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McCloskey: Ethically Deconstructing Economic Thought

By Benjamin Balak

A Dissertation submitted to the faculty of the University of North Carolina at Chapel Hill in partial fulfillment of the requirements for the degree of Doctor of Philosophy in the Department of Economics.

Chapel Hill

2001

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ABSTRACT

Benjamin Balak

McCloskey: Ethically Deconstructing Economic Thought (Under the direction of Professor Vincent Tarascio)

My dissertation examines Deirdre McCloskey's rhetorical work in a manner consistent with her call for rhetorically aware economic criticism. My goals are: First, to situate and clarify the linguistic, literary, and philosophical approaches introduced by McCloskey. Second, to present and criticize the language-theories she adopts, and to develop several modifications and extensions. Third, to criticize and evaluate her contribution and its consequences.

I proceed with a close reading of McCloskey's major texts and secondary literature, focusing on the language as endogenous to the scientific endeavor at all levels of inquiry. I use Jacques Derrida's deconstruction to study the structure of language, and to provide an approach for looking at the functioning of scientific language within a complex social context governed by the historical institutions with which it is interdependent. I study the institutions in which economic knowledge is produced and their epistemological history in a manner inspired by the work of Michel Foucault. Foucault and Derrida have had a tremendous impact on the humanities and the social sciences but their works have scarcely been explicitly introduced and studied within the context of our field.

I look at the philosophical foundations of the problem of language in science in general in order to understand the fundamental difficulties that underlie the ongoing debate that followed the rhetorical project in economics. For this purpose Uskali Mäki's influential analytical critique of McCloskey is particularly helpful. Epistemological foundations are behind the metatheoretical schism between analytical and postmodern philosophy. Using the insights of Derridian deconstruction and Foucauldian political sociology to adjust scientific epistemology allows me to argue that analytical and postmodern philosophy are not only compatible but indeed complementary. Furthermore,

I argue that only through a thorough understanding of the essential tensions between the two approaches could one claim to have explained social phenomena to a satisfactory degree of scientific completeness.

I outline a structural view of ethics which provides a systematic way of addressing the irreducible duplicities raised by the study of the rhetoric of science, and suspect that the current crisis in scientific objectivity can be better understood as an ethical discourse.

To my parents—Naomi and Edo—who taught me the powerful combination of skepticism and ethics, to my wife and son—Charlotte and Félix—who continue to nurture it, and to my mentor—Vincent Tarascio—who helped me harness it.

CONTENTS

	CONTENTS	
Chapter		Page
PART I – EXORDI	UM and NARRATION	
Chapter 1:	Introduction	1
Chapter 2:	The Rise and Fall of Positivism	7
PART II – DIVISIO	ON: MCCLOSKEY'S CRITIQUES	
Chapter 3:	McCloskey's Critique of Economics	14
	The Arrogance of Social Engineering	16
	The Futility of Blackboard Economics	19
	The Irrelevance of Statistical Significance	26
	The Virtues of the Bourgeoisie	30
Chapter 4:	McCloskey's Critique of the Rhetoric of Economics	35
	Exordium	36
	Narration – The Conversation of Economics	36
	Division - The Inconsistency of Economic Methodology	39
	Proof – The Style of Mathematical Formalism	43
	Refutation – The Problems of Epistemology and Truth	47
	Peroration	55

PART III – PROOF: LITERARY CRITICISM

Chapter 5:	Derridian Deconstruction - Realist Criticism	60
	What is literary or critical theory?	61
	Readings and interpretations—the focus shifts	63
	What is deconstruction?	67
	Epistemologies—McCloskey's homework	72
	Texts and (Hi)stories	80
Chapter 6:	Foucault – The Production of Knowledge	83
	The Archaeology of Knowledge	84
	Power Relations: Discipline and Punish	86
	Visible Content and Articulable Expression	87
	Pragmatism of the Multiple	91
	Actualization: The Production of Knowledge	93
	20 th Century Machiavelli	95
	Intentionality and Subjectivation	96
Chapter 7:	Pop-Science and Obscurantism	99
	The Sokal Hoax	100
	Scientific Metaphor	102
	Pop-Science	104
	Paleonymics	105

PART IV - REFUTATION: MCCLOSKEY'S CRITICS

Chapter 8:	The Mäki Diagnosis	108
	Concept of Rhetoric	109
	Theory of Truth	113
	Theory of the Social Organization of Economics	116
	McCloskey's Reply to Mäki	120
Chapter 9:	The Rhetoric of Truth	127
	Modern Epistemology against Analytical Philosophy	127
	The New-Realists: Critical and Transcendental	132
	Anti-Methodology	135
	The "Straw-Woman" of Postmodernism	136
	Who's Afraid of Postmodernism?	141

PART V – PERORATION: EVALUATION AND CONCLUSIONS

Chapter 10:	Metatheoretical Economic Criticism	. 145
	The Lucas Critique: Auto-Deconstructive Economics	. 145
	Observable Events and Structural Coefficients	. 146
	The Psychoanalysis of the Text	. 147
	Why Use Deconstruction?	148
	Mimesis: Originality and Imitation	. 149
	Semiotics Reinstated	. 150
	Framing: the Internal and the External	152
	Thematization	153
Chapter 11:	The (lowercase) truth about McCloskey	. 158
	Introduction	. 158
	Ethics in Critical Theory	. 159
	The Metaphysical System of Hierarchical Oppositions	. 160
	The Ethical Structure and Moral Acts	163
	A Critical History of the Basic Epistemological Unit: the Fact	. 164
	Events, structures, the Lucas Critique, and Zeno's arrow	164
	Economics and Ethics	. 167
	The Ethical Foundations of the Theory of Rationality	171
	Critical Ethics	174
RIRI IOCDADUV	***************************************	177
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LIST OF TABLES

Table 1: The Metaphysical Values of the Math Department	20
Table 2: The Rhetorical Tetrad (Adapted from McCloskey 1994, 62)	4
Table 3: Different Implied Authors in Economic Literature	44

LIST OF FIGURES

Figure 1: Hyperspaces of Assumptions	46
Figure 2: Magritte's This is not a pipe	. 7 9

PART I – EXORDIUM and NARRATION

Chapter 1: Introduction

My dissertation examines Deirdre McCloskey's rhetorical work in a manner consistent with her call for rhetorically aware economic criticism. McCloskey is one of the most controversial contemporary economists. Even though many of her ideas have been borrowed from the humanities, it is in bringing them to bear on the rhetoric of economics and especially her advocacy thereof, that she has intervened in the history, philosophy, and methodology of economics. Many in the academic community studying the history of economics have recognized that McCloskey's rhetoric has had a significant impact on the field and she is increasingly mentioned (though, unfortunately, rarely discussed) in almost all texts pertaining in some way to current economic metatheory.

My first goal is to situate, clarify, and enhance the linguistic, literary, and philosophical approaches introduced by McCloskey's rhetoric to our discipline. Second, to present and criticize the language-theories she adopts, and to develop several modifications, updates and extensions, using what I believe are more powerful rhetoric approaches. Third, to criticize and evaluate her contribution and its consequences within the context of the contemporary iteration of the cyclical "crisis" in scientific objectivity.

I proceed with a close reading of McCloskey's major texts and some of the ensuing secondary literature while maintaining my focus on the problem of language. The problem is that language is endogenous to the scientific endeavor at all levels of inquiry. This has been specifically recognized as crucial by early positivists of the Vienna Circle whose initial concerns were with the definition of a scientific *language* that would ensure positive science. The problems they encountered were never resolved in a satisfactory manner due to the analytical feedback created whenever one tries to analyze language because the language under investigation is necessarily contaminated with the language underlying the analysis. I use Jacques Derrida's deconstruction to study the

structure of language in a rational and rigorous way, and to provide a "micro" approach for looking at the functioning of scientific language at different levels of inquiry within a complex social context governed by the historical institutions with which it is interdependent. I study the institutions in which economic knowledge is produced and their epistemological history in a manner inspired by the work of Michel Foucault to develop a "macro" approach to supplement deconstruction's "micro" insights. Foucault and Derrida have had a tremendous impact on the humanities and the social sciences but their works have scarcely been explicitly introduced and studied within the context of our field. This omission can go some way in explaining the apparent sterility of several recent debates in the sub-fields of economic philosophy and methodology such as the status and potential of Critical Realism as explicated by Tony Lawson's Economics and Reality (1997). Much of this important debate is left barren because participants are unaware of the significant work already done on the very same issues by the "continental philosophers." I am convinced that a degree of familiarity with this extensive body of work is necessary in order to overcome several philosophical hurdles that have been arresting the development of the philosophy of economics as well as the historical interpretations of its intellectual history.

Within the deluge of texts mentioning, praising, or attacking McCloskey, little is said about the metatheoretical implications of her work. I look at the philosophical foundations of the problem of language in science in general in order to understand the fundamental difficulties that underlie the ongoing debate that followed the rhetorical project in economics. For this purpose Uskali Mäki's widely referenced and influential analytical critique of McCloskey is particularly helpful. I examine the dialectical relationship between Mäki's analytical reconstruction of McCloskey's epistemological position, and her seemingly incommensurable non-analytical defense. Epistemological issues are behind the intellectual schism between analytical and postmodern philosophy. Using the insights of Derridian deconstruction and Foucauldian political sociology to adjust scientific epistemology allows me to argue that analytical and postmodern philosophy are not only compatible but indeed complementary. Furthermore, I argue that only through a thorough understanding of the essential tensions between the two

approaches, can one claim to have explained *social* phenomena to a somewhat satisfactory degree of completeness.

Following McCloskey's elegant rhetoric example in *Knowledge and Persuasion* in *Economics* (1994), I structure my text as a classic Greek (more specifically Aristotelian) oration. The introduction: *Exordium* (Chapter 1), is followed by a (hi)story: *Narration* (Chapter 2), presenting the context in which McCloskey's discourse intervened.

In Part II – Division: McCloskey's Critiques, I present McCloskey's work under two broad categories. Chapter 3 addresses her methodological criticisms of economics itself: futile and even damaging social engineering, actual quantitative policy based from formal existence theorems, and the scientifically incorrect use of statistical significance. Though informed by rhetorical analysis, these criticisms are not directly part of her rhetorically aware meta-theory, which is the subject of Chapter 4. Here I reconstruct and interpret McCloskey's criticism of economic methodology and its failure to capture the rhetorical dimension of economic thought.

After McCloskey's rhetorical meta-theory of economics is presented in Chapter 4, Part III – Proof: Literary Criticism; elaborates on the interdisciplinary elements she introduces into our field and develops them in their disciplinary context. For this purpose I present Jacques Derrida's deconstruction in Chapter 5 and Michel Foucault's political sociology in Chapter 6. Along with Chapter 7—in which I discuss some infelicitous and confusing encounters in the science-studies—these three chapters are intended to significantly update and extend McCloskey's literary criticism so that the full potential of these approaches can be appreciated and evaluated. Though much nuance and context would be lost, it is possible to skip these chapters without loosing the thread of the main argument since I briefly summarize (with references to Part III) the issues discussed as they arise in subsequent chapters.

McCloskey's principal antagonists are presented in *Part IV - Refutation:* McCloskey's Critics. Chapter 8 closely examines Uskali Mäki's careful reconstruction and critique of McCloskey's philosophy. Mäki's work serves to further clarify McCloskey's ideas since it rephrases them in a more familiar analytical context. Furthermore, since Mäki's can be seen as the current philosophical "last word" on the

rhetoric project in economics, he naturally leads to Chapter 9 and my discussion of the apparent incommensurable aspects of current methodological and philosophical debates in economics. This chapter includes discussions on the realist-relativist debate, epistemological versus ontological foundations, anti-methodology, and the confusion surrounding postmodernism.

Part V – Peroration: Evaluation and Conclusion consists of two chapters. In Chapter 10 I examine the potential use of what has come to be called economic criticism for a thicker understanding of the history of economic thought, as well as the problems and oversights that are raised by such an interdisciplinary approach. Chapter 11 incorporates these issues and methods to form a narrative in which McCloskey's work is contextualized and evaluated. Chapter 10 thus functions as a "traditional" conclusion while in Chapter 11 I attempt to apply the approaches developed elsewhere in this text to the very issues that are raised by it. In other words I launch a critique that operates in the same methodological context as its object of investigation and thus, I would argue, can be seen as an internal criticism at the meta-theoretical level.

One last point with regard to the thematic structure of my text concerns interpretative relations. Since rhetoric is a thoroughly contextual affair, it is prudent and fruitful to try to retain as much of the text's context as possible. This approach has the advantage of directing the critical focus to the method itself and thus benefits from a continual illustration by my text of the points I make in my text. Intermixing primary sources and secondary sources with my own interpretations of each source and with my explanations of the relationship between them has a potential disadvantage: it is hard to maintain a strict genealogy of ideas. Many of what I consider to be my "original" contributions are woven into my interpretations of interpretative relationships. This is to say that in such instances my contribution resides in my novel interpretation of an interpretation. A look at the history of the philosophy of language reassures me that this difficulty is typical of such a self-reflexive (by definition) endeavor. Furthermore, the ideas presented in Chapters 5, 6, and 7 will be applied throughout PART V.

I work with pairs of texts (broadly defined as bodies of work) because the study of interpretation should seek its objects of investigation within interpretative relations.

These relations are, of course, of different kinds. I will conclude by specifically addressing the four major pairs of texts that I use:

Caldwell-Lakatos/Feyerabend/Kuhn (Chapter 2):

I use Caldwell in a traditional way: A seminal secondary text as the basis for a brief survey of the philosophical background in which McCloskey's ideas emerged. Several of the major themes recognized by Caldwell are then re-examined with reference to the primary sources, and presented in the context of the present discussion.

McCloskey-Mäki (Chapter 8):

A seemingly traditional dialectical relation in which Mäki (critic) rationally reconstructs McCloskey's (primary source) argument in order to criticize it externally: with reference to the logical system of analytical philosophy. McCloskey's reply radically departs from the dialectical tradition by explicitly rejecting it in her analytically "frivolous" response. The rhetoric dissonance created by the style of her response foregrounds her substantial argument: a deconstruction of the substance/form hierarchical opposition. This interpretative relation is rich in incommensurabilities between antagonistic philosophical traditions. This structural antagonism is illuminating in that Mäki's relentless drive to "diagnose" McCloskey yields a detailed diagram of the points of conflict and the specific rhetoric incommensurability driving them.

Derrida-Culler (Chapter 5):

Jacques Derrida's texts are exceedingly difficult to fully appreciate before embarking on a very long and thorough examination of his own primary sources as well as secondary sources interpreting his impenetrable texts. Jonathan Culler has clearly emerged (from my reading of the secondary sources) as best explicator of Derridian Deconstruction. Furthermore, he is virtually unknown even though his text was the only one to ever be "endorsed" by Derrida himself. Culler is pedagogically indispensable for his historical narrative, illustrations, and examples. Bringing him to the attention of my peers is an objective in itself.

Foucault-Deleuze (Chapter 6):

The relationship between Michel Foucault and Gilles Deleuze is more complicated. Both were eminent philosophers who maintained a close personal and professional relationship. Their individual interests led them to apply many of each other's approaches to different domains of philosophy: Foucault—more relevant to my purpose here—operated at the historical, social, and anthropological levels, while Deleuze systematized and applied Foucault's insights at a metatheoretical level. Such a relationship between the specific and the general will be a major focus in my dissertation (see PART V).

Chapter 2: The Rise and Fall of Positivism

Let us start from the beginning. The Oxford English Dictionary (2nd edition) lists the following as its first definition for *Positivism*:

A system of philosophy elaborated by Auguste Comte from 1830 onwards, which recognizes only positive facts and observable phenomena, with the objective relations of these and the laws that determine them, abandoning all inquiry into causes or ultimate origins, as belonging to the theological and metaphysical stages of thought, held to be now superseded; also a religious system founded upon this philosophy, in which the object of worship is Humanity considered as a single corporate being. Also, the name given generally nowadays to the view, held by Bacon and Hume amongst others (including Comte), that every rationally justifiable assertion can be scientifically verified or is capable of logical or mathematical proof; that philosophy can do no more than attest to the logical and exact use of language through which such observation or verification can be expressed.

The system of philosophy referred to today as Classical Positivism was first called Positivism by the mathematician and philosopher Auguste Comte. The idea of knowledge based on experience and empirical knowledge of natural phenomena is not new as such and can be traced directly to David Hume and the Duc de Saint-Simon, and more indirectly to the general modes of thought that constituted the "Scientific Revolution" of the 17th century. Some scholars include Immanuel Kant as a predecessor of classical Positivism due to his focus on logic and reason and his differentiation of modes of thinking into analytic and synthetic propositions—a differentiation that was to become central to the positivist argument to this day. An analytic proposition is one in which the predicate—the second term in a proposition which is affirmed or denied of the subject (the first term)—is contained in the subject, as in the statement "blue skies are blue." Such propositions are called analytic because truth is discovered by the analysis of the concept itself; to state the reverse would be to make the proposition self-contradictory. Synthetic propositions, on the other hand, are those that cannot be arrived at by pure

analysis, as in the statement "the sky is blue." All propositions that result from experience of the world are synthetic.

Positivism however rejects Kant's concept of a priori propositions which, in contrast to synthetic (empirical) propositions that depend entirely on sense perception, have a fundamental validity and are not based on such perception. The difference between these two types of proposition may be illustrated by the empirical "the sun moves against the sky" and the a priori "one plus one equals two." In the *Critique of Pure Reason* (1781) Kant views objects of the material world as the raw material from which sensations are formed and thus fundamentally unknowable through reason. Objects, space and time exist only as part of the mind, as intuitions by which perceptions are measured and synthetic a priori judgments are made. I shall return to Kant and in particular his analytic, synthetic, and a priori propositions in my discussion of Positivism below since it turns out that his categorical view of knowledge is a primary constituent of the positivist, as well as the pre-positivist (apriorist) position in economics.

Like British utilitarianism, Comte was interested in a reorganization of social life for the good of humanity through scientific knowledge, and thus control of natural forces. The two primary components of Positivism, the philosophy and the polity, were combined by Comte into a religion, in which Humanity was the object of worship. A number of Comte's disciples refused, however, to accept this religious development because it seemed to contradict the original positivist philosophy. Many of Comte's doctrines were later adapted and developed by the social philosophers John Stuart Mill and Herbert Spencer and by the philosopher and physicist Ernst Mach. Positivism becomes more immediately relevant to economic methodology with its transformation into Logical Positivism in the 1920s. Bruce Caldwell's (1982) Beyond Positivism: Economic Methodology in the 20th Century narrates the parallel developments in the philosophy of science and economic methodology in detail. I will only briefly mention that Positivism was first explicitly introduced into economic methodology in 1938 with the publication of Terence Hutchison's The Significance and Basic Postulates of Economic Theory, but the "wholesale-conversion" of the discipline's orthodoxy was only to take place after the World Wars¹. The anti-metaphysical ideals of Positivism were

^{1.} See research by Philip Mirowski on the Operations-Research origins of neoclassical economics.

addressed and developed as a methodological issue for practicing scientists during Moritz Schlick's Thursday evening meetings at the University of Vienna from 1922 to 1933. Even before it gave birth to Logical Positivism, the Vienna Circle represented a departure form Classical Positivist philosophical tradition in that its participants where not philosophers interested in science but scientists interested in philosophy. This may seem to be a rather trivial point to make but is in fact quite relevant in that it adumbrates the intellectual and political context in which modern methodology developed. The relationship between the sciences and their method(s) is a central aspect of McCloskey's work. The workings of this relationship will be addressed on several occasions in this text but at this point I only want to point out that it is far from simple and that it is not symmetrical: an economist who philosophizes on economics (e.g. both McCloskey and myself) engages the issues at hand from a different perspective than a philosopher of science specializing in economics (and most major works refer to physics or biology). I would suggest that much of the impasses in debates in the philosophy of economics is due to the social incommensurability of the two perspectives. In other words, philosophers of science and economists-philosophers contextualize the issues differently because they hold very different intellectual and political stakes in the debate. As I will demonstrate repeatedly and from different perspectives in this text, different contexts give rise to different interpretations, different meanings, and even different truths. The social incommensurability leads to methodological and epistemological uncertainty—the non-probabilistic kind that we economists find difficult to explain. The differing intellectual stakes of the experts highlight the historical similarities between the development of Positivism as it transformed from Logical Positivism into Logical Empiricism (see Caldwell, 1982) and the development of the study of the rhetoric of economics as it is transforming from a critique of modern economics into something else. Just what that something else may be is still unclear but several characteristics of what I think it should strive to become will be discussed later in this text.

The move away from positivism was triggered by a shifting of the scope of the philosophy of science from the positivist concern with the context of justification to the emerging "growth-of-knowledge" philosophers of the 1960s and their inquiries into the context of discovery. The first characteristic of the new approaches was their

dissatisfaction with an absolute, static, and consequently simplistic view of the evolution of theories, and their call for enhanced descriptive power: a thick account of the events shaping science. The second characteristic of this shift from static to dynamic metatheory is the extent to which different variants struggle to enhance the prescriptive power of methodology, which depends on the ability to generalize methodological laws from the historical accounts. The skepticism that undermined the epistemological foundations of positivism did not disappear with its demise. Only Imre Lakatos (1970) stands out as having formulated a specific methodological program based on dynamic epistemological foundations. Others—though very successful in criticizing positivism—were only able (and willing) to produce weak prescriptive methodologies (Thomas Kuhn, 1962) or resorted to abandoning such pursuits entirely (Paul Feyerabend, 1975). I will describe some of the characteristics of the philosophical environment in which McCloskey had intervened with here 1983 article in the Journal of Economic Literature.

Imre Lakatos (1970) could be seen as representing the "state-of-the-art" paradigm for strongly prescriptive methodology in the philosophy of science. He emphasizes that his knowledge-model is a dynamic extension of Karl Popper's falsification and that while attuned to its limitations, maintains the underlying rational foundations of its antecedent. The central feature of "sophisticated methodological falsificationism" is its evolutionary view of research traditions as constituted from a dynamic series of theories, which evolve through time and *compete* with each other over which series is better able to *adapt* to empirical and theoretical anomalies emerging in a fluid scientific environment. These adaptations are accomplished with "problemshifts" which can be seen as mutations in the series of theories that constitute a research program. The implicit evolutionary description of science—though rhetorically convincing—relies on heuristic principles with doubtful descriptive power. Bruce Caldwell (1982) has argued that Lakatos's most important divergence from Popper is that he de-emphasizes refutation by decisive tests and relies entirely on adjudging problemshifts for their progressiveness: the ability to anticipate new facts (theoretically progressive) of which some are corroborated (empirically progressive). This implies that falsification does not necessarily lead to a rejection of a theory unless a ready alternative is available.

Lakatos introduced heuristic strategies designed to police the balance of continuity and progress in research programs. This balance is maintained with a "refutable protective belt" within which progressive problemshifts are allowed to carry new information to the refutable variants of the research program while the irrefutable "hard core" allows for the continuity of the program. This protective belt employs a set of positive heuristics that suggest possible extensions and improvements to the protective belt allowing sufficient flexibility for progressive innovation. A set of negative heuristics is also in place to protect the conventionally established irrefutable core of the research program. The negative heuristic can be seen as a continuity sentry and is relatively unproblematic: it defends the collection of assumptions, methods, and ideologies that make one research program distinctive from another. The positive heuristic is more problematic in that it is the channel for innovation in Lakatos's model. Lakatos is primarily prescribing his progressive scientific structure of corroborated factual content as means to assure continuity, which is his fundamental link to reality. This kind of realism can be seen as a generally progressive movement towards an absolute truth without ever actually attaining The Truth—a metaphor compatible with Popperian fallibilism which holds that correspondence to facts exists, but we have no criterion for knowing when we have reached the truth. Criteria do exist, however, which may allow us, on occasion, to recognize error. It has a small advantage which Lakatos harnesses to function as his link with reality. The existence of the mere possibility of recognizing error-even if highly unlikely-is enough to reinstate reality. If progressive series of theories can be made to steer away from error on those occasions when error can be ascertained, then given enough time, we can say that we have made some progress in the general direction of The Truth.

On the opposing end of the *prescriptive-descriptive* spectrum from Lakatos among 1970s philosophers of science is Paul Feyerabend. The notorious principal of "anything goes" (1975, 28) emanates from the *descriptive* observation that anything *has* "gone" in the past, and there is no reason to believe that prescribing the exclusion of some things from "going" now, will guarantee better science from now on. It is interesting to note that Feyerabend's carnivalesque anti-method is the least vague with regard to the description-prescription opposition. This is precisely because his main

argument is based on the tension between an historical description of the vagaries of scientists' behavior and a prescription of an optimal methodological policy. He is essentially offering that given our meager understanding of knowledge accumulation and interpretation, the only reasonable methodological maxim is "if it ain't broke, don't fix it". Any set of methodological rules are a form of social-engineering in that they simplistically interpret, and claim to be able to manipulate, a system whose complexity they cannot even fathom. Caldwell (1982, 225) explains that methodological "canons of choice" proceed by eliminating theories. If facts are theory-dependant, it follows that each theory has its specific empirical content, which is lost if the theory is discarded. In this respect, Feyerabend's call for theory proliferation is similar to Caldwell's methodological pluralism. They differ however in the role they give to methodology. Unlike Feyerabend's Dadaist non-prescription, Caldwell prescribes an inquiry based on explicit rational reconstruction and internal criticism.

The most famous and philosopher of science is Thomas Kuhn who's The Structure of Scientific Revolutions (1962) has become iconic of the contemporary rise of skepticism in the philosophy and methodology of science. The basis of his theory is the distinction between "normal science" and "revolutionary science," and the concepts according to which the distinction is made: paradigm and paradigm shift. Normal science is a science that follows the example of previous science and follows the prescriptive framework delineated by the paradigm to which it belongs. Normal science specifically does not problematize aspects of the paradigm and seeks only to extend the received view and, more importantly, perform the pedagogical function of training new scientists in the specific paradigm-lore. In a Lakatosian research program the irrefutable hard core is protected from even progressive problemshifts by an absolute negative heuristics tied to the entire set of ideas forming the hard core. In Kuhn's view there is an endogenous mechanism by which the paradigm is protected: what I would call indoctrination-bydoing. Kuhn, who, like Lakatos, believed continuity to be paramount, considered this aspect of normal science as beneficial. By founding his paradigms on the concept of socialization, Kuhn significantly softens the Lakatosian hard core while specifying an underlying mechanism that can be observed and studied.

For Kuhn, a new idea emerges from normal science through a process of accumulating anomalies. The pedantic drive of normal science inevitably discovers and exposes anomalies in the paradigm which—having reached a certain critical mass—result in crisis. If practitioners are unable to reconcile the anomalies with the existing paradigm than a revolution ensues in which a new paradigm challenges the incumbent. The point made in the last sentence is that the symptoms of crisis are in fact attempts at constructing and establishing a new paradigm not in order to eliminate normal science but in order to enable normal science to proceed again.

