

Metaphors Economists Live By

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WHEN economists look at, say, childcare, they think of markets. "Childcare"—which to other people looks like a piece of social control or a set of buildings or a problem for new parents—looks to economists like a certificate on the New York stock exchange. By the choice of metaphor the economists are driven to identify a demand curve, a supply curve, and a price. If they are of the mainstream, neoclassical kind, they will see "rational" behavior in such a market; if they are Marxist or institutionalist or Austrian economists, they will see other things, but in any case through a market metaphor.

A rhetorician notes that the market is merely a metaphor, a figure of speech, though she will be diffident about the "merely." Metaphor is often a serious figure of argument, not an ornament. It is not merely pretty talk or poetic talk or all figures of speech. It is "a structural mapping from one conceptual domain to another" (Lakoff, 1992, p. 418). "Men are wolves" (to use the philosopher Max Black's famous example) asserts a similarity between the domain of men and the domain of wolves. The "market" for childcare asserts a similarity between the domain of childcare and the domain of mathematics on a blackboard.

You can see the force of the definition by seeing, for example, how it separates metaphor from story. Stories depend on association, not similarity. Technically they are not metaphors but metonymies, the figure of association rather than of similarity: the White House = the Administration says

that a particular building in Washington is notably associated with the executive branch of government, not that the house is similar to the executive branch (on the other hand, "executive branch" is itself a metaphor). We speak of a story "hanging together," which is to say that its episodes are seen as close to each other. A story is one thing after another, not a comparison of one realm of discourse to another. The linguist Roman Jakobson plausibly divided all thinking along such lines into metaphors, which draw on similarity, and metonymies, which draw on contiguity or association (Jakobson and Halle, 1956 [1988]). In economic language (which Jakobson and Halle used, p. 58), metaphors concern substitutability, metonymies concern complementarity. A set of supply and demand curves on a blackboard is a substitute, a map, for a market. By contrast, the prediction of next month's unemployment is complementary with this month's figure: it completes the story. The one is modeling, the other history.

When metaphor and story are combined, the result is allegory. Christian's journey to the Heavenly City is a story, one Slough of Despond after another, and also a metaphor of spiritual conversion. The "life is a journey" metaphor is a commonplace of argument, in economics, in pop psychology, or, for that matter, in life.¹ Economists since the 1950s have been elaborating an allegory of the "life cycle," which puts their metaphor of the maximizing individual into a story of birth and death. Allegories are particularly powerful systems of belief. Marxism combines a metaphor of class struggle with a story of the proletarian journey. Mainstream economics combines a metaphor of free exchange with a story of the bourgeois journey. The free exchange and the bourgeoisie are not in strict logic connected to each other (which is not to say that they are unconnected historically) but in combination make an impressive ideology (which is not to say that the ideology is wrong).

None of this talk of metaphor is antiscientific or antimathematical. A mathematical economist would have no difficulty

understanding that economic thought is ranged along an axis from pure narration to pure metaphor. A thematized story, or a dynamized model, stands between the pure narration and the pure metaphor. Thus, a metaphor that people are calculating machines, when applied to the market for wheat, might lead an economist to an equation that speaks of time, somewhat storylike. The rate of change of price, he would say then, is equal to some coefficient multiplied by the gap between the actual and the equilibrium price. Or a metaphor of $F = ma$, when applied to a damped pendulum, might lead the physicist to an equation describing the history of the pendulum after a disturbance. The equations are stories because they speak of time and therefore organize it, at least implicitly. The time-speaking themes will shape the raw experience, as a story does when it is more than a mere unthematized chronicle.

The "time-speaking theme" is called in mathematics a "differential equation," the fundamental mathematical idea introduced by Newton. Notions such as that people are calculating machines or that the pendulum is rigidly fixed are at the timeless, metaphorical end of the spectrum, true at all times and, therefore, not making reference to time ($F = ma$ is a metaphor already on the way to a story, since it speaks of acceleration per unit of time). The differential equations derived from the metaphors lie in the middle. They are parables, though with inexplicit meaning. The analytic or infinite series "solution" of a differential equation, further to the story end of the spectrum, which tells exactly how the market or the pendulum will behave over time, is more flat-footed, shaping experience still more explicitly. And a particular, numerical solution is the most flatfooted of all, the Cliffs Notes, so to speak, laying out the plot of *The Mayor of Casterbridge*.

