Ankara Üniversitesi
Siyasal Bilgiler Fakültesi
Gelişme ve Toplum Araştırmaları Merkezi

Ankara University
Faculty of Political Science
Research Center For Development & Society

Tartışma Metinleri
Working Paper Series

The Economics of Rhetoric: On Metaphors as Institutions

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No.94

April/Nisan 2006

http://www.politics.ankara.edu.tr/WP

http://www.politics.ankara.edu.tr/tartisma_metinleri.php

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Ankara University Working Paper Series
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Publisher: Ankara University Publishing House

The Economics of Rhetoric: On Metaphors as Institutions[2] [3]

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Abstract: The professional life of economists takes place within the boundaries of the institution of academic economics. Belonging to the institution enable economists in many ways. It provides a context wherein their contribution is meaningful. But it constrains, too, what economists are allowed to do or say. Thus, institutions both enable and constrain individual action. Metaphors do the same and are therefore, in this respect, institutions. They are place-holders to communicate our beliefs, feelings, and thoughts. So far, there is nothing wrong. This may become a problem, however, as Richard Rorty has once said, when the "happenstance of our cultural development [is] that we got stuck so long with place-holders." In the essay we focus on the enabling and disabling roles of *metaphors as institutions* in the rhetoric of economics. We argue, from the perspective of *economics of rhetoric*, that some of the metaphors can lead us to path dependent circumstances where the performance of the metaphors is not as desirable as it was when the metaphors were first introduced. Sometimes certain metaphors undergo exaptation, and are employed with new functions. Altogether, we believe, the tools of institutional economics can be fruitfully employed to study metaphors.

JEL Classification: B25, B41, B52
Keywords: Economics of rhetoric, metaphors as Institutions, path Dependence, exaptation.
Word Count: 8700 (approx.)

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[2] An earlier version of this essay was presented at the Erasmus Institute for Philosophy and Economics PhD seminar on May 24th 2005 and at the Economics of Rhetoric Workshop on July 9th 2005 in Den Hoorn. We would like to thank Arjo Klamer, Uskali Mäki, Deirdre McCloskey, Giorgos Papadopulos, Frans Schaeffer, Jack Vromen, and the other participants for their suggestions. Each author would also like to thank the other for the fruitful collaboration. The usual disclaimer applies.

[3] Lanteri, Alessandro, Yalçıntaş, Altuğ, "The Economics of Rhetoric: On Metaphors as Institutions", *AÜ SBF – GETA Tartışma Metinleri / AU SBF – GETA Discussion Paper Series* [94/2006, Nisan / April].

[4] Parts of this work were completed while Lanteri was Visiting Scholar at the "Leonard Stern" School of Business (September - December 2005) and Lagrange Visiting Fellow at Center for Cognitive Economics (February - July 2005). Financial support from EIPE, Fondazione CRT, and Vereniging Trustfonds is gratefully acknowledged.

The impact of the so-called *rhetorical turn in economics* seems to have eroded away recently. The rhetorical turn came about circa mid-'80s to increase our awareness of the strengths and limits of rhetoric in addressing a complex field such as the institution of economics. The main figures in the field, Deirdre McCloskey and Arjo Klamer, have now moved away from their previous interest in rhetorics, and are about to gain the stage of economic philosophy with their new books – yet apparently on different subjects. McCloskey has completed her *Bourgeois Virtues: Ethics for an Age of Commerce,* presently on the eve of publication (forthcoming 2006) by Chicago University Press, which is the first volume in a series of four on the ethics of capitalism. Klamer's new book, *Speaking of Economics: How to Get in the Conversation*, published by Routledge, is also soon forthcoming (forthcoming 2006). It covers the social side of academic life and the human dimension of becoming an economist, of being socialized into the academic culture.

The change in focus of Klamer's and McCloskey's research and its connections with their previous work seem to us good starting points for reflecting on the *economics of rhetoric*.[4]

Altuğ Yalçıntaş: There is something that I have long wondered – that is, the connection between your *The Rhetoric of Economics* (1985) and your *Bourgeois Virtues*. Surely, it is impossible to argue in the contrary. There ought to be a connection between the two. And to my reading, in your previous work, especially in your *Knowledge and Persuasion in Economics* (1994), there were many hints to what would be next. But I would like to know your view on this. Can you argue that there is a continuum between the two?

Deirdre McCloskey: Well, I think there is, but I am not clear about it. For one thing, one of the conclusions in my *Knowledge and Persuasion in Economics* was that the only protection we have in science is virtue. Having this method or that method, doesn't assure that they will have good science. You can always get bad science that follows the rules. And we have it, I believe, in economics in a lot of ways. So I think

[4] This is an excerpt from the interview with Deirdre McCloskey by Altuğ Yalçıntaş. The interview took place at Deirdre's apartment in Amsterdam in December 2005.

there is that small connection, what's called in philosophy "virtue epistemology." I think that good rhetoric is important for human life. And my claim about capitalism is that it depends on good rhetoric. It depends on open speech community. This is actually more in the second volume, which I haven't finished. In the second volume I argue that modernization or industrialization or Industrial Revolution depended on human freedoms, most particularly free speech. So there is that connection which is called *sprachethik* of the 18th Century England that made it possible the mad accumulation of inventions. I got into rhetoric because I wanted to know how they came to their conclusions. They said they came to them by, you know, falsifying econometric tests. You could see that that wasn't true. Of course, I could have just said ideology, but that's not too illuminating. So I got down to the tales of how they argued ... I was interested in whether or not modern economic life is good or bad. We're rich. We have pizzas. And automobiles. But has our soul been corrupted? Are we spiritually worse off in the modern world? ... This is the claim of fundamentalists – Christian and Muslim.