The revolutionary prerequisite of an alternative paradigm has two important consequences that challenge both falsificationism and empiricism in general, and the very idea of a single prescriptive methodology. First, theories are accepted or rejected based not only on inconsistencies with data, but primarily on a comparison with other theories and their structural position within their paradigm. Second, Kuhn specifically asserts that with the change in paradigm comes not only a change in predictions, descriptions, and explanations but also a change in method and domain which are the basis of the positivist distinction between scientific and metaphysical knowledge. "The normal-scientific tradition that emerges from a scientific revolution is not only incompatible but often actually incommensurable with that which has gone before" (1970, 103). Herein lie the seeds of the social-constructivist paradigm in contemporary philosophy of science. If standards and criteria for theory choice are contextually tied to a specific paradigm, a scientific revolution renders these standards obsolete. There is no single methodology that will ensure progress towards the truth no mater how broadly the latter is defined. McCloskey subscribes to Kuhn's skepticism but adds several new dimensions to it. There is the fundamental recognition that economics is itself constituted from words embedded in texts that are based on common language yet, at the same time, those same texts are constantly intervening and re-defining the language in an attempt to control its ambiguities. McCloskey goes to literary theory in an attempt to illuminate these issues. I follow her there in chapters 5, 6, and 7. Chapters 3 and 4 will present McCloskey's critiques of modern economics, which I separate into two broad categories: her criticism of economics, and her criticism of the rhetoric of economics.

PART II – DIVISION: MCCLOSKEY'S CRITIQUES

Chapter 3: McCloskey's Critique of Economics

McCloskey's *The Rhetoric of Economics* (1983) and the texts following it have been the source of continuous lively debate. Having become something of an economics Ché Guevara she is both hated and loved for reasons that often have little to do with her actual contribution to the discipline. This is perhaps in part due to the fact that establishing what her actual contribution *is*, may be no easy task. The basic problem of writing on methodology is presented in rare clarity and succinctness in the opening words of Bruce Caldwell's *Beyond Positivism*:

The study of methodology is an agonizing task; writing a book on the subject requires the skills of an individual who is at once presumptuous and masochistic. By the very nature of methodological work, solutions to important problems seldom seem to exist. One's thinking on a particular subject is never complete; indeed, it is more likely that one's opinion will change often through time, and sometimes change dramatically. Even more troublesome, the prolonged study of methodology forces a person to examine his or her own preconceptions, to see why certain ideas make sense, and why others seem so patently absurd. Nor is that self-examination a simple task, since preconceptions are not truly prior to experience, but invariably reflect both the material studied and the process involved in its study. (Caldwell, 1982, 1)

The immediate issue at hand is then to summarize and evaluate McCloskey's ideas. First, I must decide which of her ideas I will qualify with the adjective major and, even harder, which I will not. Having done that I must endeavor to transcribe an idea I have just recognized as "big" into a relatively small space without bestowing "smallness" upon it. I will attempt to escape this burden by letting McCloskey herself do at least part of the job for me: In 1996 she held the Tinbergen Visiting Professorship at Erasmus University in Rotterdam and presented her ideas in her inaugural address delivered on May 10, 1996. Her most recent academic book: The Vices of Economists – The Virtues of the Bourgeoisie (1996) is based on this speech and achieves its goal in 130 pages. In it

she argues that the science of economics suffers from three major methodological ills which she refers to as vices: Incorrect and exaggerated use of statistical significance as a means of establishing scientific relevance, increased focus on theoretical mathematics at the expense of empirical science, and a continuing belief in social engineering (à la pre-Lucas Critique). Even more recently in her regular column in the Eastern Economic Journal called "Other Things Equal", she published a piece titled: "Cassandra's Open Letter to her Economist Colleagues" (1999a) in which she stresses only the first two of these critiques and claims that they have never been answered yet have been disregarded. These three general ideas may seem almost disappointingly banal when appearing in a short list before I present them in an appropriate context. As I will point out on several occasions in this text (see especially Chapter 4), McCloskey has a penchant for delivering radical ideas in a seemingly innocent, almost obvious, guise.

In the next chapter I will be looking very closely at McCloskey's Knowledge and Persuasion in Economics (1994) which I consider to be her philosophical opus magnum. While my primary interest in the rest of my text is with the metatheory of economics and McCloskey's role in its current landscape, the present chapter will specifically address McCloskey's explicit criticism of economics, not of economic methodology. Heeding Vincent Tarascio's (1975, 1997) admonition that confusion over levels of inquiry is a primary source of misunderstanding in our field, I will reiterate this distinction: In this chapter I will discuss McCloskey's descriptions and, when available, prescriptions regarding how economists explain the economy—the traditional domain of methodology. In doing so I must "take the higher ground" and employ the appropriate level of inquiry which would involve my interpretation of the history of economic science; my model of economics; my metatheory. In the next chapter I will start to elaborate on how McCloskey interprets the history of economic science; her model of economics; her metatheory. Higher ground is harder to attain at this level with the only available level of inquiry problematically situated between ontology and epistemology.

The three vices of modernist economics as they appear in *The Vices of Economists-The Virtues of the Bourgeoisie* (1996) are: "The irrelevance of statistical significance" (21), "the futility of blackboard economics" (61), and "the arrogance of social engineering" (97):

The Arrogance of Social Engineering

Let us first dispense with the criticism that McCloskey herself has recently left out of her "short-list" of complaints. I have already mentioned that this issue was mute in McCloskey's "Cassandra's Open Letter to her Economist Colleagues" (1999a). Since the column claims that the (remaining) two issues she has been arguing for have been disregarded by mainstream economics while remaining unsatisfactorily answered, one cannot but speculate as to whether the criticism at hand has been heeded or has it been successfully addressed? Assuming that McCloskey has not recanted her criticism of social engineering, could she have simply despaired with getting it across?

As a historian, McCloskey opens her discussion with a (very) brief survey of the antecedents of the "Tinbergean Vice" which she attributes to the recipient of the first Nobel Memorial Prize in Economic Science—Jan Tinbergen—whose visiting professorship position she was occupying at the time. McCloskey mentions Plato in The Republic and August Comte's classical Positivism but she does not explicitly address the role of Plato in establishing the foundational "urge" in western rational thought. A necessary step towards making any sense of these linguistic polemics is to look at the ancient philosophical and historical foundations of the ongoing debate between the philosophers—most notably Plato—and the sophist and rhetoricians. Comte for his part has the dubious distinction of elaborating his polity in which prediction and power are explicitly linked. His Social Physics which he developed in his four-volume System of Positive Polity (1851-54) still required a religion of Humanity to sedate the masses and maintain social order. McCloskey quotes one of his many famous slogans: "prevoir pour pouvoir" which she translates as "predict in order to control" (1996, 99) but which I would translate more literally as "predict in order to be [cap]able" which is weaker motivationally but is prior philosophically. This is perhaps a marginal semantic observation but it hides the auto-deconstructive mechanism by which all closed rational systems (such as Positivism) ultimately undo their own justifications. Thus before social control can be enforced, prediction must enable positive statements to escape the limiting space of analytic (tautological) statements in effect invading the "no man's land" of synthetic statements that has been a source of so many difficulties for later positivists (see previous two chapters.) The foundational ritual or "magic" which powers Comte's

religious system relies on the act of prediction. Catholics must accept the essential transformability of the body of Christ, and thus reiterating the ritual in which it is transformed into the Eucharist—mass—symbolically establishes the possibility of God becoming man and vice-versa. This of course opens the way to all sorts of transmogrifies in the form of escape from, and thus domination of, what Plato called in the Symposium the "mass of perishable rubbish" which is the mortal body. Similarly, the Comtian piteous must accept the potential—and thus symbolic—predictability of nature. The mechanism of predictability is based on the logical symmetry between prediction and explanation: that only an arbitrary temporal difference separates the two. We then have the central positivist idea that successful prediction is tantamount to "true" knowledge in a metaphysical sense. The ground is thus set for social control and engineering because a social-physicalist (as social engineering was called at the time) agenda is based on an understanding that is in tern justified by prediction. Enlightened Comtians demonstrate their predictive magic to a metaphysically driven populous. Social phenomena can thus be explained by the same logic that would have predicted them ex post facto. The very same logic is then applied again in order to devise social policy that would lead to a different predictable outcome: prevoir pour pouvoir.

McCloskey avoids discussing the socio-political relationships between power and knowledge. This is probably the second (after the ambiguous epistemology) important aspect lacking in her work. This issue was raised by Uskali Māki (1995) who in his "Diagnosing McCloskey" (1995) accuses her of being naïve at best and elitist at worst with regard to her social-theory (see Chapter 8). McCloskey is content (at this stage) to characterize control with a quote from Wesley Clair Mitchell:

[I]n economics as in other sciences we desire knowledge mainly as an instrument of control. Control means the alluring possibility of shaping the evolution of economic life to fit the developing purposes of the race. (Mitchel, 1924, in McCloskey, 1996, 100).

Putting aside the "erotic fascism" (McCloskey, 1996, 100) of the above statement, McCloskey addresses the question of what is wrong with attempting to "lay down the future?" (*Ibid.*). She approaches the task of answering this question from both within and from outside social engineering itself: internal criticism.

The critique from within social engineering is quite trenchant in its simplicity: "Prudent experiment is good" but "profitable prediction is impossible." (McCloskey, 1996, 102) This comes straight out of Fritz Machlup's criticism of Terence Hutchison's positivist economics in their 1950's debates over the pages of the Southern Economic Journal (see Caldwell, 1982). McCloskey gives credit to the Austrian School and the Rational Expectations School for thoroughly demonstrating the essential impossibility of social engineering by

pointing out that it is ourselves we are trying to engineer. That's the big problem. The reflexivity of economics sets stringent limits on what we can predict and control. ...[Social engineering's] ambition to predict and control is bad economics, economics on which every economist agrees. (McCloskey, 1996, 103)

This is not the place for a discussion of the anti-inductivist structural arguments of the Austrian School, the mechanics of the Lucas Critique and other "policy-ineffectiveness" arguments, and the Theorem of Modest Greed are all well known and could probably be seen as central to modern macroeconomic curricula. To this illustrious list, McCloskey adds what she calls "The American Question": "If he's so smart, why isn't he rich?"(1996, 103) as an illustration of the same problem: there's no outsmarting the market! The almost unanimous acceptance of these criticisms may explain why the issue of social engineering has become less important to McCloskey.

The external criticism of social engineering is that it is "hostile to freedom." (1996, 115) Here too McCloskey forwards an historical argument according to which economics combines the two central socio-political ideas of the Enlightenment: liberal freedom and social rationality. The former embodied in the works of John Stuart Mill and the latter in those of Jeremy Bentham. Economics' great synthesis according to McCloskey and the Chicago School would thus be between these two ideas in the form of the "doctrine that leaving people alone is the most rational policy, and will result in the greatest utility. Voila! Being free results in the most rationality." (1996, 117) McCloskey however recognizes that this doctrine is far from universally applicable and that a utilitarian rational utopia may be, and often is, incommensurate with individual liberties just as a libertarian utopia may fail to maximize social utility.

The Futility of Blackboard Economics

This vice is named after Paul Samuelson and is characterized initially as the common yet irritating complaint in which academics are often accused of "staying always in a world of theory, spending an academic career imagining alternative worlds in which the sea is boiling hot and pigs have wings." (McCloskey, 1996, 64) Samuelson is obviously not alone and is singled out for his unequaled influence on modern economics. As an example, McCloskey sites Samuelson's 1940s proof that it is only in the absence of externalities that markets give rise to a social optimum. When an economic agent is obliged to sustain a loss or incur a cost without compensation, there can be no presumption that both parties to the exchange are made better off. Consequently, government intervention may lead to a better social outcome. This proof was used to champion government intervention in diverse areas of public and private life from protecting the environment to the war on drugs. There is however a crucial missing element: Externalities may be a necessary condition to economically justify government intervention in markets, but it certainly is not a sufficient condition. This is because if one considers that (i) the question of how big must spillover-effects be in order to justify intervention is left entirely unanswered, and (ii) the caveats of social engineering (see previous section), lead one to suspect that the outcome of intervention my not prove better, and perhaps even be worse than in the case of non-intervention. Samuelson's proof raises interesting questions about the relative effectiveness of markets under different conditions but it also provides an open-ended and empirically empty tool for political coercion. It is empirically empty because it merely states the existence of the possibility of a better outcome brought about by government intervention. It does not suggest anything about the effects of government regulation or the sort of regulation that may be useful under different conditions. It is open-ended because it does not even conceptually attempt to measure the effects of an externality and thus any degree of external effects associated with any exchange justifies any extent of government regulation. This is of course in effect a carte blanche for the erosion of any and all civil liberties since, to some extent, all exchange has inter-subjective effects on numerous participants in the economy, and, as shown by Vilfredo Pareto in 1916, individual utility functions inevitably include a certain weighting of other individuals' utilities (see

Tarascio, 1969). Used in this way, Samuelson's theoretical analysis of the functioning of markets when there are spillover effects becomes a tool for those who interpret democracy as a dictatorship of the majority.

It is important to note that McCloskey is not at all opposed to the use of mathematics in economics. She takes issue with the appropriation by economics of the wrong scientific values: mathematics and logic instead of the natural sciences. According to McCloskey, the values of mathematics and formal logic are consistency, rigor, and conclusions that follow axioms. The oppositions on which these values rest are summarized in Table 1 below:

Table 1: The Metaphysical Values of the Math Department

Mathematical values:	Scientific values:
Timeless and exact proof	Approximations
Axiomatization	Experience
Qualitative truths	Quantitative truths
Existence	Magnitude

If mathematical economists would take the time to familiarize themselves with the work of their colleagues in the natural science departments, they would have to concur with the observations of the mathematical economist William Brock:

When studying the natural science literature in this area it is important for the economics reader, especially the economic theorist brought up on the tradition of abstract general equilibrium theory, to realize that many natural scientists impressed by mathematical arguments showing that "anything can happen" in a system loosely disciplined by general axioms. Just showing the existence of logical possibilities is not enough for such skeptics. The parameters of the system needed to get the erratic behavior must conform to parameter values established by empirical studies or behavior must be actually documented in nature. (Brock, 1988, 2, in McCloskey 1996, 82-3).

McCloskey does not deny the crucial usefulness of mathematical tools in the development of economic models but rather bemoans the lack of scientific values to direct it. A rather shocking example is the story she tells of a committee of the American Economic Association that was set up to discuss the results of a study conducted by Arjo Klamer and David Collander in1990. Graduate students in leading economics departments in the United States were asked whether it was desirable for an economist's career to have a thorough knowledge of the economy." Only 3% of the respondents

selected "very important" while 68% considered such knowledge as "unimportant". "Being interested in, and good at, empirical research" was deemed "unimportant" by 23% of the sample, but "excellence in mathematics" was rated as "very important" by 57% of the sample. (Klamer and Colander, 1990, 18)

The crux of the mater is in the confusion between truth and validity. The later is a philosophical term specifically referring to the consistent and rigorous logical progression from an assumption A to a conclusion C. McCloskey presents what she whimsically calls "the proof against proofs" to illustrate the principle that "one can always devise a set of logical connections to get conclusions C from assumptions A as long as one is free to choose A" (McCloskey, 1996, 83). The whimsicality of her proof is actually a deconstruction of the logic of existence theorems in which the very existence of the scientific relevance of existence theorems in economics is questioned on its own terms. At the same time this metatheorem—a theorem about theorems—goes beyond the commonsense point that an assumption A can always be found from which conclusion C can rigorously be derived. The small but important addition is that the problem of magnitudes is addressed. Specifically, the idea that an assumption A-prime that is arbitrarily close to assumption A can imply a conclusion C-prime that is arbitrarily far from conclusion C. In other words: even small changes in assumptions can lead to very big changes in conclusions.

Investigating mathematical economic models within the value system of mathematics is *not* falsification. Scientists need to address the questions of "how large is large?" and "how close is in the neighborhood of..." if science is to refer to something else but itself. The problem is not formal *use* of logic and math but *formalism*, which depends on the rhetoric of existence theorems. In *Knowledge and Persuasion in Economics* (1994, 148), McCloskey defines formalism in economics as subscribing to "the Claim" that knowledge in the form of a system of existence theorems is the *only* True economic knowledge. She uses General equilibrium as an example: Arrow-Debreu and Arrow-Hahn constructed theorems that give some necessary and sufficient conditions for exact efficiency but do not engage in the *economically necessary* policy issue of how closely these conditions need to be satisfied to yield approximate efficiency. Internal attacks on such work primarily focus on how adding a few assumptions or removing

"unreasonable" others could undermine the efficiency—opposite point of view, same rhetoric.

McCloskey finds a surprising ally in Hal Varian who published a paper on the subject with the philosopher Allan Gibbard in the *Journal of Philosophy* (1979). They describe how a McCloskean quantitative rhetoric of approximation would be incorporated into a mathematical economic model but concede that this rhetoric is almost always left unspecified and thus impotent in relating the "blackboard" and the "real" worlds.

When a model is applied to a situation as an approximation of the conclusions... If the assumptions of the applied model were true to a degree of approximation delta, its conclusions would be true to a degree epsilon. ... of course ... few if any of the degrees of approximation involved are characterized numerically. (Gibbard and Varian, 1979, 671-72)

In other words Varian and Gibbard are explicitly transcribing the problem of magnitudes—how big is big—into their deductive model as parameters, but shirk from the task of evaluating the values of these parameters by empirical studies or any other method; not even an educated guess.

McCloskey produces an amusing irony that hides an important key to understanding how she fits into the history of the philosophy of science. She refers to her metatheorem (see above) according to which any given assumption A' that is arbitrarily close to assumption A, can imply a conclusion C' that is arbitrarily far from conclusion C. She then states that

unlike most economic theorists I can use my theorem to predict behavior. Take any recent "finding" from the blackboard. I predict that if the "finding" is thought to be important enough then within a short time there will appear a paper by Economist Number Two showing that by making an alternative assumption A' the "finding" is reversed. And shortly afterwards a paper will appear (written perhaps by the thesis student of Economist Number One) in which a set of assumptions A' will reinstate the old conclusion. And so forth. I predict further that the steam will eventually run out of the "research program," when it starts to dawn on people that nothing has been proven one way or the other by this latest

"work" on the blackboard. Economists will simply drop the so-called "findings." Then a great genius will appear, who will produce a different "finding", and the story will start all over again. It's not science. (McCloskey, 1996, 89)

Like a Shakespearean Jester, McCloskey offers the economist-reader a caricature of himself. She is often accused of employing the commonplace dialectic strategy of erecting a "straw man" reconstruction of one's opponent, and then joyfully setting it aflame. My reading of this caricature shows that this is hardly the case here. She is presenting a short descriptive growth-of-knowledge model in the Kuhnian or even Lakatosian tradition (see Chapter 2).

A Kuhnian reading of McCloskey's caricature would yield a world in which a paradigm gains acceptance by virtue of its outstanding mathematical and logical form; the elegance in which it is presented rigorously and without contradiction as a set of assumptions deductively leading to a set of conclusions. Normal science then proceeds to produce innumerable series of A', A'', A'''... and corresponding C', C'', C'''... in which no reference is made to any parameters of an external or "real" world and thus any adjustments that are made are exercises or variations on the original composition. My vocabulary is drifting inescapably to musical terminology since the picture emerging from the Kuhnian analysis suggests that modern formalist economics resembles the formal structures of Baroque music. Kuhn sees normal science as his "engine" of progress because it is through its incessant reapplication and re-testing that anomalies are accumulated and are either incorporated into the paradigm, or if they are incompatible, scientific revolutions occur and new paradigms arise to set an example for the normal science to come. In McCloskey's caricature, normal science is an exercise in which different deductive structured are applied to an arbitrary theoretical world like different literary devices are applied to an arbitrary story in the literary form known as an exercise de style. Unlike in physics, an anomaly need not be explained in order for the paradigm to succeed. The anomaly merely needs to be *corrected* since it is merely a *logical mistake*. Mathematical formalism in economics is thus portrayed as having disabled the revolutionary potential of Kuhnian normal science. The void is filled by the chillingly

pathetic observation that what finally brings about a new paradigm is the practitioners' eventual boredom and desire for a new "style" to work in.

McCloskey describes a process in the evolution of a research program, a term she uses to immediately evoke Imre Lakatos's "Falsification and the Methodology of Scientific Research Programs" (1970) and its descriptive and prescriptive model of "stateof-the-art" sophisticated methodological falsificationism. This is hardly a modernist "straw-man" and is arguably the most robust articulation of modernist or positivist scientific methodology. The reader will recall from Chapter 2 that a Lakatosian research program is a structure of heuristic strategies designed to "police" the balance of continuity and progress in a series of theories in which "each subsequent theory results from adding auxiliary clauses to (or from semantical reinterpretations of) the previous theory in order to accommodate some anomaly." (Lakatos, 1970) This balance is maintained with a "refutable protective belt" within which theoretically and empirically progressive series of theories are allowed to carry new information to the "refutable variants" of the research program. To be theoretically progressive, each new theory in a series of theories must have some excess empirical content over its predecessor, that is, it must predicts some novel fact. To be empirically progressive, some of the theory's excess empirical content must also be corroborated, that is, each new theory leads us to the actual discovery of some new fact. For its part, the irrefutable "hard core" (Lakatos, 1970, 135) allows for the continuity of the program. This protective belt employs a set of positive heuristics composed of open texts that suggest possible extensions and improvements to the protective belt allowing sufficient flexibility for progressive innovation. A set of negative heuristics are also in place to block access to the conventionally established irrefutable core of the research program. The negative heuristic assures continuity and is relatively unproblematic: it defends the collection of assumptions, methods, and ideologies that make one research program distinctive from another-its values.

In McCloskey's caricature however, the negative heuristic is problematic because the irrefutable hard-core of economics in the "Samuelsonian mode" (McCloskey, 1996, 89) consists of an esthetic adherence to mathematical formalism. This implies a blurred distinction between logical validity and scientific truth. Continuity is Lakatos's

fundamental link to reality. This realism in his work can be seen as a generally progressive movement towards an absolute truth without ever actually attaining The Truth. This view—fallibilism—still allows for the existence of criteria that may allow us to occasionally recognize error. In my view, Lakatos's most brilliant move is to harnesses this epistemological "link" more successfully than Popper: The existence of the mere possibility of recognizing error—even if highly unlikely—is enough to reinstate reality; QED. If progressive series of theories can be made to "steer away" from error on those occasions when error can be ascertained, then given enough time, we can say that we have made some progress in the general direction of The Truth. This is the mechanism in a Lakatosian research program that establishes a realistic justification for science as a progression towards truth. Economists who are supposedly subscribed to this ideal cannot seriously hold that they are approximating it if they never confront their ideas with the world. If the positive heuristic is nothing but logical validity then Bertrand Russell and Alfred Whitehead's Principia Mathematica (1910-1913) was in fact the illusive philosopher's stone, and economic science has since closed shop. Any idea presented rigorously and without contradiction as a set of assumptions deductively leading to a set of conclusions is valid. No novel facts or predictions are necessary, and the delicate balance between continuity and innovation is abandoned. My reading of McCloskey's caricature highlights how mathematical formalism is detrimental to the scientific progress of economics.

McCloskey does not rely on the reader to embark on these philosophical readings of her little joke. She chooses instead to make sure her point is understood by arguing that the same criticism that is increasingly accepted with relation to General Equilibrium models, is just as applicable to game theory. McCloskey (1996, 95) presents a typical game-theoretical situation in which a utility-maximizing agent—Max U—finds himself in a non-cooperative Nash equilibrium. She reads this scenario as a restatement of Thomas Hobbes's problem in which he asks: "Will a group of unsocialized brutes form spontaneously a civil society?"

Again and again economists have said, pointing to the blackboard, "No: unsocialized brutes like Max U will defect from social arrangements. Boy is that *interesting*!" That might be silly to spend three centuries trying to solve a problem positing such a strange A—that people are *not* already

French or gendered or raised in families or in other ways socialized to an array of vices and virtues—has not occurred to the men of economics.

McCloskey does allow that *some* men of economics have been aware of the social phenomenon of cooperation. She gives nodding mention to experimental economics and the "new" economic history, and recognizes that game theorists themselves

have shown the narrow limits of their argument, which can be put somewhat technically like this: people do cooperate; finite prisoner's dilemma games unravel, making cooperation inexplicable; but infinite games, as the Folk Theorem says, have an infinite number of solutions. (Ibid.)

Since an infinite number of solutions is useless for science, game theorists should address this major weakness of the hard-core of their paradigm instead of—or at least before—embarking on a realistically unbounded exploration of the associated "hyperspace of assumptions". (McCloskey, 1994, 137, 141-3, 168, and 172-3). It is nonsensical to study social-strategy in a theoretical world from which the relevant social-phenomena—most obviously cooperation and its institutions of family, trust, or charity for example—have been artificially removed. McCloskey neglects to mention Vilfredo Pareto's Trattato di sociologia generale (1916) in which he anticipates some of the modern concerns with atomistic economic agents. Vincent Tarascio (1968, 1969, and 1974) discuss Pareto's utility theory in which he explicitly models what has come to be known as intersubjectivity. In his formulation, each individual's utility function includes other individuals' weighted utilities.

The Irrelevance of Statistical Significance

I have left for last the Kleinian Vice, named after Lawrence R. Klein whose A Textbook of Econometrics (1953) can be seen as the urtext of regression analysis in economics. It seems to me that this third complaint is probably the most urgent for McCloskey. It is this aspect of economics that she has been most recently researching, and it is this aspect of economics that she has seen fit to "leak" to the general public in two articles in Scientific American (1995b, 1995c). In her "Cassandra's Open Letter to her Economist Colleagues" (1999, 361), McCloskey presents her argument succinctly for her economist readers:

No test of significance that does not examine the loss function is useful as science. What make tests of significance useful are situations in which the sampling error is the scientific issue (which it commonly is not, by the way) and in which the costs of accepting or rejecting the hypothesis are explicit and sensible.

Thus unit root tests that rely on statistical significance are not science. Neither are tests of the efficiency of financial markets that rely on statistical instead of financial significance. ... Scientifically meaningful statistical procedures are answers to the question How Big.

We see that this criticism is closely related to the Samuelsonian/Ricardian Vice—"the futility of blackboard economics"—in that both are to be remedied with a prescription of a quantitative rhetoric. This similarity is initially surprising since the Samuelsonian Vice is essentially an escapist taste for formal deduction while the Kleinian Vice seems to concern a certain overconfidence in inductive methods. Indeed while the quantitative rhetoric missing from the Samuelsonian Vice is that of approximation, the quantitative rhetoric missing in the Kleinian vice addresses a question of quantitative balance. A scientifically significant empirical study of the tradeoff between unemployment and the minimum wage, for example, must address two "facts": higher wages will benefit employees who remain employed, while, at the same time employers will hire less labor and thus some of the previously employed (albeit at sub-minimum wage) will loose their jobs. These two facts operate as two poles between which some balance has to be struck. Declaring that the tradeoff exists based on some sort of statistical corroboration is a step in the right direction from merely deducing that under assumptions A, tradeoff C can exist. But it still does not produce a viable basis for employment policy because it fails to explicitly address the human question of balance. In other words: how big a diversion from the balance is to be considered a significantly big imbalance? Or alternatively: if we estimate that increasing the minimum wage by 50¢ would raise unemployment by 1%, what is the societal impact? How many people are better or worse off? How much better or worse off are they? Only by addressing these questions can an empirical study serve as a justifiable basis for policy.

The tragedy came, as tragedies sometimes do, in a tiny detail of the story. Or at any rate it looks at first like a tiny detail, such as the tiny detail of King Oedipus's fight with an older man on a lonely highway or the tiny detail of the exact form of King Lear's will and testament to his three

daughters. The detail is the phrase that goes along with regression, "statistical significance". (McCloskey, 1996, 27)

Like Oedipus and Lear, many economists are unaware of the consequences of the little detail behind the tragedy. In "The Standard Error of Regression", McCloskey and Stephen Ziliak (1996) find that 96% of empirical papers published in the 1980s in the *American Economic Review* misused, statistical significance. Worse yet, 70% offered policy proposals based solely on misused t-statistics. That is a lot of economic tragedy.

