

June 28, 2007

"How to Buy, Sell, Make, Manage, Produce, Transact,
Consume with Words"

Deirdre McCloskey

University of Illinois at Chicago

deirdremccloskey.org

Economics has two problems with language. My old book on rhetoric tried to talk about the first one, that economists don't know they have been speaking prose all their lives. *The Rhetoric of Economics* (1985/1998) revealed the unsurprising fact that economists are poets/ But don't know it. They use metaphors to speak of education as "human capital," for instance. The next book, *If You're So Smart: The Narrative of Economic Expertise* (1990), revealed the unsurprising fact that economists are novelists, too, and again don't know it. They tell, for instance, a story of expert economists who can make you rich, if you will but follow their excellent advice. The third book, which I purposely gave a dull title to avoid further shocking the conventional methodologists of economics, replied philosophically to the fierce denials of these unsurprising

facts (The Rhetoric received over fifty reviews, many of them hostile). Knowledge and Persuasion in Economics (1994) itself revealed the unsurprising fact, which encompasses the two others, that science is language, all the way down.

Many of the fascinating papers in this volume carry forward, far beyond my poor abilities, the project of analyzing the rhetoric that economists use. Outsiders to communication studies or literary criticism are apt to suppose that doing so is always hostile. They think of “criticism” in its street sense, as an attack, or in its newspaper sense, as an awarding of stars of merit. “Rhetoric” in their minds is inessential surface nonsense that when stripped away reveals the “real message,” the hidden ideology for example. Doubtless work of such a sort may be done, and is in fact usefully done here. And I’m not against grading scholarship and science. In a few little books lately, and in associated articles, *The Vices of Economists*, *The Virtues of the Bourgeoisie* (1997), *How to Be Human** **Though an Economist* (2000), and *The Secret Sins of Economics* (2002), I have “criticized” economics in the street and newspaper sense. Stephen Ziliak and I have just published a full-scale attack on the rhetoric and praxis of so-called “Fisherian statistical significance,” *The Cult of Statistical Significance: How the Standard Error is Costing Jobs, Justice, and Lives* (2007). So I’m not an apologist for economics just as she is. People sometimes say that I am because they are so vexed that I am postmodern yet remain a Chicago-School economist.

But I don’t think that the entire purpose of analyzing an intellectual product is to assign it to the Good pile or the Bad, or for that matter to reveal its

false consciousness and its hidden ideologies. Sophisticated students of “rhetoric” understand that the word means anciently the study of the available means of non-violent persuasion. All science involves non-violent persuasion. Good science is rhetorical no less than bad science, and has its rhetorical means. As a matter of fact in most of my own ruminations on the rhetoric of economics I purposely chose examples to study with which I agreed in substance. When I “translated” John Muth’s obscure language in his 1961 paper on rational expectations or looked into the techniques of establishing ethos in Ronald Coase’s 1937 paper on transaction costs I was doing a rhetorical analysis of pieces of economics I thought and still think are pretty neat stuff.

But others of the essays here go beyond what my rhetorical books tried to do, all the way to the economy itself. So have I also, at last, finally, done so--- dragged kicking and screaming by friends like Arjo Klamer and John Nelson and Jack Amariglio and Judith Mehta and Stephen Ziliak out of my comfortable “criticism” of economics as an academic field and into the actual, daily, fruit-selling, labor-buying economy.

Let me talk to you, then, about the role of language in the economy.

* * * *

The other, second problem that economics as an academic field has with language is that it ignores the language used by economic actors. Old Adam Smith, whose first job was in effect teaching high-school students in English

composition, and who wrote a little unpublished book on rhetoric, would be distressed at how uninterested in language his offspring have become. Smith was indeed, with a few partial exceptions in Austrian and old institutional economics, the first and alas the only economist to acknowledge that language, and therefore the ethical reflection he called the “impartial spectator,” matters to how the economy works.

Understand, though, that bringing language into thinking about the economy does not necessarily trash everything that economists have already discovered. I do not wish to bring comfort to humanists who detest mathematics and statistics, for example, or people of the left who detest everything about what they call “neoclassical” economics, by which they often mean, to be particular, my beloved Chicago School.

In 2002, for example, Bernhard Guerrien launched an attack on those of us of Chicago and elsewhere who believe that supply and demand curves are pretty neat stuff (Guerrien, 2002). Guerrien notes that supply and demand curves assume a “given” price. This is of course correct. But he then argues that there is no conceivable source for the givenness except the patently absurd fiction of a Walrasian auctioneer, the fellow that Léon Walras is thought to have imagined in 1874 (he didn’t actually: the phrase is a later attribution) as the person who adjusts excess supplies and demands in a market by literally shouting out new prices. The criticism is incorrect, and can be seen to be incorrect as soon as we bring language seriously into our view of the economy.

What's incorrect about the criticism, an old one, actually, is that there is a source, an obvious one, for "given" prices, though neglected by the Walrasian-Samuelsonian economics that Guerrien and I join in criticizing. The obvious source is also ignored by Marxist economics, neo-institutional economics, post-Keynesian economics, behavioral economics, much of the rest of economics, and even I believe by economic sociologists. The only economists who so much as mention it are the Austrians and the old institutionalists I mentioned, which is one reason I count myself a fellow traveler of these disdained little groups.

The missing source is conversation, rhetoric, language, sweet talk itself. The price gets its givenness from the literal conversations that go on in markets. I do not mean by "conversations" only the putting and taking of offers, surrounded otherwise, as has been assumed in economic theory since Jeremy Bentham, by stony silence. To be sure, mere money offers are, Smith had noted, a variety of persuasive talk: "The offering of a shilling, which to us appears to have so plain and simple a meaning, is in reality offering an argument to persuade one to do so and so as it is for his interest" (Smith, 1762-3/1978/1982), p. 352). But people do not merely silently offer shillings and silently hand over haircuts. People are not, as what rebellious French students have called "autistic" economics and as Guerrien in his attack assume, vending machines. They talk, or as Arjo Klamer puts it, they converse. And in conversing they open each other to modifications of the price, it may be, and anyway they establish, as we say, the "going" price. Every market participant "is practicing oratory. . . . In

this manner . . . [he] acquires a certain dexterity and address in managing their affairs, or in other words in managing of men [and women, dear Adam, if you please]; and this is altogether the practice of every man in the most ordinary affairs." The ordinary affair of economics itself, for example. The going idea in Samuelsonian economics, we post-autism folk are saying, has been the crazy idea that people do not converse. The Samuelsonians are mistaken.

Of course, in a large market or a large conservation a small voice is seldom heard. That is what an economist means by "givenness," and was the point of Albert Hirschman's pregnant distinction among the three tactics one can use when faced with an unhappy social situation: exit, voice, and loyalty (Hirschman, 1970). There is little point in driving to an enormous California supermarket and initiating an aggressive conversation with the manager about the price of milk. You better wait until you are talking to your friend the local shopkeeper, perhaps, who might actually respond, persuading you in the ensuing conversation that nothing is to be done, because after all he is in turn a small voice in the market for milk. Or you might, as an economist, wait until you are talking to the Milk Board, which sets the wholesale price of milk, though doubtless it does so after much talk with fellow Board members and with politicians and with Ministry of Agriculture functionaries. You might change their minds, and so their talk, and so the price, a bit. You certainly could change some weak minds if you were the President the United States, say, and wanted to redefine the word "torture."

