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CHAPTER 2

Towards a rhetoric of economics

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Most of the ways economists talk, if they were translated into English, would sound plausible enough to noneconomical folk like farmers and poets and business executives. The talk is hard to follow at first, in the usual way of specialized talk, because the culture of the conversation makes the words arcane. But the people in an unfamiliar conversation are not Martians. Underneath it all (the economist's favorite phrase), conversational habits are similar. Even mathematical models and statistical tests, which sound alien to literary ears, grow out of ordinary talk. Under scrutiny they reduce to words that even an earthling might use.

All the conversational devices of economics, whether words or numbers, may be viewed as figures of speech. They are all metaphors, analogies, ironies, appeals to authority. Figures of speech are not mere frills. They think for us. Someone who thinks of a market as an "invisible hand" and the organization of work as a "production function" and coefficients as being "significant," as an economist does, is giving the language a great deal of responsibility. It seems a good idea to look hard at this language.

If the economic conversation were found to depend heavily on its verbal forms, this would not mean that economics is "not a science" or "just a matter of opinion" or some sort of confidence game. Good poets, though not scientists, are serious thinkers about symbols; good historians, though not scientists, are serious thinkers about data; good scientists, too, use language. What is more, though it remains to be shown, they use the cunning of language, without particularly meaning to. The language used

Portions of this chapter appear in McCloskey (1985).

is a social object, and using language is a social act. It requires cunning (or, if you prefer, consideration), attention to the other minds present when one speaks.

The paying of attention to one's audience is called "rhetoric." One uses rhetoric, of course, to warn of a fire in a theater or to arouse the xenophobia of the electorate. This sort of yelling is the vulgar meaning of the word, like the president's "heated rhetoric" in a press conference or the "mere rhetoric" that our enemies employ. Since the Greek flame was lit, however, the word has acquired a broader and more amiable sense, to mean the study of all the ways of accomplishing things with language: inciting a mob to lynch the prisoner, to be sure, but also persuading readers of *Emma* that its characters breathe or bringing economists to accept the better argument and to reject the worse (Burke 1950; Corbett 1965; Booth 1974).

The question is whether economic scholars – who usually fancy themselves announcers of "results" or staters of "conclusions" free of rhetoric – speak rhetorically. Do they try to persuade? It would seem so. Language, I just suggested, is not a solitary accomplishment. Economists do not speak into the void, or utter monologues, but speak to a community of voices. They desire to be heeded, published, imitated, en-Nobeled. These are their desires.

The devices of language are the means. Rhetoric is the proportioning of means to desires in speech. Rhetoric, one might say, is an economics of language, the study of the way scarce means are allocated to the insatiable desires of people to be heard. It seems on the face of it a reasonable hypothesis that economists are like other people in being talkers who desire listeners when they go to the library or the computing center as much as when they go to a cocktail party or the polls. The purpose is to see if this is true and to see if it is useful: to study the rhetoric of economic scholarship.

The point of thinking about economic conversations is to help the field mature, not to attack it. A rhetorical study of an economic text need not be hostile, no more than a rhetorical study of "Ode on a Grecian Urn." It is simply a literary study. The service that literature can perform for economics is to exhibit literary criticism as a model for self-understanding. Literary criticism does not merely pass judgments; in its more recent forms the question seems hardly to arise. Chiefly it is concerned with making readers see how poets and novelists accomplish their results. A

rhetorical criticism of economic science would not merely pass judgment on economics, as did an older philosophy of science. Rhetoric and philosophy have had different programs, at least since Socrates embodied them both. A rhetoric of economics would be a way of showing how the science accomplishes its results. It would apply the devices of literary criticism to the literature of economics.

Not many economists think this way (Klamer 1983, 1984; McCloskey 1983). A larger though small proportion of other social scientists do; it is not unheard of in anthropology or sociology (Geertz, in press). What the French call the "human sciences" – the disciplines from English to paleoanthropology that study humankind – can assemble nowadays quite a few people who think critically in this literary sense about their own thinking. And many scholars in mathematics, physics, computer science, biology, paleontology, communication, political science, law, sociology, anthropology, history, history of science, philosophy, theology, comparative literature, and English have seen merit in "a rhetoric of inquiry" (Nelson, Megill, and McCloskey 1987).