Altuğ: This is very interesting because Arjo (Klamer) is also working on his new book, *Speaking of Economics: How to Get in the Conversation*. We read various drafts of the work in a number of seminars and meetings. He, for instance, speaks about "ethos" and "character" in economics, which is I think so close to your view of "virtue" and "virtue ethics." It is very interesting for me to observe how the metaphors of rhetoric and conversation transform into such concepts as "ethics," "virtue ethics," "ethos," "character" etc. Now the question is: do you think your *Bourgeois Virtues* and Arjo's *Speaking of Economics* are going to bewilder the community of economists as much as your *The Rhetoric of Economics* and Arjo's *Conversation with Economists* (1984)?

Deirdre: I think so; although I am not sure economists are going to pay attention to us. I actually think economics is at a stage in which it is open to this concept. I think people like Amartya Sen are open to ethical thinking. And psychological economics has opened them somewhat to character, and so forth. So I think on both scores, our books might get some sort of perception in economics. Friedman at Harvard has just written a book, which I saw over in the bookstore on the ethical affects of capitalism. But the trouble is that he is only an economist. He is kind of stuck with the economist's point of view. I think a lot of economists: Bruno Frey, Robert Frank, and George Akerlof are trying to stretch economics to include real people. In both cases, Arjo's and my book, that's what we're trying to do. We are trying economics to be about real people, instead of about Max U.

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Rhetoric is not just a gadget of poetry, but a tool of persuasion (McCloskey 1983, 1985, 1994). And language, with which rhetoric is eminently concerned, is not only an instrument for communication, but a structural component of human cognition, and consequently of scientific knowledge (Austin 1962; Searle 1969; 1983). It is thus not surprising that language has aroused attention in the methodology of economics and certain figures of speech – namely metaphors[5] – have became the cornerstone of

[5] Though we only talk about metaphors as institutions, our discussion can be extended to other figures of speech, and eminently to analogies and similes. We do not devote enough time and effort to discuss the difference among them, but simply refer to the 'comparison' they establish. Robert Harris (2005) defines these figures of speech as follows:
SİMİLE: a comparison between two different things that resemble each other in at least one way. In formal prose the simile is a device both of art and explanation, comparing an unfamiliar thing to some familiar thing (an object, event, process, etc.) known to the reader. Often the simile - the object or circumstances of imaginative identity (called the vehicle, since it carries or conveys a meaning about the word or thing which is likened to it) - precedes the thing likened to it (the tenor).
ANALOGY: compares two things, which are alike in several respects, for the purpose of explaining or clarifying some unfamiliar or difficult idea or object by showing how the idea or object is similar to some familiar one. While simile and analogy often overlap, the simile is generally a more artistic likening, done briefly for effect and emphasis, while analogy serves the more practical end of explaining a thought process or a line of reasoning or the abstract in terms of the concrete, and may therefore be more extended.
METAPHOR: compares two different things by speaking of one in terms of the other. Unlike a simile or analogy, metaphor asserts that one thing *is* another thing, not just that one is like another. [A] metaphor not only explains by making the abstract or unknown concrete and familiar, but it also enlivens by touching the reader's imagination. Further, it affirms one more interconnection in the unity of all things by showing a relationship between things seemingly alien to each other. And the fact that two very unlike things can be equated or referred to in terms of one another comments upon them both. No metaphor is "just a metaphor." All have significant

what is dubbed the "linguistic or rhetorical turn" in economics (Hands 2001). Although the novelty of rhetoric applied to economics is gone – many critics now agree – it has left us with the acknowledgement that cognition is metaphorical and we know actions follow from cognition. Metaphors provide a meaningful institutional setting for us to live by. And, as we argue below, they are invasive in the conduct in every field of our existence, and this may cause phenomena that remain largely unaccounted for.

Departments of Economics, as a part of our daily lives, are the institutional setting in which academic economists operate.[6] Our professional lives, say, at New York University or Ankara University, aiming at truth or prestige, knowledge, or publication, or fun, take place within the boundaries of the institution of economics. Belonging in such institutions enable us in many ways. It provides, in the first place, a context wherein our contribution is meaningful. But institutions constrain, too, what economists are allowed to do or say.

A friend of ours, an engineer from the Polytechnic of Milan, had once attended one of the seminars at *Erasmus Institute for Philosophy and Economics*, and commented with puzzlement on the way we discussed the issue: "Why do you sit there for one hour discussing whether economists are selfish or not? Why should anyone care or bother?" The issue, in fact, was important (in that, for one of us, it is the topic of his dissertation) – important enough to gather a dozen people to talk it over. *Erasmus* is such an interesting and valuable institution, that being part of it grants the economic and philosophical debate a relevance that it would probably not have outside the academia; and certainly not in the yearly meeting of the Civil Engineering Association. At *Erasmus*, however, we are not allowed to hold a seminar on whether the referee correctly assigned a penalty during the soccer game between Roma and Lazio or whomever some movie star is dating.

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implications, and they must be chosen carefully, especially in regard to the connotations the vehicle (image) will transfer to the tenor.

[6] In the paper we refer to economics as neoclassical (micro)economics, although the discipline is now shifting towards a new mainstream: game theoretical strategic decision-making.

We might be not always aware or clear about them, but borders exist and they are stiff. This is sometimes a good thing. But we doubt that borders are always efficient and desirably functional, especially if we fail to acknowledge their presence. Disciplinary boundaries are fine when they excuse the economist from drafting a complete quantum theoretical account of the human brain before he addresses the question of consumer behavior. Even though that knowledge might gain additional insight, its prospects are uncertain and its costs very high. So there is a pragmatic concern in the confines of one's field of inquiry. But this can pose severe limits when the economist declares that consumer behavior in the Middle East ultimately depends on relative prices, and that it is only slightly, if at all, affected by the pointless distractions other social scientists waste their time with. And by distractions we mean trivialities like nationality, religion, ethics, and identity…. What we observe is the loss of intellectual curiosity and the establishment of a separate culture.