Pointing to the metaphors in economics is not, therefore, a way of insinuating that the field is approximate and unperfected or given to "merely" rhetorical tricks, English

Department stuff. Economists and some English professors believe that metaphor comes from the fuzzy, tricky, humanistic side of the world. A model in economics comes to be called a metaphor, in this way of thinking, only if "the statement can be tested only approximately" (thus, Gordon, 1991). The Romantics assigned metaphor to the realm of art, distinguishing an imaginative from a scientific faculty, as though arising out of different organs of the brain (and, it should be said, different genders). But as the literary critic Francis McGrath has argued, the distinction cannot be sustained (McGrath, 1985). The inverse square law of gravitational attraction is a metaphor. Boyle's Law shares metaphor with Shakespeare's 73rd sonnet. Metaphor, McGrath argues, is as fundamental to science as to art.

To demarcate the artistic and scientific uses of metaphor is to suppose that the categories of European thought circa 1860 cut the universe at its joints. Richard Lanham argues at length that "nothing but confusion has ever come from the effort to fix the poetry-prose boundary" (Lanham, 1974, p. 65). Any scientific conversation has much in common with, say, poetic conversation, as is demonstrable with a thoroughness beyond rational patience. The linguist Solomon Marcus listed fully 52 alleged differences between scientific and poetic communication (rational versus emotional; explicable versus ineffable; and so forth) and rejected them all as crudities (Marcus, 1974). He concluded that there is as much variation within scientific and poetic communication as between them.

Thomas Kuhn once observed that "we have only begun to discover the benefits of seeing science and art as one" (1977, p. 343). Nonetheless, he attempted a demarcation, arguing that beauty in science is an input into the solution of a technical problem (say, a differential equation—a metaphor if there ever was one—with startlingly simple solutions), whereas in art the solution of a technical problem is an input into the beauty (say, *contraposto* in representing a standing figure). Yet at various levels of the art and science you will find varied work being

done by the metaphors. An economic scientist will work like an artist at a technical problem to achieve beauty in his metaphors but then will use the beauty at another level to solve a technical problem. The physicist Tullio Regge remarked to Primo Levi, "I liked the sentence in which you say that the periodic table is poetry, and besides it even rhymes" (Levi and Regge, 1992, p. 9). Levi: "The expression is paradoxical, but the rhymes are actually there. . . . To discern or create a symmetry, 'put something in its proper place,' is a mental adventure common to the poet and the scientist." One might stand amazed, as a physicist famously did of mathematics, at the unreasonable effectiveness of aesthetic standards in science.

Models are metaphors, that is all, as we have known since Max Black (1962) and Mary Hesse (1963) wrote it down thirty years ago. In 1982, Willie Henderson opened the discussion of metaphor in economics, summarized recently by Arjo Klammer and Thomas Leonard (1993) with reference to the now large philosophical literature. It is everywhere, as in psychology: "The mechanistic, . . . the organismic, the marketplace, the dramaturgical, and the rule-following metaphors have all played a significant role in psychological research of the past decades" (Gergen, 1986, p. 146). Or paleontology (Gould, 1987). As George Lakoff, Mark Johnson, and Mark Turner have shown in detail we live by metaphors (Lakoff and Johnson, 1980; Johnson, 1981; Lakoff, 1987; Turner, 1987; Lakoff and Turner, 1989).