Before discussing exactly what is economically wrong with using statistical significance in lieu of scientific significance I would like to raise some relevant methodological issues. Taking results from a statistical regression and then interpreting their scientific importance based on how well the regression itself performed is a methodological tautology. Empirical tools do not generate conclusions but results that require interpretation. The econometrician may choose to stop here after having taken economic raw material and refined it to a degree. Somebody however must engage in scientific inquiry for the observations to be of scientific value. A scientist must construct some sort of explanatory conclusion. Conclusion is a purely human concept that does not exist in nature. We need it to draw policy proposals, and if conclusion is defined sufficiently broadly as a degree of rational closure, then we need it to be able to generally conceptualize anything less than the whole world. This closure cannot be attained from the numbers alone just as much as a traveler cannot ascertain his whereabouts by looking at his vehicle's fuel efficiency.

McCloskey (1996, 31) quotes Klein's use of the by now formulaic following rhetoric in his first scientific paper published in 1943:

The role of Y in the regression is not statistically significant. The ratio of the regression coefficient to its standard error is only 1.812. This low value of the ratio means that we *cannot* reject the hypothesis that the true value of the regression coefficient is zero.

Chance would have it that as Klein's new method increasingly gained popularity as the harbinger of an hitherto unattained degree of positive knowledge, advances in computing power allowed the creation of an econometric "cottage industry" which has since transformed into "Satanic Mills"—to use William Wordsworth expression describing the heavy industry of 19th century England.

McCloskey's argument against the misuse of statistical significance in economics rests on the claim that a variable's statistical significance has little bearing on the scientific question of which variables are economically important in understanding and explaining phenomena. McCloskey (1996, 33-4) locates the problem in that statistical significance is established by looking at the second moment of the estimate—the variation around the estimate of the average—not the population. According to standard econometric theory, the second moment of the estimate is σ/\sqrt{N} which is not equal to σ .

McCloskey gives the example of an economist looking at the height of Dutch women for the clothing industry. In order to decide on the allocation of different garment sizes, such a study could benefit from knowledge of the height variation around the *population* from which the sample is drawn, σ , which could legitimately be done by looking at s (the square root of the sampling variance) as an estimate. Furthermore statistical significance is not even a test for whether the coefficient exists. This question can only be answered based on the magnitude of a coefficient in terms relevant to the scientific question at hand. This leads to a methodologically significant internal criticism: Dropping a scientifically significant variable because it is statistically insignificant could very well invalidate all subsequent work since the results would become, to use econometric terminology, biased and inconsistent.

It is simply not the case that statistically insignificant coefficients are in effect zero. The experiments on aspirin and heart disease were halted short of statistical significance (at the level the medical researchers wanted to have) because the effect was so large in life-saving terms that it was immoral to go on with the double-blind experiment in which some people did not get their daily dose of aspirin. (1996, 35)

In this example scientists decided that a certain number of deaths were a morally sufficient magnitude to warrant the conclusion that aspirin had a medically significant effect on heart disease. This was done despite the fact that by stopping the experiment short they were forced to accept a degree of fuzziness in the estimate—measured by statistical significance—lower than they previously had hoped to attain. To paraphrase Klein's 1943 jargon-setting paper (see original quote from Klein above): The role of the dummy-variable ASPIRIN in the regression is not statistically significant. The ratio of the regression coefficient to its standard error is very low which means that we cannot reject the hypothesis that the true value of the regression coefficient is zero. Thankfully the

medical researchers could and did reject the hypothesis the aspirin has no effect on heart disease.

Econometricians however are not as foolish as they may seem in this section. Many of the issues raised here and others raised elsewhere have and are being addressed. Most importantly, econometricians are increasingly adopting methods and values from the engineering and physics departments. Specifically, the same increase in computing power that may have led to the obsessive and erroneous use of regression analysis may now have gotten to the point that simulations are becoming practical in economics. If indeed there is—as many econometricians are quick to claim—ready econometric solutions to McCloskey's problems, then perhaps the following passage from McCloskey (1996, 33) may be overly bleak:

The situation is like the proverbial joke about the drunk discovered by his friend crawling around close to a lamppost on a dark night. "What are you doing?" "I'm looking for my keys. I dropped them." "Oh, I'll help you. Did you drop them here?" "No, I dropped them over there in the dark.... But the light's better here." Statistical economists since they began to indulge in the Kleinian vice have been drunks searching for economic truth under a lamppost, instead of out in the dark where it is to be found. Looking in the dark is more difficult, admittedly. But that's not an argument for staying under the lamppost. That science is difficult and pseudo-science is easy is not an argument for adopting pseudo-science.

The Virtues of the Bourgeoisie

I have been discussing the three vices McCloskey accuses modern economics of indulging in without any mention of the bourgeois virtues that she is apparently advocating. The only candidate for virtue so far is what she calls the *values of science*: useful and applicable explanation, as opposed to the values of mathematics and formal logic: formulaic elegance. She acknowledges that accepting the vices as such does not readily suggest what economists should be doing instead. This criticism has been often raised against what could very broadly be called the "Crisis in Economics" literature. These critics of economics are accused of continuously and *mechanistically* repeating a set of by now well-worn problematic issues. The degree to which these issues are seen as critical varies but there is one question that continues to hang over the heads of these critics like the Sword of Damocles. This is the same question McCloskey asks of

axiomatic (Samuelsonian) economists: "So What? What have you taught me about the actual economic world? Not hypothetical worlds, but the one we live in. And how do you know?" (1996, 124) I will attempt to answer this question in detail and at different levels of inquiry including the metatheoretical in my text. At this point however I will address it at the levels I have primarily employed in this chapter: McCloskey's descriptions and, when available, prescriptions regarding how economists explain the economy—the traditional domain of methodology.

McCloskey's prescription against social engineering is as straight-forward as her criticism: Erect or facilitate the erection of institutions that should change the economy in a beneficial way while making all possible efforts to design them to be non-damaging. What emerges as her main concern however, is the *culture* of economics: The academic institutions that govern the selection and indoctrination of economics graduate students. and the institutions that archive and ossify the values that they learn. The 97% of graduate students in leading departments who did not consider having knowledge of the economy as very important (See the section titled: The Futility of Blackboard Economics above), have been "groomed," or, more descriptively-correct, "brutalized" into adhering so religiously to what McCloskey calls the values of the math department. This concern—though quite real—is a very general concern with the institutions of academia. In Lakatosian terms it could be restated as a misbalance between continuity and progress in the economics research program. Too much is left unquestioned in the irrefutable hardcore while the positive heuristic mediating the refutable protective belt is based on a formalistic and esthetically determined criteria (see Chapter 2). McCloskey urges us to incessantly remind "the A-Primers, who are often in a minority, though an arrogant and intolerant one" (1996, 124), that their dogma fails to satisfy its own stated criteria of what is a science. McCloskey is employing the "good old" positivist criteria of cognitive significance against those who would claim to be its guardians: too much of economics is metaphysical (see Chapter 2). It is perhaps surprising to associate McCloskey with positivist methodology. Nevertheless I find that her criticism of the Samuelsonian vice echoes much of the logical positivists' discussion of the status of theories in science.

In many instances McCloskey reiterates her "allegiance" to the Chicago-School of economics. As a Chicago economist, she believes that the "rotten equilibrium" in which

modern economics finds itself is not sustainable. Nevertheless, like any *reasonable* non-interventionist, she believes that the invisible hand could use gentle guidance. She proposes her *ethics* for this purpose and suggests that an ethical change is necessary *inside* economics:

Economists have believed for about a century that they are wertfrei, practitioners of the positive rather than the normative. I believed is once myself. It is wrong. I report what I have heard from friends on the frontier of science studies, sociologists and philosophers and historians of science. They have concluded that scientists are not the romantic yet objective, passionate yet masculine heroes they would like to be considered, and which the philosopher Karl Popper made them out to be. Scientists are actual people. This startling assertion from science studies over the past quarter century means that science, like the rest of life, is an ethical matter... I take "ethos" in its Greek meaning as "character," the character we live moment by moment in the home or the laboratory or the library. Ethics in science is rarely about spectacular cases of lying. It is about the ethical character from which the scientist acts in judging a coefficient on the minimum wage large. (McCloskey, 1996, 125-6)

This is not the place to argue over McCloskey's characterization of Popper but I must say that while I could definitely accept romantic, passionate, and masculine, Popper's view of scientists can perhaps be characterized as naïve for his insistence that scientists are honest in *seeking* objectivity, but he never believed that they are *actually* objective.

By basing her ethics on a restatement of the Marxian theory of ideology and the ensuing problem of *ethical neutrality*, McCloskey sets a deterministic tone for her historical reading of the modernist ethos. The three vices of economics are sub-vices to the arch-vice of pride. This vice is explained in an intriguing variation on class struggle: Modernism (and modern economics) has a bipolar rhetoric of virtue. On the one hand are the "pagan" virtues of courage, justice, temperance, and prudence that characterize a hero in the classical sense. Different heroes have different mixes of these virtues—consider the differences between Achilles and Odysseus—but can be associated with an *aristocratic* ethos. On the other hand are the religious and even Christian virtues of faith, hope, and love that characterize a saint, and can be associated with a *peasant* ethos. "But we are neither heroes nor saints. We are bourgeois, town dwellers. Yet we do not have a vocabulary of bourgeois virtue." (McCloskey, 1996, 126)

McCloskey evokes classical (European) liberalism and especially the Scottish Enlightenment of David Hume and Adam Smith as an example modern economics should follow. But her use of Adam Smith to show how his economic ethos was not only based on the prudence of *The Wealth of Nations* but also on the temperance of *The Theory of Moral Sentiments* and the justice of his unpublished *Lectures on Jurisprudence* is confusing. This is because she seems to be attributing the aristocratic virtues to Smith while, at the same time, presenting him as an example of bourgeois virtues. A malicious reader could attribute this to a moralistic twist on bourgeois "aristocratic-envy" but this is a metaphor whose subject lies elsewhere and the "error" I have unearthed can be easily fixed with a few innocuous adjustments to the definitions of the virtues. The classmetaphor picks-up the story after the bourgeoisie overtook the aristocracy as the dominant class in society during the 19th century. By the turn of the century however,

the intelligentsia became increasingly alienated from the bourgeois world from which it sprung, and wished to become something Higher. It wished to make novels difficult and technical—think of Woolf or Joyce—to keep them out of the hands of the uneducated and to elevate the intelligentsia to a new clerisy, a new aristocracy of the spirit. (McCloskey, 1996, 127)

The "arch-vice" of pride within which all three vices of economics are contained turns out to be the *social aspirations of the nouveau riche*. McCloskey's little story tells us something about the social psychology behind the arrogance of modernism but only vaguely adumbrates the bourgeois economics that she advocates.

A much clearer picture can be found in the last pages of *The Vices of Economists—The Virtues of the Bourgeoisie* (1996) where I find a metaphor linking the workings of the markets for goods and services and the workings of economics. This link will also lead to the following chapter where I will endeavor to produce a more extensive critique of McCloskey's rhetoric and her language and discourse theories.

The way good science works is the way a good market works, not anonymously and mechanically as we economists so often think, but through trust, conversation, persuasion. Arjo Klamer and I have discovered that one-quarter of the national income is spent on persuasion, sweet talk. A bourgeois society depends on lengthy discussions of what to do. ...

As our century of the European nightmare ends, a nightmare formed from the aristocratic and peasant dreams of the 19th century, we need to honor a new set of virtues, suiting the marketplace as much as the academy. It is no linguistic accident that the word *forum*, which means with us "place of open discussion," started its life meaning "marketplace," a place of bourgeois virtue. It is no accident, either, that the *agora* of Greece was where Greek democracy happened. (McCloskey, 1996, 128, 130)

Not surprisingly, McCloskey's methodological critique of economics is inseparable from her philosophy of economics as much as it is inseparable from her politics. McCloskey's overriding prescription in which all others are contained is the call for *sprachethik*: an ethos of conversation. Though seemingly uncomplicated, this concept proved to be very problematic on several levels and will be addressed at length in the following chapters. But first I must turn to McCloskey's conversational ethos as it is employed in her philosophical arguments.

Chapter 4: McCloskey's Critique of the Rhetoric of Economics

The principle arguments collectively known as McCloskey's rhetoric have been developed in several journal articles and books since her pioneering 1983 paper in the Journal of Economic Literature. I will focus here on Knowledge and Persuasion in Economics (1994) because it reiterates, reinterprets, and develops the principle arguments that appeared in The rhetoric of economics (1985), If you're so smart: The Narrative of Economic Expertise (1990), and numerous other texts (see McCloskey, 1988a, 1988b, 1988c, 1988d, 1989a, 1989b, 1991, and 1992). Knowledge and Persuasion also includes most of McCloskey's contribution to the discussion on rhetoric until 1994 including replies to criticism and further refinements and illustrations. It should however be noted that the earlier texts are rich with empirical data to substantiate her claims. It should also be noted that this data is primarily of the unorthodox kind such as surveys and anecdotal observations. They are nevertheless quite convincing as a whole and should be considered with regard to McCloskey's call for increased empiricism in economics. I will examine the Māki versus McCloskey debate in Chapter 8 though it should be pointed out that some of the Knowledge and Persuasion text is driven by the initial phase of the debate which was indeed "raging" while the book was being prepared for publication.

I will attempt to follow a close but concise reading of McCloskey in order to maintain her general structure which is classical. Applying formal Aristotelian structure is such a bombastic appeal to authority that it may even be a rhetorical joke—a happily common occurrence in McCloskey's prose. Jokingly or not, it immediately establishes the ideas inhabiting this structure as subscribing to the tenets of the most fundamental orthodoxy of western culture: Aristotelian poetics. The choice employs multiple undercurrents and is much more productive than most appeals to authority we regularly use: Classical formalism is an authority in both the scientific and the rhetoric realms. In fact it dates from a time when the sciences actually were unified which would reverberate well in many of McCloskey's antagonistic readers. McCloskey insists that her rhetoric

are not radical early on in the text and continues to reiterate this throughout, but it is Aristotle who legitimizes the propriety of her literary tools. Finally there is of course the cultural dimension of introducing "continental" humanities into the "Anglo-Saxon" halls of science. What better way for a foreign element to disarm xenophobic suspicions than to pay homage to the local god? In the aforementioned "Anglo-Saxon" halls of science that god is still ostensibly a classical Greek.

This strategic structural apologia is coupled with the strategic progression of the text as a whole which is crafted so as to allow a gentle entry into the subject: controversial or difficult issues are well prepared so as not to offend an economist's sensibilities. Issues are then revisited later in the text and only then receive a more careful and consequential analysis. I will retain McCloskey's structure of a six-part classical oration in this chapter.

Exordium

The initial question raised regards how intellectual "fads" move among disciplines. McCloskey gives numerous examples most of which deal with the increasing use of mathematics in economic theory and refers the reader to her more empirical work. She takes the opportunity to recognize an old guard of mathematical economist that are old enough to have known the Golden Age of pre-mechanistic or pre-"scientistic" (7¹) economics. For example, Friedman is quoted saying "the role of statistics is not to discover truth. The role of statistics is to resolve disagreements among people." (4) This is then developed into the observation that economics *in-use* corresponds very weakly with positivist declared methodology thus absolving all but the relatively small community of economic methodologists of their rhetorical sins.

Narration - The Conversation of Economics

McCloskey's main focus is on what she calls the *conversation* of economics. The economic conversation as a new metaphor for economic science launches the study of rhetoric in economics as "a conversation about the conversation" (27) At this point it is not yet quite clear what level of inquiry McCloskey is referring to. It is only later in the

^{1.} Unless stated otherwise, all quotes in this chapter are from McCloskey (1994).

book that—following Vincent Tarascio's (1975, 1997) approach—it becomes clearer that there are three levels to this metaphor: economic activity itself seen as a conversation between economic agents, economic science as conversation between practitioners of the dismal science, and what she later calls economic criticism as a conversation between a pluralistic group of polite and enlightened scholars. Each metaphoric level is divided by what McCloskey later recognizes as an "axis of particularity" (62, See Table 2: The Rhetorical Tetrad reproduced in this chapter below) which describes a metonymical relation—a relation of contingency—between story and theory. Accordingly, a conversation between economic agents can be about bond yields or about how many to buy or sell. A conversation between economists can be about the functioning of the bond market or about how to make predictions about bond yields. A conversation between economic critics can be about how appropriate are closed macro-models for policy proposals or about how and why such models have evolved. In this third level, the structural distinction would apply to the metonymical relation between theory and metatheory.

The term conversation can seem deceptively simple to the linguistic layman: a multidirectional flow of ideas perhaps? The apparent simplicity dissolves once one examines the characteristics of the archi-conversation (in the anthropological sense of archetypal) of human inquiry and starts sliding along it's more specific threads such as scientific conversation, and arriving eventually at the blossoming buds of specific debate. The conversational space is not a vacuum and the flow of ideas is superimposed on top of a complex socio-political topology where ideas are subject to many forms of manipulations both motivated and not. Sticking with my topological metaphor, unmotivated manipulation would be much like a flow of water following a path of least resistance: for example an economist that is not even aware of how limited his choice of testable hypothesis are within the context of his inquiry. Motivated manipulation would be the more obvious academic power-games in which ideas struggle to rise in the food chain of grants and publications. The system in which ideas flow subject to a dynamic system of socio-political contexts has been given many names; I propose to use the term archive which has a fairly deep hypotext (underlying cultural connotations) but is still in the academic "public domain" in that it has not been strictly defined or politically

appropriated by any school of thought. Much work has been done on this the most ancient and glorious of human establishments most notably by Claude Lévi-Strauss (from an anthropological tradition), Michel Foucault (from a ... well a Foucauldian tradition I suppose; drawing on German Historicism and Idealism, Formalism, Semiotics, and Structuralism), and Jacques Derrida (significantly also from a Foucauldian tradition but with an-often overlooked or misunderstood-realist and even rationalist twist). Foucault has the advantage of producing exhaustive historical analysis that he compares to an archaeological dig; he could be seen as social criticism's Joseph Schumpeter. Well within the analytical tradition, Foucault attempts to recognize and classify the forces society puts to play within the flow of ideas. He embarks on what could be called inverse-hermeneutics in that he is unconcerned with any underlying "Truth" to be revealed through careful "peeling-away" of contextual presuppositions; he is precisely interested in the peelings, their origins, history, and function. This is in fact where the analogy with archaeology comes from: when studying the remains of an ancient dwelling one is not so much interested in the fact that the inhabitants cooked food as by what, how, and why they cooked, as well as what role their culinary-culture played in their lives. McCloskey starts her dig at the archive of economic knowledge but many more strata have to be explored before I can introduce Foucault more specifically into this conversation (see Chapter 6).

The first step towards observing rhetoric "activity" in economics is recognizing the dual of language and knowledge: that "facts are constructed by words" (41), and that models are metaphors. That language is endogenous to the scientific endeavor at all levels of inquiry has been specifically recognized as crucial by many positivists of the Vienna Circle who's initial concerns were with the definition of a scientific language that would ensure positive science. The complexities they encountered were never resolved to any degree of satisfaction. From this perspective, McCloskey's rhetoric could be seen as a continuation of the positivist agenda. McCloskey discusses the modernist separation of science from art and notes that metaphor is common to both. Her discussion of mathematical metaphor in economics opens with a useful look at metaphors in-use but stops short of going beyond very basic notions of motivational speech from John Austin (1962) and John Searle's (1970) Speech Act Theory from which she will draw later.

McCloskey's reluctance to seriously accost the most treacherous issue of the workings as opposed to prevalence—of metaphor in science carries both a cost and a benefit. The benefit is that in satisfying herself with just observing the abundance and power of metaphor in economics texts she leads a successful attack on the foundations of the economics archive while maintaining traditional analytic coherence (i.e. making sense), and thus not alienating her intended readers. The cost is more complicated: conversing about conversation in economics is not like conversing about economics. The two conversations exist on different levels of inquiry in terms of their object of investigation and their reference, this is the difference between science and the science-of-science. But it gets worse: there is a terrible analytical feedback created whenever one tries to analyze language because the object-language (under investigation) is necessarily contaminated with the subject-language underlying one's analysis and even one's thoughts. Trying to write/talk/think about the structure of language in a scientifically rigorous way while maintaining object/subject-"correctness" was the beginning of modern linguistics and literary theory. Brave attempts at building fundamental models of language (Formalism and Semiotics) revealed only more complications as the language of investigation found it increasingly harder to "catch-up" with the language it was investigating. This problem was also encountered by participants in the Vienna Circle in the 1920's at the University of Vienna. The logical positivist attempt at the development of a philosophy that applies logical analysis to the study of positive (or empirical) sciences established what was valid scientific knowledge according to its method (logic) and scope (context). Interestingly enough for my purpose, the circle's initial criteria were primarily rhetoric: the cognitive significance of statements. I will argue throughout this text that perhaps the most successful attempt to write/talk/think about the structure and function of language in a rigorous way while maintaining object/subject-correctness is that of the notorious Jacques Derrida.

Division - The Inconsistency of Economic Methodology

McCloskey presents Science with a capital S as an absolute and thus metaphysical version of actual science. The difference is that Science seeks the Truth (again capital letter means absolute) while science seeks truths—plural and relative. The enormous

implication of the basic tenant of relativism is left to fester without explicit attention. McCloskey does however use an illuminating metaphor when she compares "Scientism" (from Friedrich Hayek's 1942-4 "Scientism and the Study of Society") to an orthodox religion (66). Scientism refers to modernist methodological dogma—the politics of science—not science in-use. Its adherents are obsessed with increased specificity and improved tools in an attempt to develop methods of inquiry in which objective-sterility is maintained despite external subjectivity. In the process they, as August Comte himself realized early-on, are obliged to develop a scientific mystique to "insulate" their work from themselves. Readers of Comte will be correct in arguing that his realization was actually only that the layman masses will require an alternative mystique in order to serve the church of science. My interpretation of the strategic function of the cult of humanity within Comte's polity—not unlike a Friedman-esque² pool player—does not depend on any explicit recognition by the author. Comte may have intuitively sensed the need for a metaphysical foundation at the core of any analytical system but lacked the Foucauldian vocabulary to explicate it. Be that as it may, I have and will continue to argue that a metaphysical foundation is necessary for any systematic system of knowledge including Classical Positivism.

At this point McCloskey presents the linguistic distinction between metaphor and metonym with the familiar notions of substitutability and complementarity. She is of course explaining the concepts of metaphor and metonym to an intended reader who is an economist by way of an economic metaphor. This is a particularly elegant persuasion device: A concept from a foreign discipline is introduced via a highly familiar concept and thus acquires justification through it. The reader's delight with the "deep" understanding only possible with a familiar concept makes him more susceptible to persuasion. This however is not a "bad" thing since it facilitates understanding, and is not "devious" but illustrative of what speech-act theory designates as motivated speech-acts which are, as their name suggests, acts of speech which are uttered in order to perform a social action such as persuade. Speech-act theory will become an important concept for McCloskey and will be addressed in detail in Chapters 5 and 7. She even goes as far as

^{2.} I'm referring to Milton Friedman's (1953) famous methodological metaphor in which a pool player does not explicitly know the laws of physics that he employs, yet still abides by them when preparing his shot.

laying out what she calls the "rhetorical tetrad" (62) in a simple table reproduced below representing the basic relationships between fact, logic, story (metonymy), and metaphor. Again we have the appeal to Greek authority in the context of an Anglo-Saxon academia:

Table 2: The Rhetorical Tetrad (Adapted from McCloskey 1994, 62)

Fact From induction		Story (metonymy) From understanding	Particularity, Closeness Axis of particularity	Empirical British
Logic		Metaphor	Generality,	Logical
From deduction	A*-	From abduction	Similarity	French
Impersonal	$\begin{array}{c} \mathbf{Axis} \\ \leftarrow \mathbf{of} \rightarrow \end{array}$	Personal		
Impersonal	← 01 → impersonality	rersonai		
Scientific	\leftarrow The \rightarrow	Humanistic		
Male	Modernist	Female		
Numbers	Dichotomy	Words		
Precise		Intuitive		
Hard		Soft		
Truth		Opinion		
Objective		Subjective		
Cognition		Feeling		
Science		Arts		
Business		Pleasure		

Now that the schematics are laid-out, the idea of reading economics to criticize itself—economic criticism—is established on an ethical basis. As with other dimension of her text, McCloskey introduces an ethical dimension in its use and not at some fundamental level. This is an empirical rhetoric approach in that the readers are first invited to call on their own experiences as practicing economists and only later are confronted with some of the philosophical, methodological, or indeed political implications of economic criticism. The three columns of economic criticism—I allow myself a "Greekism" too—address the three inconsistencies in modernist methodology of economics:

Ist: Theorem of Intellectual Modesty — "if you're so smart" (71). An internal critique illustrated by problems with prediction and forecasting and the Lucas critique. This is the primary focus of McCloskey's If you're so smart: The Narrative of Economic

Expertise (1990) and refers to economics' inability to meet its own criteria for success. It raises the question of how economists cling to a methodology that has little practical reference or applicability to the daily "business" of economics. The immediate implication is, of course, methodological pluralism.

2nd: Maxim of Intellectual Exchange – "economist, perform thy trade" (74). Modern economics can be seen as having gone through thirty years of specialization without trade. The drawbacks of such a practice come straight out of Adam Smith and constitute a well-respected entry in the discipline's Archive. Using this economic metaphor establishes McCloskey's call for diverse and especially interdisciplinary work in economics along with increased specialization. Another well-known negative consequence of specialization is quoted from The Wealth of Nations:

The man whose whole life is spent in performing a few simple operations ...has no occasion to exert his understanding ...He ...generally becomes as stupid and ignorant as it is possible for a human creature to become. (74)

3rd: Paradox of Persuasion — "talk is not cheap" (76). A discussion on the role of talk in the economy itself. There is a need for economics of talk because talk plays an important role in the economy. She presents empirical data that overall suggests that a full 1/4 of the labor-force is primarily devoted to persuasion. It seems illogical to disregard this in most economic models. This is an interesting yet neglected aspect of McCloskey's work. She does not pursue this issue but it is an excellent example of the influence exerted by positive methodological constructs on the actual practice of economics. It is hardly surprising after all, that a Scientist who believes that True knowledge is arrived at by maximizing a specific type of content under a specific set of constraints, would attribute the same sort of rational behavior to economic agents. If persuasion has no role in True Science, why would it have a role in the market.

McCloskey distinguishes between "thin" (85) and "thick" (94) ways of reading economics. The "thin" is represented by Sir Karl Popper and Imre Lakatos while the "thick" is comprised of ethics, economics, sociology, and rhetoric. "Thickness" is a common term in philosophy and is the degree to which the domain of questions is restrained. McCloskey recognized (again) the place of "thin" readings in economics, but goes on to point out an inherent weakness in the Lakatosian view of progressive science;

progressing towards the Truth (with a capital T). She employs a classical rhetoric device called *petitio principii* (literally: petition of the principal) in the following way: The principle of falsification begs the question: falsification of what? And a hypothesis of the form: "is model X applicable in this case?" is irrelevant to economic questions. The logic of Lakatosian progressiveness is flawed if economics is to function as a science and not as mathematics since it involves an ontological tautology: a system of models (object) satisfying an ontological requirement (subject) of a certain renowned methodologist (reference). Thick readings would then allow themselves to follow their economic curiosity wherever it may take them. "Good science is not good method; it is good conversation." (100) Whether these conversations are judged relevant and interesting to economics will depend on economists and their rhetoric (in the broad sense of social communication). Furthermore this is neither radical nor even new, and has been the underlying process by which mathematical economics has reached the level of prestige it now enjoys.