Cole *et al.* (1971) conducted a very teaching experiment. When adults in Western cultures were assigned a pool of words to sort out, it is observed, the 'most intelligent' ones sorted hierarchically. They put the names of different kinds of birds together, and then <birds> over that. They then put <fish> and <mammals> next to <birds> – and <animals> over them all. 'Less intelligent' people, however, sorted them out functionally. They put <salmon> together with <eat> because they ate fish – and <scarf>, <shoes>, and <sweater> together with <wear> because they wore clothes. The African Kpelle tribe, too, approached the exercise by sorting the words out functionally. And Michael Cole and his colleagues were by no means able to trigger the "smart" hierarchical ordering (Cole *et al.* 1971). Until, frustrated, one of them asked the Kpelle to sort the words as a *foolish* person would. A minute later <tuna> was under <fish> under <animal>. The Kpelle knew how to do that all along, but simply considered it stupid to do so. For the Kpelle there was no point in making up an abstract ordering based on how things were and unrelated to what things were for. To a Kpelle "an eagle is like a chicken (because both are <animals>)" probably sounded absurd, while she might have agreed that "a potato is like a chicken (because you <eat> them both)."

The example, for us, proves an important point. The problem is so puzzling that, as Arjo Klamer mentions in his forthcoming book, *Speaking of Economics* (2006), even Nobel Prize Winners Franco Modigliani and James Tobin could not make their ways out of it. The problem is the gap between the world within a culture and the world outside. On that faithful day, when a reporter asked about their contribution, Modigliani said: "Well, uhm, I had this idea that people save for the future." And Tobin stated that people invest money and "they don't put all the eggs in one basket." The journalist thus asked the only possible follow-up question: "Is that it?" (Klamer 2006: chapter 8).

The questions that bother us are not whether economists' knowledge is true, to what extent, and under what respects, nor whether truth is even attainable. To quote informally from Mark Blaug, we regard as the defining issue "whether the economist has anything interesting to say."[7] And, we might add, *to whom*?

Just like a hammer is not a good option to paint a wall or do philosophy (although Nietzsche attempted to do that in his *Twilight of Idols or How One Philosophizes with a Hammer,* 1895), so it is useless to try and explain individual behaviour with Walrasian general equilibrium models. A tool is useful insofar as it creates satisfaction in the struggle with the problem. But when such satisfaction is achieved, circumstances change; and not always this translates into the adoption of a new set of tools. What we observe here is that – despite the apparent foolishness, irrelevance, or absurdity of certain forms of knowledge to outsiders – the insider will not recognize nor admit to it. Furthermore, she will act upon that knowledge in ways that make sense to her fellow insiders. An immediate reflection of these differences in knowledge and understanding is in the way people are accustomed to speak and in the metaphors they are accustomed to use. We think that the situation prevalent in economics, too, can be appreciated by taking a look at the vocabulary economists have come to use.

Watch your wards.

[7] His comment to Marciano (2006).

People develop habits of thought according to which they think, behave, and act. Many of us like reading newspapers on Sunday mornings. We use specific words to call our lovers. And, many scientists use specific sets of metaphors to explain the phenomenon that they are interested in. That scientists always use a specific set of metaphors is not necessarily because they do not know any others. It is rather because they are used to doing science with those words. A good reader of Friedrich Nietzsche would immediately guess which text might belong to him because he had chosen a specific set of words to do philosophy. It is the same in the music of *The Beatles* and the paintings of Vermeer. We are, however, not really entitled to begin talking about intellectual and practical problems in the terms that we are accustomed to, especially when we are more knowledgeable than past generations about the shortcomings and imperfections of the construction that we have happened to keep up building. Underlying the undesirability of institutions, Veblen said the following:

> Institutions are products of the past processes, are adapted to past circumstances, and are therefore never in full accord with the requirements of the present … At the same time, men's present habits of thought tend to persist indefinitely, except as circumstances enforce a change. These institutions which have thus been handed down, these habits of thought, points of view, mental attitudes and aptitudes, or what not, are therefore themselves a conservative factor. This is the factor of social inertia, psychological inertia, conservatism (Veblen 1889: 190-191).

The attitude should of course not mean endlessly to argue against the philosophical heritage and the "accumulated body of knowledge" – a powerful metaphor in the history of human thought. Descartes was right when he implied that the material world was what one should care about, if only because we can easily get killed if we carelessly walk on highways. And Samuelson himself was right, too, when he wrote that there was progress in economics so that we are able to, say, solve the so-called water-diamond paradox in economics. As Boulding (1971) once posed the question: after Samuelson who needs Adam Smith? Nevertheless, to construe philosophy, science, and arts as the assemblage of merely well-known and familiar metaphors was and is optional. "Samuelson's [idea was] Pythogorian and Cartesian," McCloskey (1996: 61) wrote, i.e. based on "the notion that sitting and thinking hard in a warm room you can solve many if not most of the world's problems." It doesn't work that way, of course. "Assiduity," writes Nietzsche (1895: 26), "is the sin against the holy spirit. Only ideas won by walking have any value." There would be less problems with the Pythogorian and Cartesian approach, if their advocates acknowledged it is but one way to go about problems, and one likely to be well suited for certain problems but not others. Categories, methods, and tools are only contingently obtained. In order not to commit the same sin, we could equip ourselves intellectually so as to develop a motivation to set the archaic thoughts aside – some of which we mention in the essay. And to atone that sin, when we commit it, we could look for a fresh direction to these dusty thought. Only then can we toggle to a better vocabulary. Only then we can become fully independent from the once-secure-path of human ideas and thought.

This is not novelty, some may think. *Metaphors as institutions*, many would argue, certainly change through time. And they are correct about it. However, the change takes place, some think, according to some mystic "intrinsic laws of nature" (which they sometimes call "dialectics") so as to get the actual conditions to converge to *the* ideal, step by step. If there were something wrong in the course of events, such as inefficiency of a technological design or incorrectness of a theorem, it would disappear as time goes by. Each level of development would make rapid strides over previous levels, endlessly, helping achieve the present to exist in a more accurate state than yesterday, the future better than the present.