Economists and other scientists are unselfconscious about their metaphors. They suppose that because they can speak an economic metaphor, it simply is. Economists are poets/But do not know it. The economist A. C. Harberger tells the story of a cocktail party at his house in the early 1960s, when the future Nobel laureate Gary Becker, then a brilliant graduate student at Chicago, was working on the dissertation that became *Human Capital: A Theoretical and Empirical Analysis, with Special Reference to Education* (1964). The party was well along, but

Gary as usual was sober and serious and always, always talking economics. He came up to Harberger and remarked out of the blue, soft drink in hand, "You know, Al, *children are just like consumer durables*." A child, you see, is much like a refrigerator: it is expensive to procure, delivers a stream of returns over a long period of time, has an imperfect second-hand market, and so forth.

Becker's metaphor has resulted in useful talk about families and their sizes. That the similarities eventually become dissimilarities—"Children, like durable goods, are *not* objects of affection and concern"—is one reason, as Black argued, that "metaphorical thought is a distinctive mode of achieving insight, not to be construed as an ornamental substitute for plain thought" (1962, p. 267).

The likenesses between stocks and childcare will allow the topos of The Market to work, but there are differences, too, that will figure sometimes. It is often argued that economics and other sciences, though using metaphors, use them in a different way from poets. Economics, it is claimed, is *not* poetry just to the degree that a piece of economics invites what the critic Louise Rosenblatt called an "efferent" reading (from Latin *effero*, "I take away") as against an aesthetic reading (1978, pp. 25–28). That is, one expects to "take away" something useful from an article on the New Jersey income maintenance experiment. The article is not read for itself (though recall Marcus' reflections and take care: some economics is read for the aesthetic pleasure and could hardly give any other). The philosopher of science Cristina Bicchieri, in a penetrating comment on my "poetics" of economics, argues that, "A good literary metaphor should be surprising and unexpected Scientific metaphors, in the contrary, *are to be overused*" (1988, p. 113, emphasis added).²

Well, yes and no. The remark by Becker to Harberger at the party was a poetic moment, unexpected certainly to Harberger, who in fact was an expert on consumer durables but had no idea that procreation might fit the category. True, as

Bicchieri says, Becker intended the metaphor "to be over-used," which is to say to become part of the dead metaphors of the field; and it has. Economists have stopped laughing at the notion that children are just like durable goods. But at the moment of creation—like a poetic metaphor once fresh that becomes a cliché—it was anything but dead. The poet, too, intends his words to become more durable than bronze, as long as men can breathe or eyes can see. In the joke, the ignorant young man is scornful after seeing *Hamlet*: "Why, that was nothing but a collection of old quotes."

Yet even wholly efferent work in economics, such as economic journalism, depends on metaphors. Economics may not be Poetry, big P, which is to say Art; but it is poetry, small p, that is, art. A masterful example is *The Zero-Sum Solution* (1985) by Lester Thurow, a fine economist and dean of the business school at M.I.T. The book turns on sporting metaphors. "To play a competitive game is not to be a winner—every competitive game has its losers—it is only to be given a chance to win. . . . Free market battles can be lost as well as won, and the United States is losing them on world markets" (Thurow, 1985, p. 59). One chapter is entitled "Constructing an Efficient Team." Throughout there is talk about America "competing" and "beating" the rest of the world with a "world-class economy." A later book by Thurow is called *Head to Head*.

Thurow complains that more people do not appreciate his favorite metaphor: "For a society which loves team sports . . . it is surprising that Americans won't recognize the same reality in the far more important international economic game" (1985, p. 107). In more aggressive moods, Thurow slips from sweatpants into combat fatigues: "American firms will occasionally be defeated at home and will have no compensating foreign victories" (Thurow, 1985, p. 105). Foreign trade is viewed as the economic equivalent of war.

Three metaphors govern Thurow's story: this metaphor of the international zero sum "game"; a metaphor of the domestic

"problem"; and a metaphor of "we." We have a domestic *problem* of productivity that leads to a loss in the international *game*. Thurow has spent a long time interpreting the world with these linked metaphors.