The situation in markets is identical to that of language. No prudent person would initiate conversations with strangers on the bus about the definition of "givenness" in economic theory. If she does, she can expect them to edge away from her. She will wait until she is talking to other economists, at any rate to economists imagining in their conversations a post-autistic economics that is not so dogmatically of the Left that it objects to every idea that the cursed bourgeois economists have articulated. We use the French word *amour* or the English word *love* without stopping to quarrel about their meanings, or insisting that *love* actually means "hate," or "light bulb," or "the train will arrive in six minutes." That is, the on-going conversation of language---I note that Walras' colleague Saussure made this point a century ago---gives to us mere ordinary speakers of a language a set of distinctions serving to define what's on offer in French or English by way of *sheep/mutton* as against *mouton*. In the same way, Friedrich Hayek pointed out long ago, prices are "given" only in the sense that the search procedure of a market conversation coughs them up, out of bids and offers formed from "knowledge initially dispersed among all the people" (Hayek, 1945, p. 520). Hayek didn't emphasize the conversation that does the trick quite as much as he should have.

Guerrien will perhaps reply that the going price, or meaning, is just an instance of bargaining. But I think he and I agree that if bargaining in a strictly game-theoretic way is what we are talking about, then we should abandon all hope for a useable economics. The Folk Theorem showed some time ago that in

a properly infinite game and an assumption of Prudence Only you can get any old equilibrium you want. As some game theorists put it, "game equilibrium models of rational play lead to an outcome set where players can do almost anything and still be consistent with the theory. The prediction that individuals might do anything from a large set of feasible strategies is neither useful nor precise" (Ostrom et al., 1994, p. 322). Prudence-only game theory, without social agreements of solidarity and justice on how a conversation can change minds, has no implications. None at all: change the assumptions, change the equilibrium. And in every empirical test on offer, this or that set of prudence-only assumptions has failed. Unlike supply and demand curves.

A price is not set usually by silent bid-offer, move-countermove game bargaining, with its intrinsic paradoxes, an elderly example of which Guerrien has repeated. Price is not set by an auctioneer in most markets---though I wonder what Guerrien would make of the Alsmeer flower market in Holland, with its Dutch-auction clocks ticking the price down; or of the electronic exchanges replacing open-outcry pits at the Chicago Board of Trade. Most prices get their meaning and in particular the givenness of their meaning from the economic conversation. Just as *amour* has a more or less given meaning in French, or *torture* in English, modifiable at the edges by particularly persuasive talkers, or, to speak of the main source of actual linguistic change, by the games that teenagers play with words, so do dictionary-makers face a more or less given money price for their product. Larrousse cannot suddenly decide to

charge 10,000 euros a copy for its big French-French dictionary, or even much above the going price. And therefore it lives with supply and demand curves. There is nothing mysterious or self-contradictory about the situation.

I do not claim that we economists have already figured out how language and the economy intermesh. The scientific task still remains to be done, yielding a humanistic economics, that is, an economics acknowledging humans as talking, singing, story-telling, ethical creatures. Until then the science of economics will be incomplete and paradoxical in the ways that Guerrien has noted.

Meanwhile, givenness is how we little folk in a large society face any piece of our culture, such as language itself or the going price of milk. We only need to recognize that the economy is part of the culture, and of its conversations, to recognize that supply and demand curves do after all work, rather well.

* * * *

Let's then get into the details. Realize at the outset that the role of language in the economy---as is so obviously true of language in economics---is not merely the transmittal of preformed messages. Language persuades, and in the course of its speaking of us we are changed. The economist Jacob Marschak wrote a paper in 1968 exploring the "economics of inquiring, communicating, deciding," but got no further in thinking about it than the model of transmittal and gathering of bits of information, such as telephone numbers and the price of hog bellies. "Data are gathered. They are communicated [note the word] to the

decision-maker. He, on the basis of the message received, decides upon the action" (Marschak, 1968, p. 2). The only fruit of the sender-receiver metaphor thus deployed is to observe that "perfection is costly" (p. 3), in other words that encoding and decoding are costly (see his diagram on p. 5) and are therefore subject to a rational calculus of cost and benefit. At some point---the statisticians call it the "optimal stopping point"---it's not worth inquiring any more into the price of 10-year old Toyota Avalons in good condition in Chicago. You probably aren't going to find a better price, and anyway the additional search won't yield enough of a better one.

The same point had been made in 1961 by another economist, George Stigler, who developed the mathematics more elegantly than Marschak did, and stated the basic point more eloquently, too: "One should hardly have to tell academicians that information is a valuable resource: knowledge is power. And yet it occupies a slum dwelling in the town of economics. Mostly it is ignored" (Stigler, 1961/1968, p. 171).

Thanks to economists such as these---Kenneth Boulding, for example (1958, pp. 87-97); or Ronald Coase and his "transaction costs"; or George Akerlof and "asymmetric information"---the transmittal and gathering of bits of information is no longer ignored in economics. In fact it could be said to be one of the two main preoccupations of economic theory since the 1960s, the other being further explorations to and beyond the outer limit of reason of "rational"

behavior assuming one has already acquired all profitable information, “non-cooperative game theory.”

But the metaphor of transmittal has narrow limits. When Thoreau was told by some technology-admirer that the extensions of the new telegraph now made it possible for “Maine to speak to Texas,” he replied, “But does Maine have anything to say to Texas?” The meaning of the message in economics has been left aside.

Students of communication, rhetoric, linguistics, philosophy, and the like will call the transmittal metaphor the “conduit metaphor.” In 1979 the linguist Michael Reddy gave fully 141 expressions of the conduit metaphor in English rhetoric, such as “You’ll have to try to get your real attitudes across to her better” (expression-type A, “implying that human language functions like a conduit,” number 1, p. 311) or “Her unhappy feelings fell on deaf ears” (type G, “implying that the [bits of information] may or may not find their way into the heads of living humans,” number 141, p. 320). The point is, as Reddy puts it, that “English has a preferred framework for conceptualizing communication, and can bias thought processes toward this framework, even though nothing more than common sense is necessary to devise a different, more accurate framework” (p. 285). He gives 45 expressions that when used alone, without the conduit metaphor lurking in the background, imply a quite different framework: for example, “How do you build readings for sentences like that?” Building readings is a cooperative enterprise in a common space, a cooperative game, not

a pre-formed bit of information sent hurtling through the conduit, like signed checks sent in the pneumatic tube to your drive-in bank teller. My personal metaphor, less felicitous than “the conduit” because it depends on a specifically American cultural reference, is the “Roto-Rooter theory of communication.” Communication in the Stigler-Marshak-et al. view is a matter of pipes between minds. If they get clogged the sending of information costs more, and so if it’s worthwhile to call the Roto-Rooter man and have the pipes reamed out, re-establishing clean conduits in which “Your concepts come across beautifully” (Reddy, number 8).

“But wait a minute,” the reader will say. “What’s wrong with the conduit metaphor? Isn’t it true? Aren’t we in fact engaged in getting our ideas across and gathering information?”