But this is very much wishful thinking. When God created the world, she didn't only populate it with animals, humans, and plants. She, as a matter of fact, also added transaction costs. There are firms in the economy, as Ronald Coase (1937) argued, because the marginal cost of getting a cargo shipped from Rotterdam to New York through market transactions is higher than getting it shipped through shipping firms. So there are shipping firms handling the cargo and thus reducing the transaction costs. But, as Coase argues, this is not *the best* solution. We are not, in other words, living in the best of all conceivable worlds. Since there are transaction costs, we sometimes have to settle down with *the second best* solutions. Of course also the potential existence of alternative states of the world brought about by different institutional arrangements derives its meaning from concepts like equilibrium, evolution, optimality…. And our attempts at showing some institutions inefficient rest on the inherited frame of mind that cost-benefit analysis is an adequate criterion for choosing among markets and firms, or among various institutions, and that some of these may prove as beneficial as others at a relatively lower cost, or more beneficial than others at the same cost.

In so doing economists show their incompetence at basic maths. To be sure, unlike others, economists recognize that whenever someone makes a choice he has to account for the alternatives he gives up, that is opportunity costs. But they don't consider future opportunity costs: choosing <A> opens many sub-choices, but it bars most of the sub-choices one could have accessed had one picked <B>, <C>, or <D> in the first place. It is remarkable that they disregard these costs. The financial economists Robert Merton and Myron Scholes were awarded the Nobel Prize in 1997 for their formula to estimate the present monetary value of an option. An option is nothing but the right to buy or to sell a specified financial product, at or before a certain date, for a fixed price. Such right, which enables us to make a certain choice in the future, is, correctly, assigned a (positive) value. It would seem obvious that – conversely – giving up the possibility to make a choice in the future is assigned a (negative) value, too, if very difficult to estimate.

And there are transaction costs in the intellectual world as well. They prevent 'inefficiencies' from disappearing. Some transaction costs are caused by "historical small events" – a term we appropriate from Brian Arthur, an economist at the *Santa Fe Institute* (Arthur 1989). One instance: George Stigler, Nobel Prize winner in 1995, imagined a world *without* transaction costs. He established in numerous standard text books the theorem that "under perfect competition private and social costs will be equal" (Stigler 1966: 113), which was called 'Coase Theorem' despite the fact that Coase himself argued *against* it. Coase argued that institutions are important for understanding and explaining the economy and society when there are transaction costs. Stigler had gotten it wrong. After Stigler's "historical small event," many economists from Jeffrey Harrison (1995: 56-60) to Robert Cooter and Thomas Ulen (1995: 79-84) have interpreted Ronald Coase incorrectly (see also McCloskey 1997, Arcuri 2004, and Yalçıntaş 2006).

All this is called "path dependence" in economics. Path dependence plays a crucial role in the evolution of institutions. The argument maintains that social institutions such as families and universities are not static, and they evolve following path dependent processes which might result in "suboptimal" locked-in states or give rise to exaptive changes. Past experiences, be it individual or social, according to the path dependence view of institutions, somehow affect the present decisions of actors. Put it differently, every behavior has crucial influences on future preferences, which may make the actor move away from *the most* desirable choice to a *less* desirable one. History then is the constituent that we should take into account for explaining the actual state of an institution.

Paul David (1992), one of the main contributors to the literature, claims that "[t]he accretion of technological innovations inherited from the past therefore cannot legitimately be presumed to constitute socially optimal solutions provided for us – either by heroic enterprises or herd of rational managers operating in efficient markets." His well-known example is the Q-type keyboard – also known as QWERTY. As he tells in his seminal paper (David 1985), although QWERTYs, in contrast to its alternatives, such as Dvorak Simplified Keyboard, are hard to learn, and reduce the speed of the typist, they are still manufactured and sold immensely in the market. It is because, the argument goes, *switching to* another system of typing costs too much. The example, as is recited, is an illustration of a "market failure." The early start of QWERTY arrangement determined the standards in such a way that they cannot be eliminated or altered by rival systems at the moment (David 1985). In the literature this is also called "lock-in" referring to increasing returns or economics of scale, more profoundly network economies. That is to say, "historical small events" can cumulate step-by-step to lock the market in the monopoly of a possibly inferior technology (Arthur 1989). Here "network economies" plays a crucial role. If average costs decrease as the amount of commodity produced increases *and* if the application or usage of a commodity is extended as it becomes a part or a component of a network, then the commodity becomes dominant in the industry: "[i]f nobody has a telephone," says Brian Arthur in an interview, "the telephone isn't much used; but if everybody has a telephone, or say e-mail, then it is much more useful. It's another form of positive feedback. If everybody is using Java, then more applications are going to be written for Java. It's the positive feedback that comes from a network of users" (Arthur 1998).

But, what about metaphors as institutions? Can metaphors, too, have evolved dependently on certain paths, so that we got stuck with them? Yes, metaphors are in this respect, institutions, we argue, because the economic vocabulary, that is the set of metaphors and figures of speech about the economy and society, does the same as institutions. Institutions enable *and* constrain individual action in many ways. They create meaning *and* meaninglessness. They draw the borderline between what's in and what's out. They attribute relevance to one discussion and not to another.

The economic vocabulary enables economists to communicate how an increase in the demand of a commodity may increase its price. The belief that a free exchange in a market guarantees the most efficient distribution of income, however, brings about the cast of mind that lets economists know all about the price of a commodity, as Oscar Wilde once remarked, but nothing about its value. Take this reasoning a few steps further and get to the fallacious conclusion that "*all human behaviour* can be viewed as involving participants who maximise their utility from a stable set of preferences and accumulate an optimal amount of information and other inputs in a variety of markets" (Becker 1976: 8, emphasis ours).

