfound interest (Piketty 2014). But the intellectual winds in economics may be shifting, too.

Conclusion: Humble, Competent People?

"If economists could manage to get themselves thought of as humble, competent people, on a level with dentists, that would be splendid!" Keynes ([1931] 1962, p. 373) famously wrote. Most modern economists have a strong practical bent. They believe in the ideal of an expert-advised democracy, in which their competence would be utilized and on display in high-profile, non-elective positions in government and other institutions. But democratic societies are deeply suspicious of (nondemocratic) expertise; and economic advice, unlike dentistry, can never be humble. The fact is that—in some ways true to its philosophical origins—economics is a very moral science after all. Unlike atoms and molecules, the "objects" upon which economists seek to act have a perspective on the world,

too. Human life is messy, never to be grasped in its full complexity or shaped according to plan: people act in unanticipated ways; politics makes its own demands; cultures (which economists do not understand well) resist. Thus, the very real success of economists in establishing their professional dominion also inevitably throws them into the rough and tumble of democratic politics and into a hazardous intimacy with economic, political, and administrative power. It takes a lot of self-confidence to put forward decisive expert claims in that context. That confidence is perhaps the greatest achievement of the economics profession—but it is also its most vulnerable trait, its Achilles' heel.

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