No, we are not, not entirely. The conduit metaphor describes some part of economic language, such as the report that hog bellies were \$0.9283 per pound at 2:30 Eastern time on June 28, 2007. Obviously some language is transmission as through a conduit, as when you give your friend your telephone number or when you inform an economically naïve audience that Ben Bernanke’s portfolio as Fed chief is after all only a few percent of existing world bonds. Humans do such “communication,” but so do birds signaling territorial limits, or fish in a school. Trademarks and brands are of course linguistic items, “signs” literally. Informational advertising would provide some of the data for a study of social language in this restricted sense, making use of the immense academic literature

on marketing, for example. Semiology arises at that point---again in animals and plants as well. Flowering plants are signals: "Here I am, oh pollinating insect, oh seed-spreading bird or mammal."

And beyond the point of honest persuasion in "conveying" information comes the temptation to lie, "misinformation," "manipulation," The vulgar, newspaper meaning of "rhetoric." This we humans have to a notable extent in common with other great apes---but also indeed with camouflaging plants and animals. Though advertising is, statistically speaking, mainly informative or a bond as to quality, notoriously it is sometimes persuasive in dishonest ways. Precisely because signs and signals and advertising and rhetoric are sometimes not mere information, and meant instead to change ones mind, humans (and other great apes) are suspicious of rhetoric. It's one reason that since the 17th century the study of rhetoric has been devalued, as merely democratic beside the aristocratic glories of first-order predicate logic.

* * * *

But persuasion, as against informational messages sent through the conduit without rhetoric or judgment, is in fact a very large item in a modern economy. We economists have got to stop ignoring the fact. We've got to stop ignoring meaning and its making through words.

David Lodge's novel, *Nice Work*, shows an English professor, Robyn Penrose, seeing that the businessman she was assigned to watch was first a persuader:

It did strike [her] that Vic Wilcox stood to his subordinates in the relation of teacher to pupils. . . . She could see that he was trying to teach the other men, to coax and persuade them to look at the factory's operations in a new way. He would have been surprised to be told it, but he used the Socratic method: he prompted the other directors and middle managers and even the foremen to identify the problems themselves and to reach by their own reasoning the solutions he had himself already determined upon. It was so deftly done that she had sometimes to temper her admiration by reminding herself that it was all directed by the profit-motive. (Lodge, 1988/1990, p. 219).

About a quarter of national income, to be statistical about it, is earned from merely bourgeois and feminine persuasion: not orders or information but persuasion, "sweet talk." One thinks immediately of advertising, but in fact advertising is a tiny part of the total. Take the detailed categories of employment and make a guess as to the percentage of the time in each category spent on persuasion. For example, read down the roughly 250 occupations listed in "Employed Civilians by Occupation" (Table 602) in the *Statistical Abstract of the U. S.* (2007) looking for the jobs with a lot of sweet-talking, or on the contrary the jobs without any of it. The 125,000 "appraisers and assessors of real estate" are

not in an honest economy open to human persuasion, as any American knows who has had a house appraised recently. The 243,000 firefighters just do their job, with little talk---although one sees here the depth of sweet talk in a modern economy, because of course a firefighter with colleagues in a burning building does actually a good deal of talking, and sometimes engages in urgent persuasion. The 121,000 aircraft pilots and flight engineers persuade us to keep our seat belts on until the plane arrives at the gate and the seat-belt sign is turned off. But that's a trivial part of their job---though again think of the supervisory roles they often assume, and the sweet talk they need to keep the crew cooperating. The 1,491,000 construction laborers are not known for persuasive language, except in the old days when a pretty girl walked by. But anyone who has actually worked in such a job knows the necessity to get cooperation from your work mates, to soothe the feelings of the boss, to be a regular guy or gal: sweet talk. But set all those jobs aside.

Out of the 142 million civilian employment in 2005 it seems reasonable to assign 100 percent of the time of the 1,031,000 lawyers and judges to persuasion, or being an audience for persuasion; and likewise all the 154,000 public relations specialists and the large number of "Social, recreational, and religious workers" (such as counselors, social workers, clergy), 2,138,000 of them persuading people how to live.

Managers and supervisors of various sorts are the biggest category to which it seems reasonable to assign a somewhat lower figure, 75 percent of

income earned from sweet talk. In a free society the workers are not merely peremptorily ordered about, to be beaten with knouts if they do not respond. They need to be persuaded. What the U. S. Census Bureau styles “managerial occupations,” such as CEOs, school principals, marketing managers, and the like are a massive 14.7 million, fully 10 percent of the labor force. Adding the “first-line supervisors” scattered over all sectors---which I suppose similarly to be a workforce earning 75 percent of its earnings from persuasion---such as in construction and personal services and gaming (i.e. gambling) workers, adds another 5.5 million. Add 380,000 for personal financial advisors. The 150,000 editors and (merely) 89,000 news analysts, reporters, and correspondents are probably 75-percent folk. They imagine themselves to be doing “straight reporting,” but it doesn’t take much rhetorical education to realize that they must select their facts persuasively and report them interestingly in sweet words. Likewise the 13.4 million salespeople (excluding 3.1 million cashiers) are reasonably put down as 75-percent sweet talkers. “The dress is you, dear.” It may even be true. In my experience, actually, it usually is. We exaggerate the amount of lies that salespeople tell.

At 50-percent persuaders we can put down loan councilors and officers (429,000: like judges, they are often professional audiences for persuasion: they say yes or no after listening to your sweet talk and gathering your information), human resources, training, and labor relations occupations (660,000: “Mr. Babbitt, I just don’t think you have much of a future at Acme”), writers and

authors (we are merely 178,000), claims adjusters and investigators (303,000), and a big category, the 8,114,000 educational, training, and library occupations, such as college professors (1.2 million alone) and nursery school teachers.

A mere quarter of the effort of the 1,313,000 police and sheriff's patrol officers, detectives and criminal investigators, correctional officers, and private detectives, one might guess, is spent on persuasion. That's what they'll tell you (actually the ones I've talked to put it at higher than a quarter; one way of backing all this up would be to do in-depth interviews, probing for sweet talk as against mere information or coercion or physical activity in a job; or riding along in the squad car and listening). In health care anyone who has worked in it knows that sweet talk is important, to get the patients to stay on their medicine, of course, and to coordinate with other care-givers, to advocate for the patient, to deal with insurance companies and hospital administrators (some of whom are included above in the managerial category). But the large group of "health care practitioners and technical occupations" needs to have the technical occupations (x-ray technicians, medical records technicians, and so forth) removed, leaving physicians, dentists, nurses, speech pathologists, and so forth actually talking to patients and each other, for a total of 7,600,000 talkers persuading for a quarter of their economic value. Perform the mental experiment: imagine a speech pathologist, an occupation I am familiar with, with no persuasive skills whatever, and imagine how much less valuable she or he would be. The 353,000 paralegals and legal assistants figure in the one-quarter category, too. It sounds low.

The occupations I mention alone, without hunting in putatively unpersuading categories like mail carriers or bus drivers or life, physical, and social science occupations (within which are buried the persuasive economists themselves), amount to 36,100,000 equivalent workers---that is, weighted by 1.0, 0.75, 0.50, or 0.25 as the case warrants and then added up. That was in 2005 about a quarter of the income-earning numbers of private employees in the U. S. Weighted instead by dollar incomes, considering the big role for managers and supervisors (about 20 million, remember, out of all the 142 million workers), who are of course paid much more---sometimes grotesquely more---than the people they persuade to work hard and long and well, the share would probably be larger still.