I propose, then, a rhetoric of inquiry in economics. The proposal has wider purposes as well. It uses an ancient rhetorical device, the figure *a fortiori*, "from the stronger": If even the study of hog farmers and railroads is literary as well as mathematical, if even the science of human maximization under constraints is as much a part of the humanities as of the sciences, then all the stronger is the hope for the rest.

The metaphorical character of economics

The most important example of economic rhetoric is the economic metaphor. To say that markets can be represented by supply and demand "curves" is to be as metaphorical as to say that the west wind is "the breath of autumn's being." "Game theory" is a transparent example from the most mathematical part of economics, the very name being a metaphor. It is obviously useful to have before us the notion that the arms race (an arms "race") is a two-person, negative-sum, cooperative "game." The metaphor displays its persuasiveness, and some of its limitations. (Someone remarked recently that game theory has a nice name but no results.) The noneconomist finds it easier to see the metaphors than does an economist, for the economist is habituated to them by daily use, accustomed to mental cartoons showing cement coming out of a "function" and business failures swinging in "cycles."

Certain of the metaphors are self-conscious, as revealed for instance by faith or doubt in speaking of the "invisible hand." And everyone understands that a metaphorical question is at issue when it is asked whether a mechanical or a biological analogy best suits the economy as a whole (Boulding 1975; Georgescu-Roegen 1975; Kornai 1983). Some economists, again quite self-aware, think metaphorically in ways that no one can mistake: J. K. Galbraith with his countervailing powers, for example, or Albert Hirschman (1970) with his exits and voices.

But few economists recognize the metaphorical saturation of economic theories believed to be quite literal. One economist to have done so is Willie Henderson (1982), who has written illuminatingly on the subject. It is more common to find people aware of their metaphors in other fields: A volume of essays by philosophers, linguists, and psychologists is entitled simply *Metaphor and Thought* (Ortony 1979). In physical or biological sciences the case is plain, though the official rhetoric rejects metaphors nonetheless. Jacob Bronowski (1965:36) noted that the scientist needs "the exploration of likenesses; and this has sadly tiptoed out of the mechanical worlds of the positivists and the operationalists, and left them empty. . . . The symbol and the metaphor are as necessary to science as to poetry." One might better say that even positivists and operationalists are tied to metaphor, the metaphor of "objectivity," for instance, and in any case the metaphors of their discipline. The philosopher Richard Rorty (1979:12) said it well: "It is pictures rather than propositions, metaphors rather than statements, which determine most of our philosophical [and economic] convictions."

Each step in economic reasoning, even the reasoning of the official rhetoric, is metaphorical. The economic world is said to be "like" a complex model imagined in serried equations stretching out to an infinite number of traders. The complex model is said to be like a finite model for actual thinking, which is in turn like an even simpler model for actual calculation, with variables said to be like the easily measured proxy variables to hand. For purposes of persuading doubters, the model is said to be like a toy model that can be manipulated inside the head of the doubter or pushed about on a crowded blackboard. John Gardner (1978:118–19) wrote:

> There is a game – in the 1950s it used to be played by the members of the Iowa Writers' Workshop – called "Smoke." The player who is "it" [thinks of] some famous person . . . and then each of the other players in turn asks one question . . . such as "What kind of weather are you?" . . . Marlon Brando, if weather, would be sultry and uncertain. . . . To understand that Marlon Brando is a certain kind of weather is to discover something (though something neither useful nor demonstrable) and in the same instant to communicate something.

On the contrary, I shall argue, in economics the comparable discovery of metaphor is useful and, by recourse to rhetorical standards, demonstrable. What kind of a curve is a market? What kind of a material is a worker?

But metaphor is commonly viewed as mere ornament. From Aristotle until the 1930s even literary critics viewed it this way, as an amusing comparison capable of affecting the emotions, yet inessential for thought. "Men are beasts": If we cared to be flat-footed about it, the notion was, we could say in what "literal" way we thought them beastly, removing the ornament to reveal the core of plain meaning underneath. The notion was in 1958 common in philosophy, too:

> With the decline of metaphysics, philosophers have grown less and less concerned about Godliness and more and more obsessed with cleanliness, aspiring to ever higher levels of linguistic hygiene. In consequence, there has been a tendency for metaphors to fall into disfavor, the common opinion being that they are a frequent source of infection. (Horsburgh 1958:231)

Such suspicion of metaphor is widely recognized by now to be unnecessary, even harmful. That the very idea of "removing" an "ornament" to "reveal" a "plain" meaning "underneath" is itself a metaphor suggests why the removal might not work. Perhaps thinking is metaphorical. Perhaps to remove metaphor is to remove thought.