The we-problem-game metaphors are not the usual ones in economics. Anti-economists since the mercantilists that Adam Smith criticized have favored the metaphor of exchange as a zero-sum game. From the factory floor it looks like zero-sum, which gives Thurow's metaphor the appearance of common sense. To a businessperson "fighting" Japanese competition in making automobiles, her loss is indeed Toyota's gain. But the competitive metaphor looks at only one side of the trade, the selling side. If exchange is a "game," it might better be seen as one in which everyone wins, like aerobic dancing. Underneath it all (as the economists say, using another of their favorite metaphors), Jim Bourbon of Iowa trades with Tatsuro Saki of Tokyo. One kid gets the other kid's pet frog in exchange for giving up his jackknife. Both kids are better off.

Talking in such a rhetorically self-conscious way about Thurow's metaphors is not just a ploy for attacking them (though I do regard them as pernicious). The point is that all conversations are rhetorical, none can claim to be the Archimedean point from which others can be levered once and for all. In Nietzsche's words, language is "a movable host of metaphors, metonymies, and anthropomorphisms: in short, a sum of human relations which have been poetically and rhetorically intensified, transferred, and embellished, and which, after a long usage, seem to a people to be fixed, canonical, and binding" (1870 [1979], p. 84). If the name of Nietzsche terrifies (getting the news on deconstruction and other literary matters from *The New York Times* or the *Wall Street Journal* sometimes has this effect), try comfortable old William James: "It is therefore only the smallest and recentest fraction of . . . reality that comes to us without the human touch, and that fraction has immediately to become humanized. . . . Altho the stubborn fact remains that there is a sensible

flux, what is *true of it* seems from first to last to be largely a matter of our own creation" (James, 1907, pp. 248, 255). If James seems in this unscientific, try the physicist Niels Bohr: "It is wrong to think that the task of physics is to find out how nature is. Physics concerns what we can say about nature. . . . We are suspended in language The word 'reality' is also a word, a word which we must learn to use correctly" (Moore, 1966 [1985], p. 406).³ Or recent and eminent philosophers, such as Max Black, Nelson Goodman, Hilary Putnam. Black on metaphor: "Since philosophers . . . have so neglected the subject, I must get what help I can from the literary critics. They, at least, do not accept the commandment, 'Thou shalt not commit metaphor,' or assume that metaphor is incompatible with serious thought" (1962, p. 25). Goodman, on the scientist:

He as much decrees as discovers the laws he sets forth, as much designs as discerns the patterns he delineates. Truth, moreover, pertains solely to what is said, and literal truth solely to what is said literally. We have seen, though, that worlds are made not only by what is said literally but also by what is said metaphorically (Goodman, 1978, p. 18).

Or Putnam:

There is nothing wrong at all with holding on to our realism with a small "r" and jettisoning the big "R" Realism of the philosophers. . . . Realism is an impossible attempt to view the world from Nowhere. . . . The time has come for a moratorium on the kind of ontological speculation that seeks to describe the Furniture of the Universe and to tell us what is Really There and what is Only a Human Projection (Putnam, 1990, pp. 28, 118).

Saying that the choice of metaphors is how we think is nothing new or shocking, *pace The New York Times*.

Therefore, the neoclassical economists who disagree with Thurow, such his colleague at M.I.T., Paul Krugman, must also use metaphors. The one they use is a metaphor of humans as calculating machines and rational choosers. The neoclassi-

cals say that the human situation is rational choice, the maximization of an objective function subject to constraints. Their metaphor is less thrilling perhaps than the economy as a struggle between good and evil or as the final round of the NBA playoffs; but it is no less metaphorical on that count.

The rational-choice model is the master metaphor of mainstream economics, enticing one to think "as if" people really made decisions in this way. The neoclassicals (I am one of them) are fond of their charmless metaphor. What is problematic is the "positive" and "objective" status they ascribe to it, what is Really There. It was not always so. Ambiguity and contention surrounded the triumph of calculating choice as the definition of economics, as it did more the recent triumph of the computer metaphor in psychology, and it was by no means always regarded as an innocent analytic technique. More than a century ago, William Stanley Jevons found the calculating machine persuasive on the non-positivist grounds that it fitted with Bentham's calculus of pleasure and pain; Vilfredo Pareto, too, credited it in the early years of this century with psychological significance.