A similar calculation for 1988 and 1992, using the slightly different categories available for those years, yielded similar results (Klamer & McCloskey, 1995). Somewhat surprisingly the weight of sweet talk in the economy has not risen since then---though if police and health-care workers were put in the 50-percent category, and educators in the 75 percent, as the earlier calculations assumed, the share of persuasive work in 2005 would be nudged up to 28.4 percent of the total.

The calculation could be improved with more factual and economic detail; for instance, the workers as I just said could be weighted by salaries; the marginal product of persuasion could be considered in more detail; the occupational categories could be subdivided; the premium to better persuasion

could be estimated from sales commissions or promotions; squad cars could be ridden in, and---as Ronald Coase did to discover transaction costs in fact and as Robyn Penrose did in fiction--the managers could be shadowed. I intend here only to raise the scientific issue, not to settle it.

The result can be checked with other measures. John Wallis and Douglass North reckoned that fifty percent of American national income was Coasean transaction costs, the costs of persuasion being part of these (1986). Expenditures to negotiate and enforce contracts---their definition of transaction costs---rose from a quarter of national income in 1870 to over half of national income in 1970 (Wallis & North, 1986, Table 3.13). Their measure is not precisely the one wanted here. Transactions costs include, for example, “protective services,” such as police and prisons, some of whose income (I am claiming three quarters of it) is “talk” only in an extended and sometimes physically violent sense. Literal talk is special – in particular it is cheap, as guns and walls are not – in a way that makes it analytically separate from the rest of transaction costs.

Not all the half of American workers who are white-collar talk for a living, but in a not-very-extended sense many do, and more so as office work gets less physical in typing and filing and copying. So for that matter do many blue-collar workers persuading each other to handle the cargo just so, and especially pink collar workers dealing all day with talking people. And a good percentage of the talkers are persuaders. The secretary shepherding a document through the company bureaucracy is often called on to exercise sweet talk and veiled threats.

If she can't use sweet talk she's not doing her job. The bureaucrats and professionals who constitute most of the white-collar workforce are not themselves merchants, but they do a merchant's business inside and outside their companies. Walk with me, talk with me. What news on the Rialto? Note the persuasion exercised the next time you buy a necktie. Specialty clothing stores charge more than discount stores not staffed with rhetoricians. The differential pays for the persuasion: "The fish tie makes a statement." As Smith said "everyone is practicing oratory." Not everyone, perhaps, but in Smith's time a substantial percentage and in modern times fully twenty-five percent.

The same point can be made from the other side of the national accounts, the product side. The more obviously talkie parts of production amount to a good share of the total, and much of these must have been persuasion rather than information or command. Out of an American domestic product of \$11,734 billion in 2004 (Statistical Abstract 2006, Table 650, p. 430) one can sort through the categories of value added at the level of fifty or so industries, assigning rough guesses as to the percentage of sweet talk produced by each---80 percent for "Management of companies," 20 percent for "Real estate rental and leasing," 40 percent for "art and entertainment" for example---and get up to about 17 percent of the total. The figure squares crudely with the income side. Persuasion is big, very big. Economists should stop ignoring it.

Over the very long run of centuries the sweet talk is surely rising as a share of income, and will become very large indeed in the next century. Jobs for

peasants, proletarians, and aristocrats are disappearing, and jobs for the talkative bourgeoisie are what remain. The production of things has become and will continue to become cheaper relative to persuasion. A piece of cotton cloth that sold for 70 or 80 shillings in the 1780s sold in the 1850s for 5 shillings, and now adjusting for inflation it sells for pennies. The cheapening of things first led peasants off the land: three-quarters of American workers in 1800 worked on farms; forty percent in 1900; eight percent in 1960; two-and-a-half percent in 1990. The two-and-a-half percent produced 800 times more than the three-quarters had. A lawyer or professor was not much more productive in 1990 than in 1800. But a farmer was more productive by a factor of 36. The making of things in factories will go the same way as the preparing of food in kitchens and the growing of crops on farms. The calculating power---adding, multiplying, and carrying---that sold for \$400 in 1970 sold for \$4 in 1990 and 4 cents in 2000. The silent proletarian labor required to make a radio, a window pane, or an automobile is dropping towards zero. Workers on the line in manufacturing peaked at about a fifth of the labor force after World War II and have since been falling, at first slowly and now quickly. In 2003 a mere 2 percent of the civilian labor force was in agriculture, 10 percent in manufacturing. What is left is hamburger flipping and secretarial work on the one side and bourgeois occupations, largely persuasive, on the other. In fifty years a maker of things on an assembly line will be as rare as a farmer is now, the non-persuaders vanishing into the automated background of the economy.

The delivery of information and commands partakes in the euthanasia of the maker. A farmer can turn on his computer in the morning and know at once the price of hogs on every exchange. A single electronic source of information on the hog prices does the work of fifty newspapers. When a Gremeen bank finances the purchase by a local woman of a cell phone the farmers in her neighborhood suddenly know for sure the prices on offer in Dhaka. In an army the order to march can be conveyed cheaper by radio than by a lieutenant on a horse. Information and commands become cheaper and cheaper.

But persuasion does not become cheaper. It will not go the way of goods and information, the subject of conventional economics since Bentham, into zero-price extinction. The decision what to do with the farmer's hogs, knowing all there is to know about prices, is still made in the kitchen council by farmer and son and wife, persuading each other; or in the councils of the farmer's mind. The decision about where to send the brigades, into the Wheat Field or around the Union left, is still a matter of persuasive talk.

And sweet talk is sometimes adversarial. If the other salesman has a computer-assisted video to persuade, then you will need one, too. If the defense in a personal injury case starts hiring economists to testify on the low value of the victims' time, then the plaintiff will start hiring economists to persuade the other way. If teachers get better at persuading people to read books, then television executives will devote more resources to persuading them to watch reruns of the Beverly Hillbillies.

The technology is irrelevant, and therefore the talk of the “information society” and the economist’s over-simple focus on bit of information is misleading. Persuasion is in this way like pure queuing. The time (or something else) must be spent in a queue somehow or else the queuing will not serve its function of allocating bread or gasoline sold for below the market price. Oregon Plans, queue tickets, and other technology of queuing have no effect on the amount spent. Likewise, persuasive energies must somehow be spent arguing, or else the persuasion will not serve its function of allocating decisions to the proper side. The economic problem is that the decision making itself, unlike the acquisition of information or cotton cloth, is intrinsically costless. After all, we could decide in an instant henceforth never to produce anything different from what we produced today, as rotten as such a plan would be. The decision to adopt such a Groundhog-Day central plan would take the stroke of a dictator’s pen. Since it is not intrinsically costly (unlike the very production of information or orders) decision-making has to be made, so to speak, artificially costly.

These then are facts, historical facts---not schoolbook history, not Mr. Wells' history, but history, nevertheless. They create a big problem for conduit-metaphor economics. The problem is that economics after Smith has no room for persuasion, and yet one quarter of national income is earned by it. It would be as though economics had no room for an analysis of land and physical capital, which in some periods earned as much as one quarter of national income---

though these are falling, while the earning of sweet talk gradually and necessarily rises.