McCloskey then fires the first bullet in a battle she picks up later with epistemology. She quotes the philosopher Rom Harré (1986, 95):

Neither falsehood nor truth is an attainable epistemic ideal. [Epistemic ideals] are proper only for the moral exhortation and castigation of a community of seekers after trustworthy knowledge.

Proof - The Style of Mathematical Formalism

"The rise of a scientistic style" (111) is the name of the chapter opening the *proof*. McCloskey presents a statistical-historical study (As a prominent historian her credentials are obvious) of articles in economics journals from early this century and up to the present. She then conducts a rhetorical critique based on her "rhetorical tetrad". (See table above) She finds that papers have essentially maintained a similar ratio of theoretical to empirical, but that the quantity of mathematical expressions has increased tremendously over the years. There is a need to introduce a literary definition for a term McCloskey uses: *implied author*. It refers to the literary persona of the author that is implied by the text and the reader's *interpretation* of it. The point being that the difference between journal articles *pre*-"Great Mathematization" and *post*, is a difference between implied authors. I have arranged her distinctions in table form:

Table 3: Different Implied Authors in Economic Literature

	Theoretical - logic/metaphor	Empirical – fact/metonym
Then	philosopher – scholar	Historian – scholar
Now	Mathematician – theorem & proof virtuoso	"bench-scientist" - technician

McCloskey proceeds to uncover some of the rhetorical devices found in modern economic jargon. When macro-economists use words like "perfect foresight" or "timeinconsistency problem" there is a whole hypo-textual layer consisting of what these words signify for people who understand them—perhaps in different ways. McCloskey introduces another literary term: Implied reader. In this case a persona of the economist reading these papers which is implied by the text. This is not necessarily the same as the intended reader that would be the reader consciously intended by the author. For successful persuasion, modern economic papers make sure that the implied reader corresponds to actual intended readers' aspirations: these days usually a "math-whiz". The implied author should not however be intolerable so the use of language such as "may lead to...", "tends to...", and "suggests..." has risen accordingly. The removal of the fist person "I" from most economic narratives is of course a crud stylistic device used to give the implied author an objective aura. There is an entire set of academic styles because style is interrelated with context, and academic discourse is conducted according to different stylistic codes for different "levels" of texts: personal distribution, working papers, journal articles, speeches, conferences, etc. The fact of the adaptability of style to its performative-context can be used to demonstrate the falsity of the style-content opposition.

McCloskey then turns specifically to the rhetoric of mathematical *formalism* and particularly its obsession with existence theorems. But first, a "peace-pipe" (though "spiked" as usual):

Mathematics has brought transparency to many hundreds of economic arguments. The ideas of economics—the metaphor of the production function, the story of economic growth, the logic of competition, the facts of labor-force participation—would rapidly become muddled without mathematical expression. ... but economists know that a qualitative argument for something does not automatically fix its optimal quantity. (128)

To use my own metaphor: Math expressions are overproduced like goods and services in socialist economies that quantity-maximized because, lacking any information-carrying price system, there was no demand and thus no marginal revenue to equate to marginal cost in firms' decision making. Overall technical efficiency did not lag to far behind the west but economic allocative efficiency was entirely unattainable even with large allowances for bureaucratic waste. McCloskey and others have introduced a degree of glasnost to the economic discipline but perestroika is still some way ahead. My little metaphor raises some uncomfortable contingent or metonymical issues if one looks at the recent record of reform in Russia as it transforms from Workers' Paradise to kleptocracy. McCloskey uses the Law of Diminishing Returns to mathematization as her metaphor: increasingly applying math to a fixed quantity of material (scope) will eventually experience declining productivity. From this perspective, increasing the amount of data available and applying simulations instead of regression analysis—a practice McCloskey endorses elsewhere—will not stop the returns from diminishing.

McCloskey makes the distinction between science and mathematics, the latter characterized by the predominance of axiomatic existence theorems based on stylized facts (e.g. general equilibrium) and where data is relatively ignored. In this light she claims that "Physics is less mathematical than modern economics." (129) This is where the increased mathematization of economics bothers McCloskey. Affirmations of existence theorems of the form: "there exists a solution such that assumption A holds" are irrelevant if the question has to do with finite cases under assumptions A' or A'' close to A. "For that question you need approximations and simulations and empirically relevant parameters, not existence theorems." (134)

McCloskey also notes that the entire *rigor* is only applied to the math—the text's deductive process—while the opening and conclusions are left arbitrary and vague. Examples include choice of assumptions based on aesthetics: "more realistic" without empirical justification, "less restrictive" to manipulations not applications. Positive economists should be surprised to be accused of applying their entire rigor to the *style* of their work (mathematical) instead of its *substance* (economics). The consequence of this practice is that exact results with restricted applications are produced over approximate results with wide applications. "[T]he procedure of modern economics is too much a

search through the hyperspace of conceivable assumptions" (137). McCloskey illustrates this flaw with a *metatheorem*: a theorem about theorems.

Metatheorem on Hyperspaces of Assumptions:

For each and every set of assumptions A implying a conclusion C and for each alternative conclusion C' arbitrarily far from C (for example, disjoint with C), there exists an alternative set of assumptions A' arbitrarily close to the original assumption A, such that A' implies C'. (138)

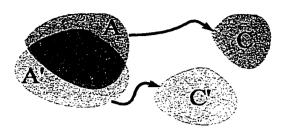


Figure 1: Hyperspaces of Assumptions

Investigating mathematical economic models within the rhetorical system of mathematics is *not* falsification. There is a need for a quantitative rhetoric of approximation—how large is large? How close is "in the neighborhood of"—for science if it is to refer to something else but itself. So it is mathematical economics that adheres to the "anything goes" credo, or in the mathematical economist Robert Palmer's words:

[W]hile these ingredients might reasonably be expected to lead to many possible economic states or equilibria, it is not clear whether or not they do so in practice. The situation is somewhat obscured by the tendency in economics to look only for unique solutions, and to reject or modify models that do not provide them. (1988, 179, in McCloskey, 1994, 144)

Before the extensive use of math notation the problem was called (by Schumpeter): The Ricardian Vice, referring to the ad-hoc application of blackboard propositions untested to the world. The problem is not logic and math—formal use—but formalism, which depends on the rhetoric of existence theorems. For McCloskey formalism in economics is subscribing to "the Claim" (148) that knowledge of the form "A-prime-C-prime"(see McCloskey's Metatheorem on Hyperspaces of Assumptions above) is the only True economic-knowledge. She recruits mathematical economists (Frank Hahn specifically) for an attack on formalism due to the possible back-fire against mathematical economics if and when "the Claim is recognized as nonsense" (152). She uses General equilibrium as an example: Arrow-Debreu and Arrow-Hahn constructed theorems that give some necessary and sufficient conditions for exact efficiency but do not engage in the economically necessary policy issue of how closely these conditions need to be satisfied to yield approximate efficiency. Attacks on such work primarily focus on how adding a

few assumptions or removing "unreasonable" others could undermine the efficiency—opposite point of view, same rhetoric. She then makes a point of noting that from a rhetoric point of view, Marxist economics has undergone a similar modernist transformation.

McCloskey views Formalists as poets and politicians. Mathematical economists are thus Formalist poets, while Modernist methodologists are Formalist politicians. The formers are in an aesthetic pursuit of consistency that is not particularly relevant to science, and the latter are "scholastic not scholarly" (171). She concludes her proof with the *elenctic* observation that "the usual graduate program takes intelligent young people and makes them into idiot savants" (173).

Refutation - The Problems of Epistemology and Truth

Even if the "evil" Methodologist (with a capital M) and Co. may recognize that social-dynamics (i.e. conversation in the broad sense) are more relevant than Positivist dogma in the evolution of the science, they remain uncomfortable without an epistemological foundation. This is a very ancient angst that can be traced back to Plato: The Socratic *elenchus* was a *rhetoric* technique by which True Knowledge is justified with elenctic argument which, it should be noted, is not a refutation on logical grounds but a critical cross-examination. The Oxford English Dictionary defines Socratic elenchus as "the method pursued by Socrates of eliciting truth by means of short question and answer." McCloskey (1994, 188-189) follows Gregory Vlastos (1991) in pointing out that Plato's Socratic *elenchus* implicitly assumes that Truth (absolute; with a capital T) resides somewhere in his interlocutors' belief-system. This critique seems deceptively straightforward and is part of McCloskey's attack on epistemology. "The very idea of epistemology" (title of the first chapter of the refutation) is repugnant to McCloskey. This is not surprising because this is where she dodges the problem of theory-choice by disregarding the crucial epistemological issues arising from the recent developments in philosophy and literary theory (see part III). One need not even apply radical French criticism to see this. In 1866 J. S. Mill observed that "The dogmatic Plato seems a different person from the elenctic Plato." McCloskey should have noted this and used it to examine the epistemologically complex relation between logic (the dogmatic Plato)

and conversation/persuasion (the elenctic Plato) which underlies and undermines both what August Comte and later Jacques Derrida called metaphysics.

McCloskey continues her attack by evoking the Gettier Paradox: "Is justified True Belief Knowledge?" (190) With reference to economics it can be expressed as follows: Assume proposition X (e.g. inflation is always a monetary phenomena) is True (Capital T) even if it's based on a set of non-truths (lowercase t) (e.g. closed economy). Given a modernist-run Archive, X is believed, justified, True, and accepted as economic Knowledge. It is however referring to an economic environment that is *not* true (lowercase t) so in what way is it knowledge. Proposition X in itself could contain many truths even "if on the whole untrue as history and as economics". (190) McCloskey's critique of epistemology as a pursuit of "ultimate truths" does not go far beyond Marxist theory of ideology, but it does suggest that rhetoric analysis may seem superfluous only if standards such as "True Knowledge" where applicable to the world.

Traditional epistemology has indeed had it's foundations shot from under it's feet but there are many refinements (see for example Tony Lawson's Economics and Reality, 1997) as well as alternatives (see for example Mary Poovey's A History of The Modern Fact: Problems of Knowledge in the Sciences of Wealth and Society, 1998). Derridian deconstruction is precisely interested in the self-referenciality of knowledge and truth. That's where he has indeed deviated from Western metaphysical tradition governed by an archival process based on a mapping from Knowledge to Truth — A mystery in the theological and anthropological sense.

I believe and will attempt to demonstrate that this is in fact *the* major problem with McCloskey's work. Furthermore I believe that she is aware of this weakness and that this is why she closes the chapter by transforming miraculously into a preacher and going on and on with: "Rhetoric is man's project; Epistemology is God's." (194) So there is a Truth but it's about Knowledge inaccessible to mankind? Who is this God? Perhaps a metaphor for the successful modernist's arch-existence theorem? In later texts and especially after being confronted by Uskali Mäki (1995)—who, not incidentally, is also irritated by the preaching—McCloskey finds solace in a philosophical pragmatism but leaves the problem unsolved. It will be only later (1999) that the postmodern solution to this epistemological "bind" in which she found herself will start to take form.

Nevertheless McCloskey has brought this ancient philosophical problem to the attention of philosophers of economics and generated one of the most lively and promising topics in the economics conversation. I will come back to this in Chapter 9 and Part V.

McCloskey feels obliged to respond to the typical *tu quoque* (you also) circular argument that permeates much of the discussion in the "trenches" of the realist-relativist debate. This debate takes the form: "in asserting the truth of relativism you acknowledge a standard of truth – gotcha!" versus "that was a rhetorical device you just employed—a speech-act actually—gotcha!" (The use of "gotcha" is McCloskey's) In the more "sophisticated" style of Bruno Latour (1984, 201), the rhetorician's *tu quoque*:

Those who accuse relativists of being self-contradictory ...can save their breath for a better occasion. I explicitly put my own account in the same category as those accounts I have studied without asking for any privilege. This approach seems self-defeating only to those who believe that the fate of an interpretation is tied to the existence of a safe metalinguistic level. Since this belief is precisely what I deny, the reception of my argument exemplifies my point: no metalinguistic level is required to analyze, argue, explain, decide, or tell stories. Everything depends on what sort of actions I take to convince others. This reflexive position is the only one that is not self-contradictory.

McCloskey paraphrases Uskali Mäki's (1988) definition of realism as meaning that a world exists independent of our perceptions of it. She remarks that

if "our perceptions" are taken to mean "the perceptions about which we speak to each other, testing by conversation their mutual reasonableness and freedom from illusion," then I am a realist, and so is every working scientist." (203)

McCloskey argues that since science is based on previous science, realism is a rhetorical necessity for accumulation of knowledge—a "performative of trust" in the parlance of speech-act theory (Harré 1986, 90). She quotes the linguist and logician James McCawley (1990): "Reason does not establish that a conclusion is true, but at most that it involves no errors beyond those that one is already committed to." (207) Derrida looks at those commitments as a structure based on friction holding a web of meaning together. This meaning is *co*-relative to all participants' views (multi-subjective) yet approximately stable at a point in space-time.

It is not Truth but "the truth made rather than found" (211) that is the goal of science. This would make theory choice based on truth not a problem: "it is a matter of

the practical rhetoric of experiments, for example, to decide whether gravity waves are true or not." (211) But the problem of constructed reality without denial of the existence of a reference is not so easy to resolve. This is rather circular especially when John Searle the self appointed "high-priest" of speech-act theory is introduced as distinguishing between "brut facts" and "institutional facts". John Austin (he would be the "prophet" of speech-act theory I suppose) uses a metaphor of a goal in a soccer game to illustrate the *qualitative* difference between the brut fact of the physics involved (kinetic energy transferred between muscle and ball and then expended in movement to a specified location), and the institutional fact of altering the score in a contest between teams. Reintroducing the same old dichotomy between the physical and the social undoes speechact theory and McCloskey's epistemology with it.

McCloskey accuses the Methodologists of imposing the goal of Truth-seeking on a speech community of working-scientists who engage in truth seeking: "a rhetorical conversation, socially constructed and factually constrained". (216) Lowercase-t truth seeking requires training because of the need to join in the conversation of the economics speech-community. Philosophers are not qualified so they do not understand the conversation and thus disregard the practical importance of truths. Methodologists fail in the philosophy of their science if they fail to recognize that

every set of metaphysical or regulative principles that have been suggested as necessary for science in the past has either been violated by subsequent acceptable science, or the principles concerned are such that we can see how plausible developments in our science would in fact violate them in the future." (Mary Hesse 1980, x, in McCloskey 1994, 217)

I, of course, do not intend to argue over the point that economics stands to benefit from economically trained philosophers of science!

McCloskey uses the orthodox distinction between science and art (J. S. Mill at the latest) to argue that A=>C and A'=>C' is not science but mathematics. It seems she is implying that mathematics is an art with scientific applications. Such a view could apply in different degrees to other disciplines including economics. So again she is accepting the importance of artistic devices such as General Equilibrium in so far as they enrich the conversation conceptually. The degree of applicability is not mentioned directly but is beginning to emerge as the "McCloskian criteria" along with the Habermasian

Sprachethik she adopts. Precisely not anything goes: "I'm a conformist". (272) conforming to rhetorically expressed criteria.

Recall McCloskey's definition of what I would call economics-praxes. McCloskey does not use this Heidiggerian term but its useful in the sense that it captures the notion of a symbiotic relationship between an object and the action it performs. Thus economics-praxes refers to the practice of economic inquiry, or in McCloskey's words: "a rhetorical conversation, socially constructed and factually constrained" (216). She views science-praxes as a Sprachethik in which the current flavor (positivist in economics) of the laws of deductive science (in itself a historical current) is a subset of the general laws of the conversation—the rhetoric—of inquiry. There are thus two heuristics maintaining the essential balance between continuity and progress—a balance that is central to Growth of Knowledge theories (see Chapter 2). Social construction assures a degree of continuity because the academic archive adjudicates on theory and meta-theory based on rhetoric conventions that, in turn, rely on coherence with the commonly held views of the intellectual elite. Factual constraints can foster progress through the introduction of anomalies that shift paradigms, and by constraining certain discourse-redundant and counterfactual-from archivisation. The question of how factual constraints are imposed socially within a rhetorical conversation is not addressed by McCloskey in this surprisingly conservative Growth of Knowledge model. The same logic however, reapplied to this inductive heuristic of progress, would show that factual constraints also function through the rhetoric archive as they are used for the socially constructed rhetorical adjudication process.

With regard to the question of the goal and domain of rhetoric-analysis: empirical investigation of what persuaded economists over time, or, theoretical model of how economists are persuaded, or, evaluating the theories themselves, McCloskey suggests rhetoric analysis. She draws a parallel with literary criticism addressing both style and structure of a text and also assessing it. So rhetoric analysis can help in "erecting standards of assessment." (197) Following McCloskey's line of reasoning, these standards will have to be contextualized within a speech-community.

One of academia's most charming forms of flattery is when one is shown that one's work has more power than one has recognized. McCloskey welcomes the "reinforcements" when she quotes Richard Lanham:

[McCloskey's] stated defense is the weak one: "Rhetoric is merely a tool, no bad thing in itself." ... But what he succeeds in doing, with his ... close readings of the rhetoric of economics in action, is to suggest the Strong Defense we began to see emerging with McKeon. To read economics as McCloskey suggests is a always to be toggling between looking at the prose and through it, reading it "rhetorically" and reading it "philosophically," and this toggling attitude towards utterance is what the rhetorical paideia was after all along. Train someone in it and, according to Quintilian's way of thinking, you have trained that person to be virtuous. (294)

McCloskey illustrates the virtues of toggling with the index-number problem: when evaluating the standard of living in different countries one toggles between different systems of relative prices. This is an illustration perhaps but a better metaphor is required to illuminate the complexity of this oscillation when she then calls for "rhetorical self-consciousness". (295)

She observes that rhetorical certitude in social science is particularly dangerous since "planners and politicians, believing themselves in sight of utopia, are encouraged to ordain. It is not an encouragement they need."(p.296) As usual McCloskey finishes a chapter with a well-glossed paragraph most of the intended audience would find hard to disagree with: "oh well, if the consequences of these rhetorics people's rhetoric is an affirmation of the Lucas Critique and the like, then all the best to them!" It's quite familiar really and is an appeal to A=>C and A'=>C' in that the intended reader finds that this bewilderingly new A' implies C after all—how comforting not to have to deal with C'.

With regard to all those anti-post-meta-modernisms, McCloskey offers peace to the Methodologists: "My reading of the economic methodologists since finishing the book suggests that they are natural allies of a rhetorical approach" (297). At this point one begins to wonder whether McCloskey's increasingly apologetic rhetoric is not in fact ironic. It is also possible that she is warming to her intended readers in preparation to her critique of deconstruction. A. W. Coats (1987, 305-7) writes that crude modernist methodology can by now be viewed as a dead horse and thus no flogging is necessary anymore. McCloskey however justifies continuing the flogging by pointing out that the horse is in fact *un-dead* and roaming the halls of economics departments. The long

sections of score-settling she engages in (which I have mostly left out) could thus be seen as "zombie-horse" flogging. This image links beautifully to another metaphor:

The "discipline" [of modernism] doesn't bite in practice. Modernists talk a lot about "discipline" and "rigor" and "compelling proof," in a vocabulary approaching the sadomasochistic, but when it gets down to the whips and chains they don't carry through. (310)

"Shamefully, I have not read more than a page or two of Gadamer or Derrida." (315, emphasis added) With this phrase McCloskey launches a polite attack on deconstruction with its main thrust being that it is no more than Greek rhetoric with French flare and exuberance. She uses the "week defense" (recall: "Deconstruction is merely a tool, no bad thing in itself.") and thus implies that the "strong defense" (recall: toggling; looking at and through the text) applies to what she calls "rhetorically selfaware reading". McCloskey's rhetorical criteria are based on the notion of "Conjectivity" (309) that can be viewed as a folding onto each other of the subjective-objective opposition. The philosopher Gary Madison (1990) calls this "intersubjectivity", Derrida calls it a system of Différance (see Chapter 5). McCloskey's reading of deconstruction is primarily based on a single (albeit interesting, innovative, and even brave) paper dealing with deconstruction and economics; I'm referring to Jane Rossetti's "Deconstructing Robert Lucas" (1990, 1992). I shall therefore take McCloskey seriously when she writes that she has "tentative objections to deconstruction, which can only be taken seriously when I get down to work and do the homework I have not yet done." (McCloskey 1994, 329, emphasis added) I did some of McCloskey's homework for her in Chapter 5.

Hermeneutics are however "just what I would recommend:" and she quotes fragments from Philip Mirowski's (1990, 94) characterization of the pragmatic tradition in the philosophy of science which I reproduce in entirety here:

- Science is primarily a process of inquiry by a self-identified community, and not a mechanical legitimation procedure of some pre-existent goal or end-state. Science has conformed to no set of ahistorical decision rules, and for this reason history and science are inseparable. Most of this would come under the rubric of Dewey's 'instrumentalism'.
- Posible methods of inquiry consist of deduction, induction, and abduction [metaphor]. No one method is self-sufficient without the other two as complements. Abduction is the explicit source of novelty, whereas induction and deduction provide checks and balances.

- 3 There is no single logic, but rather a logic of abduction, a logic of deduction, and a logic of induction.
- Because there are no foolproof impersonal rules of scientific method, decisions concerning the validity of scientific statements reside within the community of inquiry. The community of inquiry is the basic epistemological unit.
- Without a strict mind-body duality, science has an irreducible anthropomorphic character. This is not inherently a dangerous phenomenon. Natural laws themselves evolved, as do the members of the community of inquiry. Social and natural concepts interpenetrate; therefore hermeneutic techniques are a necessary component of scientific inquiry, on the same epistemic level as mathematical techniques.
- The study of semiotics and interrelation of signs constitutes an integral part of the philosophy of science.
- Because pragmatism must ultimately depend upon the community of inquiry, the Scylla and Charybdis it most frequently must negotiate between are a defense of the *status quo* and an advocacy of technocratic utopia.

McCloskey continues to illustrate these versions of Marxian theory of ideology with a barrage of examples from different sources both empirical and theoretical such as the following quote from Nietzsche:

[Formalism depends on] a movable host of metaphors, metonymies, and anthropomorphisms: in short, a sum of human relations which have been poetically and rhetorically intensified, transferred, and embellished, and which, after long usage, seem to a people to be fixed, canonical, and binding. (Nietzsche, 1870, in McCloskey, 1994, 337)

She concludes with a chapter reiterating the moral dimension of the rhetoric of economics defined with reference to personal rhetorical coherence. Economics is immoral in that the declared method does not cohere with the practice. This, I venture to suggest, resembles bourgeois virtue less than it does Talmudic morality.

The *refutation* has covered a lot of issues many of which—as I have pointed out throughout—in a somewhat unsatisfactory way. The following chapters in Part III may prove helpful in foregrounding some of the underlying philosophical complexities involved in McCloskey's arguments and especially in her—and everybody else's—inescapable problem: epistemology.

Peroration

The metaphor of the economy *itself* as a conversation is finally addressed. McCloskey starts by drawing attention to the parallel linguistics of "relative value" (368) in the works of Léon Walras at Lausanne and Ferdinand de Saussure in Geneva; "founders" of General Equilibrium and Semiotics respectively. Semiotics' basic model of meaning, in which an arbitrary *signifier* refers to a *signified* concept, recognizes that the value of words and expressions does not stem entirely from the ideas and concepts they signify but also from the *relative values* of different signifiers within the text. McCloskey is referring to the analogy between language and prices in their information-carrying capacity.

She then introduces *speech-act theory* more explicitly. Stressing the economically appealing view of language as motivated by its power to *produce* actions. This is not unlike game theory's moves. Most speech-act theorists (especially John Searl) have focused on reducing the complexities of language, motivation, and meaning to a series, albeit exhaustive, of categories of speech-acts. An example of the potential use of a speech-act framework could be looking at the division of labor as "limited by the extent of the talk" (372) because increased levels of specialization requires increased levels of talk between specialties.

Chomskian language communities are commonly seen as based on social-convention. An example used by McCloskey is Wayne Booth's "stable irony" which refers to the context in which a specific irony is perceived as such. A language-community can thus be defined according to which "utterance" (a suitably broad term) is perceived as ironic or not. I am delighted that McCloskey – always so full of examples – has neglected to use a real "beauty": Milton Friedman's "3% rule" for monetary growth. This "rule" is ironic to a language community of economists who are versed in the hypotext (underlying contextual connotations) of the problem of moral hazard and expectations in macroeconomic policy—what could be called the discretion versus rules literature. Only in this context would being persuaded by Friedman's utterance make any economic sense as an acceptance of the structural superiority of rule-based monetary policy. It makes political sense however on metaphysical—dare I say "voodoo-economic"—grounds. Irony however, rarely survives the mangle of politics.

McCloskey calls to explicitly examine communication as an economic phenomenon and presents empirical evidence (surveys) that talk is important in explaining fluctuations in the stock market. Apparently most decisions are based on reprocessed information: advice. Her critique of economics as focusing almost emtirely on the individual subject with almost complete disregard to the social intersubjective is straight out of Pareto's *Trattato di sociologia generale* (1916).

And finally one arrives at the last chapter: Chapter 26: The consequences of rhetoric. Economic criticism is at a very early stage and is a work-in-progress by definition. She answers the ever impending "so what?" by reminding the economic mathematicians of the days when they faced a similar question. "The questions of what matters in scholarship can be answered only by attending to the conversation of the scholars who decide" (p.380). She then re-appeals to empirically overwhelming rehetorical elements in economic science. Economic criticism will facilitate communication with other speech-communities: both academic and lay. This could mitigate the inacestuous effect of ever more restricted language-communities.

Rhetorical devices have been and are used implicitly in economics and could be "exposed" with McCloskian inverse-hermeneutics. Rhetorical analysis could ewentually introduce "argumentative standards" that could help settle arguments in economics. After all, if falsification was such a decisive methodological tool why are there so many old and unsettled disagreements about fundamental economic phenomena?

McCloskey attributes the extensive use of closed macro-models to a rihetorical oversight due to a lack of economic criticism. She then explains how the empirical models based on such models are wrong due to variables specified incorrectly as endogenous yielding biased and inconsistent fitted coefficients; she is comfortabele in her econometric authority here. She seems to textually reproduce the familiar pediagogical movement in which the professor leans back in her chair with a calm paternal smile on her lips, ready to embark on an office-hour lecture to a beloved student. She concludes the paragraph with the following statement:

Modern macroeconomics is erroneous. (Don't get mad: think about it.) The theorizing is misinformed and therefore irrelevant to an economy in a world. The empiricism is wrong. (388)

Politicians and the media—and hence (sadly perhaps) public opinion—are influenced by economists and their rhetoric. McCloskey ventures that "The costs in policies unrealistically imposed has probably amounted to tens if not hundreds of billions of dollars, all from a merely rhetorical mistake" (390). She then gets vehement:

the standards of "consistent theory" or "good prediction" presently in use are low to the point of scientific fraud (again Blaug said it well in 1980). They are six-inch hurdles over which the economist leaps with a show of athletic effort. A non-rhetorical economics has low argumentative standards. (392)

Note the surprising "chumminess" with the Methodologist Mark Blaug: the intended or more likely implied reader.