You can still make the end run: art is as scientific as science, science as artistic as art. Real poets use even this most dessicated of economic metaphors, the human being as calculator. Marvell's "To His Coy Mistress" (1681) is a poem on calculation. The argument is in fact economic: had we but world enough and time, my Lady, I could court you as your value warrants, to satiation; but time is scarce, and life especially; the rate of time discount (as the economist would say) is therefore positive; and the optimal consumption plan is therefore to seize the day. Marvell makes his appeal relentlessly and smirkingly: he plays with a convention of rational choice and mocks it, as language games have a tendency to do with themselves. The economist plays no less within a convention when drawing on inference (N = ten thousand days and nights) or time discount (t = Deserts of vast Eternity) or when making little jokes to other economists

about "islands" in the labor market or how the data have been "massaged." The flatfooted among economists and poets lack this sense of irony about arguments. They pen lines like "The coefficient is significant at the .00000001 level" or "I think that I shall never see/ A poem lovely as a tree." But oh ye Keynes or Yeats, Solow or Stevens, sing on.

The disagreements among economists turn often on metaphorical choices, unexamined because unselfconscious. Marxist economists disagree with neoclassical economists, for example, on the place of power in the market. Samuel Bowles and Herbert Gintis have recently proposed a notion of "contested exchange" as a new way of characterizing the political economy of capitalism (Bowles and Gintis, 1990).

Their argument depends on the exchange being insulated from the wider market in the way that the company town was supposed to have been insulated. An economist of any school would explain the argument with a metaphor of a wall. The higher the wall, the more workers and bosses are left to their own devices—which is to say, their power—in deciding wages and working conditions. If, on the contrary, the wall is low, then it is the invisible hand of the market, not the visible fist of power, that runs the show.

Economists would explain the argument among themselves with a metaphor from international finance. The cost of getting into and out of a job or a marriage or a country is like the cost of getting gold into and out of New York. At some differential between the price in Hong Kong and the price in New York the gold will flow from New York to Hong Kong; at the opposite differential it will flow in the opposite direction. The two differentials are called the "gold points." At the gold points, "the market works." That is, you will not find gold selling in New York for a price higher or lower than what it costs to bring some gold from Hong Kong. The New York price is limited by competition from Hong Kong in the usual calculating way.

But inside the gold points the market does not "work." This

means merely that strictly inside the range of prices set by the gold points a speculator would not find it worthwhile to send gold from one place to another. Outside the gold points, the prices are determined by international competition; inside the gold points, they are determined by something else—in the case of gold, by the domestic as against international supply and demand (which amounts to the gold points between one vault in New York and another).

It is apparent from the metaphor of gold points that whether or not the market “works” depends on how closely one is examining it. The market metaphor is like a post-impressionist painting. If one steps back and squints, then the gold points fade to insignificance, and there is effectively one world price for gold. The same is true for labor, if one squints more. When one gets close enough to any market, the brush strokes show.

The close view is no more real than the far view. It may be more or less convenient for this or that human purpose to take a close view or a far view. That is all. Saying about a painting by Seurat that it is “really” just a bunch of dots is not ordinarily an intelligent comment, which is to say that it is not ordinarily useful. Likewise, to say that the market for loans or labor, as Bowles and Gintis say, is really “non-clearing” is to use words in a strange way. It would be like saying that the market for bricks is non-clearing because there are gold points (that is, brick points) between Iowa City and Cedar Rapids. The extent of non-clearingness depends on what we want to do with the notion of clearing, or how we want to think about the economy of Eastern Iowa. It is a matter of how far we wish to stand from the painting.

Within the gold points there is power, say the Marxists. But economists have always thought so. In particular, the Good Old Chicago School has always thought so. Bowles and Gintis speak of an “employment rent,” that is, what a worker can get away with once he has the job. It is the prize for getting employed in a good job, one with high rents (“rent” in economics means

“profit”). The prize justifies the investment in unemployment, the better to compete for it. Good Old Chicago School economists like A. C. Harberger and Larry Sjaastad have been making the same point for decades, using it to explain, for example, the high unemployment rates in Latin American cities. The metaphor of walls (economists call them “transaction costs”) is not, it turns out, especially Marxist.