But, while such metaphors enable us to communicate the problems of unemployment and poverty within and among nations, they sometimes disable us as well. For instance, one cannot say anymore that "a child is the fruit of love (because love is not a legitimate fruit-bearing plant in the field of economics)," while it is easy to suggest that "a child is like a refrigerator (because both are durable goods)."
We think this is exactly where the problem lies.

Metaphors become institutions, and there is not much we can do about it.

There are two crucial aspects, we reckon, of the connection between metaphors and institutions. The first is that institutions are often thought of and described in metaphorical terms. Many prominent religious leaders repeated that "religion is the pathway to eternal salvation." But they hardly have a 'map' of such path for everyone to follow. And indeed, their critics objected that "religion is the opiate of peoples." In a similar fashion, researchers of international economics admire the virtues of trade to the point of believing that "free market is like heaven," to which opponents add "everybody wants to get there, *but not yet*." Such figures of speech are abundant. Metaphors – although differing in many different conversations – are central to human understanding. We need comparisons to make judgments and references to what is known in order to understand what is yet to be known. Metaphors do it for us.

Metaphors, on the other hand, are institutions in some non-trivial respect. They create cognitive categories to which we refer in order to make judgments and explore new ideas and concepts. If religion is like opium, we understand the behavior of a zealot in terms of obfuscation of human autonomous intelligence; but if religion is a pathway to eternal salvation, we see its effects as powerful motivators. Tariffs and quotas in international commerce are either obstacles to the achievement of the ultimate global free market or the blessed delaying of our arrival at the "final" destination. Our metaphors, therefore, establish interpretations, meaningfulness, relevance, appropriateness, and so forth. Similar usages are common in lay discussions in coffeeshops, philosophy in academia, and arts in musea, but given the focus of this essay, we concentrate on metaphors as institutions in science at large and in economics in particular.

When asked what science is, many scientists feel uncomfortable. To be sure, we all know very well what it is we're doing. We learn standards of scientific inquiry, techniques of investigation and proof, and conventions of scholarly report of our findings in the early steps of our career: we are socialized into the institution and come to internalize its rules; we understand its narrative. We contribute to its development. And we thus enter its conversation. There are numerous ways to describe the procedure by which students grow into scientists and become part of a scientific practice. It is extremely hard, however, to pinpoint what science is in a straight fashion – say with a dictionary-entry-like definition. Thus, in our accounts of science we rely on metaphors. We appropriate certain relevant properties from other spheres of human life and transfer them to the scientific enterprise, assuming – not always with good reasons – that the comparison will clarify the issue.

Obviously also the academic practice of scientific economics can be represented in a number of ways. Right, but let's get to the point: What is economics?

Milton Friedman would be inclined to say it is the enterprise of predicting economic phenomena, to which Paul Samuelson might respond that it is ultimately just a source of entertainment. While Friederich von Hayek and his fellows from the Austrian School would suggest that economics is philosophical inquiry, Douglass North and the "Old Institutionalists" would be more inclined to describe it as an historical analysis of the origin and evolution of institutions. Alfred Marshall modestly called it once the study of mankind in the ordinary business of life. Arthur Pigou saw social enthusiasm as the beginning of economics, while Robert Solow has been often quoted for his definition of economists as the overeducated in the pursuit of the unknowable. Deirdre McCloskey famously says that economics is rhetoric, or the attempt to persuade other economists, and Arjo Klamer proposes it to be a bunch of ongoing conversations. Yet others think it is pure ideology, the activity of publishing papers, mathematical formalization, the provision of policy guidance, a network of scientists, a market of ideas, a search for truth and whatnot. Maybe, as Jacob Viner proclaimed in puzzlement, it is just what economists do.

This incomplete list is already overwhelming. And confusing, too, since the definitions are usually opposed to one another as rival: "No, it's not *that*, it's *this*!" But indeed they emphasize different values and concerns (epistemological, sociological, ontological, etc.) and address economics at very different levels (its role in human knowledge or in social contexts, its goals, its function, its rules, etc.). It is now easy to see how each of them is *partial* – and this always happens to be the case with metaphors. Some are even old-fashioned and have been altogether dropped from the economic discourse.

Each metaphor is by its own "nature" – another powerful metaphor here – restricted in scope and can only cover a limited number of possible connotations that are meaningful in the relevant context. It has to emphasize certain features and disregard certain others. The relative success with which metaphors address economics is a dynamic process made of rise to celebrity and fall into oblivion. Metaphors of economics therefore are born and dead. They begin as evocative guesses, but need to be elaborated to make it to the front page and, once there, they have to keep their charm to remain *en vogue*.

Consider Klamer's argument that economics is a bunch of ongoing conversations (Klamer 2006, Chapter 2). How is it that it works? Why on earth calling economics a bunch of ongoing conversations should be telling? And telling *what* anyway?

The structure of metaphors consists of two elements and their connection. The first element is the subject ("economics"), the second is the predicate ("bunch of ongoing conversations") and their relation is based on the positive, negative, and neutral analogies (Hesse 1966). By saying that economics is a bunch of conversations, we connect certain attributes of the predicate (but not all of them) to the subject. A metaphor amounts to a transfer of meanings between contexts. It tells us how to behave "as if" we were in another context, so that we derive from the other context the basic tenets of appropriateness and essentialness. Economics as rhetoric means that dialogue and persuasion are the leading tools of the craft and that dogmatism is no good.[8] Economics is not *all* a conversation nor *nothing but* a conversation. Certain aspects of economics are in some ways similar to a conversation. Alas the metaphor itself doesn't determine which attributes qualify for the "transfer of meaning" and "the task of interpretation remains" (Klamer and Leonard 1994). Different audiences will therefore understand metaphors in different ways, appreciate them for different features, and consequently choose different ones among them for different purposes.