* * * *

In explaining the fact a temptation of the modern economist is to try to model it in the style of Samuelson, as the outcome of still another adventure of the prudent person, Max U. The modern economist does so because it's her only model. If something---love or justice or courage---does not fall within a utilitarian maximization subject to a resource constraint, she has nothing to say. But language, I am saying, unless reduced to bits of information, as it cannot be, cannot be so modeled.

The limits and patterns of human speech do of course limit and give pattern to the economy. Some conversations are impossible in humans. At the most abstract level Chomskyan limits might possibly apply, though it seems doubtful. Perhaps there are deals, orders, desires, plans that would be possible in a language of another species but are impossible, or at any rate difficult, in human language. A being that was not differentiated individually, for example, would find orders naturally persuasive in a way that humans do not.

Wittgenstein said that "to imagine a language is to imagine a form of life" (Wittgenstein, 1963, p. 19). He might as well have said that to imagine a form of life is to imagine a language. "It is easy," he remarked, "to imagine a language consisting only of orders and reports in battle" (Wittgenstein, 1963, p. 19). An

army that is something other than a gang of Homeric heroes clashing with each other in massed but single combat is a form of life that responds to particular orders issued by particular people. The phalanx on the left flank moves when the general speaks, as though it were an organism and not a collection of free citizens of Athens.

But the binding constraints are much more likely, it seems to me, to be matters of pragmatics and socio-linguistics than matters of syntax and vocabulary. I have a friend, a Dutch woman, who built a vacation home on a Greek island. She found that within Greek society it was impossible, simple impossible, for a woman to tell a male contractor what to do. Her contractor ignored her requests, and she was forced to hire another Greek man to give the orders. Even that did not work perfectly: an order to have large waste pipes for the bathrooms was ignored, with the result that---as is common practice in rural Greece---soiled toilet paper is not flushable. There's an economic effect.

The formal attempts to extract from sheer logic or even from an enriched logic of conversational implicatures any interesting constraints that language places on economic behavior has not borne fruit, and seems unlikely to. The attempt of the game theorist Ariel Rubinstein to do so shows how little can be expected even from very canny ruminations on evolutionarily stable strategies or a supposition that the equation $\psi = [\varphi(x,y) \cap \varphi(y,z) \cap T] \rightarrow \varphi(x,z)$ is a tautology (Rubinstein, 2000).

The economist and rabbi Israel Kirzner put his finger on what a free society achieves, from which we can understand how meaningful language works in one. "It [is] highly desirable to choose among alternative social arrangements those modes of organization that minimize [ignorance of knowledge that can be absorbed without decision and search, by the sheer noticing of it]. . . that is, those modes of organization that generate the greatest volume of spontaneous, undeliberate learning" (Kirzner, 1979, p. 147, 145). His assertion runs against the love of explicitness in modern life, the proliferation of handbooks on leadership and of axiomatizations of thinking. Surely, the handbook-writer avers, we need to transmit through a conduit to the student's mind numerous bits of information, and if this can be centrally planned, all the better. Every schoolchild in France is on the same page at the same hour of the same day, thanks to the planners in Paris.

But real innovation, Kirzner is saying, entails real ignorance, "knowledge about which nothing is known" (1979, p. 144). It can be put economically: known knowledge (shades of Donald Rumsfeld) earns its normal reward. If you know how to read a balance sheet you do not on that account alone become Warren Buffett, because so many other people know how to read a balance sheet. Unknown knowledge generates profits. When sometime before 1211 an anonymous Florentine invented the idea of a double-entry balance sheet, then he, or his Italian imitators, could pick up the profit from the innovation, and did (Origo, 1957/1986, p. 109). Once the reading of balance sheets is widely known,

however, the profits fell to zero. It's still a good idea for people to learn to read balance sheets, engaging in "search" that has a known reward to the MBA graduate who engages in it. The opportunity cost of such searching may be good for the society, as against a worthless search for learning to read the stars astrologically, say. But it is not an innovation. National income does not actually fall, since learning to read balance sheets has a marginal product equal to its opportunity cost, at the margin, and therefore has intramarginal gains ("rents" economists call them), whereas learning to read the stars does not. The intramarginal reward to routine learning sustains the national income. In fact, an economist can prove to you in a diagram, it simply is the national income. But national income will not rise unless the innovation is Kirznerian.

"The ease of calculation provided by money," writes Kirzner, "is thus not merely a device for lowering transaction costs relevant to deliberate search," as the neoclassicals claim (Kirzner, 1979, p. 150). "It represents a social arrangement with the ability to present existing overlooked opportunities in a form most easily recognized and noticed by spontaneous learners." Kirzner makes a parallel point in his writings on entrepreneurship.

Kirzner's analysis is correct so far as it goes. But what is missing from it is language. The alertness that Kirzner thinks of as the essence of entrepreneurship involves language. The necessary, next entrepreneurial step of persuading oneself, a banker, a supplier, an employee, a customer---which Kirzner does not treat---is rhetoric all the way down. In consequence a community of free speech

briefly unique to Northwestern Europe after 1700 or so, for example, "represents a social arrangement with the ability to present existing overlooked opportunities in a form most easily recognized and noticed by spontaneous learners."

The crucial point was discovered in 2007 by Sarah Millermaier, who argues in the way of Jürgen Habermas that communication is after all a cooperative game (Millermaier, 2007). A real conversation, in Habermas' words, "specifies which validity claim a speaker is raising with his utterance, how he is raising it, and for what" (1981/1984/1987, p. 278). That is, a real conversation entails serious rhetoric. What Habermas calls "strategic" speech is on the contrary a reading through the speech to the "underlying" interests. It is speech meant to achieve a result external to the practice, to use, as Millermaier does, the language of still another student of these matters, Alasdair MacIntyre. Millermaier observes---and here with MacIntyre and myself---that the conversation must be ethical and the ethics must be of the virtues and therefore that what I am calling "real conversation" must draw on the seven principle virtues (McCloskey 2007). If the speech is instead merely strategic, a non-cooperative game, then the only virtue in play is prudence.

This is not surprising. Economics is after all the pure theory of prudence, and so every attempt to characterize speech by an economist is going to try to reduce it to prudent tactics. It is natural to the rhetoric of economics since Bentham and especially since Samuelson to imagine that all behavior is reducible

to that of the charmless, unloving, and above all calculating Max U.

Millermaier's point is that such a reduction is corrupting of real conversation. It makes impossible the mutual formation of meaning which much of our economic life is about, and depends on. That's another reason that prices and meanings cannot be sheer, non-cooperative games. It would be like insisting that married people only deal with each other instrumentally. As Millermaier observes, for another example, programs of corporate ethics that declare themselves as "using" values to achieve Max U's goals will undermine the cooperative game that makes language and ethics possible.

The conundrum of language in the economy, then, cannot be solved within Max U models. To the extent that language is reduced to Max U it ceases to exhibit the defining characteristics of human language, which is, I hope you believe by now, not the mere transmission of information but the making of meaning and the imagining of novelties.

The mind, that ocean where each kind
Does straight its own resemblance find;
Yet it creates, transcending these,
Far other worlds and other seas,
Annihilating all that's made
To a green thought in a green shade.