The neoclassical metaphor of the calculating machine has been attacked from another political side by the so-called “Austrian” economists, followers of Friedrich Hayek. The Austrians have been arguing for decades that the problem in economic life is not calculating what to do *after* knowing all that you need to know. The problem is coming to know. The Austrians see the economy with a metaphor of fog, the fog in which we maximize what the neoclassicals so confidently describe as “objective functions.” The routine maximization held up as a metaphor of the examined life is peasant economics. The peasant maximizes under known constraints (the aristocrat would never deign to indulge in something so vulgar as “maximizing”; his motive is to Be Himself). The problem in a progressing economy, say the Austrians, is to discover the constraints in the first place (Buchanan, 1964 [1979]). What *are* the investment opportunities? Where *is* the next \$20 bill to be picked up? “Search” or “information” theory, which is how the neoclassicals have tried to approach the problem, does not solve it. The theory makes a bourgeois act (investment, foretelling, entrepreneurship) into a peasant routine. What the bourgeois actually does is to converse with himself or with others. Gossip, shoptalk, schmoozing, committees, reasoning, hallway conferences: these are the guts of capitalism (Vaughan, 1988). The next investment opportunity is constructed by words (it had better obey the laws of physics, too, but that does not make the behavior less social).

The Austrian economist Israel Kirzner has argued that entrepreneurial profits are a reward for what he calls “alertness.” Sheer—or as we say “dumb”—luck is one extreme.

Hard work is the other. Alertness falls in between, being neither luck nor routine work. Alertness notices the opportunity to buy the Commodore Hotel low and sell it high. Pure profit, says Kirzner, earned by pure entrepreneurs is justified by alertness (Kirzner, 1989). Neoclassical models are metaphors for routine work, that is to say, the calculated action that leads to an output. Calculative rationality, however, cannot make much of entrepreneurs.⁴

Technological change can be viewed from this perspective. The systematic search for inventions can be expected in the end to earn only as much as its cost. It is hard work, merely. The routine inventor is an honest workman but is worthy, therefore, only of his hire. The costs of routine improvements in the steam engine of 1800 ate up the profit. They had better, or else the improvements were not routine. Routine improvements are not free lunches. As the economic historian Joel Mokyr put it, "The cold and calculating minds of Research-and-Development engineers in white lab coats worn over three-piece suits" (1990, p. x) created some of the improvements. But only some.

Nor, on the other hand, is it reasonable to hand technological history over to mere chance, the other end of Kirzner's spectrum. Mokyr shows this from the records of invention. What was required was something between dull effort and heedless luck, namely, a bird-like alertness, ready to get the worm. The alertness explains why entrepreneurs are worthy of their hire.

But something is missing in the metaphor of "alertness," needed to complete the theory. From an economic point of view, alertness by itself is academic, in both the good and the bad sense. It is both intellectual and ineffectual, the occupation of the spectator, who is "very well versed in the theory of a husband or a father and can discern the errors of the economy, business, and diversion of others better than those engaged in them."

If his observation is to be effectual, however, the spectator

has to persuade a banker. Even if he is himself the banker, he has to persuade himself in the councils of his own mind. What is missing, then, from the Austrian theory of entrepreneurship and technological change is persuasion. Between the conception and the creation, between the invention and the innovation, falls the shadow. Power runs between the two, and power is evoked with persuasive words. An idea without the persuasive words is just an idea. "A man may know the remedy, / But if he has not money, what's the use? / He is like one sitting without a goad / on the head of a must [lust intoxicated] elephant" (Ingalls, 1965, Number 1681). The anonymous Yorkshireman who built the new idea of a windmill circa 1185 was putting his money where his mouth was or else putting someone else's money there. In either case, he had to persuade. In order for an invention to become an innovation the inventor must persuade someone with a bankroll.