The case of Gary Becker

The question is whether economic thought is metaphorical in some nonornamental sense. The most obvious metaphors in economics are those used to convey novel thoughts, one sort of novelty being to compare economic with noneconomic matters. "Elasticity" was once a mind-stretching fancy; "depression" was depressing; "equilibrium" compared an economy to an apple in a bowl, a settling idea; "competition" once induced thoughts of horse races; money's "velocity," thoughts of swirling bits of paper. Much of the vocabulary of economics consists of dead metaphors taken from noneconomic spheres.

Comparing noneconomic with economic matters is another sort of novelty, apparent in the imperialism of the new economics of history, law, politics, crime, and the rest, and most apparent in the work of that Kipling of the economic empire, Gary Becker. Among the least bizarre of his many metaphors in economic poetry, for instance, is that of children as durable goods, like refrigerators. The philosopher Max Black (1962:236) points out that "a memorable metaphor has the power to bring two separate domains into cognitive and emotional relation by using language directly appropriate to the one as a lens for seeing the other." So here: The subject (a child) is viewed through the lens of the modifier (a refrigerator).

A beginning at literal translation would be, "A child is costly to acquire initially, lasts for a long time, gives flows of pleasure during that time, is expensive to maintain and repair, has an imperfect second-hand market. . . . Likewise, a durable good, such as a refrigerator . . ." That the list of similarities could be extended farther and farther, gradually revealing the differences as well – "children, like durable goods, are not objects of affection and concern"; "children, like durable goods, do not have their own opinions" – is one reason that, as Black (1962:237) says, "metaphorical thought is a distinctive mode of achieving insight, not to be construed as an ornamental substitute for plain thought." The literal translation of an important metaphor is never finished. In this respect and in others, an important metaphor in economics has the quality admired in a successful scientific theory, a capacity to astonish us with implications yet unseen.

But it is not merely the pregnant quality of economic metaphors that makes them important for economic thinking, not mere ornaments. The literary critic I. A. Richards (1936:93) was among the first to make the point that metaphor is "two thoughts of different things *active together*, . . . whose meaning is a resultant of their interaction" (italics added; cf. Barfield 1947:54; Black 1962:46). A metaphor is not merely a verbal trick, Richards (1936:94) continues, but "a borrowing between and intercourse of *thoughts*, a transaction between contexts" (his italics). Economists will have no trouble seeing the point of his economic metaphor, one of mutually advantageous exchange. The opposite notion, that ideas and their words are invariant lumps unaltered by combination, like bricks (Richards 1936:97), is analogous to believing that an economy is a mere aggregation of Robinson Crusoes. But the point of economics since Smith has been that an islandful of Crusoes trading is different from and often better off than the mere aggregation.

Another of Becker's favorite metaphors, "human capital," invented at Chicago by Theodore Schultz, illustrates how two sets of ideas, in this case both drawn from inside economics, can mutually illuminate each other by exchanging connotations. In the phrase "human capital" the field in economics treating human skills was at a stroke unified with the field treating investment in machines. Thought in both fields was improved – labor economics by recognizing that skills, for all their intangibility, arise from abstention from consumption; capital theory by recognizing that skills, for all their lack of capitalization, compete with other investments for a claim to abstention. Notice by contrast that, because economists are experts only in durable goods and have few (or at any rate conventional) thoughts about children, the metaphor of children as durable goods has, so to speak, only one direction of flow. The gains from the trade were earned mostly by the theory of children gaining from the theory of durable goods (fertility, nuptiality, inheritance), not the other way around.