This concludes this rhetorically self-conscious reading of Deirdre McCloskey's Knowledge and persuasion in economics (1994). It attempted to present her argument in a concise way that is reflective of the original in style and structure. Before proceeding to address some of the criticism raised against McCloskey and especially Uskali Mäki's analytical reconstruction of her underlying philosophy (see Chapter 8), I will introduce the literary and critical theory from which McCloskey has drawn. These interdisciplinary newcomers are obviously relevant to a serious understanding of the rhetorical issues she has introduced into our field. This however is complicated by the fact that McCloskey spends very little time explicitly presenting the literary, linguistic, and philosophical underpinning of her work. This is not necessarily a bad thing since it allows her (as I mentioned in this chapter) to steer a steady and relentless course to the heart of the issues at hand without a lengthy and potentially distracting excursion into the more technical aspects of critical theory. Nevertheless, as the old adage warns us: few things are more dangerous than partial knowledge. With the exception of missing the importance of deconstruction in modern critical theory and beyond, McCloskey has acquired a thorough understanding of the ideas she borrowed and adapted from the humanities. She, and others like her, have put this knowledge into good use in their work but have continuously refrained to present a coherent—as much as that is possible in the context of the postmodern—reconstruction of modern critical theory. Most publications in economic meta-theory and the history of economic thought that evaluate alternative methodological positions in relation to economics, spend a surprisingly short time on the underlying

theories behind concepts such as rhetoric, postmodernism, and the likes. Consequently, our field's inquiry is still rife with confusion, errors, and misrepresentations.

In the next three chapters (5, 6, and 7), I attempt to introduce the reader to some of the main ideas that bear upon the issues at hand. I chose to elaborate particularly on Derrida and Foucault because I consider their work to be the most important and pertinent to the problem of language and knowledge production in the social sciences. I will however attempt, at least to some extent, to present them in their historical and genealogical contexts. Furthermore, I shall avoid the temptation to impose an analytical reconstruction on these systems of thought. This is not to say that an analytical reconstruction cannot be useful; Indeed Māki has been very helpful in my understanding of McCloskey. The problem is that in analytically *structuring* postmodern (or, more accurately here: post-structural) works which specifically address the *structural* complexity of language and knowledge, one looses the very characteristic one is seeking to uncover in them: namely, their study of the self-referenciality (or reflexivity) of knowledge and language.

Furthermore, I find that too many of us non-humanities scholars rely too heavily on secondary and tertiary sources in our reading of postmodern thought. This in itself is not necessarily a problem were it not that these ideas are particularly open to interpretations and are often either reduced to banality or rendered extremely vague. At best, one finds entire systems of thought that are straight-forward applications of Foucauldian sociology and Derridian deconstruction yet have been seemingly independently developed with scant acknowledgment or even knowledge of their intellectual genealogy. Perhaps the sign of truly influential works is that their ideas are found everywhere, and yet hardly any direct references are ever made to them. I will attempt to take a few steps to set the record straight.

I would venture that a similar situation was that in which Bruce Caldwell worked under Vincent Tarascio on his doctoral dissertation that would become his *Beyond Positivism* (1982). While many of the issues he discussed had been previously discussed by historians and philosophers of economics, he was one of the first to engage them in their own context of the philosophy of science, and to produce an illuminating and pedagogical presentation of the philosophy underlying economic methodology. With this

done, he was able to explicate and evaluate the philosophical and methodological issues that had been fragmentally addressed by economists before him in a much more satisfying and useful manner.

PART III - PROOF: LITERARY CRITICISM

Chapter 5: Derridian Deconstruction

McCloskey has a favorite metaphor that she uses against those economists who address some of the interdisciplinary ideas borrowed from literary-criticism without "having done their homework". I have noted however that homework does not count much for the final grade because Uskali Mäki who has—according to McCloskey—done his homework, receives a low grade for his diagnosis (Mäki 1995, see Chapter 8). On the other hand Philip Mirowski—specifically his "Three Vignettes on the State of Economic Rhetoric" (1992) followed by McCloskey's commentary (de Marchi, 1992, 235-71)—receives the following commentary from McCloskey:

Mirowski has not yet read literary criticism, deconstructive or rhetorical, or reader response, or new critical or whatever. Until he does his homework on literary criticism, it is going to be hard to take his literary criticism seriously. ... But let me admit that even though Mirowski has not done his homework, he is so bright that he gets a pretty good grade on the McCloskey exam anyway. (McCloskey, 1992)

Ever fearful of being caught without my homework, I propose to submit my homework assignments in the form of the following three chapters which examine theories arising primarily form the work of Jacques Derrida and Michel Foucault in their historical context. My hope in keeping these chapters separated from McCloskey's rhetoric (discussed in the previous chapter) is to retain the coherence of her rhetoric while introducing substantial external texts without resorting to the violence of a *synthetic* reconstruction. In the previous chapter I was thus mirroring—or rendering my text compatible with—McCloskey's rhetorical tactic of presenting interdisciplinary ideas free of their discipline-specific technical considerations. I strongly believe however that this approach has outlived its usefulness, and is in fact now hindering the progress of the rhetorical project in economics. I do not imply nor expect that many historians of economic thought should take the time and effort to read Derrida's impenetrable prose

any more than I would recommend reading Thomas Sargent to philosophers of social science; the investment required is prohibitive. Those of us who seek to dig deeper into the issues raised by McCloskey and other heterodox as well as orthodox contemporary economic philosophers—whether pro or con—can no longer avoid this investment. As McCloskey admonishes, it is indeed time to do our homework on literary criticism.

Before proceeding to elaborate on Derridian Deconstruction, the issues he addresses must be placed in their historical and disciplinary context.

What is literary or critical theory?

First let us quasi-arbitrarily decide to use the term *critical theory*, which reflect how these works have left their initial literary domain to venture into virtually all fields of inquiry. It should be noted however that other names have inevitably crept into this text via quotation. Nevertheless I hope to show that most of these taxonomical differences are relatively unimportant and should more or less be disregarded for clarity. Critical theory is a very heterogeneous group of works that probably have little more in common than

[having the] power to make strange the familiar and to make readers conceive of their own thinking, behavior, and institutions in new ways. ...[T]heir force comes—and this is what places them in the genre I am identifying—not from the accepted procedures of a particular discipline but from the persuasive novelty of their redescriptions. (Culler, 1982, 9, emphasis added)

Why have these theories developed ostensibly in and around literature violating the deeply rooted *modern* dichotomy between the arts and the sciences? One practical reason is given by Jonathan Culler (1982, 11) who is perhaps the most lucid interpreter of these "uncanny" philosophers:

[B]ecause of its exploration of the limits of intelligibility, literature invites or provokes theoretical discussions that draw in or draw upon the most general questions of rationality, of self-reflexivity, and of signification.

On a more general level I would contend that over its long history, literature and the theory thereof have evolved to be inherently more adept at dealing with problems of reflexivity and meta-communication—the contemporary angst—than analytical philosophy. This stems more from literature's social role than from any specific ontological or epistemic characteristic. Also, literature has and still is producing a

significant body of work on the problems of infinite regression which are a major problem for analytical philosophy.

Within the general field of literary criticism there is a problematic distinction between structuralism and post-structuralism that has parallels in the modern/postmodern (in philosophy) and Positivist/post-Positivist (in science and economics) distinctions. Most of the current ideas loosely defined as "critical theory" are typically placed under the post-structuralist banner. The differences between structuralism and post-structuralism—and its modernism/postmodernism counterpart—is much more fluid and ambiguous than in economics due, I believe, to the problematic preoccupation with methodology: positive and otherwise.

[S]tructuralists take linguistics as a model and attempt to develop "grammars"—systematic inventories of elements and their possibilities of combination—that would account for the form and meaning of literary works; post-structuralists investigate the way in which this project is subverted by the workings of the texts themselves. (Culler, 1982, 22)

Culler uses two characteristics to define post-structuralism: it is *uncanny* in a Freudian sense, and it is *rhetoric* in a classical sense. These concepts need some clarification. In his "Steven's Rock and Criticism as Cure" (1976) the literary critic J. Hillis Miller elaborates on this distinction between "Socratic, theoretical, or canny critics, on the one hand, and Apollonian/Dionysian, tragic, or uncanny critics, on the other." With regard to structuralism he writes:

For the most part these critics share the Socratic penchant, what Nietzsche defined as "the unshakable faith that thought, using the thread of logic, can penetrate the deepest abysses of being." ... The inheritors today of the Socratic faith would believe in the possibility of structuralist-inspired criticism as a rational and rationalizable activity, with agreed-upon rules of procedure, given facts, and measurable results. This would be a discipline bringing literature out into the sunlight in a "happy positivism." ... Opposed to these are the critics who might be called "uncanny." ... These critics are not Dionysian in the sense that their work is wildly orgiastic or irrational. No critic could be more rigorously sane and rational, Apollonian, in his procedure, for example, than Paul de Man. One feature of Derrida's criticism is a patient and minutely philological "explication de texte." Nevertheless, the thread of logic leads in both cases into regions which are alogical, absurd, ... Sooner or later there is the encounter with an "aporia" or impasse. ... In fact the moment when logic fails in their work is the moment of their deepest penetration into the

actual nature of literary language, or of language as such. (Miller, 1976, 330-48)

The uncanny is a crucial concept for Sigmund Freud. He defines it as "that class of the frightening which leads back to what is known of old and long familiar. ...[T]he frightening element can be shown to be something repressed which recurs" (Freud, 1953-74, vol. 17, 220, 241). Culler (1982, 24) observes that "though the uncanny is a violation of order, the unsettling mystery of an uncanny moment in literature or in criticism is the manifestation of a hidden order." The canny/uncanny op:position in the distinction between structuralism and post-structuralism is open to deconstruction like any hierarchical opposition. I will elaborate on the deconstruction of hierarchical oppositions later, but for now, it would suffice to dispose of the notion that post hoc ergo ultra hoc in this case. Post-structuralism does not replace or transcend structuralism in any logic of hierarchy much as the uncanny does not replace or transcend the canny. The logic needed to make sense of these differences is the logic of supplementarity, which is a key concept for Derrida and will be discussed in detail later.

Readings and interpretations - the focus shifts

The focus on reading and interpretation is a common thread among modern critics. "The [structuralist] attempt to describe structures and codes responsible for the production of meaning focuses attention on the reading process and its conditions of possibility." (Culler, 1982, 32) Roland Barthes (1977) heral-ds the demise of authorial sovereignty when he announces in his seminal *Image, Music, Text* that

[T]here is one place where [a text's] multiplicity is focused and that place is the reader, not, as was hitherto said, the author. The reader is the space on which all quotations that make up a writing are imscribed. ... A text's unity lies not in its origin but in its destination. ... The birth of the reader must be at the cost of the death of the author." (146, 14-8, emphasis added)

This approach is not new: In his *Poetics*, Aristotle classifies tragic plots with reference to the effects they have on the audience. This practice was prevalent in the Renaissance and the Enlightenment as well, and would only decline with 19th century essentialism and romanticism.

In elaborating his reader-response theory, Stanley Fish extends Aristotle's terror, pity, and other "psychological symptoms" to "all the precise mental operations involved in reading, including the formulation of complete thoughts, the performing (and regretting) of acts of judgment, the following and making of logical sequences." (1980, 42-43) Furthermore he points to the dynamic/historical character of interpretation and requires an analysis of "the developing responses of the reader in relation to the words as they succeed one another in time." (1980, 27)

Feminist critique is the study of the operation of reading with a specific hypothesis of a reader in mind; one which corresponds to probably the most prominent general human category: sex. This is what puts it in an excellent location from which to examine reading in general. Feminist theory seen as a "case-study" of the problematic aspects of reading as a woman, sheds light on the functioning of the implied reader in a text. Reading is always done with an implied hypothesis of a reader and there is always a gap or division within reading. Recognizing this gap between the actual reader and the hypothetical reader through which he reads, Stanley Fish (1980, 15) employs the concept of "interpretive communities" as a structure for different readings. In effect he shifted the gap from within the act of reading itself to the borders between interpretive communities. This fragmented the hypothesized or implied reader but maintained local stability of interpretation within the communities. Fish's move is a familiar one to economists who routinely struggle with problems of aggregation: We have here an irreducible "typical" reader within an interpretative community which becomes the "agent" of interpretation: an aggregate reader.

Having problematized authorial control, one finds that the reader's control over reading is anything but unambiguous and is, I hope to show, a critical issue for rhetoricians of science. Umberto Eco (1981) looks at a text's structure for its degree of openness. A "closed work" has a "tight" structure that presents itself to the reader with little need for input while the "open work" with its seemingly "loose" structure is open to many interpretations and requires creative input from its reader. The catch is that while closed texts have a more constrained set of possible interpretations they easily lend themselves to multiple uses and applications, open texts are excellent vehicles for

authorial manipulation in that as a component of its structural strategy, the text "resists" certain interpretations while facilitating others:

Those texts that obsessively aim at arousing a precise response on the part of more or less precise empirical readers ... are in fact open to any possible "aberrant" decoding. A text so immoderately "open" to every possible interpretation will be called a *closed* one. You cannot use the [open] text as you want, but only as the text wants you to use it. An open text, however "open" it be, cannot afford whatever interpretation. (8, 19)

Reading this paragraph with the hypothesis of an economics-instructed reader, one may consider the metaphors of a closed or open macro-model as an illustration. A *closed* macro-model allows for the generation of more results while an *open* macro-model is less theoretically maniable due to the particular relations it must specify. A closely related issue was central to Popper's problems with the tradeoff between the empirical content of a hypothesis and the probability of it actually being true¹.

Texts resist being "pinned-down" by critics, and discursive structures resist theories that attempt to master them. Control is thus *fluctuating* between the reader and the text. These complications do not only inhibit the lofty realms of poetry and philosophy but are prevalent even with the simple joke. *Reader-response theory*—an amalgam of which Fish is representative—would claim that it is the reader of the joke who determines the structure and meaning of the utterance. This is simply because a joke is not a joke unless it produces laughter in the listener/reader. Freud's theory of *Witz* complicates things:

And yet this decisive action of the third person [laughing or not] lies beyond all volition—one cannot will to laugh—and outside of consciousness, insofar as one never knows, at the moment of laughter, what one is laughing at." (Weber, 1977, 25-26, in Culler, 1982, 72-3)

It would seem that none controls the joke. The author certainly does not since his conscious joke may not be funny to the reader or, alternatively, an utterance he did not intend to be funny is found to be hilarious by the reader. Freud and Weber then show that even if it is the readers reaction to the utterance that qualifies it as a joke or not, he too is not in control of the joke since it's effect is often

^{1.} A discussion of this problem can be found in Chapter 4 of Bruce Caldwell (1982).

involuntary. The only remaining option is that the joke—the text—is the only potential controlling agent in this exchange.

The listener does not control the outburst of laughter: the text provokes it (the joke, one says, made me laugh). But on the other hand, the unpredictable response determines the nature of the text that is supposed to have produced it. ... The shift back and forth in stories of reading between readers' decisive actions and readers' automatic responses is not a mistake that could be corrected but an essential structural feature of the situation. (Culler, 1982, 73)

Various Theories of reading examine the impossibilities of establishing fundamental distinctions between a text and its reader, and between facts and interpretations. A monism emerges because everything collapses into interpretation. Fish (1980, 165) finds himself obliged to admit that he cannot establish what it is—ontologically—that interpretation interpret. Stories of reading, on the other hand, are inherently dualistic, and are precisely concerned with the question Fish cannot answer. Stories are metonymical entities that have a structure of contingency: subject-object, agent-patient, reader-text, and interpreter-interpretee.

We are ready to foray into scientific territory. Richard Rorty (1980, 344-45) addresses the question of whether science *discovers* or *creates*. He argues that the imagery of discovery is appropriate for physics for *practical* purposes:

This is not because of deep epistemological or metaphysical considerations, but simply because, when we tell our Whiggish^[2] stories about how our ancestors gradually crawled up the mountain on whose (possibly false) summit we stand, we need to keep some things constant throughout the story. The forces of nature and the small bits of matter, as conceived by current physical theory, are good choices for this role. Physics is the paradigm of "finding" simply because it is hard (at least in the West) to tell a story of changing physical universes against the background of an unchanging Moral Law or poetic canon, but very easy to tell the reverse sort of story. ... Democritus's insight was that a story about the smallest bits of things forms a background for stories about changes among things made of these bits. The acceptance of this genre of world-story (fleshed out successively by Lucretius, Newton, and Bohr) may be definatory of the West, but it is not a choice which could obtain, or which requires, epistemological or metaphysical guarantees.

This is where deconstruction enters the picture. Jonathan Culler writes:

^{2.} The term Whiggish interpretation is increasingly used to refer to reading the history of science or anything else with reference to a contemporary context.

Taken together, these stories of reading adumbrate the paradoxical situation in which deconstruction operates. While addressing meaning as a problem of reading, as a result of applying codes and conventions, these stories come to rely on the text as a source of insight, suggesting that one must grant some authority to the text so as to try to learn from it, even when what one learns about texts and reading puts in question the claim that anything in particular is definitively in the text. Deconstruction explores the problematic situation to which stories of reading have led us. If it can be seen as the culmination of recent work on reading, it is because projects which began with something quite different in mind are brought up against the question that deconstruction addresses. (1982, 82-3)

What is deconstruction?

First, of course, one must note that deconstruction takes many guises, and that many of them seem quite contradictory to Derrida's work. The confusion arises because deconstruction is neither a theory of reading nor a story of reading; it is a *strategy* of reading. Furthermore it is a philosophical strategy that operates with and on self-referenciality in reading philosophy itself. In an interview (Derrida 1972b/1981, 56-57/41), Derrida defines a general strategy of deconstruction:

In a traditional philosophical opposition we have not a peaceful coexistence of facing terms but a violent hierarchy. One of the terms dominates the other (axiologically, logically, etc.), occupies the commanding position. To deconstruct the opposition is above all, at a particular moment, to reverse the hierarchy.

Elsewhere he elaborates on the strategic aspect of this reversal and explains that deconstruction should:

through a double gesture, a double science, a double writing, put into practice a *reversal* of the classical opposition and a general displacement of the system. It is on that condition alone that deconstruction will provide the means of *intervening* in the field of oppositions it criticizes and which is also a field of non-discursive forces. (Derrida 1972a/1977, 392/195)

Derrida wants this strategy to intervene not only within philosophy's logical structure but also, and above all, within its strategic structure of power:

To "deconstruct" philosophy is thus to work through the structured genealogy of its concepts in the most scrupulous and immanent fashion, but at the same time to determine, from a certain external perspective that it cannot name or describe, what this history may have concealed or excluded, constituting itself as history through this repression in which it has a stake. (Derrida 1972a/1981, 15/6, emphasis added)

Culler (1982, 86) carefully reduces Derrida's fragmented definitions to the following simple proposition:

[T]o deconstruct a discourse is to show how it undermines the philosophy it asserts, or the hierarchical oppositions on which it relies, by identifying in the text the rhetorical operations that produce the supposed ground of argument, the key concept or premise.

To illustrate this reversal procedure while taking note of the genealogy of Derrida's work itself, Culler (1982, 86) uses Nietzsche's deconstruction of causality in *The Will to Power* (1888):

The fragment of the outside world of which we become conscious comes after the effect that has been produced on us and is projected a posteriori as its "cause". In the phenomenalism of the "inner world" we invent the chronology of cause and effect. The basic fact of "inner experience" is that the cause gets imagined after the effect has occurred.

Culler notes that for Nietzsche, the structure of the causal scheme is produced by metonymy: substitution of cause for effect. The causal scheme is thus the product of a figurative or *tropological* operation.

In deconstructing causality, or anything else for that matter, one is relying on the very principle one is deconstructing. In this case, Nietzsche's argument against the logical and temporal priority of cause over effect is itself entirely founded on the concept of logical and temporal priority. He applies causality to causality itself in order to undermine the accepted hierarchy of cause and effect. Many critics of deconstruction have argued that it is nothing more than a modernized version of David Hume's skeptical argument in his Treatise of Human Nature. Hume states that the only observable (weak) form of causality one can experience is "that like objects have always been placed in like relations of contiguity and succession" (Hume, 1739-40). Deconstruction goes further than debunking the philosophical foundation of the concept of cause. Culler shows that it is in fact fundamentally different in the structure of its argument:

This double procedure of systematically employing the concepts or premises one is undermining puts the critic in a position not of skeptical detachment but of unwarrantable involvement, asserting the indispensability of causation while denying it any rigorous justification. (1982, 87-8, emphasis added)

By showing the possibility of reversing the logical and temporal hierarchy in which the effect is supplemental and subordinate to the cause, one is studying the rhetorical

operation that established the hierarchy in the first place. The *origin* is thus shown to not *necessarily* be the cause. This is the second gesture of deconstruction in which a "neutered" origin/foundation is reinserted into a system that is inevitably structurally displaced by the reversal; A vaccination of sorts against logocentric thought.

It is important to note that the severe reversal and displacement are achieved within the logical context of the disrupted system. Deconstruction eschews the metaphysical need to replace one hierarchical opposition with another once the former shows signs of not being able to serve as an absolute foundation for thought. It is in this ability and willingness to engage its object within the context of its own metaphysical foundations that deconstruction is fundamentally an internal criticism compatible with any form of human thought.

The usually derogative term *textualist* refers to thinkers that view everything as text. The author—as Roland Barthes has informed us—is dead, even readers cannot be trusted to control their own interpretations, all meaning and power resides with the text. Derrida has spent much time and effort looking at the relationship between writing and philosophy. He defines these very broadly to include any systematic field of study: a discipline and its discourse. Throughout my text I use the word philosophy in its archaic meaning: disciplined inquiry. According to the OED (2nd ed.): 1. a. (In the original and widest sense.) The love, study, or pursuit of wisdom, or of knowledge of things and their causes, whether theoretical or practical. Any discipline attempts to solve problems it encounters on its way towards explaining—at least part of—the world: truth. At least potentially, issues can be put to rest once the practitioners of the discipline "get it right". Writing is thus perceived as a byproduct of the activity of knowledge-creation which—in the best of all worlds—should be as transparent and rare as possible. This view has been confronted with the fact that the more authoritative an interpretation, the more writing it generates. In economics we are particularly aware of continuing debates over fundamental aspects of our theories that should have been resolved by now. The philosophy of economics is non-progressive in the Lakatosian sense of moving in the general direction of truth, cannot dominate its rhetoric dimension, or, as I suspect, both.

We have a hierarchical opposition: idea/text which should be examined with reference to the long and almost omnipresent tradition of viewing writing as inferior to speech and philosophy. This tradition can be traced from Plato in the *Phaedrus* through Saussure's semiotics to John Austin's speech-act theory³ that is, incidentally, a favorite of McCloskey. Jacques Derrida (1972c/1982, 158.) writes:

What law governs this "contradiction," this opposition to itself of what is said against writing, of a dictum that pronounces itself against itself as soon as it finds its way into writing, as soon as it writes down its self-identity and carries away what is proper to it against this ground of writing? This "contradiction," which is nothing other than the relation-to-self of dictum as it opposes itself to scription.

Allow me to translate with the help of the indispensable Jonathan Culler (1982, 91):

It is precisely because it is written that philosophy must condemn writing, must define itself against writing. To claim that its statements are structured by logic, reason, truth, and not by the rhetoric of the language in which they are "expressed," philosophical discourse defines itself against writing.

The problem lies in the mediation between thought and its forms of expression. Speech has the advantage of maintaining the link with the *origin*: the thinker. In semiotics the sign is composed of a *signifier* which is an arbitrary word, symbol, or sound that refers to a *signified* concept. Though speech, like writing, also uses arbitrary signifiers, these are not allowed to "fester" in the text and can be clarified by the speaker. Writing on the other hand, is physically detached from the origin of the ideas it is supposed to convey thus empowering rhetoric manipulation.

Phonocentrism—the view that speech is privileged over writing due to its closeness to the original idea expressed—leads to logocentrism which is philosophy's orientation toward an order of meaning conceived as a foundation existing in itself; the traditional concept of reason. For Derrida this is the uniting characteristic of all competing philosophies: the search for a foundation which is also death since nothing can lie beyond it.

The logocentristic system of hierarchical oppositions (e.g. content/form, science/art, soul/body, literal/metaphorical, nature/culture, serious/non-serious, etc.) is structured as a superior term who's "high presence" belongs to the logos (reason), and an inferior term defined in relation to the superior as a supplemental "special case" and seen

^{3.} The label speech-act theory is actually John Searl's but the ideas I am referring to are Austin's.

as a fall (in the theological sense). Logocentric analysis is defined by Derrida (1977, 236) as

the enterprise of returning "strategically," in idealization, to an origin or to a "priority" seen as simple, intact, normal, pure, standard, self-identical, in order then to conceive of derivation, complication, deterioration, accident, etc. All metaphysics have proceeded thus, from Plato to Rousseau, from Descartes to Husserl: good before evil, the positive before the negative, the pure before the impure, the simple before the complicated, the essential before the accidental, the imitated before the imitation, etc. This is not just one metaphysical gesture among others; it is the metaphysical exigency, the most constant, profound, and potent procedure.

This metaphysical system of presence structures all rational thinking. Concepts such as clarifying, grasping, revealing, etc. all refer to a presence. More sophisticated concepts still rely on it: The Cartesian cogito ergo sum, for example, relies on the idea that the self can avoid doubting its existence because it is present to itself in the act of thought.

The privilege of the *phonè* does not depend upon a choice that might have been avoided. S'entendre parler is the experience of simultaneously hearing and understanding oneself as one speaks which is different from the experience of hearing another voice, decoding the signifiers, and understanding the signified. When we speak, signifiers seem to efface themselves before the signified, which thus appear to emerge spontaneously from within the self as ideas. This experience of the effacement of the signifier in voice is not one illusion among others. Because it combines the possibility of objectivity through a constant meaning present in numerous appearances, with dominance of meaning over appearance, "it is the condition of the very idea of truth." (Culler, 1982, 108)

The system of "hearing/understanding-oneself-speak" establishes consciousness as self-presence and *presents itself* as a non-exterior, non-worldly and therefore non-empirical or non-contingent signifier. Arising from the difference between the outside and the inside, it has necessarily dominated the history of the world during an entire epoch, and has even produced the idea of the world. The idea of the world is the idea of the real—that which is *outside* consciousness.

Derrida is arguing that the metaphysical system of hierarchical oppositions underlying the realist/relativist debate and human inquiry in general is in fact necessary for rational thought. It is necessary not as a "crutch" we can now finally discard in order to embrace a new epistemic paradigm that will lead us to some form of holistic

knowledge. On the contrary, Derrida views reason and its metaphysical foundations as humanity's greatest edifice which should be studied *within* its context. This is what so many relativists do not appreciate.

Epistemologies—McCloskey's homework

The problem of reality independent of perception is not new and can be traced back to the Greeks whose arguments have been refined over the past 2500 years but have essentially remained unresolved. McCloskey views "the very idea of epistemology" as human inquiry's most prolonged and even shameful failure. She adopts a pragmatic position and argues that the problem of reality is a non-issue which is not only a waste of time but detrimental to scientific practice. The pragmatic solution is to discard the basic definition of truth as some sort of correspondence with what *is*, in favor of viewing truth as dependant on a system of justification—what John Dewey called "warrantable assertion." (quoted in Rorty, 1980, 176)

The rich multidisciplinary discourse between realists subscribing to the correspondence theory of truth and pragmatists with their relative and institutional definition of truth exhibits an intriguing paradox. Realists defend their view on pragmatic grounds: the existence of a real albeit unattainable truth is necessary if inquiry is to have a point; while pragmatists claim that the truth is a social construct and is not absolute. Each side defends a view with arguments whose logic contradicts the view they are defending: pragmatic realism/absolutism versus absolutist relativism/pragmatism. This paradox has arrested the functioning of the epistemological conversation in economics.