This is as true of literary or scientific opportunity as it is of technological invention. Until he won the Goncourt Prize in 1919, Proust was not much considered. The Prize persuaded the French public to take him seriously. Until Saul Bellow put his imprimatur on his books, William Kennedy (*Ironweed* and other Albany novels) worked unknown as a reporter on the local newspaper. Intellectual bankers need to be persuaded as much as financial ones. The same is true of science. Scientists pursue certification as much as they pursue knowledge, because knowledge without persuasion of an audience is useless, the curse of Cassandra, to know all but to be unable to persuade.

What makes alertness work, and gets it power, then, is persuasion. At the root of technological progress is a rhetorical environment that makes it possible for inventors to be heard. Or as Lawrence Berger has argued, the "attention" of the entrepreneurs must be aroused (Berger, 1990). The environment of persuasion or attention has probably determined technological change, especially the great technological

changes. The Industrial Revolution, one might venture as a hypothesis to be examined, was rhetorical. The places where speech was free to a fault were the first to grow rich: Holland, Scotland, England, Belgium, and the United States.

The division of labor, in short, is limited by the extent of the talk. The more specialized the economy, the more divided the airplane into special makers or the distribution of meat into special merchants; the more talk is necessary to establish trust among the cooperators. Trust is part of an economics of talk. The persuasive talk that establishes trust is, of course, necessary for doing much business. This is why co-religionists or co-ethnics deal so profitably with each other. Avner Greif has explored the business dealings of Mediterranean Jews in the Middle Ages, accumulating evidence for a reputational conversation: in 1055, one Abun ben Zedaka of Jerusalem, for example, "was accused (though not charged in court) of embezzling the money of a Maghribi [North African] trader. When word of this accusation reached other Maghribi traders, merchants as far away as Sicily cancelled their agency relations with him" (Greif, 1989, p. 868-69). A letter from Palermo to an Alexandrian merchant who had disappointed the writer said, "Had I listened to what people say, I never would have entered into a partnership with you . . ." (p. 871). Reputational gossip, Greif notes, was cheap, "a by-product of the commercial activity [itself] and passed along with other commercial correspondence" (p. 880). With such information, cheating was profitless within the community, though profitable outside it.

Here then is the use of an old metaphor, neglected in economics since Jeremy Bentham, of the market as a conversation. In a modern economy, about a quarter of economic activity is persuasion—not commands or information, but sweet talk (McCloskey and Klammer, 1995). One thinks of advertising, but advertising is only 2 percent of economic activity. Sales more generally are a bigger part. Notice the persuasion exercised the next time you buy a suit. Specialty

clothing stores charge more than discount stores not staffed with rhetoricians. The differential pays for the persuasion: "It's you, my dear" or "The fish tie makes a statement." But it is wider. The secretary shepherding a document through the company bureaucracy or the manager persuading his employees to get on the program are exercising persuasion all day long, there being no alternative to sweet talk in a society of free people (McCloskey, 1994, pp. 76-83).

Adam Smith knew at the beginning of economics that an economy was illuminated by a metaphor of speaking, and it has taken some effort by economists since Smith to forget it. "Everyone is practising oratory . . . [and therefore] they acquire a certain dexterity and address in managing their affairs, or in other words in managing of men; and this is altogether the practise of every man in most ordinary affairs. . . , the constant employment or trade of every man. . . ." (1776 [1981], "Report of 1762-63," vi.56, p. 352, spelling modernized here and later). The division of labor, Smith said, is the "consequence of a certain propensity . . . to truck, barter, and exchange. . . [W]hether this propensity be one of those original principles in human nature, of which no further account can be given; or whether, as seems more probable, it be the necessary consequence of the faculties of reason and speech" [he could not say] (1776 [1981], I, ii, p. 25, emphasis added). *The Wealth of Nations* does not again mention the faculty of speech in a foundational role, though Smith, who began his career as a teacher of rhetoric, did remark frequently on how business people and politicians talked together. Half of his foundational formula, the faculty of reason, became in time the characteristic obsession of economists. Smith himself did not much pursue it. Economic Man, whether speaking or seeking, is not a Smithian character. It was later economists, first Jeremy Bentham and in the twentieth century Paul Samuelson, who reduced economics to the reasoning of a constrained maximizer, that peasant metaphor of Seeking Man.