What is successful in economic metaphor is what is successful in poetry, and can be analyzed in similar terms. Concerning the best metaphors in the best poetry, comparing thee to a summer's day or comparing A to B, Owen Barfield (1947:54) argued:

> We feel that B, which is actually said, ought to be necessary, even inevitable in some way. It ought to be in some sense the best, if not the only way, of expressing A satisfactorily. The mind should dwell on it as well as on A and thus the two should be somehow inevitably fused together into one simple meaning.

If the modifier B (a summer's day, a refrigerator, a piece of capital) were trite – in these cases it is not, although Shakespeare was more self-critical of his simile than economists usually are of theirs – it would become, as it were, detached from A, a mechanical and unilluminating correspondence. If essential, it fuses with A to become a master metaphor of the science, the idea of "human capital," the idea of "equilibrium," the idea of "entry and exit," the idea of "competition." The metaphor, quoth the poet, is the "consummation of identity."

The metaphors of mathematics

Few would deny that economists often use figurative language. Much of the pitiful humor in a science devoted to calculations of profit and loss comes from talking about "islands" in the labor market or "putty clay" in the capital market or "lemons" in the commodity market. The more austere the subject the more fanciful the language. Economists have "turnpikes" and "golden rules" in mathematical growth theory, for instance, and long disquisitions on what to do with the "auctioneer" in general equilibrium theory. A literary person with advanced training in mathematics and statistics who turned up by mistake in a seminar in economics would be astonished at the metaphors, would be lost in a land of allegory. Allegory is merely long-winded metaphor, and all such figures are analogies. Analogies can be arrayed in terms of explicitness, the most explicit being simile (the businesspeople behave "as if" they were calculating machines) and the symbol ("the demand curve") the least. These rhetorical siblings of metaphor dominate the conversations of economists.

Mathematical theorists, for instance, frequently spin "parables," as the more self-conscious of them put it, or tell "stories." The word "story" has in fact come to have a technical meaning in mathematical economics, though it is usually spoken in seminars rather than written in papers. It means an extended example of the economic reasoning underlying the mathematics, often a simplified version of the situation in the world that the mathematics is meant to characterize. It is an allegory, shading into extended symbolism. The literary theories of narrative could make economists self-conscious about what use the story serves. Here the story is the modifier, the mathematics the subject. A tale of market days, traders with bins of shmoos, and customers with costs of travel between bins illuminates, say, a fixed point theorem. "Tales well told endure forever," an economist and poet once said.

The critical question is whether the opposite trick, illuminating human behavior with mathematics, is also metaphorical. If it were not, one might acknowledge the metaphorical element in verbal economics about the "entrepreneur," for instance, or more plainly about the "invisible hand," yet argue that the linguistic hygiene of mathematics leaves behind such fancies. This, indeed, was the belief among advanced thinkers of the 1930s, who later imposed their modernist methodology on economics: Samuelson, Friedman, and others. When engaging in verbal economics we are more or less loose, they say, taking literary license with our "story"; when we do mathematics, however, we put away childish things.

But mathematical theorizing in economics is metaphorical, and literary. Consider, for example, a relatively simple case, the theory of production functions, the notion prevalent in economics since the early twentieth

century that any product, such as the national product, can be viewed as being mathematically dependent on inputs, such as aggregate capital and labor. Its vocabulary is intrinsically metaphorical. "Aggregate capital" involves an analogy of "capital" (itself analogical) with something – sand, bricks, shmoos – that can be added up in a meaningful way; so does "aggregate labor," with the additional peculiarity that the thing added is no thing, but hours of conscientious attentiveness. The very idea of a "production function" involves the astonishing analogy of the subject, the fabrication of things, about which it is appropriate to think in terms of ingenuity, discipline, and planning, with the modifier, a mathematical function, about which it is appropriate to think in terms of height, shape, and single-valuedness.

The metaphorical content of these ideas was alive to its inventors in the nineteenth century but is largely dead to twentieth-century economists. Its deadness does not eliminate the metaphorical element. In the Battle of the Two Cambridges in the 1960s, the metaphor got out of its coffin in a most alarming fashion. The Marxists of Cambridge, England, battled the liberal capitalists of Cambridge, Massachusetts, over the meaningfulness of the capitalist's friend, the aggregate production function.