Paradoxes are vintage locations from which to look at the systems they violate because they are true yet contradictory or inconsistent. They bring the structure of reason to the surface because they violate the system's logical structure using the very logic they violate. The paradox can thus be seen as a "naturally occurring" deconstruction, which displaces the difference between realism and relativism into realism and relativism via their discourse. This should become clearer after looking at several paradoxes and inconsistencies arising in various theoretical contexts including semiotics and speech act theory which are relevant for my discussion. But once again, lets start with the Greeks

who—at least symbolically—represent the dawn of Western rationality which is perhaps as broad a context as even Derrida would venture to examine.

Zeno was one of the first deconstructors with his study of paradoxes. The familiar paradox of the impossibility of motion is demonstrated by the flight of an arrow. Culler shows that this paradox is only paradoxical because it is presented within a metaphysical system of presence which views reality as what is present at any given instant. He proceeds by deconstructing the paradox using its own presence/absence opposition to displace its system of reality. At any given moment the arrow is in a particular point and never in motion. But we all know that the arrow is in motion! In Robert Solow's words: "It is a pity to have to make this commonplace point. But how else can one deal with this sort of foolishness?" (Solow, 1988, 32.) Yet the arrow's motion is never present at any moment; hence the paradox. The paradox is not the arrow's; it is cheerfully moving, ready to penetrate the heart of any skeptic that stands in its way. The paradox is in our conception of the real as what is present at any given instant as a simple, indecomposable absolute. The past is a former present, the future an anticipated present, but the present instant simply is: an autonomous given. The presence of motion is conceivable only insofar as every instant is already marked with the traces of the past and future; only if the present instant is not something given but a product of relations between past and future. Something can be happening at a given instant only if the instant is already divided within itself, inhabited by the non-present. "If motion is to be present, presence must already be marked by difference and deferral" (Culler, 1982, 95)

This is what I meant above when I claimed that the difference between realism and relativism has been displaced and disseminated into realism and relativism via their discourse. The paradoxical justifications they offer expose truth's persistent self-reflexive duplicity which is marked by traces of the outside (reality) and the inside (interpretation). The traces relate to each other via mutual presupposition not coherence nor correspondence, and make up strata (or historical formations) that are the subject matter of Foucault's archaeology of knowledge (see Chapter 6).

Ferdinand de Saussure's semiotics laid out in his Cours de linguistique génerale (1907) harbor another paradox: that of parole (word: an event) and langue (language: a structure.) The meaning of a word is given by the meaning assigned to them in prior

speech-acts. In fact, the same logic would lead to the conclusion that the whole structure of a language is produced by speech-act events. The "original events" that determine structures, are themselves determined by pre-existing structures that, in turn, are derived from prior speech-acts; a system of infinite regression. Even if we trace the grunt that conveyed to our primate ancestors the idea of "it feels good to eat!" to the very first time it was grunted, we would have to assume a prior structure that must at the very least establish that sounds emitted—the grunt—are linked to events experienced—fresh kill. Furthermore, this structure is a structure of differences. In this example there are at least a few oppositions that should be mentioned: this specific grunt/other grunts, feeling good/feeling bad, eating/not eating, etc. Derrida (1972b/1981, 40/28) writes:

There is a circle here, for if one distinguishes rigorously langue and parole, code and message, schema and usage, etc. ... one does not know where to begin and how something can in general begin, be it langue or parole. One must therefore, prior, to any dissociation of langue and parole, code and message, and what goes with it, a systematic production of differences, the production of a system of differences—a différence among whose effects one might later, by abstraction and for specific reasons, distinguish a linguistics of langue from a linguistic of parole.

Différance is probably the most well known Derridian term. He starts with a term: difference (différence in French) that is well-established in modern philosophy and linguistics (A system of difference is central to the works of Nietzsche, Saussure, Freud, Husserl, Heidegger, and many others). He then silently deforms it into différance, which sounds the same but is a verbal noun of the verb différer, which means to differ and/or defer. Différance thus captures both the passive preexisting structures as well as the active event of differing that produces them—a simultaneous "toggling" between event and structure. Toggling is the word used by Richard Lanham (quoted in McCloskey, 1994, 294; see Chapter 4) to describe the strong defense of McCloskey's rhetoric.

Saussure's semiotics sees language as a system of signs whose function is to signify meaning. A speech-event is a *signifier* and the meaning it conveys by arbitrary convention is the *signified*. What defines a signifier is its *difference* from other signifiers, not its relation to its signified—onomatopoeia is perhaps the exception.

A language is thus conceived as a system of differences, and this leads to the development of the distinctions on which structuralism and semiotics have relied: between a language as a system of differences (langue) and the speech events which the system makes possible (parole), between the

study of the language as a system at any given time (synchronic) and study of the correlations between elements from different historical periods (diachronic), between two types of differences within the system, syntagmatic and paradigmatic relations, and between the two constituents of the sign, signifier and signified. These basic distinctions together constitute the linguistic and semiotic project of accounting for linguistic events by making explicit the system of relations that makes them possible. (Culler, 1982, 98)

As part of semiotics' deconstruction, Derrida (1972b/1981, 37-38/26) celebrates Saussure's critique of logocentrism and uses it to draw one of his more uncanny linguistic landscapes:

Whether in written or in spoken discourse, no element can function as a sign without relating to another element which itself is not simply present. This linkage means that each "element"—phoneme or grapheme—is constituted with reference to the trace in it of the other elements of the sequence or system. This linkage, this weaving, is the *text*, which is produced only through the transformation of another text. Nothing, either in the elements or in the system, is anywhere simply present or absent. There are only, everywhere, differences and traces of traces.

However Saussure reaffirms his logocentrism with the sign itself. The basic unit of the semiotic world is based on a hierarchical opposition in which the signified dominates the signifier since the latter's raison d'être is to signify the former. Saussure goes further and defines semiotics' object of investigation as the spoken word. Writing is viewed as a technical transformation of speech that is further removed from the source of its intended meaning—the speaker—and often even entirely anonymous. This brings us back to the speech/writing opposition, which is an important part of the cannons of Western—if not all literate—cultures. The priority of speech is necessary to sustain the concept of perfect communication in which the listener can understand exactly what the speaker intends to convey. Writing violates this assumption and must therefore be excluded from the primary scope and considered a secondary derivation of speech. The trouble however is that semiotics uses "lowly" written texts and their constituents—words, letters, graphemes—to illustrate and formulate its model of "pure" speech. Saussure (1907/1960, 165) writes:

Since an identical state of affairs is observable in writing, another system of signs, we shall use writing to draw some comparisons that will clarify the whole issue.

So it is *writing* that turns out to be the basic metaphor supporting the whole model of speech. Try as he might, Saussure could not escape the *auto*-deconstruction of his work by its own logic. The speech/writing hierarchical opposition he insists upon in a harsh Platonic tone is reversed as his methodology—using writing as a model of speech—suggests that speech is a *special case* of writing.

Furthermore, the system's structure is displaced from a model of speech to a model of archi-écriture or proto-writing including both vocal writing and graphic writing. Derrida shows that the most general definition of writing is often based on the notion of iterability. Even in its simplest role as a means to convey a speaker's words to a third party, writing must be repeatable in the sense that the signifiers must function repeatedly while separated from any "original" speaker. However, this will hold for signs in general which must be recognized as such in different circumstances in order to function.

If "writing" means inscription and especially the durable instituting of signs (and this is the only irreducible kernel of the concept of writing), then writing in general covers the entire domain of linguistic signs. ... The very idea of institution, hence of the arbitrariness of the sign, is unthinkable prior to or outside the horizon of writing. (Derrida, 1967/1976, 65/44)

Has Saussure's *Cours* been overturned/superceded/made obsolete/shown to be inconsistent? Is deconstruction a better model for linguistic analysis than semiotics? Hardly. Culler—a very sympathetic reader—reminds us that

the operation of deconstruction or the self-deconstruction of logocentric theories does not lead to a new theory that sets everything straight ... and there is no reason to believe that a theoretical enterprise could ever free itself from those premises. Theory may well be condemned to a structural inconsistency. (Culler, 1982, 109)

Derrida seems to imply that this *auto-deconstructivness* is behind the power of "great" texts. A sort of forced reckoning built into the text for those who will seek it. Who would have believed that of all the post-positivist philosophers it would be Derrida who proposes *philosophically grounded criteria for value judgements?!*

Speech-act theory was developed by John Austin (though the name is John Searle's) in his seminal *How to Do Things with Words* (1962). Austin uses the *logic of supplementarity* to propose a distinction between what he calls *constative utterances*: the

familiar positive statements which, at least in principle, are either true or false, and performative utterances: the supplementary statements that fail to actually state anything but perform an action instead. The meaning of the utterance "can you solve this polynomial?" does not depend on the speaker's consciousness but on conventional rules that relate context and intonation with actions. It is these rules that determine whether the question is rhetorical, confrontational, or a cry of frustration.

Austin finds multiple acts in an utterance: the *locutionary* act of sounding the utterance, the *illocutionary* act of inquiring, complaining, warning, stating, etc., and the *perlocutionary* act which is the potential action that may be generated by the *locutionary* and *illocutionary* acts of the utterance—in my example: getting the solution to the polynomial from a classmate. Austin uses the logic of supplementarity (in a Derridian sense) in that he shows that the traditionally perceived primary function of statements: to state facts (constative utterances), is in fact a special case of the supplemental or marginal class of performative utterances. Consider the statement: "the present value of lifetime income is the most important determinant of current consumption." A constative utterance if ever there was one. Now add the words "I wish to persuade you that..." at the beginning of the statement and you have a *performative* of persuasion. Add to this "I hereby state that..." at the beginning and *voilà* a performative of fact-stating that is identical to the *original* constative utterance in its own terms, yet is a sub-category of a large class of performative utterances. Austin studies illocutionary acts by looking at the conventions that make it possible for performative utterances to fail.

Derrida finds Austin's work—like Saussure's—to be splendidly auto-deconstructive. He discusses this reading of speech-act theory in Signature Event Context (1972a, 1977). The essay engendered a strong reaction from the reigning authority on speech-act theory: John Searle's "Reiterating the Differences: A Reply to Derrida" (1977). Derrida shows that like Saussure reintroduces metaphysical presence into his semiotic system with the priority of the voice, Austin does so when he insists that the utterances under investigation must be spoken and taken "seriously"—quotation marks are Austin's. This emerges as early as page nine and is addressed in several instances with varying degrees of apologetic discomfort. Non-serious utterances such as those produced by an actor on stage are peculiar for Austin.

Language in such circumstances is in special ways—intelligibly—used not seriously, but in ways *parasitic* upon its normal use—ways which fall under the doctrine of the *etiolations* of language. All this we are *excluding* from consideration. (Austin, 1962, 21-22)

Searle's reaffirmation of Austin's auto-deconstructive move in his reply to Derrida is very weak. I am relieved to note that such an unsophisticated *ersatz* version of positive analytical philosophy is rarely encountered in our profession today:

Austin correctly saw that it was necessary to hold in abeyance one set of questions, about parasitic discourse, until one has answered a logically prior set of questions about "serious" discourse. ... The existence of the pretended form of the speech act is logically dependent on the possibility of the nonpretended speech act in the same way that any pretended form of behavior is dependent on nonpretended forms of behavior, and in this sense the pretended forms are *parasitical* on the nonpretended forms. (Searle, 1977, 204-5)

Happily, no economist would ridicule himself by stating, for example, that behavior that is not fully rational in the economic sense is to be excluded from investigation because it is parasitical on the rational consumer choice *model*. Or perhaps we should ignore market imperfections because they are *logically dependent* on perfectly competitive general equilibrium models? We would still be working with labor theories of value if such a methodology had actually been applied.

Derrida reads Austin very seriously (no quotation marks here) and observes that his anxious exclusion of "parasitic discourse" is not necessarily a problem once it is deconstructed: its paradoxical hierarchy is at least temporarily neutralized. Austin's (1962) principal argument is that the meaning of an illocutionary speech act is dependent on formulaic convention and context, and is

to be described as *saying certain words* rather than as performing a different, inward and spiritual action, of which these words are merely the outward and audible sign. That this is so can perhaps hardly be *proved*, but it is, I should claim, a fact.

For "inward and spiritual action" read being "serious". What makes a speech act such as a promise possible are *iterable procedures* which apply both on or off the stage. These iterable procedures are role-playing:

for the "standard case" of promising to occur, it must be recognizable as the repetition of a conventional procedure, and the actor's performance on the stage is an excellent model of such repetition. The possibility of "serious" performatives depends upon the possibility of performances, because performatives depend upon the iterability that is most explicitly manifested in performances. ... Imitation is not an accident that befalls an original but its condition of possibility. (Culler 1982, 119-20)

The serious/nonserious hierarchy is reversed.

What is it that compels Austin to reintroduce this dubious hierarchical opposition (serious/non-serious) and with it the presence of a signifying intention in the speaker's consciousness? It must be a compelling reason since rejecting such a move—along the constative/performative opposition—was the cornerstone of speech act theory. The problem is the possibility of *grafting* utterances onto a context that alters their function, and the possibility of *framing* contexts.

Consider Michel Foucault's (1973/1981) critique of René Magritte's painting (Figure 2) titled Ceci n'est pas une pipe (translation: This is not a pipe) which features—of course—a pipe suspended in mid air. The surrealistic point Magritte is making is precisely about the complex interdependency of context and frame. In our context here, the constative

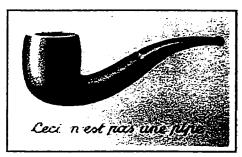


Figure 2: Magritte's This is Not a Pipe

statement taken within the frame of the picture would seem to be false—it is a painting of a pipe after all. However it is a painting of a pipe, not a pipe. In other words, if we allow the outside of the frame to contaminate the inside, then the statement is true—this is a painting not a pipe.

Austin knew all too well that founding his theory of the specification of conditions of possibility implies that

[a] theory of speech acts must in principle be able to specify every feature of context that might affect the success or failure of a given speech act or that might affect what particular speech act an utterance effectively performed. (Culler, 1982, 123)

And this would require that "the total speech act in the total speech situation is the only actual phenomenon which, in the last resort, we are engaged in elucidating" (Austin 1962, 148). Derrida could not agree more:

This is my starting point: no meaning can be determined out of context, but no context permits saturation. What I am referring to here is not richness of substance, semantic fertility, but rather structure, the structure of the remnant or of iteration. (Derrida 1979, 81, in Culler, 1982, 123)

Context is inherently boundless in that it can always be reinterpreted and broadened. Furthermore, as so elegantly demonstrated by Magritte, a context under investigation can always be grafted onto the context of the investigation thus engendering a new context that escapes the investigation—a mise en abyme or infinite regression again.

Texts and (Hi)stories

Derrida is often accused of being a "textualist" by those who find themselves often accused of being "historicists". The distinction revolves around whether one accepts that historical context determines meaning. Derrida's problem—it should be clear by now—is with the determination of meaning, not the march of history. History should not be an exogenous foundation or presence, but must be endogenized. Time is in fact an important tool for deconstruction since it serves to undermine foundations in general via the deferral in differance:

We shall distinguish by the term *differance*, the movement by which language, or any code, any system of reference in general, becomes "historically" constituted as a fabric of differences. ... If the word *history* did not carry with it the theme of a final repression of difference, we could say that differences alone could be "historical" through and through and from the start. (Derrida 1972a/1977, 12)

Différance is a historical process in which the traditional opposition between the naturalistic and phenomenological views collapses due to the interdependency of difference and deferral. The first step in recognizing metaphysical presence is to see it "à partir du temps comme différance" [translation: starting from/in relation to time as difference, differing, and deferral] (Derrida 1967a/1976, 237/166). In Culler's (1982, 129) words:

Derrida uses history against philosophy: when confronted with essentialist, idealizing theories and claims to ahistorical or transhistorical understanding, he asserts the historicity of these discourses and theoretical assumptions. But he also uses philosophy against history and the claims of historical narratives. ... [Which are used] to control the meaning of rich and complex works by ruling out possible meanings as historically inappropriate.

This historically constituted "fabric of differences" is the general text (archi-écriture), a text that includes time in its structure. Phenomenologists and sophisticated realists may object that Wittgenstein had already noted the arbitrary nature of what he

called "the language game", and that interpretation and determination of meaning is a real fact of human existence. This brings us back to the question of interpretation if we are to gain some understanding of the production of meaning.

Derrida (1967b/1978, 427-28/292-93) lists two interpretations of interpretation that "divide the field which we call, so problematically, the human sciences":

The one seeks to decipher, dreams of deciphering a truth or an origin which escapes play and the order of the sign and which lives the necessity of interpretation as an exile. The other, which is no longer turned toward the origin, affirms play and tries to pass beyond man and humanism, the name of man being the name of the being who, throughout the history of metaphysics and of onto-theology—in other words, throughout his entire history—has dreamed of full presence, of reassuring foundation, of the origin and the end of play. ... I do not for my part believe, although these two interpretation must accentuate their difference and sharpen their irreducibility, that there can today be any question of *choosing*—in the first place because here we are in a region (let us say, provisionally, of historicity) where the notion of choice is particularly trivial; and in the second place because we must first try to conceive of the common ground and the *Différance* of this irreducible difference.

Choice here is trivial because "the language of theory always leaves a residue that is neither formalizable nor idealizable in terms of that theory of language." (Derrida 1988, 209) Culler suggests that "what makes the notion of meaning indispensable is this divided character and divided reference: to what one understands and to what one's understanding captures or fails to capture." (Culler, 1982, 132) If we are to accept that determined meaning is always subject to the "language game" of interpretation and recontextualisation, yet eschew the philosophical Dadaism relativists are so often accused of, we must consider the meaning of meaning. Derrida (1967b/1978, 42/25) is wondering whether

the meaning of meaning (in the most general sense of meaning and not of indication) is infinite implication? The unchecked referral from signifier to signifier? If its force is a certain pure and infinite equivocalness, which gives signified meaning no respite, no rest, but engages it within its own economy to go on signifying and to differ/defer?

Even though—regardless of our language-theory choice—we are always confronted with a non-determinable "residue", this is no reason to abandon a theory or theory in general. Residues have been a part of science from its magical beginnings to its current state through which most of us view the world today: from the Christian inquiry

into the problems of free will, through Gödel's demonstration of the incompleteness of mathematics, to the current inquiry into the quantum structure of the universe and its inception.

An opposition that is deconstructed is not destroyed or abandoned but reinscribed. Austin's discussion of the performative and the constative [see above] demonstrates the difficulty of making a principled distinction between two classes of utterance, but what this breakdown reveals is a difference within each speech act that had been treated as a difference between types of speech acts. The unstable difference between performative and constative becomes not the basis of a reliable typology but a characterization of language's unmasterable oscillation between positing and corresponding. (Culler, 1982, pp. 133-4)

Or in the words of the controversial philosopher and critic Paul de Man (1979a, 131):

The aporia between performative and constative language, ... is merely a version of the aporia between trope and persuasion that both generates and paralyzes rhetoric and thus gives it the appearance of a history. (Quoted in Culler, 1982, 134)

Chapter 6: Foucault - The Production of Knowledge

It is now finally time to introduce Foucauldian analysis explicitly. One quickly discovers that a Derridian epistemological reading, like microeconomic theory, is very capable in examining a specific rhetoric phenomenon within a well-defined context, but is inappropriate for broad historical studies in which the dynamics of contexts are a major issue. Foucault builds on similar post-structuralist insights as Derrida to develop a series of general theories that form a loose but surprisingly coherent approach to the production of human knowledge. Like Keynes in economics, Foucault can be seen as the "father" of critical theory's macro-theory. Foucault's ideas have already been recognized as paramount to contemporary history, sociology, anthropology, science studies, and literary criticism, and many Foucauldian principles have even established themselves—albeit mostly via the "back door"—in the study of the history of economic thought and the philosophy of economics.

My approach is double-gestured in that I take pains to produce a Derridian reading of Foucault. This would be consistent with the call for micro-foundations in the study of macro-phenomena, though I of course refrain from seeking foundations and direct my efforts to understanding the relations between economics and its institutions; broadly defined. My first task is to reconstruct a Foucauldian epistemology from the vast body of work in which it lies hidden. Foucault is much more accepted, studied, and referenced than Derrida due to what I believe is a false sense of accessibility his works provide. In a way like McCloskey, he produces very convincing and readable texts that rely heavily on empirical data. Even his exhaustive historical-sociological studies which together form his version of a sociology of knowledge are accessible to the interested reader one at a time. The difficulty in Foucault is that, again like McCloskey, he draws few specific philosophical conclusions within the texts, and thus forces critics to painstakingly work through all the archeological metaphors (The Archeology of Knowledge, 1969), mental asylums (The Birth of the Clinic, 1972), and medieval

dungeons (Discipline and Punish, 1975), in which threads of the Foucauldian philosophy are to be found.

Happily however, there is a Dr. Jekyll to Foucault's Mr. Hyde in the person of his close friend the eminent philosopher Gilles Deleuze. Deleuze was the chief and almost "official" explicator of Foucault's underlying philosophy and the author of the most important secondary source on the subject titled simply *Foucault* (Deleuze 1986). I will be using this text as my primary entry point into a generalized Foucauldian philosophy.

The Archaeology of Knowledge

Michel Foucault directed his attention to the sustaining relationships between truth, power, and discourse. His description of these relationships often sound a lot like economics or, more precisely, political economy:

There can be no possible exercise of power without a certain economy of discourses of truth which operates through and on the basis of this association. We are subjected to the production of truth through power and we cannot exercise power except through the production of truth. This is the case of every society, but I believe that in ours the relationship between power, right, and truth is organized in a highly specific fashion. ... I would say that we are forced to produce the truth of power that our society demands, of which it has need, in order to function: we must speak the truth; we are constrained or condemned to confess to or discover the truth. Power never ceases its interrogation, its inquisition, its registration of truth; it institutionalizes, professionalizes and rewards its pursuit. In the last analysis, we must produce truth as we must produce wealth. (Foucault, 1976a, 93)

Foucault constructs a framework with which to examine the workings of the "economy of discourses of truth" in *The Archaeology of Knowledge* (1969) building on economic and anthropological concepts.

I start my reconstruction with the familiar concept of scarcity: Statements are scarce because "one phrase denies the existence of others, forbidding, contradicting or repressing them to such an extent that each phrase remains pregnant with everything left unsaid." (Deleuze, 1986, 2) Phrases and propositions multiply via a process of contradiction and abstraction that is theory. The "brut facts" of this process are statements for which contradiction and abstraction are possible but arbitrary. The structure emerges from the regularities in the statements, what Derrida calls their iterability. Statements are

repeatable in different contexts *because* they are changeable. This structure is topological in that the multiplicity of statements is arranged along a metonymic axe of variation (intrinsic coherency; combination) and a metaphoric axe of correlation (extrinsic variability; contextualization) which thus *locate* the statement with relation to other statements.

The objects of a phrase or proposition are not equivalent to the discursive objects of a statement and include also institutional non-discursive formations that can be explicit (a constitution for example) and implicit (ethical imperatives for example.)

Whenever one can describe, between a number of statements, such a system of dispersion, whenever, between objects, types of statements, concepts, or thematic choices, one can define a regularity (and order, correlations, positions and functionings, transformations), we will say, for the sake of convenience, that we are dealing with a discursive formation... (Foucault, 1969/1972, 38)

The concept of discourse is central to structuralist thought and is primarily used to distinguish between the linguistic domain of the narrative and the domain of its object: the story. For example, the story of McCloskey shunning analytical philosophy is not operating in the same level as my narrative of the Mäki-McCloskey debate. It would thus seem that Foucault's concept of discourse as a "family" of statements which are subjected to a set of rules, conventions, and customs governing the systems of mediation and transposition under which a type of discourse is conducted. In other words: ideology. In the words of the critic Roger Fowler:

'Discourse' is speech or writing seen from the point of view of the beliefs, values and categories which it embodies; these beliefs (etc.) constitute a way of looking at the world, an organization or representation of experience – 'ideology' in the neutral, non-pejorative sense. Different modes of discourse encode different representations of experience; and the source of these representations is the communicative context within which discourse is embedded. (Fowler, 1990, 54, in Hawthorn, 1992, 48.)

Different types of discursive statements are distinguished by "thresholds". A discursive formations is a "family" of statements that can, and often does, consist of any number of types while many "families" may belong to a certain type. The limits of "families"—where one stops and another begins—is not the same as the thresholds that determine whether a statement belongs to a "family".

New statements are created when there is a shift or displacement in the concepts signified by words, the subjects of phrases, and the objects of propositions.

This is a constant paradox in Foucault: the language coagulates around a corpus only in order to facilitate the distribution or dispersion of statements and to stand as a rule for a "family" that is naturally dispersed. (Deleuze, 1986, 18).

Further more this multiple structure of thresholds is of course dynamic and driven by power. The Foucauldian archive can be seen as underwriting this structure. It resides between the generalized system of language (langue; a structure) and the specific corpus of uttered words and phrases (a particular event). It is "a practice that causes a multiplicity of statements to emerge as regular events" (Foucault, 1969/1972, 130) The archive is thus not an external non-discursive edifice but a relationship between power and resistance—a tension—between discursive and non-discursive formations. The archive's apparent historical continuities are thus sustained by these tensions. An archeology of knowledge looks at the structure of tension in texts associated with words, phrases and propositions "found" around focal points of power and resistance.

Power Relations: Discipline and Punish

Foucault uses his study of the problems of power: Discipline and Punish (1977) to extend the Marxist tradition by interpreting it in an innovative way. He employs a functionalist approach: power is not a property but a strategy, not an attribute but a relation. "[P]ower is not homogeneous but can be defined only by the particular points through which it passes." (Deleuze, 1986, 25) The trappings of power—the state for example—are the effect of the structure of power operating at a different level. Power resides in the tension between institutions and classes; it does not originate in institutions and classes.

Relations of power are not in a position of exteriority with respect to other types of relationships ... [they] are not in superstructural positions ... they have a directly productive role, wherever they come into play. (Foucault, 1976b, 124, in Deleuze, 1986, 27, endnote 4)

As this non-foundational concept of power emerges, it can be placed in relation to the discursive structure developed in *The Archaeology of Knowledge* within the context of a specific economic example: Neoclassical theory is a discursive formation but in its

relation to the economic institutions and practitioners, it depends on non-discursive formations such as institutions, "cliques", politics, etc. Note however that these two formations are heterogeneous. The relationship between them has no direct causation, symbolization or isomorphism.

Visible Content and Articulable Expression

Another distinction emerges between two forms: the visible (content), and things that can be articulated (expression). These formations relate to each other via mutual presupposition—what is often called coherence—not via any sort of direct correspondence. These forms make up the historical formations or *strata* that are the subject matter of the archaeology of knowledge. Form can have two meanings: organizing matter (a journal article for example), or organizing functions (the process and concept of peer-review for example). Content—that which is organized by form—is thus a *diagram*: a map of functions and matter. Vilfredo Pareto would have called this the power-residual that is "detached from any specific use." (Foucault 1975, 207/205, in Deleuze, 1986, 72, endnote 4) The diagram incorporates the multiplicity of potential functions and matter; it is what sex is to evolution.