Klamer has done the job of interpretation of some metaphors of economics, proving them not *mere* descriptions but crucial ways of understanding the discipline. If an economist – say, Paul Samuelson – follows "tough-minded" philosophers such as Francis Bacon and Isaac Newton, he comes to believe his discipline is a body of cumulated knowledge. Expect him then to start talking like he is working to increase the "amount" of such knowledge. He will thus relax assumptions in his models and go on to prove as many different equilibria as possible. This way he increases the "size" of the body; indeed, his *Foundations of Economic Analysis* (1947: xi) "achieved for economics a synthesis of Cournot's Newtonian calculus method of maximizing with

[8] This would be *economics as religion* (See Nelson 2001). It may on these grounds be suggested that metaphors deserve moral scrutiny. They most certainly do, but this is a point argued for elsewhere (Lanteri 2003).

Walras's equations of general equilibrium." But he is not contributing much to its resemblance to empirical findings, as experimentalists might argue. Ideologists will voice against his shameless defense of a certain socio-political outlook. Instrumentalists *à la* Milton Friedman will complain that it doesn't allow reliable forecasts, nor promotes sound policies.

Metaphors of economics may become metaphors for economics, and there is not much we can do about it, either.

Metaphors tell economists what economics is like, whence we deduce what to do or not to do. The point, however, seems to invite an obvious perplexity: What came first? The metaphor or its content? Needless to say the meaning came first. No economist woke up in the middle of the night wondering: "What would be a nice way for economics to look like?" Things start from a distance. One learns how to do economics first, then one summarizes one's outlook on the practice in a convenient and informative way.

The young teacher motivating her lazy students, the committed academic taking sides in a heated squabble, the retired grandfather telling of his profession to a bunch of open-mouthed children, the resolute politician debating a policy proposal, all reach out for metaphors to make themselves understood. Try to picture them declaring: "Economics is a science explaining individual human actions in terms of rational maximization of expected utility under exogenous constraints, which obtains in such a way that leads to a socially optimal equilibrium…" See? The children are crying, the parliament didn't pass the bill, the referees rejected the paper, while the students are playing tic tac toe under their desks. We *need* metaphors for very practical reasons.

But once we acknowledge both enabling factors – such as the use of dynamic optimization – and limiting factors – such as self-interest, rational maximization, and equilibrium assumptions – we realize that metaphors actually frame our thoughts about the discipline. If we didn't think of economics in Newtonian and Darwinian terms, we would never be allowed long shots as describing human action as constrained maximization of expected utility. Everyone would mock us saying that what we are chattering about is a bunch of false conclusions derived from false psychological assumptions (e.g. McDougall 1923). But a great many economists see this as plain normality and, as Daniel Hausman (1992: 95) observed, if we were to drop the fundamental law that agents are animated by self-interest, whatever we might be doing, that would not be economics anymore.

As soon as we engage in the field, enabling and limiting factors shape our conduct as economists. What was "a positive theory of science" becomes "a normative theory for scientists." The shift is not painless, of course: It results in a radical change in the conceptual understanding of the subject, and brings about a waterfall of other metaphors. Once, for instance, you convince yourself that economics is the physics of social sciences, you start uncovering *mechanisms*, measuring *forces*, establishing *ceteris paribus* clauses, so forth. The predicate, so to speak, undergoes a shift from being a metaphor *of* to a metaphor *for* economics.

Just like economics, many other branches of science such as engineering, anthropology, and medicine have their own metaphors; and biology too, of course. It is indeed intriguing to explore how brilliant biologists could go as far as to declare that human beings are naturally born selfish because their "genes are selfish" (Dawkins 1976). Our genes are *not* selfish in any intentional sense and, if human agents were selfish, it would certainly not be so *because* their genes are. It just so happens that the presumably figurative use of warfare and economic jargons in biology became part of the orthodoxy, via the Darwinian metaphor that evolution is a zero-sum game: *Mors tua vita mea*. If I survive, others won't.

> Thus it raises no eyebrows if you put the pure facts about probability and numbers in terms of "competing" genes in universal "struggle," each "aiming" at "maximizing" reproductive "successes and failures." In fact, it is quite difficult to think of a neutral term, such as "reproductive profiles," to describe the different amount or proportion of genetic material of any particular kind in a future generation, without invoking the language of competition and success. It would be extremely naïve to regard this universal anthropomorphism as harmless. The metaphors determine our interpretation of nature in terms of classical economic competition; the interpretation of nature then feeds back to determine our interpretation of ourselves (Blackburn 1998: 146-7).

Nietzsche (1873) warned us that the process could be both subtle and irreversible. That is to say, choosing some metaphors and investing time in explicating their "nature" and usefulness, one may not compromise from, well… uhm… their memory, so to say. A tool such as a hammer is a tool insofar as it works to pin a needle. Otherwise, a hammer may only be an ornament. And economic metaphors are the same; they are useful when, for instance, "production functions" help organize the factors of production in the assembly lines of such big enterprises as the Ford Company or Toyota. The metaphor of homo economicus, however, becomes merely ornamental when, say, it ceases to have anything meaningful to say about malnutrition problems in Africa. From then on, when you ask the question to economists, "What is economics?" you in return get answers indicating why economics is all about *bluh, bluh, bluh* and why it is nothing but *bluh, bluh, bluh*. Metaphors are not sweet objects anymore to fill the gaps between the problems *and* the people who are willing to communicate to others their opinion about the problems. The metaphors that are used to define what economics is, therefore, become an *excuse* for the dominant presence of the official way that economists do their science. Metaphors have now become excuses for our *dis*abilities, for what we can*not* do. Nietzsche (1873), likewise, thought that even such philosophical placeholders as truth are "metaphors that have become worn out and have been drained of sensuous force, coins which have lost their embossing and are now considered as metal no longer as coins." A defense of one partial way to conceive economics, even when it cannot solve one set of problems, because it can solve another set is simply untenable. We don't think electricity is either good or bad; but we do think that its adequacy to light up our houses at night or power our laptops does not provide a justification for its employment in an electric chair. If homo economicus is all we need to accurately understand the international copper market, this has nothing to say about the desirability of homo economicus to explain gift-exchange in a rural economy. We are not making a point in favor of pluralism – though we might – but merely in favor of humility and open-mindedness. This might not always be easy because, after all, why do we get stuck with metaphors in the first place?