The very violence of the battle, which continues down to the present in sporadic sniper fire, suggests that it entailed something beyond mathematics or fact. The something was more than politics. Mere politics could not explain such fury; some intellectual matter was at stake. The combatants hurled mathematical reasoning and institutional facts at one another, but the important questions are those one would ask of a metaphor – is it illuminating, is it satisfying, is it apt? How do we know? How does it compare with other economic poetry? The production function is a metaphor and should be judged on grounds relevant to metaphors. One does not score points against Shakespeare by telling him that his metaphor is "literally" wrong: "Come, my good fellow, I have here a biological and mathematical proof that all this talk of a woman being a summer's day is rubbish; the one is flesh and blood, the other rough winds and darling buds." The remark is at best unhelpful.

After some tactical retreats by Cambridge, Massachusetts, on points of logic mostly irrelevant to the metaphorical issue, the two sides withdrew exhausted. On mathematical grounds the British Cantabrigians had won. Since they won on grounds agreed to by both sides, the grounds of mathematical proof of consistency, they are understandably annoyed that people go on using production functions. But the important questions were literary, not mathematical or statistical, and went unanswered. No one noticed. The continued vitality of the idea of an aggregate production function in the face of mathematical proofs of its impossibility, and the equal vitality of the idea of aggregate economics as practiced in parts of Cambridge, England, in the face of statistical proofs of its impracticality, would otherwise be a great mystery.

Even when the metaphors of one's economics appear to stay well and truly dead there is no escape from literary questions. The literary man C. S. Lewis pointed out in 1939 that any talk beyond the level of the-cow-standing-here-is-in-fact-purple, any talk of "causes, relations, of mental states or acts . . . [is] incurably metaphorical" (p. 47). For such talk he enunciated what may be called Screwtape's Theorem on Metaphor, the first corollary being that the escape from verbal into mathematical metaphor is not an escape:

> [W]hen a man claims to think independently of the buried metaphor in one of his words, his claim may . . . [be] allowed only in so far as he could really supply the place of that buried metaphor. . . . [T]his new apprehension will usually turn out to be itself metaphorical. (Lewis 1939:46)

If economists forget and then stoutly deny that the production function is a metaphor, yet continue talking about it, the result is mere verbiage. The word "production function" will be used in ways satisfying grammatical rules but will not signify anything.

The charge of meaninglessness, applied so freely by modernists to forms of argument they do not understand or like, sticks in this way to themselves. Lewis's second corollary is that "the meaning in any given composition is in inverse ratio to the author's belief in his own literalness" (p. 27). Economists speaking (they believe) literally about the demand curve, the national income, or the stability of the economy are engaging in "mere syntax." Lewis cuts close to the bone here, though sparing himself from the carnage:

> The percentage of mere syntax masquerading as meaning may vary from something like 100 percent in political writers, journalists, psychologists, and economists, to something like forty percent in the writers of children's stories. . . . The mathematician, who seldom forgets that his symbols are symbolic, may often rise for short stretches to ninety percent of meaning and ten of verbiage. (p. 49)

If economists are not comparing a social fact to a one-to-one mapping,

thus bringing two separate domains into cognitive and emotional relation, they are not thinking:

> I've never slapped a curved demand;
> I never hope to slap one.
> But this thing I can tell you now:
> I'd rather slap than map one.

Why it matters

Metaphor, then, is essential to economic thinking, even to economic thinking of the most formal kind. Self-consciousness about it would be an improvement on many counts. Obviously, unexamined metaphor is a substitute for thinking – which is a recommendation to examine the metaphors, not to attempt the impossible by banishing them.[1] To repeat, saying that economic reasoning is metaphorical is not saying that it is bad. People have a hard time understanding this point. Robert Kuttner (1985), for instance, summarized it as saying that "economics is adrift in metaphors that have no application to empirical reality but are taken literally, because they happen to be in the language of mathematics." The misunderstanding reflects a powerful dualism in our culture contrasting literary and mathematical expression. It must be clear by now that I do not think much of the dualism and find that it serves only to mislead otherwise intelligent people into reversing the point. Economics is indeed "adrift" in metaphors, but they *are* the "empirical reality," being the worlds we make by our talk (Goodman 1978, 1983). It does not matter whether we choose a mathematical or a nonmathematical metaphor to make the world with a way of speaking. The point is not to attack metaphor, but to attack the notion that we can do without it, speaking "literally." We cannot, and until this is recognized the conversations among schools of economics will be dark and bitter.