The history of forms, the archive, is doubled by an evolution of forces, the diagram. ... a diagram is a map, or rather several superimposed maps. And from one diagram to the next, new maps are drawn. Thus there is no diagram that does not also include, besides the points which it connects up, certain relatively free or unbound points, point of creativity, change and resistance, and it is perhaps with these that we ought to begin in order to understand the whole picture. It is on the basis of the "struggles" of each age, and the style of these struggles, that we can understand the succession of diagrams or the way in which they become linked up again above and beyond the discontinuities. (Deleuze, 1986, 43-4, and endnote 38)

The notion that knowledge is gained by suspending power-relations—McCloskey's herrschaftsfrei sprachethik for example—is thus misguided. Knowledge is produced by making specific connections between the visible and the articulable. It thus refers to and acts via some sort of power which, in turn, relies on knowledge for its processes of differentiation. In Discipline and Punish Foucault maintains that "there is no power relation without the correlative constitution of a field of knowledge that does not presuppose and constitute at the same time power relations." (Foucault, 1975, 32/27)

Foucault claims a primacy of systems of statements (the articulable) over different ways of perception (the visible). In this he fundamentally departs form phenomenology to espouse a thoroughly historical textualist view:

An 'age' does not pre-exist the statements which express it, nor the visibilities which fill it. These are the two essential aspects: on the one hand each stratum or historical formation implies a distribution of the visible and the articulable which acts upon itself; on the other, from one stratum to the next there is a variation in the distribution, because the visibility itself changes in style, while the statements themselves change their system. (Deleuze, 1986, 48)

In the "positivist age," for example, peer-reviewed journal articles (non-discursive/visible) became a primary form of seeing and displaying cognitively significant (i.e. non-metaphysical) economics. Economics (the discipline) produced a system of statements concerning the concept of scientific legitimacy (verifiability, falsification etc.) It is important to note that the primacy of statements does not in any way imply that the non-discursive can be reduced to statements. This is what so many post-structuralists/post-modernists fail to understand: that the realization that texts are to be found everywhere relating to everything requires an enlargement of the concept of text, not the reduction of the universe to prose. This point cannot, I believe, be overstressed.

This primacy of the articulable actually derives from the autonomy of the visible which has its own system of socially contextualized laws: the laws of nature. Statements thus come to bear on the *historically* irreducible visible. If the vocabulary of the distinction between the visible and the articulable sounds familiar it is because it was first explored by Wittgenstein who, in turn, was a major (if not primary) source of inspiration for the Vienna circle and thus economics.

For Foucault, knowledge is a mechanism of statements and visibilities: A mechanism defined by combinations that are unique to each stratum. Unlike phenomenology there is nothing prior or behind knowledge—though there may be something *outside* knowledge. Knowledge is structured by historically and socially fluctuating thresholds. For example the somewhat consecutive thresholds of "epistemologization", "scientificity" and "formalization" could describe the Comtian progression of intellectual evolution from theological through metaphysical and finally

positive. But knowledge is also structured by thresholds that move in different directions affecting the strata: thresholds of ethics, aesthetics, politics, etc. Consequently, knowledge cannot be separated from these thresholds. The now commonplace observation that knowledge is dependent upon perception (phenomenology) can be assimilated into the Foucauldian framework as a threshold. As statements become readable and sayable only in relation to their *context*, content seen as visibilities is not a referent but exists as a form of luminosity created by its *illumination*—the physical context of visibility. The metaphor here is a monument, not a document; a play, not a novel. Deleuze (1986, 51, 53) writes:

Knowledge is the unity of stratum which is distributed throughout the different thresholds, the stratum itself existing only as the stacking-up of these thresholds beneath different orientations, of which science is only one. There are only practices [discursive and non-discursive] ... which are constitutive of knowledge. ... But these practices still exist beneath archaeological thresholds whose shifting points of demarcation constitute the historical differences between strata. This is Foucault's positivism or pragmatism. ... [The archaeology of knowledge] must extract from words and language the statements corresponding to each stratum and its thresholds, but equally extract from things and sight the visibilities and 'self-evidences' unique to each stratum."

What are the conditions of the statement? Statements produced within the same "age", share enunciative regularities that can be isolated. These are the conditions or a priori of the statement; they are historical and contextual and at the same time anonymous and unique. Foucault calls this the murmur or the language-being, but historians of economics may be more comfortable with discursive or enunciative-residuals of a Paretian sociological sort (see Tarascio 1968, 1969, and 1974). Unlike Pareto's social-residuals, "[t]he a priory of positivities is not only the system of a temporal dispersion; it is itself a transformable group." (Foucault, 1969, 168/127, in Deleuze, 1986, 57, endnote 13) The murmur's uniqueness is a distributive unity that evolves with changes in the power relationships that operate on the discursive and non-discursive formations as they mutate through different thresholds.

As statements are inseparable from their a priories and are readable/sayable only in relation to their context, so visibilities are inseparable from their mechanics and are only perceptible in relation to their conditions. This Foucault names a shimmering or a light-being. The primacy of statements can now be seen as stemming from the

relationship between the two *ontological* forms: light, determinable visibilities; and language, determining statements. This places the residual murmur and shimmer *outside* of language and light and thus inaccessible from non-reflexive perception. This goes well beyond the Saussurean problematic distinction between the *event* of a word being uttered (*parole*) and the *structure* of language (*langue*.) Derrida shows (see Chapter 5) that this opposition auto-deconstructs Saussure's sign-structure into an infinite regression in search of the original word which *was* without *a priori* structure: a metaphysics of signification. Set theory may be helpful in illustrating this important aspect of Foucault's pragmatics:

Light, as we perceive it, is included in the *real* world of objects, but visibilities contain interpretative-residuals that are *outside* of our perception. As with light, words (and phrases and propositions) can belong to and constitute a language, but the dynamic structure of statements—the fluctuating social and historical thresholds and the interrelated power-grid from which and on which they operate—cannot be reduced to a determined grammar. This is why the Positivist project of designing a "physicalist language" was doomed to failure, and why no systematic formulation of grammar can ever achieve closure. There is an old joke that asks: "what do you need to know in order to train a dog?" the answer is: "more than the dog!" I would propose an epistemological variant: "what does one need to know in order to know something positively?" "More than the facts; more than one knows positively." In other words: there is no escape from irreducible residuals in any knowledge-process.

Foucault has populated his scheme with residuals at every node in order to allow room for *real* space-time to coexist with undetermined contextual knowledge in the form of statements. Schematically:

Light \subset objects in space-time; but light \subset visibilities.

Language ⊂ words, phrases and propositions; but language ⊄ statements.

Foucault proposes to focus on the *strata* of visibilities and statements, which are disseminated according to thresholds and families. Visibilities and statements have a more privileged ontological position for understanding real objects *and* real utterances than light and language because the latter are special cases presupposing the former. Furthermore the schema above neglects the relationships *between* light and language,

objects and words, and visibilities and statements. Deleuze sees this in a historical perspective as following the Kantian departure from the Cartesian: The relation between the forms of content (visible) and expression (articulable) is between the determinable (cogito) and its undeterminable element (sum). Foucault's relation is between the system of determination and the determinable element.

There is no isomorphism between the two forms. The relations between determination and the determinable element are non-relations. Foucault illustrates this with René Magritte's Ceci n'est pas une pipe (translation: This is not a pipe) which features a pipe suspended in mid air. The reader will recall (see Figure 2 in Chapter 5) that the surrealistic point Magritte is making is about the complex interdependency of context and frame. In our context here, the constative statement taken within the frame of the picture would seem to be false—it is a painting of a pipe after all. However it is a painting of a pipe, not a pipe. In other words, if we allow the outside of the frame to contaminate the *inside*, then the statement is true—this is a painting not a pipe. Neither the painting, nor the statement are actually a pipe and thus the ironically false statement: This is not a pipe is in fact a true statement. The falseness of the statement can only be established within the context—specifically the thresholds constituting the formation—of "a picture-frame" which presupposes the concept of "looking at a painting". It is thus that we determine a black and white painting of a pipe—purely symbolic with no painted context within the frame—as a true representation of a pipe. The action in which Magritte introduces the ironic false statement as an uncanny repetition of the repressed knowledge that in accepting the truth of art, we are in fact worshiping idols.

Pragmatism of the Multiple

The view that "truth is inseparable from the procedure establishing it" (Deleuze, 1986, 63), is the basis for Deleuze's reading of Foucauldian philosophy as pragmatic. In Discipline and Punish (1975/1977), Foucault compares models of science in different ages: the "inquisitorial inquiry" of the late middle age, and the "disciplinary examination" of the late 18th century. The procedure is always made of a process which is a mechanical visibility, and a method which is a statement. The mechanics of being burned at the stake are determined by the statements to the effect that a criminal has

performed a crime against the *Crown*, which will, in turn, exact its revenge. The mechanics of being diagnosed as suffering from Attention-Deficit-Disorder, being relegated to a euphemistic "Special-Education" schooling, and being prescribed the depressant Ritelin, are determined by the statements to the effect that a child displays levels of activity in excess of those deemed appropriate for a specifically structured schooling system. The philosophical implications of this exhaustive dismal history is that truth is accessible to knowledge only via multiple "problematizations," and that a "history of truth" is a practice constituted by a process and a method—two forms that are engaged in a problematic non-relation between the visible and the articulable. Paraphrasing Deleuze: what we see never lies in what we say, and what we say never lies in what we see.

According to Deleuze (1986, 64), the many "patched-up" versions of realism (correspondence, correlative, conjunctional, critical, transcendental, etc.) are non-solutions for Foucault because

the statement has its own correlative object and is not a proposition designating a state of things or a visible object. As logic would have it; but neither is the visible a mute meaning, a signified of power to be realized in language, as phenomenology would have it. The archive, the audiovisual is disjunctive.

This notion of a fundamental division within the process of reading and, as we have seen, consequently within the concepts of understanding and meaning, is a major aspect of Derrida's deconstruction (see Chapter 5).

The irreducible duplicity of knowledge or this disjunctive "gap" within the archive between specific visibilities and systematic statements is maintained by a relation between forces who, in turn, are also power-relations existing in relation to other forces. Deleuze points out that this is not a return to a natural-law because law is a form of expression and nature is a form of visibility while Foucault's forces have only each other as both object and subject. (Deleuze, 1986, 70) Power relations are thus actions upon actions (e.g. to induce, assume, enlarge, reduce, constrain, etc.) The relation between power (a diagram constituted by the relations between forces) and knowledge (a strata constituted by the relations between forms) is not unlike the economic concepts of flows and stocks: Power-relations (the diagram) are a fluid distribution of non-stratified features that flow through particular local and unstable points of action-reaction

(tension): strategies. Knowledge (strata), on the other hand is stratified/archived through the formal conditions of seeing and speaking. The instability of the diagram means that power cannot be known because the practice of power is irreducible to any particular practice of knowledge.

Actualization: The Production of Knowledge

Social sciences are inseparable from the power-relations that make them possible. The latter are unstable and unknowable as such. This is a restatement of the crisis in theory choice along Foucauldian lines. The key is to use the archaeology of knowledge to place restrictions on the actualization of the diagram through the strata. Let's restate familiar problems in Foucauldian language: Scientific knowledge is knowledge that crosses a scientific threshold. It refers to power-relations actualizing through an enunciative human base (the murmur). This actualization takes the following form: The form of knowledge (connaissance, Methods—with a capital M for McCloskey) is constrained by a diagram of power which is itself constrained by forces of "practical" knowledge (savoirs, processes) which actualize it. We have a power-knowledge space in which the diagram and the archive interact:

Between techniques of knowledge and strategies of power, there is no exteriority, even if they have their specific roles and are linked together on the basis of their difference. (Foucault, 1976/1984, 130/98)

Actualization stratifies power-relation by *locally* integrating specific features or visible affects of power. There is a multiplicity of local and/or partial integrations tracing specific relations or particular points. Institutions are such integrations: They have no interiority and are practices that rather than explain power, pre-suppose its relations. "There is no State, only state control." (Deleuze, 1986, 75)

So to understand knowledge—the stated object of epistemology—one must examine each institution in each strata (historical formation) in terms of the power relations it integrates, its relations with other institutions, and the way in which all the above changes from strata to strata. This is Foucault's *microphysics* which, unlike traditional inquiry that looks at integrations, is concerned with the undetermined fluctuations operating as an *a priori* to the visible or the articulable. It is given the prefix *micro* because, with regard to the articulable, it attempts to describe the world on what

could be called a *sub-integrative* or *sub-archival* or even *sub-institutional* level; the level at which Derrida's *Différance* operates (see Chapter 5). The integrations/institutions themselves are also multiplicities consisting of "a pparatuses" (light) such as the police, and "rules" (language) such as the penal code. Integration is achieved by means of divergent modes of integration and involves redustribution along a "system of formal differentiation" (Deleuze, 1986, 77). The functioning of the specific institution will lead to the attainment of different thresholds (e.g. just, scientific, economic, aesthetic, true, etc.)

Deleuze finds a similitude—but not a correspondence—between the regularity of a statement seen as a curve approximately linking points of power-relations (the process of actualization) and the points that are traced themselves. These points are not a statement but the outside of a statement. That is to say that they *form* the outside of strata not that they lie outside strata.

This is why the elements a priory to history are themselves historical. ... it is each stratified historical formation which refers back to a diagram of forces as though it were its outside." (Deleuze, 1986, 84)

While statement-curves integrate the potentialities and relations between forces into language, "description-scenes"—which I would interpret as underlying visual narratives—perform a comparable regulatory function on visibilities. Here we can trace a line to the problems encountered in formal logic with the distinction between statements and descriptions, which is a central feature of positivist semantics. Foucault's apparent focus on confinement is interpreted by Deleuze (1986, 43) as a general view of correlative agencies:

There is first of all the outside which exists as an unformed element of forces: the latter come from and remain attached to the outside, which stirs up their relations and draws out their dia grams. And then there is the exterior as the area of concrete assemblages, where relations between forces are realized. And lastly there are the forms of exteriority, since the realization takes place in a split or disjunction between two different forms that are exterior to one another and yet share the same assemblages (the confinements and interiorizations being only transitory figures on the surface of these forms).

20th Century Machiavelli

There is a controversy surrounding Foucault over the question of whether there is a primacy of power over knowledge. This is perhaps a similar political controversy to that surrounding Niccolò Machiavelli's "proto-political-science" investigation of the relationship between institutions and power. Like a prince without his subjects, knowledge would be a function without an argument if there were no differential power-relations to integrate. The power diagram is nevertheless dependent on knowledge for its actualization and would therefore remain mute in its absence. This is mutual presupposition: relations of knowledge presuppose, and are implied by, relations of power. Statements and visibilities exist in a disseminated form within their respective different forms of exteriority precisely because power-relations are themselves diffuse and, more importantly, informal. It is this diagram (not unlike a Kantian schema) that is that to which statements and visibilities refer. This referral process is obscured by the continuous integration and actualization that renders the utterable and visible almost indistinguishable.

If power is not simply violence, this is not only because it passes in itself through categories that express the relation between two forces but also because, in relation to knowledge, it produces truth, in so far as it makes us see and speak. (Deleuze, 1986, 83, endnote 18)

We have seen that there is a central role for dualism in Foucault's work. This is a special type of dualism defined by Deleuze as follows: "it involves a preliminary distribution operating at the heart of a pluralism." (Deleuze, 1986, 83) The relation between the visible and the articulable elements is based on two types of irreducible multiplicities constituted by their respective forms of exteriority and dissemination. These two multiplicities unfold onto a third: that of power-relations, which is not dualizable. An illustration could be Derrida's concept of S'entendre parler (translation: hearing/understanding oneself speak, see Chapter 5) which can accommodate a view of thinking as occurring in the interstice between seeing (or hearing for Derrida) and speaking. Thinking thus has a non-relation with the outside (or a gap or cleft for Derrida) which allows us to regard it as inside and purely of us.

Universal questions such as "the rights of man" are no more than massive effects due to a specific distribution of particular features in a particular stratum under a

particular process of formalization. The only case in which the universal is co-nescient with the statement is mathematics in which the "threshold of formalization" coincides with the "threshold of apparition".

The very possibility of the existence [of mathematics] implied that which, in all other sciences, remains dispersed throughout history. ... If one takes the establishment of mathematical discourse as a prototype for the birth and development of all other sciences, one runs the risk of homogenizing all the unique forms of historicity (Foucault, 1969/1972, 246/188-89)

This view could at least partly explain the privileged position mathematics holds in relation to it's perceived "truth-content". Even though—and perhaps precisely because—mathematics operates in a realm that is perhaps the most removed from the "real world," it is perceived by modern society as having a privileged access to it.

Intentionality and Subjectivation

The process of *subjectivation* is based on the relation with the other. As any relation in Foucault's schema, the relation with other—the outside—is doubled by a relation with self—the inside. *Folding* is making something relate to itself. In folding the concept of force, the Greeks "invented" the subject as a derivative of the process of subjectivation. So interiors are already folded and the concept of the individual subject is seen as a relation to oneself which is understood in terms of the archive and the diagram. The very concept of subjectivity depends on a folding of that which is exterior to us: the world, and the world affect us through the idea of forces. The "us" or subject is invented or produced by folding the exterior world onto itself, thus providing a frame in which to delimit the individual subject. Subjectivity can be described as a false sense of interiority (see Derrida's discussion of hearing/understanding oneself speak; Chapter 5) constrained and defined by the exterior world. Deleuze (1986, 104) reconstructs four folds of subjectivation which he likens to the four rivers running through Dante's inferno:

- i. Fold of the material; the body—aphrodisia.
- ii. Fold of the relation between forces according to a particular rule (e.g. rational, aesthetic, etc.)
- iii. Fold of knowledge/truth; the relation between knowledge/truth and oneself; the conditions of true knowledge.
- iv. Fold of the outside; the hope of escape to the outside—the absolute (e.g. salvation, detachment, objectivity, etc.)

Foucault's major achievement according to Deleuze (1986, 109) is the conversion of phenomenology into epistemology.

For seeing and speaking means knowing [savoir], but we do not see what we speak about, nor do we speak about what we see; and when we see a pipe we shall always say (in one way or another): 'this is not a pipe', as though intentionality denied itself, and collapsed into itself. Everything is knowledge, and that is the first reason why there is no 'savage experience': there is nothing beneath or prior to knowledge. But knowledge is irreducibly double, since it involves speaking and seeing, language and light, which is the reason why there is no intentionality.

Prior to Phenomenology, intentionality was seen as the relation between consciousness and its object. This line of thought is sometimes called *psychologism* and has its roots in the naturalist tradition. Phenomenologists such as Heidegger and Merleau-Ponty already substituted intentionality with ontology and Foucault takes the extra step from ontology to epistemology via the doubling of *being* into language-being (murmur) and light-being (shimmer) which refer to statements and visibilities respectively. Any subject-object intentionality cannot "bridge" the gap between the two parts that constitute knowledge: From the psyche via being to knowledge. If there is a "struggle" to maintain or reinstate intentionality—including an insistence on possible access to objective reality—then it operates at the level of the power-diagram which is the only level that flows *between* the murmur and the shimmer—the *a priori* of statements and visibilities. In the Kantian philosopher Sir W. Hamilton's (1841, 762/1, Quoted in the OED under "a priori", entry number 3) words, the *a priori* are:

those elements of knowledge which are not obtained *a posteriori*; are not evolved out of experience as facticious generalizations; but which, as native to, are potentially in, the mind antecedent to the act of experience.

The archeology of knowledge deals with three historical and ontological dimensions: knowledge, power, and self. "Knowledge-being" is determined by specific forms assumed at any moment by the visible and the articulable because light and language are determined in a given stratum (historical formation.) "Power-being" is determined by relations between forces that vary between different ages. "Self-being," is determined by the process of subjectivation or folding. "In brief, the conditions are never more general than the conditioned element, and gain their value from the particular historical status" (Deleuze, 1986, 114).

Our relationship with the march of time and history itself—what I would call "time-being" to cohere with Foucault's terminology—is particularly problematic. For Kant, the relation to oneself is memory: the mind affects itself in the form of time while it is affected by other things in the form of space. Memories are thus made by a process of subjectivation—a time-fold. For Foucault time moves across strata in the same way as it does in a geological cross-section. Deleuze (1986, 119) links this approach to Nietzsche:

On the limit of the strata, the whole of the inside finds itself actively present on the outside. The inside condenses the past (a long period of time) in ways that are not at all continuous but instead confront it with a future that comes from outside, exchange it and re-create it. To think means to be embedded in the present-time stratum that serves as a limit: what can I see and what can I say today? But this involves thinking of the past as it is condensed in the inside, in the relation to oneself (there is a Greek in me, or a Christian, and so on). We will then think the past against the present and resist the latter, not in favour of a return but "in favour, I hope, of a time to come" (Nietzsche)

Nietzsche offers Deleuze an illustration of folding that is evocative of Foucault. To understand Nietzsche's concept of "the death of God" one could see the God-form (Truth) as the unfold of the man-form (knowledge). In other words: man is created by folding god; man is defined in relation to the concept of God, which is the human ideal form. God's death is a precondition for the existence of man and it heralds the end of the metaphysical fixation with the infinite. Foucault's "the death of man" operates on another level since the man-form already incorporates the death of man. This is because *finitude* is defined by God—this is what creation means; because the man-from is constituted from a folding of finitudes; and because the forces of finitude exist through the dissemination of multiple modes of organizing life. Nietzsche's "superman" is then a new folding of man: a "Superfold" in which the self will no longer be folded against finitude or infinitude but against "unlimited finity", what Nietzsche called "endless return".

Chapter 7: Pop-Science and Obscurantism

This chapter addresses two interrelated issues that arise in the language of postmodern thought of various kinds. The first—which I call "pop-science"—refers to the often sloppy use of scientific metaphors in critical theory, and the second—obscurantism—refers to the impenetrability of some of the most important texts and notably Derrida's. These two issues raise several other related points I will make below.

This is however not to say that economics is *not* guilty of semantical obscurantism too. An economic metaphor should prove helpful to make my point: The Positivist "prohibition" of "non-scientific" language, has led—as any economist would expect—to the creation of an underground rhetorical economy. All the suppressed linguistic complications re-enter the system as implicit rhetorical devices and strategies which, more often than not, are not even directly motivated by the author (insofar as such motivation is at all possible). The price that has been paid for a "purely scientific" discourse to exist is thus a complete lose of control over the suppressed discursive forces at play. In the words of Warren Samuels (1990, 7) in the introduction to *Economics as Discourse: An Analysis of the Language of Economists*: the result of what I describe above as a discursive prohibition is

the maintenance of deep conceptual structural elements and the changing substantive content of fundamental concepts, such as capital, market, invisible hand, freedom, unemployment, government, and so on.

The question of why it is so difficult to read Derrida is difficult in itself—not that Foucault, Deleuze, and de Man, or for that matter Nietzsche, Hagel, and Kant are a walk in the park. The jargon of postmodernism has been a source of much confusion for a multitude of reasons some of which I have and will address. My primary focus is on the different underlying epistemological dimensions of texts as will be exemplified in the following chapters by the Mäki-McCloskey conversation. Closely reading these texts raises however some other more specifically rhetoric issues such as the strategic employment of performative utterances, and the socio-political power-grid or diagram

through which they function. It is nevertheless true that much of the confusion and indeed antagonism surrounding the language of the postmodern stems from a certain penchant for the carnivalesque. Whether the confusion will ever be reduced is still unclear since, in Paul de Man's (1979b, 68) compelling prose, "no degree of knowledge can ever stop this madness, for it is the madness of words."

The Sokal Hoax

The problem with pop-science has been put under the spotlight by the notorious "Sokal hoax" in which a prominent physicist—Alan Sokal—published a contrived paper designed to test and expose a leading postmodern journal's uncritical thirst for "hard" scientific justification. The paper was replete with "sexy" modern theoretical physics "term-dropping" including much talk of the uncertainty principle, quantum fluctuations, etc. It appeared in Social Text (Sokal, 1996) published by Duke University Press and was titled: Transgressing the Boundaries: Towards a Transformative Hermeneutics of Quantum Gravity—no less! Based on all this cutting-edge science, the paper advanced a rather trivial relativistic view of the universe and the humans inhabiting it. The reactions from both sides of what *The Economist* called "the science wars" were livid: modernists regarded it as proof that postmodern thought is pathetic at best if not fraudulent, while postmodern thinkers sulked that they too could use language and terms that physicists would find confusing. Naturally, both of these conclusions are misguided if emotionally understandable. Once the pleasurable snickering is over, the most hard-nosed scientist cannot maintain that publishing a "bad" paper immediately invalidates an entire mode of inquiry; science would be thoroughly and repeatedly debunked if that were the case. On the other side of the trenches, English professors must recognize the sobering effect of the hoax and draw some critical conclusions about the uses and abuses of scientific metaphors. Unfortunately this has not yet happened on the literary side with the exception of a book titled Impostures Intellectualles co-authored by Sokal (Sokel & Bricmont, 1997) which surveys the abuses of scientific metaphors and language in general at the hands of erudite postmoderns. His book is surprisingly sprachethik-al in that he does not claim to debunk the validity of his protagonists' ideas but only to inform them (and the

^{1. &}quot;You Can't Follow the Science Wars without a Battle Map," The Economist, December 13, 1997.

public) that their science is wrong. Interestingly enough Derrida's texts are left entirely out of the book except for a comment in the introduction stating that they are too complicated and do not really have abusive scientific terminology. Whatever one thinks of Derrida's work, sloppiness is the last adjective that can be assigned to it.

The most common response on behalf of the postmodern English professors was unfortunately indignation. I was enrolled in a doctoral-level seminar about Derrida at the University of North Carolina at Chapel Hill under the instruction of the eminent English professor Tom Cohen when the hoax was published and thus found myself "behind enemy lines" when the "bomb" hit. I was the only "quasi-scientist" in the group of doctoral students from the departments of English, philosophy, cultural studies, communication, and different language departments When a colleague from the philosophy department-Nietzschean incidentally-and myself requested that we abandon that evening's three-hour monologue to discuss the hoax. Professor Cohen remarked that he sees no point in this since the hoax was no more than a confidence trick in which a specialist tricks his readers with erroneous material from a discipline they cannot evaluate on a professional level. When we insisted that the paper in fact did not include wrong physics but third-rate philosophy, Cohen sneeringly added that he was not surprised and that he did not even intend to read it! Cohen performed what I would call a "Searlism" after the distinguished speech-act theorist and philosopher John R. Searle who repeatedly shows scant respect for anything but his own particular interpretation. Searle has become one of deconstruction's major antagonists following his misunderstanding of Derrida's critique of John Austin (see Chapter 5 for a brief summery of the argument. The exchange includes the following texts in chronological order: Derrida's "Signature Event Context" published in French in 1972 and English in 1977 in volume 1 of Glyph. Searle's response is in Glyph 2, 1977, titled: "Reiterating the Differences: A Reply to Derrida." In the same volume Derrida replied with "Limited Inc a b c ..."). Since then Searle has appointed himself chief inquisitor of all things postmodern or in fact anything that is not his reading of speech-act theory. My problem with Searle is not Derrida's who confronted Searle's criticism in Limited Inc. (Derrida, 1977) by carefully showing Searle's arguments to be maliciously ignorant to all but a religiously Searlian reading. My problem here, like McCloskey, is with the lack of respect for intellectual traditions

and the celebration of ignorance. McCloskey (1992, 266) recounts how she once personally asked Searle how he would fit Hegel into his brave new scheme:

"I have never read a page of Hegel; and furthermore, I propose never to do so." The reply evoked gales of laughter from the philosophy graduate students gathered around the great man, who thus exhibited his disdain from the considered judgement of half his culture.