Metaphors tap deep into our brain; and they, qua institutions, generate paths.

Not every metaphor occupies the same place in the realm of cognition. Some are simplifications of obscure concepts, designed for *pedagogical* purposes. For instance, Yezer *et al.* (1996: 178n) reveal: "in teaching this lesson [that market transactions are not zero-sum games] in our classes, we sometimes try to use the metaphor that, in terms of distribution of gains, market exchange is more like consensual sex than a baseball game." They further admit that "even if this teaching technique fails intellectually, it usually heightens the interest in the class." Don't expect these students to go shopping with a baseball bat, however, nor with a condom. Some metaphors, we think, have turned out to be *path*ological. Others hide an insight, a potentially fruitful idea which needs to be spelled out; they have a thought-propelling or *heuristic* function. The actor and director Woody Allen likes to say that economics is the study of money and why it is good but, while we may smile at his cynical remark, it doesn't affect the way we do economics, moving us to writing *The Apology of Wealth*. After all *if we are so smart how come we are not rich*? We then have *constitutive metaphors* that amount to conceptual schemes for the interpretation of the world (Klamer and Leonard 1994). Although heuristic metaphors can evolve into constitutive ones, we will hereby focus on the latter kind only, as they are those that 'frame our thinking' and therefore 'shape our actions.' The predicate of a constitutive metaphor indeed brings about a concept central to the very understanding of economics. This is precisely the characteristic of metaphors we are discussing.

Metaphors, in the fancy language employed in methodological circles, can be called institutions in that they create collective interpretations and orderings of information in a complex ecosystem (Danzau and North 1994, Hodgson 2003). They set rules that enable and constrain individual action – rules that tell us how to behave, how to conform to a context. Metaphors, like other institutions, provide us with criteria for evaluation, therefore judgments. Such judgments inform us how we ought to or not to behave. John R. Commons (1931) defines an institution as "collective action in control, liberation, and expansion of individual action." Such control is intended to and does result in gains or losses for certain individuals. It creates duties and rights in conformity to collective action (you can report what others said before you, for instance, but you have to acknowledge the source). Or it prescribes a taboo or prohibition of certain acts (for another instance, you cannot practice plagiarism) at the same time creating a liberty for those made immune from that act (and finally, your ideas are not going to be freely appropriated by others). To say it with Commons (1931), "all collective acts establish relations of rights, duties, no rights and no duties." In terms of individual action, institutions require performance (*do*s), avoidance (*do not*s) and forbearance (degrees of intensity). They draw the line between what individuals "can" or "cannot," "may" or "may not," "must" or "must not" either "do" or "not do."

Accepting metaphors as institutions that enable and constrain our thoughts and actions via language may appear to require an act of faith. Indeed:

> So bold and striking is metaphor that it is sometimes taken literally rather than as a comparison. (Jesus' disciples sometimes failed here - see John 4:32ff and John 6:46-60; a few religious groups like the Jehovah's Witnesses interpret such passages as Psalm 75:8 and 118:15 literally and thus see God as anthropomorphic; and even today a lot of controversy surrounds the interpretation of Matthew 26:26.) (Harris 2005).

Although we understand that some readers might legitimately react with skepticism to our claim, for the purpose of the present essay we will not develop and defend a thorough account of intentionality and language-as-action. An easier version will do: "We talk about arguments [in a certain] way because we conceive of them that way – and we act according to the way we conceive of things" (Lakoff and Johnson 1980: 6). What happens, then, if metaphors have cognitive properties that reach deep into our brain?

Salvatore Rizzello (2004) draws on Hayek's *Sensory Order* (1999) and Herbert Simon's concept of *satisficing* (as opposed to maximization) to construct path dependence in neurobiological terms. He argues that every person perceives her environment differently, according to her class of stimuli, interests, and subjective concerns. There is an interaction among individuals and their choices, where stochastic elements play a crucial role. "The fact that the evolution of the brain is path dependent means," he says, "that it certainly depends on its history, but also on its neurognostic structure, which in turn resists to continuous changes. The image of the self and the external world tends to preserve the previous one as long as possible. In a sense, neuronal structures have a conservative nature, but they are not completely rigid" (Rizello 2004).

There is a big world out there with a huge amount of information we need to make sense of. But until the very moment we selectively process this formless data into knowledge it is completely meaningless. As soon as the process takes place, an interpretation (a model, a theory, a metaphor etc.) emerges and is wired in our brain. With those lenses we are going to look at the next event, therefore making sense of it in relation to the earlier event, judging it according to the standards of its predecessor. There is no knowledge without a knower and his very own 'way to know.'

Ronald Coase (1984) was then right in blaming some American institutionalists for being anti-theoretical and in arguing that "[w]ithout a theory they had nothing to pass on except a mass of descriptive material waiting for a theory, or a fire." And Immanuel Kant was right, too, in declaring that conceptions without perceptions are blind and perceptions without conceptions are empty. We, therefore, think we shouldn't forget our historical past. And we do not suggest that such metaphors as "the essence of a table – that is, table*ness,*" in the Kantian sense, and "the nature of human behavior," in the Baconian sense, always make a difference practically. Nevertheless, we somehow make use of them.