To put it another way, the Max U model fits smoothly with the conduit metaphor. But Max U does not fit at all with a rhetorical (or Wittgensteinian or

Burkean or Austinian or Habermasian or MacIntyrish) theory of language. If these were just silly theories, amusing to the effete snobs in the Department of English but unworthy of the tough, masculine science of economics, and econowannabe sciences like law and economics or political science, then economics could go on ignoring them. But they are the best thinking about what language is that the 20th century offered. It would be unscientific to go on insisting that all we economists can talk about is our old, if unreliable, friend Max U.

* * * *

An example. A common property resource, such as a lake for fishing or a park for picnicking, will always be overused if people are prudence-only, unspeaking (or perhaps “unspeakable”) Max U types. The fish will be overharvested, to extinction. The park will be strewn with trash, and the life of man will be solitary, poor, nasty, brutish, and short. In 1994 three economists at the University of Indiana, Elinor Ostrom, Roy Gardner, and James Walker, looked into the matter in full historical (“field settings”) and experimental detail. As they note, Thomas Hobbes “justified the necessity of a Leviathan on the frailty of mere words” (Ostrom et al., 1994, p. 145). In his own words, “the bonds of words are too weak to bridle men's ambitions. avarice, anger, and other passions, without the fear of some coercive power” (Hobbes, 1651/1914, p. 71).

But this is not so. In the world as it is people don't behave always as Max U, ignoring any virtue but prudence. In Ostrom et al.'s amusingly stilted language, "Studies of repetitive common property resource situations in field settings show that appropriators [e.g. fishers in a common lake] in many, but by no means all, settings adopt cooperative strategies that enhance their joint strategies without the presence of external enforcers" (p. 148). That is, in the real world, and even without a Leviathan government making it happen, you find that people often cooperate in getting the most out of a resource such as fish in a lake, instead of cheating for their personal gain and ruining the resource for all.

Ostrom et al. tried it out in the laboratory, letting the experimental subjects talk to each other, sometimes just one time and sometimes many times. They found that when the players were not allowed to talk at all the joint rewards were low. But when they talked, everything changed. The more they were allowed to talk the closer they came to achieving the best payoff for the group. The talking players certainly never adopted what is known in game theory as the "trigger" strategy, that is, punishing defectors by initiating a war of all against all. As someone put it, "Yeah, someone is cheating [he didn't know who it was], but that is the best we can do" (p. 156). In another experiment someone said, "Go for a free-for-all? Shucks, no, we all lose" (p. 159). The "shucks" makes one worry that the choice of genial Hoosiers as experimental subjects are biasing the results; but such results pour out of all the economic

laboratories, such as those in fifteen small-scale societies worldwide studied by Heinrich et al. in 2004.

And communication, whether free or costly---Ostrom et al. charged the players money to engage in periods of negotiation---radically increased the amount of cooperation. True, the "experiments should not be interpreted as supporting arguments that communication alone is sufficient to overcome repeated dilemma problems in general. . . . [Players] might well want to add the sword to a covenant" (p. 169). That is, the pious hope that "better communication" can solve all the world's problems---Darfur, for example, or Bosnia---is often vain. But the opposite conclusion is not sustainable either---that talk is merely "cheap" and language does not matter for economic outcomes in foreign relations or in marketplaces.

* * * *

Another example. Trust, of course, is one outcome of sweet talk. Economists have devoted a good deal of attention to trust over the past twenty years or so, though they have usual tried to make it fit the Procrustean bed of a no-language, no-ethics, prudence-only view. Even if an economic actor does not herself talk, the economist gamely claims, she will nonetheless form opinions about the trustworthiness of others, looking merely as a prudent person at their actions. We say, "Actions speak louder than words."

But the proverb is false if taken always to be true, as economists now do.

Borrowing and lending take place only after a persuasive story has been told and believed. You do not lend to your brother-in-law if you do not believe his promises to repay, or if you do not share his vision of the millions to be earned in real estate. The more so with strangers. In the absence of signals of trustworthiness such as belonging to your own unpopular religion, say, or having a high rating from Dun and Bradstreet, no stranger gets a loan.

A classic paper in 1963 by the legal sociologist Stewart Macaulay studied firms that did business in Wisconsin. He confirmed what everyone in business knows, that business normally depends on a state of trust, not on explicit contracts to be enforced in courts. One large manufacturer of cardboard boxes looked into how many of its orders had no agreement on exact terms and conditions that would satisfy a lawyer looking for a "contract." The manufacturer found that in the mid 1950s the percentage ranged from 60 to 75 percent of the orders, in an industry in which an order canceled means you end up holding a lot of useless boxes shaped and printed to the particular customer's specifications (Macaulay, 1963, p. 196).

It drove the company lawyers crazy. One said, "Often businessmen do not feel they have 'a contract' – rather they have 'an order.' They speak of 'canceling the order' rather than 'breaching the contract'" (Macaulay, 1963, p. 197). Another lawyer declared that he was "sick of being told, 'We can trust old

Max,' when the problem is not one of honesty but one of reaching an agreement that both sides understand"(Macaulay, 1963, p. 195).

The non-lawyer businessmen didn't see it that way. "You get the other man on the telephone and deal with the problem. You don't read legalistic contract clauses at each other if you ever want to do business again. One doesn't run to lawyers if he wants to stay in business because one must behave decently" (Macaulay, 1963, p. 198). One uses the courts only when someone defects. But few defect. There's a purely prudent reason, to be sure – that defecting bad for business. But there's a just, faithful, loving ("good old Max") reason, too.

People want to be virtuous in business as elsewhere in their lives, and their virtues depend on relations developed with good old Max through talking. Macaulay concluded that "Two norms are widely accepted. (1) Commitments are to be honored in almost all situations; one does not welsh on a deal. (2) One ought to produce a good product and stand behind it" (Macaulay, 1963, p. 199).

In 1912 before a House committee on the money trust J. P. Morgan was being questioned by a hostile Samuel Untermyer:

Untermyer: Is not commercial credit based primarily upon
money or property?

Morgan: No sir; the first thing is character.

Untermyer: Before money or property?

Morgan: Before money or property or anything else. Money
cannot buy it. . . because a man I do not trust could

not get money from me on all the bonds in
Christendom.

Of course. If you want to be frightfully sophisticated about people's real motives and claim that these are not the rules of bourgeois life, that capitalists are a pack of liars and thieves, you will need to explain why you get indignant when the rules are violated, and why in your daily transactions you assume they will be obeyed.

The rumor of the Street determines the price of stock, at any rate within limits of fundamentals---though the very fundamentals, such as imagined futures sales and returns, or the imagined power of the Federal Reserve, are themselves often sweet talk. Trust and friendship, therefore, make possible speculative bubbles, from the tulip mania of the 1630s to the dot-com boom of the 1990s. The very fact of capitalism's speculative instability, in other words, argues for an entirely new prevalence of belief in strangers. "Credit" is from *creditus*, "believed." Each of the hundred-odd quotations in the Oxford English Dictionary illustrating the noun and the verb date from after 1541, and most of the commercial quotations from the 16th century are suspicious of it. An act of 34-35 Henry VIII (that is, 1542) noted that "sundry persons consume the substance obtained by credit of other men." Shame on them. Contrast the neutral language of Locke in 1691: credit is merely "the expectation of money within some limited time."