By contrast, the bourgeois metaphor Speaking Man has

never figured much in economics, even among institutionalist economists. A man acts by and for himself. That is what utility functions or institutions or social classes or property rights are about. No need to speak. Walk rather than talk. Smith would have disagreed. Towards the end of *The Theory of Moral Sentiments* (1790 [1982], VII, iv, 24, p. 336) he dug behind the faculty of speech (which led to the propensity to exchange, which led to the division of labor, which led to the wealth of nations). He connected it to persuasion, which is to say speech meant to influence others: "The desire of being believed, the desire of persuading, of leading and directing other people, seems to be one of the strongest of all our natural desires. It is, perhaps, the instinct on which is founded the faculty of speech,⁵ the characteristical faculty of human nature" (1790 [1982], VII, iv, 25, p. 336).

Worlds are made by what is said literally, said Nelson Goodman, but also metaphorically. An economist makes an intellectual world by choosing or failing to choose a metaphor of speech in the economy. The economic actors themselves make their worlds with metaphors. I will buy with you, sell with you, walk with you, talk with you, and so following: what news on the Rialto?

Nothing in what Goodman says denies experience. It just says that experience is artificial, too, and that we are the artificers, individually and socially, in our metaphors and institutions. The philosopher John Searle, for example, distinguishes "brute facts" from "institutional facts." Sandy Petrey, explaining the distinction in the context of J. L. Austin's example of scoring a goal in a soccer game, puts it this way: "When a ball scores a goal, the brute fact of the momentum imparted to it by a foot is of a different order from the institutional fact that it changes the relative standing of the two sides in the game" (Petrey, 1990, p. 61). "We receive in

short the block of marble," wrote William James, "but we carve the statue ourselves" (James, 1907, p. 247). "You can't weed out the human contribution" to what we know (p. 254).

Thus, Wallace Stevens, listening at Key West to a woman singing on the beach:

She was the single artificer of the world
In which she sang.
And when she sang, the sea,
Whatever self it had, became the self
That was her song, for she was the maker

Oh! Blessed rage for order, pale Ramon,
The maker's rage to order words of the sea,
Words of the fragrant portals, dimly starred,
And of ourselves and of our origins,
In ghostlier demarcations, keener sounds.

ll. 38-41, 45-50, 53-57, "The Idea of Order at Key West," in Stevens, 1972, pp. 97-99.*

It is all very grand, this making of order at Key West and in economics. It is our human rage for order, whatever self the sea or the economy has. That does not mean that our songs are arbitrary, aimless, capricious, inconsistent, fascistic, authoritarian, nihilistic, flower-power, subjective, emotional, illogical, noncognitive, non-evidential, non-probative, non-epistemic, anti-empirical, irrationalist, or any other of the words that philosophers have used to insult the pragmatists and rhetoricians and poets since 399 BC. In truth, the insults better describe the philosophers who hurl them, who have so long tried to fence off the rhetoric of metaphor.

* From *Collected Poems by Wallace Stevens*, copyright 1954 by Wallace Stevens, reprinted by permission of Alfred A. Knopf, Inc.

Notes

¹ Lakoff and Johnson, 1989, pp. 61-65, 80-81; Lakoff and Turner, 1989, pp. 3-4, 8, 9-10, and throughout; and argument-as-a-journey, Lakoff and Johnson, 1980, pp. 90-96.

² Compare Oakeshott 1959, p. 528: the poet's "metaphors have no settled value; they have only the value he succeeds in giving them."

³ But not all people are gifted at every part of argument; Bohr, gifted at metaphor, could not follow the plots of his beloved movie westerns and would bring someone along to whisper explanations in his ear.

⁴ Cf. Madison, 1990, p. 56, n25; Cosgel and Klammer, 1990.

⁵ Smith was the sort of writer who would have been well aware that he was using the same phrase here as he used in *The Wealth of Nations*.

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