The consequences of the premises, presumptions, assumptions and prejudices, imagination and beliefs in daily life as well as in scientific practice may accumulate. They accumulate in such a way that taking a body evolving through a path, so to say, out to another set of conditions, therefore another path, may get gradually harder and harder. The psychologist William James warned us that a great many people believe they are thinking while they are merely rearranging their prejudices. Our next step takes place where the previous step ended and wherever we are, we got there through a path. A path, however, might just be very hard to abandon so that not only where we are is determined by how we got there, but also where we *are going*, or *can go* next. We found ourselves *locked-in* in the present, as it stemmed from the past, with less and less control over the future.

The morale of the story of path dependence is to produce yet another fictive story that "[attempts] to re-interpret our familiar surroundings in the unfamiliar terms of our new inventions" (Rorty 1981: 360). No matter how much we talk and type, we are still sitting in our chairs and we are not following any route. Path dependence is an entirely metaphorical concept. It is useful and operative in explicating why and how we lose the ability, equipment, and desire to switch from one set of metaphors to another. It suggests that some of those viewpoints are not useful and functional any more. The metaphor, in other words, triggers us to think about the forgotten but broadly applied viewpoints.

Given enough time for certain metaphors to settle down in the narrative and enough inventiveness to introduce *brave new metaphors*, the focus of institutionalized individuals might shift so dramatically that one begins to wonder whether they have anything in common with their ancestors. Take as an example the case of biology above: What does a probabilistic account of trait replication has to do with a selfish gene? Yet they are the same entity, object, concept, or whatnot. Thus it might well be that *as if*'s are meant to emphasize a "real causal process" separating it from other disturbing forces, but their evolution seems to be independent from such epistemological starting point.

A clear example of path dependence in economics is the idea of human agency. There exists a creature, you might have heard about, with a slight anthropoid resemblance. *It* is said to not exhibit gender or racial traits (although *it* does, in the form of a *he*). It has consistent preferences. It enjoys perfect information and benefits from an astounding reasoning power. And it is often portrayed as a lavishly selfish individualist being. You probably never had the chance to meet it in person because it lives in "logical time" and only entertains atomistic interactions with alike beings. Thorstein Veblen (1898) once colorfully described it as a "lightning speed calculator of pleasures and pains." Though, much like Big Foot, no one has ever actually seen it and many suspect it doesn't even exist; it dwells in economics textbooks and it is referred to with the somewhat mythical name of "*homo economicus.*" The basic assumption of neoclassical theory is that individuals are like homo economicus: It's the metaphorical hard-core of the discipline.

John Davis (2004: 27-32) reconstructs the detachment of "homo economicus" from its psychological foundations as an attempt at escaping the problems of Lockean subjectivist conception of individuals. Step by step, however, this path "left economics without any understanding of the individual" (Davis 2004: 45). Nowadays economics is in a locked-in state, where both the defining characteristics of human agency and the mathematical methods that go with them, cannot be abandoned.

A dismal science, path dependence, and exaptation.

There are many reasons for the sorrow in economics. Economics is a dismal science, Thomas Carlyle once told us. It is possibly the only social science with no room for sociality, the offspring of humanities, through grannie moral philosophy, without humans. And probably with little morality, too. But a science cannot be dismal, can it? Only people can, of course. By now you are equipped with the conceptual tools to see it as a metaphor. It is telling of the state of economics, but it's not exactly all there is to economics. "Economics is a dismal science" is a popular metaphor that endured through the nineteenth and twentieth centuries. When Carlyle called economics dismal he had in mind a discipline that predicted Malthusian starvation and moral decay, but the metaphor had already been used by then, to condemn the racist implications of political economy (see Levy 2001). Nowadays economics has a rather brighter stance, which we can trivialize as follows: Just let the market work and let everyone exclusively pursue his own advantage, the result will be the greatest satisfaction of everyone. Anything dismal about this scenario? Not really. Economics is no longer the stage of inconsolable pessimism, but of inflated optimism. But rest assured, the metaphor hasn't been dropped. To those who still use it, what now is dismal is the intellectual state of the discipline, where machine-thinkers took the place of real human beings (Mirowski 2001). And even to the enthusiasts about economics, one sense in which economics is still a dismal science is, as Kenneth Arrow noted, that the job of the economist is to say "this or that, not both. You can't do both" (quoted in Rhoads 1985: 11).

What then happened to the metaphor? The metaphor was already there, but without a use for it. Following a long and old path, we found ourselves equipped with a metaphor everybody knew and used, but no use for it anymore! And yet we are stuck with a useless old-fashioned metaphor of economics as a dismal science. Should we drop it and replace it?

Yes. That would be a very nice thing to do. First we should find a better metaphor and then convince others that it is more viable than the old one. This sounds like a nice plan, if very effortful, sure to bring good results in the long run, but rather wasteful in the immediate. But, hey, smile: We have an alternative.

Why not use the old with a new function? Penguins have wings that do not make them fly like other birds, they are no longer successful adaptations. Natural selection should then force their abandonment. Penguins, however, had their wings undergo *exaptation*. They adjusted their wings to a new goal, tuning them to the purpose at hand: Swimming. So now penguins are birds that swim with wings (Rizzello 2003: xx, see also Gould and Vbra 1982, Gould 1991). The same happens with our understanding of the world – and with metaphors within it – because our brain "continuously builds models of the world and of itself and, in doing so, […] give significance to the sensorial data from old ones" (Rizzello 2004: 266n).

We were born with hair that could propagate our smell in such a way that would attract potential mating partners. Very few mating partners nowadays would be turned on by our ferine odors, but we didn't become hairless. Instead we comb and shave our hair in such a way that we expect to stimulate a favorable reaction from potential partners. (For the peace of mind of our girlfriend and wife, we admit not having any high expectations about the effects of our hairdo.)

As our grandmothers taught us, not everything that's old must be thrown in the garbage; we might still find a new use for the old stuff. So don't throw this paper away. Keep it at hand on all occasions even if you think it should not be read or published; who knows when you might need to light a fire or stabilize an old desk.

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