Metaphors, furthermore, evoke attitudes that are better kept in the open and under the control of reasoning. This is plain in the ideological metaphors popular with parties: The invisible hand is so very discreet, so soothing, that we might be inclined to accept its touch without protest; the

[1] An example of a naïve attack on economic metaphors, and of a failure to realize that economic theory is itself armed with metaphor, is the first page of McCloskey (1970).

contradictions of capitalism are so very portentous, so scientifically precise, that we might be inclined to accept their existence without inquiry.

But even metaphors of the middling sort carry freight. The metaphors of economics often carry in particular the authority of Science, and often carry, too, its claims of ethical neutrality. It is no use complaining that one did not *mean* to suggest with the metaphor of, say, "marginal productivity" that one had solved the moral problem of distributing the things we make, a problem made difficult because we make things together and not alone. It is irritating that it carries this message, because it may be far from the purpose of the economist who uses it to show approval of the distribution arising from competition and capitalism. It is better, though, to admit that metaphors in economics can contain such a political message than to use the jargon innocent of its potential.

A metaphor, finally, emphasizes certain respects in which the subject is to be compared with the modifier; in particular, it leaves out the other respects. Max Black (1962:41), speaking of the metaphor "men are wolves," notes that "any human traits that can without undue strain be talked about in 'wolf-language' will be rendered prominent, and any that cannot will be pushed into the background."

Economists will recognize this as the source of the annoying complaints from nonmathematical economists that mathematics "leaves out" some feature of the truth or from noneconomists that economics itself "leaves out" some feature of the truth. Such complaints are often trite and ill-informed. The usual responses to them, however, are hardly less so. The response that the metaphor leaves out things in order to simplify the story just for the moment is disingenuous, occurring as it often does in contexts in which the economist is simultaneously fitting fifty other equations. The response that the metaphor will be "tested" eventually by the facts is a stirring promise, but seldom fulfilled.

A better response would be to affirm that we like the metaphor of, say, the selfishly economic person as a calculating machine on grounds of its prominence in successful economic poetry or on grounds of its greater congruence with introspection than alternative metaphors (of people as religious dervishes, say, or as sober citizens). In *The New Rhetoric*, Perelman and Olbrechts-Tyteca (1958:390) note that "the acceptance of an analogy . . . is often equivalent to a judgment as to the importance of the characteristics that the analogy brings to the fore." What is remarkable about this unremarkable assertion is that it occurs in a discussion of purely literary matters, yet fits so easily the matters of economic science.

Literary economics: the case of Albert Hirschman

That, then, is one example of literary thinking applied to economists' talk. Only an economist, however, would think first of applying literary methods to economists' talk. The lay person confronted with the sentence "Economics is literary" would think, "Aha, yes. We can better see the *economy* – forget about the talk of economists – if we see it as rhetorical. Here is an opportunity to get rid of that great stick of a character, *Homo economicus*, and replace him with somebody real, like Madame Bovary."

It may be. It may be that economic theory can be improved by a literary approach to economics. I doubt it, and rest the case for a rhetoric of economics on the improvement in temper and self-control to be expected from it. Yet one can think of ways in which a literary economics might be better, and here is one. Both economists and literary critics talk about "preferences." Economists mean by this simply "what people want," in the sense of wanting some candy when the price is right. With a few other economists, Albert Hirschman (1984:89–96) has observed that stopping at mere wants causes economists to overlook higher-level preferences, wants about wants. Elsewhere these are known as taste or morality or, west of the Sierras, life style. Hirschman's notion is that if you wish to be the sort of person who enjoys Shakespeare you will sit through a performance of *Two Gentlemen of Verona* as part of your education. You impose a set of preferences on yourself, which you then indulge in the usual way. You have preferences about preferences: metapreferences (cf. Elster 1979).