A business cycle based on pyramids of credit was impossible in the distrustful 16th century and before. The macro-economy could in earlier times rise and fall, of course, but from harvest booms and busts, not from credit booms and busts. In those pre-modern-capitalist days God's hand, not human beliefs, made for aggregate ups and downs. Medieval and early modern people trusted only allies, and had wise doubts even concerning some of them: "How smooth and even they do bear themselves!/ As if allegiance in their bosoms sat,/ Crowned with faith and constant loyalty" (Henry V, II, ii, lines 3ff). Pre-moderns had to keep faith with God and with their lords temporal. Late moderns keep faith with the market and with their friends, and build upon credit.

On this theory the episodes of disorder and unemployment in capitalism from the 1630s in Holland and from 1720 in Northern Europe arose from the virtues of capitalism, not from its vices, from its trustworthiness, not from its greed. To be more exact: the business cycle arose from trustworthiness breaking down suddenly in an environment of quite normal human greed for abnormal gain, the accursed love for gold which has characterized human beings since the Fall. What is novel in capitalism is the faithful trust, generated by talk. Why do people ride on airplanes at great expense to have sit-downs with bankers or customers or Mafia godfathers? To generate the trust to do business with.

* * * *

Another example. "A gap persists," writes the game theorist Judith Mehta, "between accounts of behavior framed by rational choice theory and experimental evidence of how people actually behave in a bargaining situation" (1993, p. 85). The way people frame the story they are in, the meaning of the story as much as the plain facts, changes the outcome. A "bargaining situation" would be, for example, that of two people who meet in the middle of the Sahara, one with food only, the other with water only. At what ratios will they trade? The solutions are obviously multiple. If Ms. Jones, with her water jug, is a canny bargainer, while Mr. Brown is a bit of a simpleton, you get one solution, favorable to Jones. If the skills at talking and thinking are reversed, you get another. If Jones and Brown are Rawlsian, they share the water and the food exactly equally, because behind a veil of ignorance as to what position they are in, that is the best solution, supposing (as Rawls somewhat arbitrarily did) they are both risk averse. . . and if one is not much taller than the other; if one does not have stored fat and the other does; if they can reach reflective equilibrium; if they are not Moslems; if they are Buddhists; if, if, if. The two may wish to be fair. But, Mehta observes, the word "'fair' does not have some singular, objective meaning" (p. 94). We make the meaning, through talk.

As Mehta puts it, "real individuals ascribe particular and shifting identities to themselves and their opponents in a bargaining situation (for example, as 'friends' or 'non-friends,' or as "partners in a relationship). . . . They adopt a particular set of expectations and behavioral responses contingent on the

meaning they ascribe" (p. 93). These are roles we assign in stories we tell. An example is the role---literally, the theoretical role---played by the chairman of the Federal Reserve Board in "setting" the interest rate. There is no evidence that Ben Bernanke actually "sets" the world interest rate. The notion that he does so is impossible, a popular fairy tale, considering the bit of information that the portfolio he has influence over is a tiny portion of the loanable funds available in the world's capital markets. But the exchanges dance, at least in the short run, to Ben's tune, because of the heroic story that people tell about the meetings of the Fed open market committee.

* * * *

One can go on like this. The best tactic, though, is to look hard at the metaphors economists use and to note the language games supposed in them. Take consumption. Imagining having X entails a language of thought (a point that the philosopher Jerry Fodor makes); that is, choice entails a language, an internal debate (as Aristotle pointed out), even a rhetoric. This is true of animals, and certainly of Crusoe on his island alone. He said so. The human ability to imagine is merely a more extreme form of choice-making common to all living things. But it is extreme. A bird imagines (we suppose) a nest of a species-particular kind. But only language-using humans, so far as we can gather from watching whales and elephants and chimps a little, can imagine a thousand different forms of Crusoe's cave and compound.

The very choice of technique, the tough-minded consideration of "production functions," involves language. How things are made with recipes will entail talk. "Take two eggs. . . ." The books of recipes that Paul Samuelson characterized as "the production function" are informational, and this is as far as economics gets in thinking about them. It's the conduit metaphor again. But books of recipes are persuasive, too. "Hmm: that looks good." A chemical engineer must be persuaded that this or that technique he has heard of does in fact work as advertised, and indeed trade magazines directed at him are quite elaborate exercises in persuasions-for-a-sophisticated-audience, sweet talk of a professional sort. Look for example at the *Journal of the American Medical Association*, its articles, its editorials, its ads.

Likewise working. The metaphor of a production function must always involve getting people to do the job---take the eggs, adopt the technique, arrive on time. Organizing other humans obviously involves language, on which popular books about management devote such attention. About a third of the business books on the airport rack are devoted to rhetoric. Management, I noted, is the great realm of sweet talk in a free society---not so in a society of status and instant obedience backed by swords. And not so in a society of utter routine, the steady state, *Groundhog Day*, even if the workers are free. If every question of what to do is already answered, then people just do it, without the persuasive, "John, we need you to go on the road next month to consult with our big client in Milwaukee. It's an important assignment."

The management need not be suited and tied. Any human cooperation in a task requires language, at any rate for a new, non-routine task. A master electrician needs language to tell his journeyman to push the feed further into the wall. The catcher signals the next pitch, the pitcher shakes off the sign, the catcher tries another. They are speaking, and persuading.

Social clotting can stop persuasion, well short of any purely syntactic inability to express this or that. If a worker resents every order, unwilling to imagine himself a member of a sacred Team or unwilling to try to see the economic point of the order (perhaps because he does not give a hoot whether the customer is well served, or whether the Team wins), then cooperation breaks down. A society in which low status people---women, blacks, untouchables, young people---are not listened to by high status people will forego a gain from cooperation. The point is similar to one defense of classic democratic theory, namely, that the more opinions that are expressed the better can the society choose the best ones (Page, 2007). A mechanical form of the argument appears in the voting schemes of Condorcet. A less mechanical version is the advocacy of free speech by John Stuart Mill, and Lord Bryce's phrase, adopted enthusiastically by the economist Frank Knight, "government by discussion." The question is how big the loss is from government by politburo as against government by discussion. The experiments in the 20th century with communism suggests that the loss is big, in treasure and in spirit.

* * * *

One more consequence of a linguistic economics would be the admission of ethics. Prudence is a virtue, but it is not the only virtue. One can make a case that the virtues are seven: prudence, temperance, justice, courage, love, hope, and faith (McCloskey, 2006). George Akerlof has recently argued that macroeconomics depends on norms and motivations more complex than buy low/sell high---that a normless, prudence-only economics will get the course of prices, incomes, unemployment wrong. He concludes that a more scientific economics than the one we now have “would observe decision makers as closely as possible, with the express intent of characterizing their motivation, and would use such characterization as the basis for modeling economic structures” (Akerlof, 2007, p. 56).

An economics that does not examine meanings expressed in words will have a hard time doing Akerlof’s “observing” and “characterizing.” Ostrom et al. note that their experiments do not distinguish exactly which ethical imperative is being added to prudence only, only that some norm must be working, since their subjects do not act as a prudence-only Max U-er would. "When an [anonymous] defector is called a 'scumbucket,' is the reproach being used because someone is breaking a promise, is being uncooperative, or is taking advantage of others who are keeping a promise?" That is, is the scumbucket seen as bad because he is unfaithful to an identity of promise-keeping, or because he is unloving, or because he is unjust?

But whatever exactly the sin, the experiments by Ostrom et al and dozens of other recent experimenters, quite aside from the testimony of law and literature since the invention of writing, show that people don't like to be sinful and selfish. To put their point in Ostrom et al.'s own, game theoretic terms, ethical considerations beyond prudence only in effect "trim the branches of the decision tree" that violate justice or love, say. The experimental findings, and the evidence "from the field," overwhelmingly point to such trimming.

Yes, I can get away with stealing a book from Sandmeyer's Bookstore next to my building in Chicago. After all, the owner trusts me, and often turns his back. But I wouldn't think of it. To steal would outrage my sense of myself, my impartial spectator. I do not always "trim" even the monetarily unprofitable branches. If Sandmeyer's charges a dollar more for a book than does Barnes and Noble I nonetheless gladly buy it at Sandmeyer's, to support an independent bookstore against a goliath, to honor my commitment to a civilized neighborhood, to express my love for the owners. People do. It's cool to be cynical about human motivations, to remark sagely that one should follow the money. Take it easy, we say in Chicago, but take it. Cool though such analyses are, they are nothing like a full account of human behavior.

* * * *

My love for economics is not I hope in question. I've practiced since 1964 its core disciplines, "price theory" Chicago-style (if not always with Chicago

politics) and its characteristic fascination with numbers (if seldom in the bankrupt style of statistical "significance"). I've been a transportation economist and a quantitative economic historian. But I want to go a lot further, for the good of the order. Adam Smith was a professor of moral philosophy, not a student of prudence only. But economics since him has become the exclusive study of Max U, that unattractive character---indeed, literally an inhuman, sociopathic fellow, who never stoops to exercise voice---which Jeremy Bentham invented, Paul Samuelson mathematized, and Gary Becker applied to everything. I want economics to stop obsessing about Max U and become "humanistic" in a particular, academic sense. I want it to take seriously, as old Adam did, "the humanities," and become what the French revealingly call a "science humaine."

What this would mean is that we economists would deal with fully human characters---real ones like Madame Bovary and Jesus of Nazareth. It would mean that we would acknowledge in our models (realizing at last that a "model" is not always the same thing as "a Max U formulation") all the human virtues: prudence, yes, but also justice, temperance, courage, faith, hope, and love. And the corresponding vices, alas.

A good first step is to take seriously the economics of language, yes?

References

- Akerlof, G. (2006). The missing motivation in economics. Manuscript of presidential address to the American Economic Association. Retrieved from http://www.aeaweb.org/annual_mtg_papers/2007/0106_1640_0101.pdf
- Boulding, K. E. (1958). *The skills of the economist*. Cleveland, OH: Howard Allen.
- Habermas, J. (1984/1987). *The theory of communicative action (vols. 1-2)*. (T. McCarthy, Trans.). Boston: Beacon Press. (Original work published in 1981).
- Hayek, F. (1945, Sept.). The use of knowledge in society. *American Economic Review*, 35, 519-530.
- Henrich, J., Boyd, R., Bowles, S., Camerer, C., Fehr, E., & Gintis, H. (2004). *Foundations of human sociality: Economic experiments and ethnographical evidence from fifteen small-scale societies*. Oxford: Oxford University Press.
- Hirschman, A. O. (1970). *Exit, voice, and loyalty: Responses to decline in firms, organizations, and states*. Cambridge, MA: Harvard University Press.
- Hobbes, T. (1914). *Leviathan*. London: J. M. Dent (Original work published in 1651).
- Kirzner, I. M. (1979). Knowing about knowledge: A subjectivist view of the role of information. In I. Kirzner, *Perception, opportunity, and profit: Studies in the theory of entrepreneurship* (pp. 137-153). Chicago: University of Chicago Press.

- Klamer, A., & McCloskey, D. (1995, May). One quarter of GDP is persuasion,
The American Economic Review, 85 (2), 191-195.
- Lodge, D. (1988/1990). Nice work. Harmondsworth: Penguin.
- Marschak, J. (1968, May). Economics of inquiring, communicating, deciding.
American Economic Review, 58, 1-18.
- McCloskey, D. N. (1985/1998). The rhetoric of economics. Madison: University of
Wisconsin Press.
- McCloskey, D. N. (1990). If you're so smart: The narrative of economic expertise.
Chicago: University of Chicago Press.
- McCloskey, D. N. (1994). Knowledge and persuasion in economics. Cambridge:
Cambridge University Press.
- McCloskey, D. N. (1997). The vices of economists; the virtues of the bourgeoisie.
University of Amsterdam Press & University of Michigan Press.
- McCloskey, D. N. (2000). How to be human* *though an economist. Ann Arbor:
University of Michigan Press.
- McCloskey, D. N. (2002). The secret sins of economics. Chicago: Prickly Paradigm
Press.
- McCloskey, D. N. (2006). The bourgeois virtues: Ethics for an age of commerce.
Chicago: University of Chicago Press
- Mehta, J. (1993). Meaning in the context of bargaining games---Narratives in
opposition. In Henderson, W., Dudley-Evans, T., & Backhouse, R. (Eds.).
Economics and Language, 85-99. London: Routledge.

- Millermaier, S. (2007, Spring). If the bourgeois are so virtuous, why don't English professors think so? Anti-linguistic 'virtue' in an age of corporate ethics. Unpublished paper for Communications 594, *The Economy and Language*. Department of Communication, University of Illinois at Chicago.
- Origo, I. (1986). *The merchant of Prato: Francesco di Marco Datini, 1335-1410*. Boston: Nonpareil. Original work published in 1957.
- Ostrom, E., Gardner, R., & Walker, J. (1994). *Rules, games, and common-pool resources*. Ann Arbor: University of Michigan Press.
- Page, Scott E. 2007. *The Difference: How the Power of Diversity Creates Better Groups, Firms, Schools, and Societies*. Princeton: Princeton University Press.
- Reddy, M. J. (1979). The conduit metaphor---A case of frame conflict in our language about language. In A. Ortony (Ed.), *Metaphor and thought* (pp. 284-324). Cambridge: Cambridge University Press.
- Rubinstein, A. (2000). *Economics and language: Five essays*. Cambridge: Cambridge University Press.
- Samuelson, P. A. (1947). *The foundations of economic analysis*. Cambridge: Harvard University Press.
- Smith, A. (1978/1982). *Lectures on jurisprudence*. R. L. Meek, D. D. Raphael, & P. G. Stein (Eds.). Glasgow Edition. Oxford: Oxford University Press. Original work published in 1762-63/1766.

- Stigler, G. (1961, June). The economics of information. *Journal of Political Economy* 69. Reprinted in Stigler, G., (1968), *The organization of industry* (pp. 171-190). Homewood. IL: Irwin.
- Wallis, J., & North, D. C. (1986). Measuring the transactions sector in the American economy. In S. Engerman and R. Gallman (Eds.), *Long term factors in American economic growth*. Chicago: University of Chicago Press.
- Wittgenstein, Ludwig. (1963). *Philosophical investigations*, Vol. 1. New York: The Macmillan Company.
- Ziliak, S., & McCloskey, D. (2007). *The cult of statistical significance: How the standard error is costing jobs, justice, and lives*. Ann Arbor: University of Michigan Press.