Now it would not be shocking if literary critics could teach economists a thing or two about metapreferences. Literary criticism, after all, is largely a discourse about them, and people like I. A. Richards, Northrop Frye, Wayne Booth, and Kenneth Burke are fair canny. One might think that the older line of critics – Sir Philip Sydney, Johnson, Coleridge, Arnold – would have in fact the most to teach, being more concerned than the recent kind with matters of value (matters of how well, as against simply how). A passage from the younger line, though, can illustrate how literary notions might be used to understand the economy of taste. Richards wrote in 1925:

> On a pleasure theory of value [a theory using only preferences, not metapreferences] there might well be doubt [that good poetry is better than bad], since those who do enjoy it [namely, bad poetry, such as that collected in *Poems of Passion*] certainly appear to enjoy it in a high degree. But on the theory here maintained, the fact that those who have passed through the stage of enjoying the *Poems of Passion* to that of enjoying the bulk of the *Golden Treasury*, for example, do not return, settles the matter. . . . [A]ctual universal preference on the part of those who have tried both kinds fairly is the same (on our view) as superiority in value of the one over the other. (pp. 205–6)

An economist will notice right away that Richards's argument is the same as the economics of "revealed preference" or, on a national level, the "Hicks–Kaldor test of welfare improvements." To use the reasoning developed by Paul Samuelson, an early economic exponent of antiliterary methodology in economics, one bundle of groceries is revealed-preferred to another if you *could* buy either bundle (could *afford* to buy either) but in fact chose one. In your view, clearly, the bundle you could afford but did not take must be inferior.

The point is that Richards's test is a revealed preference test *for (good) taste*. In other words, it is a way of ranking metapreferences. You could have read the Classic comic book but in fact chose to read Dostoevski, because you wanted to be that sort of person. The Dostoevski-reading personage is revealed-preferred by you. That someone passes through the stage of enjoying "The Love Boat" on television to that of enjoying the bulk of modern drama and does not return settles the matter. That someone passes through the stage of enjoying modern drama to that of enjoying the bulk of Shakespeare and does not return settles it again: Shakespeare is metapreferred to modern drama, which is in turn metapreferred to "The Love Boat."

The same applies to nonliterary preferences, which is why Richards's notion can be used by economists. To be sure, it is more complicated than that. We do drift slowly from one metapreference to another and sometimes, gyrelike, return to elementary pleasures. But the notion is a good beginning. People who learn Cajun cooking may never return to meat and potatoes. The style of life in New Orleans – that is, the preferences one chooses to indulge – may be revealed-preferred to those in Atlanta, and those in Atlanta to those in New York. It would be so

revealed if one observed people trekking from New York to Atlanta and thence to New Orleans but never back again. In like fashion a capitalist democracy may be revealed preferred to a workers' democratic republic by the direction in which the guns on the border point.[2]

What is attractive about the test is that it replies in a suitably modernist way to the modernist argument that "you can't say anything about ranking tastes." The Richards test is similar to Rawls's test of political constitutions from behind a veil of prenatal ignorance. It is similar, likewise, to the tests of social preferences proposed earlier by the economists Harsanyi, Sen, and others. And these are in turn extensions from the individual to the society of the leading novelty in economic theory since the 1940s – expected utility. The Richards test, in short, may be literary criticism, but it is also economics. Even by the economist's narrow standard of sayability there is nothing intrinsically can't-sayable about changes in preferences guided by taste. Or at any rate it is no more can't-sayable than ordinary remarks about ordinary choice, the usual sayings of economic theory.

Economics, then, can be seen in many ways as an instance of literary culture. That it can also be seen as an instance of mathematical culture is no contradiction. The two cultures are more similar than they realize. As Max Black (1962:243) wrote, discussing "archetypes" as extended metaphors in science, "When the understanding of scientific models and archetypes comes to be regarded as a reputable part of scientific culture, the gap between the sciences and the humanities will have been partly filled." This is in the end the significance of metaphors and of the other rhetorical machinery of argument in economics: Economists and other scientists are not as separate from the concerns of civilization as many think. Their modes of argument and the sources of their conviction – for instance, their uses of metaphor – are not very different from Cicero's speeches or Hardy's novels. And this is a good thing.

[2] Milton Friedman (1975:188) uses this very figure of speech to support his argument against conscription in peacetime: "I have observed many persons initially in favor of the draft change their opinions as they have looked into the arguments and studied the evidence; I have never observed anyone who was initially in favor of a volunteer force reverse his position on the basis of further study. This greatly enhances my confidence in the validity of the position I have taken."

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