Scientific Metaphor

Before we can discuss the uses and abuses of scientific metaphor in critical theory we must examine the general workings of metaphors in philosophy. Metaphors are traditionally viewed as contingent elements of philosophical and scientific discourse. They are viewed as useful but essentially distinct from the concepts they are employed to elucidate. Distinguishing between rhetoric and content by recognizing and interpreting metaphors has been a major (if not *the* major) task of philosophy from Aristotle's *Topics* through Wittgenstein and the Vienna Circle. The problem is that "not only is it difficult to find concepts that are not metaphorical, but the very terms in which one defines this philosophical task are themselves metaphorical." (Culler, 1982, 147) In his "White Mythology" Derrida (1972a, 267, 301/23-24, 54) writes:

The values of concept, foundation, and theory are metaphorical and resist a meta-metaphorical analysis. We need not insist on the optical metaphor that opens under the sun every theoretical point of view. The "fundamental" involves the desire for firm and final ground, for building land, the ground as support for an artificial structure. ... Finally, the concept of concept cannot fail to retain, though it would not be reducible to, the pattern of that gesture of power, the taking-now, the grasping and taking hold of the thing as an object. ... [T]he appeal to criteria of clarity and obscurity [Aristotle's Topics] would be enough to establish the point made above: that this whole philosophical delimitation of metaphor is already constructed and worked upon by "metaphors." How could a piece of knowledge or language be clear or obscure properly speaking? All the concepts which have played a part in the delimitation of metaphor always have an origin and a force which are themselves "metaphorical."

In discussing the difference between content and form, we must remember that deconstruction's double-science is not a revocation of distinctions—between science and its rhetoric for example—but a more rigorous examination of the functioning of the entire oppositional axe.

There may be no way for philosophy to free itself from rhetoric, since there seems no way to judge whether or not it has freed itself, the categories for such a judgment being inextricably entwined with the matter to be judged. ... The distinction between the literal and the figurative, essential to discussions of the functioning of language, works differently when the deconstructive reversal identifies literal language as figures whose figurality has been forgotten instead of treating figures as deviations from proper, normal literality. (Culler, 1982, 148, 150)

From a structural point of view, metaphor has a crucial and fundamental function in scientific inquiry: it is the medium of exchange for the mechanism of *consilience*. This term was first coined by William Whewell (1840, Vol. 2, 230, quoted in the OED under "consilience".) as "Consilience of Inductions" in his *Philosophy of the Inductive Sciences*:

[T]he cases in which induction from classes of facts altogether different have thus *jumped together*, belong only to the best established theories which the history of science contains. And, as I shall have occasion to refer to this particular feature in their evidence, I will take the liberty of describing it by a particular phrase; and will term it the *Consilience of Inductions*.

In his History of the Inductive Sciences, the man who invented the term "scientist" in 1833 argues that "such coincidences, or consiliences ... are the test of truth." (Whewell, 1847, Vol. 2, 582) Consilience has emerged as the pre-positivist structural extension of Aristotelian a priori commonsense truth and has been exceptionally fruitful in natural sciences and especially biology (See Ruse, 1975 and 1981, and Kitcher, 1981). Bringing together disparate areas of inquiry under one unifying principle works, in the words of the historian and philosopher of biology Michael Ruse (1998, 2), in the following way:

On the one hand, the unifying principle throws explanatory light on the various sub-areas. On the other hand, the sub-areas combine to give credence to the unifying principle. Indeed, argued Whewell, you can thus have confidence in the truth of the principle, even without direct sensory evidence. Much as in a law-court, where one assigns guilt indirectly through circumstantial evidence, so in science you move beyond speculation indirectly through its circumstantial evidence.

I will illustrate and give an example below of the workings of consilience in reference to the concept of fractal boundaries.

Pop-Science

We can now return to the problem of pop-science or, more specifically, using laymen interpretations of scientific terminology as metaphors in a literary or linguistic inquiry. A prevalent example could be the use of "fractal boundary" to describe a general distinction or delimitation whose specific boundary—exactly where one ends and the other begins—cannot be established in a rigorous manner at a specific epistemological, axiological, contextual, or any level. This is what Derrida may refer to as the irreducibility of a concept to another—the permanence of a residual in space and time: différance (see Chapter 5). Is it necessary to be familiar with the mathematics of Benoit Mandelbrot in order to employ this term in a way that will enhance one's argument? After all in the "real" mathematics of fractal geometry, objects can have fractional dimensions which, when plotted, give rise to a fractal image such as the familiar Mandelbrot set which has a border that is infinitely detailed with a dimension between one and two. To most "literary types" such as myself², fractals are the psychedelic animations derived from fractal functions such as the one named after Mandelbrot. Writing or reading the term as a layman would serve two broad functions: first, an attempt to lend a respectable (in a modernist archival context) scientific "aura" to an otherwise "unscientific" prose—the object of Sokal's critique; and second, the efficient transmission of an idea emanating from scientific prose yet relevant to human experience. I agree with Sokal that a postmodern idea deserves better than apologetically seeking such modernist foundational justification. Furthermore I would urge literati to follow McCloskey's advice and do some homework before they flaunt established scientific terminology; heterodoxy needs to be a little more humble to effectively criticize an overbearing orthodoxy. I would however beg the question: could you suggest a better way to compactly describe a fractal boundary? and, in this function, in what way is such a "graft" from one discipline to another invalid? The criteria for validity in such a graft would be, in my opinion, not unlike McCloskey's Sprachethik only less problematic in that it refers "merely" to the functional appropriateness of a specific jargon within a specific different context.

^{2.} I should however thank the economics department of the University of North Carolina at Chapel Hill for giving me a smidgen more than a layman's understanding of mathematics. My core-curriculum professors admirably met that seemingly insurmountable challenge during my first years in the program.

Paleonymics

I mentioned above that Derrida usually refrains from using scientific terminology in his work. What he does do—sometimes almost obnoxiously—is employ and derive conclusions from obscure Greek terminology. Derrida's name for this other type of graft in which new meanings are grafted onto old names is *paleonymics*. What function does it serve in his texts? We have seen that the speech-writing opposition is central to western thought. Derrida looks at its pervasiveness in several of his works when he develops the concept of the archi-writing that includes speaking. In *La Dissémination* (1972c) for example, he notes that Plato describes writing as *pharmakon* (remedy and/or poison) that are evocative of the *pharmakon* that Socrates is sentenced to drink in the *phaedrus*. Derrida examines the etymology and usage of several other *phonetically and thematically* related Greek words: *pharmakeus* (sorcerer and/or prisoner) and *pharmakos* (scapegoat). As Rorty (1978, 146-47) observes:

The most shocking thing about Derrida's work is his use of multilingual puns, joke etymologies, allusions from anywhere, and phonic and typographical gimmicks.

In this specific example Derrida is reading Plato's phaedrus as a story of a society whose ills can only be cured by the ritualistic pharmakon (remedy) of a pharmakos (scapegoat) in which a wise old pharmakeus (sorcerer, philosopher, and, within the same word, inevitably a prisoner) must die by pharmakon (poison). We have here one of the major works of Western culture, the phaedrus, reduced to an infinite chain: pharmakon \rightarrow pharmakos \rightarrow pharmakeus \rightarrow pharmakon \rightarrow ... "The scandal of Derrida's writing would be the attempt to give 'philosophical' status to 'fortuitous' resemblances or connections." (Culler, 1982, 144) This is the interdisciplinary "pop-science" problem again. But Culler goes on to point out that:

The fact that Plato applies the term pharmakon to writing and pharmakeus to Socrates or that Austin speaks of fictional discourse as "parasitic" is important as a symptom of a deeper logic at work in their arguments, a logic which would doubtless have manifested itself in other ways if these particular terms had been omitted, since it involves the most fundamental articulations of the sphere of discourse. ... Treating philosophical writings not as statements of positions but as texts—heterogeneous discourses structured by a variety of canny and uncanny exigencies—they [deconstructors] have taken seriously apparently trivial or gratuitous elements that philosophers might have dismissed as accidents of

expression and presentation, and have revealed surprising performative dimensions of these supposedly constative writing. (146-47)

The functioning of the concept of the *scapegoat*, discovered with "fortuitous resemblances or connections" is then developed as a history of the function of *exclusion* through which the concept of order and the archive are defined and maintained in Western culture: a "worthy" subject for philosophy.

Deconstruction does not consist of moving from one concept to another but of reversing and displacing a conceptual order as well as the nonconceptual order with which it is articulated. For example, writing, as a classical concept, entails predicates that have been subordinated, excluded, or held in abeyance by forces and according to necessities to be analyzed. It is those predicates ... whose force of generality, generalization, and generativity is liberated, grafted onto a "new" concept of writing that corresponds as well to what has always resisted the prior organization of forces, always constituted the residue irreducible to the dominant force organizing the hierarchy that we may refer to, in brief, as logocentric. To leave this new concept the old name of writing is to maintain the structure of the graft, the transition and indispensable adherence to an effective intervention in the constituted historical field. It is to give everything at stake in the operations of deconstruction the chance, the force, the power of communication. (Derrida, 1972a, 393/195)

There is a parallel here between my suggestion for a functional *Sprachethik* to distinguish between fruitful and pathetic uses of scientific metaphors in critical theory, and Culler's reading of Derrida's *paleonymics* as what could be called a *psychoanalysis* of the text. This parallel informs the entire project of this paper in that it shows how deconstructive close readings (of close readings) can project an ethical maxim such as *Sprachethik* with all its limitations as pointed out by Mäki and others (see Part IV), onto another level of inquiry in which the actual functioning of language in a cultural context is addressed. This psychoanalysis of the text can be seen as the non-foundational microfoundations that could allow McCloskey's economic criticism to make inroads into a better understanding of the economic archive.

I have by now sidetracked quite significantly from my stated objective of presenting postmodern philosophy, or at least its two most important and influential, in my judgement, protagonists. As I explained at the beginning of Part II, I have attempted to remain close to the original in terms of the terminology and the modes of inquiry employed. Above all, I hope to have significantly problematized the received view on the

functioning of language and knowledge, and shown how very treacherous the path of self-reflexive meta-theoretical inquiry into the production of knowledge is. I take solace in a statement made by Philip Mirowski in a recent review essay in the *Journal of the History of Economic Thought*: "Intellectual history, when done well, is terribly tangled and nonlinear" (Mirowski, 2000, 90).

With some of the complications raised still fresh in our minds, I will now proceed with the next section of my text (Part IV – Refutation: McCloskey's Critics) which starts with a close examination of Uskali Mäki's analytical reconstruction of McCloskey's philosophical framework underlying her rhetorical project.

PART IV – REFUTATION: MCCLOSKEY'S CRITICS

Chapter 8: The Mäki Diagnosis

Probably the most interesting and fruitful response to McCloskey's rhetoric was the economic philosopher Uskali Mäki's series of critiques focusing primarily on his specialty: realism. These include "How to combine Rhetoric and Realism in the Methodology of Economics" (1988a), "Realism, Economics and Rhetoric: a Rejoinder to McCloskey" (1988b), "Two Philosophies of the Rhetoric of Economics" (1993), and finally "Diagnosing McCloskey" (1995) which came right after McCloskey's *Knowledge and Persuasion* (1994). The diagnosis includes and refines Mäki's major ideas, and has the advantage of having a direct response by McCloskey in the same issue of the *Journal of Economic Literature*: "Modern Epistemology Against Analytical Philosophy: A Reply to Mäki" (1995a). Since I intend to proceed with a close reading of one representative text, the diagnosis seems ideal.

Mäki opens with a very friendly tone thanking McCloskey for her discussion and draft comments on what was to become his "Two Philosophies of the Rhetoric of Economics" (1993). He notes the confusion with which McCloskey's work has been received, and proposes to rationally reconstruct her specifically philosophical ideas. Mäki briefly mentions the study of the rhetoric of science and the New Rhetoric to point out that "McCloskey's version can be understood only in the context of the specific conundrums of its subject, economics, and the background of general intellectual currents" (Mäki 1995, 1301)¹. As an illustration, he argues that "McCloskey's views offer themselves as a successor to Friedman's famous methodological strictures in the 1950's." (1301). This is an interesting *rhetorical* argument that performs its stated pedagogical aims admirably. Understanding the relationship between McCloskey and Friedman's respective "philosophies"—as well as the specific genealogy implied by the

^{1.} Unless stated otherwise, all quotes in this chapter are from Mäki's "Diagnosing McCloskey" (1995).

concept "successor" (1301)—requires a multifaceted approach. Māki leaves the details to the reader but I would briefly mention some of the common threads that must have entered into his consideration: The most obvious is that McCloskey and Friedman share a political affiliation as Chicago, laisser-fair economists. The example then takes an implicit rhetorical turn when it functions as a hypo-text (or underlying theme) to Māki's eventual evaluation of McCloskey's work. Friedman's methodological instrumentalism is widely regarded as second-rate both philosophically and methodologically. His 1953 paper has however enjoyed a level of attention that is disproportional to its contribution and is in fact the single most quoted methodological/philosophical paper in economics. With his little illustration of the importance of placing his subject in the "context of the specific conundrums of its subject, economics, and the background of general intellectual currents" (1301), Māki fires the first volley in his exchange with McCloskey before the actual "hostilities" even begin. I suspect that it is the brunt of this rhetorical critique that irked McCloskey's into her relatively abrasive response (see below).

Mäki states his goals in this essay are to "dispel some of the prevailing misunderstanding" with a

clarification and partial reconstruction of McCloskey's views so as to make their presuppositions and implications clearer than they have been in his and his commentators' writings. ... On the other hand, the clarification unavoidably turns into a critical diagnosis. It appears that there is something in need of a diagnosis, something that is not quite all right; the clarification reveals that McCloskey does not have an entirely unambiguous and coherent view of economics as rhetoric. This clarification and critique should make it easier for economists to reassess the attempted revolution, the project of viewing economics as rhetoric. (1301)

Māki organizes his clarifying reconstruction along three axes: a concept of rhetoric, a theory of truth, and a "theory of the social organization of economics (presumed to be a market order)" (1301).

Concept of Rhetoric

Mäki points out that this is a concept with a long and torturous history and that its interpretations can range from "eloquence of speech" to "the study of the use of symbols in general" (1302). McCloskey's reconstructed characterization of the concept of rhetoric

first recognizes the "obvious distinction between rhetoric as linguistic practice and rhetoric as the systematic study of that practice" (1302). However when setting out to do the latter, McCloskey provides

various fragmented and scattered characterizations which isolate a number of its possible aspects in terms of different primitive concepts; this may give the impression of an unorganized collection of partial characterizations. ... To make sense of his position, we must gather these threads together. (1302)

The primitive concepts McCloskey uses to characterize rhetoric are conversation [R1], argument [R2], and persuasion [R3]². Combining these three primitives yields [R4] to which he adds a "moral component...often expressed in terms of *honesty*...[arriving at]...a rough definition of rhetoric in terms of persuasion, audience, argument, and conversation with a moral tone" (1303).

[R5] Rhetoric is the use of arguments to persuade one's audience in an honest conversation (and the study thereof).

From this perspective, rhetoric is a social process that involves

- [i] A persuader (speaker, writer);
- [ii] A persuadee or an audience (listener, reader);
- [iii] The aim of the persuader to persuade the persuadee;
- [iv] Argument as the means to attain the aim;
- [v] Honest conversation as the social channel of persuasion. (1303)

This is then suggested as coming "very close to what McCloskey has tried to pursue.4" (1303 footnote in the original). Footnote four adds an implicit [R6] which Mäki chooses to exclude (first exclusion supporting Mäki's concept of rhetoric) because it is "devoid of any specifications of the goals of language use... it is not clear how it fits with the other characterizations" (1303, n4). He quotes McCloskey on this characterization: "Rhetoric is an economics of language, the study of how scarce means are allocated to the insatiable desires of people to be heard" (McCloskey in Mäki 1995, 1303, n4). [R6] could have been—in accordance with the reconstructive structure suggested by Mäki—be specified as follows:

[R6] Rhetoric is the use of arguments to persuade one's audience in an honest conversation which is governed by conflict of interests and scarcity (and the study thereof).

^{2.} I am using Mäki's notations [Rx] to facilitate references to the original text.

How to define an *economics* of anything in a single sub-phrase is a challenging reductive exercise that I shall leave to others. The list [i] to [v] (see [R5] above) could now include a new item:

[vi] Socio-political system of knowledge-production: an archive.

Māki describes [R5] (see above) with the following words:

This notion of rhetoric is coherent. It is also very thick as it combines a number of different components. We next consider the concept of rhetoric formulated more thinly in terms of only [i]-[iv], that is, rhetoric in the sense of [R4]. (1303)

Reproduced here for convenience:

[R4] Rhetoric is the use of arguments to persuade one's audience (and the study thereof). (1303)

This exclusion (Second exclusion supporting Mäki's concept of rhetoric) ends the section titled "McCloskey's Multiple Rhetorics" (1301) with the elimination of the moral component in the reconstruction of McCloskey's definition of rhetoric. It is thus surprising to find that it immediately precedes section 3: "Rhetorical Justification of Beliefs" (1303) which starts with the following paragraph:

One is attracted by a rhetorical notion of the justification of economic theories and models if one accepts the following statements. Economic theories and models do not speak for themselves and against their rivals. Data do not speak for or against theories. Logic does not speak for or against theories. Economists speak for or against theories by appealing to data, logic, and a number of other things. Economists attempt to justify theories by trying to persuade their audiences. (1303; emphasis added)

He then directly proceeds to "clarify the implications for the idea of justification of the concept of rhetoric in the sense of [R4]" (1303) The reader will recall that [R4] (see above) involves persuasion [iii] and argument [iv].

Mäki's persuasion explicitly subsumes authorial intent: "More precisely, the aim of the persuader is to increase the intensity of the persuadee's belief in a statement" (1304). Mäki's Arguments are reminiscent of semiotics and consist of two parts and a relationship between them: premises—that the persuader assumes are shared by the persuadee— conclusions—in which the persuader wants to intensify the persuadee's belief—and their relationship. The latter is left very broad and defined as a "connection" (rhetorical?) between the premises and the conclusions "which the persuader assumes that the persuadee accepts or finds appealing. Typically, many elements of such an

argument remain implicit" (1304). The path taken, or not, from premises to conclusions is not a simple one and could involve a multitude of very thick series such as logic (defined in various ways), empathy, pride, manipulation, fear, experience, pathos, etc. Mäki recognizes this as McCloskey's appeal for argumentative pluralism.

Māki recognizes that persuasion is based on belief and manipulations thereof. "A belief is a property predicable of human beings in their relation to statements: people believe in statements" (1304). The relationship between statements and human beings is a relation of plausibility. He then defines rhetorical persuasion (I am unsure as to what non-rhetorical persuasion may be, and why Māki makes a point of excluding it) as "the transference of plausibility by means of arguments" (1304). What is transferred is the plausibility (vis à vie the persuadee) of the premises to the plausibility (and thus enhancement of belief) of the conclusions.

Mäki defines *coherence* as characterizing the relationship between premises and conclusions. Like persuasion, argument too undergoes a specification, and the discussion addresses *rhetorical* argument (again: what is *non*-rhetorical argument? why the exclusion?). Coherence and plausibility relate as follows: "the increase in the plausibility of the conclusion is brought about by the coherence between the conclusion and the premises" (1304).

Before continuing I would like to tentatively answer the "rhetorical" questions I posed in brackets above, concerning why Māki defines persuasion and argument as specifically rhetoric. Is he implicitly excluding non-rhetorical persuasion and argument or is the adjective redundant? Since redundancy is generally all but nonexistent in Māki's prose, it is possible that he uses the qualifying term "rhetorical" for emphasis. The Foucauldian distinction between discursive and non-discursive structures (see Chapter 6) can shed light on the question of whether there are such things as non-rhetorical persuasion and argument? Non-rhetorical persuasion and argument are the *institutions* of persuasion and argument. They are of course fundamentally tied to their discursive counterparts with which they have a relationship of presupposition—what Māki calls

^{3.} Mäki uses italics for emphasis rather liberally and—I believe—skillfully to highlight major concepts he defines and propositions he constructs. Unless specifically stated otherwise I will retain his emphases.

coherence. Examples of non-discursive persuasion and argument could be the institutions of conferences, journals, tenure-tracks, email correspondence, or even the fish market.

The groundwork is now in place for Mäki's diagnosis of McCloskey's concept of rhetoric:

We are now ready to suggest that the acknowledgement of rhetoric in the sense of [R4] as rational amounts to accepting a coherence theory of justification (but not vice versa). By implication, this applies also to [R5], McCloskey's thickest version. ... He is not only making a descriptive point about how economists in fact adopt beliefs, but also that in so doing economists behave in a scientifically rational way." (1305)

The implication is that "all beliefs are justified by their relations to other beliefs with which they cohere. ... Coherence theory is thus in conflict with forms of what is customarily called foundationalism" (1305). Here of course is where analytical philosophy—necessarily foundationalist—is forced to reject the alien relativity of coherence theory. But Mäki is much too elegant and persuasive to resort to a vulgar tu quoque (or gotcha argument as McCloskey calls it) with regard to the problem of standards of justification or, closer to our disciplinary home, theory choice. The "solution" is then to add "specific constraints on the set of relevant beliefs." forming "theories of the nature of plausibility. All of these theories suggest that it is coherence constrained in a certain way that constitutes plausibility" (1305). This is Mäki's reconstruction of what McCloskey does with his definition of rhetoric; specifically "It turns out that although he [McCloskey] is extremely ambiguous about this notion, specifications can be suggested which are consistent with his notion of rhetoric formulated in [R5] [recall: rhetoric plus ethics but minus economics]." The trouble is that it "turns out that with these specifications, truth amounts to the same thing as plausibility" (1305).

Theory of Truth

McCloskey's theory of truth is the source of the trouble but it is even harder to pin-down than her concept of rhetoric:

The problem... is that we do not know what McCloskey means by "true" and by related expressions such as capital-T "True", "correct," and "right." He uses these expressions for making his case as if they delivered intuitively clear ideas. But they do not. Unfortunately, they appear to have

worked as persuasive tools; many commentators have adopted the expressions without further question. While I was able to identify a coherent notion of rhetoric in his writing, I did not have similar success with his vocabulary of veracity. (1305)

Māki nevertheless proceeds by establishing an initial reference point: a correspondence theory of truth he has suggested in his "How to Combine Rhetoric and Realism in the Methodology of Economics" (Māki 1988a, 97), and one to which McCloskey has explicitly consented in her "Two Replies and a Dialogue on the Rhetoric of Economics: Māki, Rappaport, and Rosenberg" (McCloskey, 1988b, 150-166.)

- [t1] The truth (with small t) of a statement S consists in its correspondence with objective (i.e., S-independent) reality.
- [T2] The Truth (with capital T) of a statement consists in justified certainty about its truth in the sense of [11].

Mäki realizes that "contrary to his [McCloskey's] admission regarding the notion of capital-T Truth, McCloskey has several other characterizations of it" (1306). Worst yet, McCloskey's most ubiquitous definition for capital-T Truth as reformulated by Mäki (designated [T3]) turns out to be the same as [t1] above which radically undermines the differentiation between [t1] and [T2] and thus renders the distinction between the two concepts of truth based on the possibility of justified certainty useless for Mäki.

Mining McCloskey's rhetoric for other prose from which to suggest other "interpretive reformulations" (1306). Mäki quotes the following from McCloskey which—since it is crucial for his reconstruction—I reproduce in its entirety:

[T]here is a problem with Truth. The problem is not with lowercase truth, which gives answers to questions arising now in human conversations, requiring no access to the mind of God: On a Fahrenheit scale, what is the temperature in Iowa City this afternoon?... You and I can answer such questions, improving our answers in shared discourse. The problem comes when trying to vault into a higher realm, asking whether such and such a methodology will lead ultimately to the end of the conversation, to the final Truth... Questions such as "What will economics look like once it is finished?" are not answerable on this side of the Last Judgement. (McCloskey 1988c, 245-57, in Mäki 1995, 1306)

Mäki notes that a correspondence theory of truth is no longer behind neither formulations of truth nor Truth. He proposes a new reformulation of small-t truth:

[t4] The truth (with small t) of a statement consists in its coherence with a certain set of beliefs, that humans end up with in an ongoing conversation before the ideal limit of all conversation. (1306)

There are two major characteristics differentiating [t4] from the initial [t1]: First, reformulated truth [t4] is based on a coherence theory of truth "because it makes truth dependent on beliefs and argument in a conversation rather than on the relationship between a statement and reality" (1307). Second, "truth [is] something that is essentially attainable" (1307). The problem—as McCloskey asserts in the passage quoted above—is with capital-T Truth. Māki starts with [T5] which reads: "The Truth (with capital T) of a statement consists in its coherence with God's beliefs," but then gives it a "more profane face" (1307) as follows:

[T6] The Truth (with capital T) of a statement consists in its coherence with a set of human beliefs reached as a result of human conversation taken to its ideal limit. (1307)

Mäki thus arrives at two definitions of (lowercase-t) truth: coherent and correspondent, and two coherent and two correspondent definitions of (Capital-T) Truth. Furthermore he points out that unlike the case of rhetoric ([R1]-[R5]) the definitions are not all mutually consistent and that they do not complement each other. Noting (in a footnote) that even this is not satisfactorily exhaustive, he proposes

to continue the clarification and reconstruction of McCloskey's views by adopting [t4] as the most plausible specification of the concept of small-t truth and [T6] as the most plausible specification of the concept of capital-T Truth. These two seem also to provide the best fit with the way that McCloskey characterizes the notion of rhetoric, as given by [R5]. (1308)

For the reader's convenience I reproduce the definitions of [t4] and [T6] here:

- [t4] The truth (with small t) of a statement consists in its coherence with a certain set of beliefs, that humans end up with in an ongoing conversation before the ideal limit of all conversation. (1306)
- [T6] The Truth (with capital T) of a statement consists in its coherence with a set of human beliefs reached as a result of human conversation taken to its ideal limit. (1307)

We now have a reconstructed McCloskey subscribing to both a coherent theory of justification (rhetoric) and a coherent theory of truth (pragmatic). The implications are indeed radical:

there is no difference between the general character of plausibility and truth, or between that of justification and truth. The question of the criteria of truth (the proper purview of a theory of justification) and the question of the concept of truth (the proper purview of a theory of truth) are

conflated. Coherence constitutes both the criterion and the essence of truth. (1308)

Much like the move from [R4] to [R5], coherent theories of truth must also impose constraints on permissible sets of beliefs, otherwise any theory constructed as a coherent system would be true. [R5] added an ethical constraint: "honest conversation" for that purpose. McCloskey's vocabulary of veracity is however double which—as I hope is becoming evident by now—is a fundamental aspect of a post-structural view of the world. At this point Mäki ascribes no special significance to the fact that even in his own reconstruction, truth is irreducibly multiple and exclusions are the only way out of this bind: The criteria he finds with regard to truth (defined by the pair [t4], [T6]) is that of attainability which is a property of [t4] and not of [T6]. The relationship of attainability here can be readily deconstructed in a way I hope would intrigue Mäki: We have a differential hierarchical opposition (the direction of the hierarchy would be [t4] before [T6] for McCloskey who privileges the former) based on human attainability, but also, occupying the same space, a deferential relationship since the notion of attainability is constructed as depending on the deferral of human conversation to its final, ideal limit. What just happened to Mäki's text is an auto-deconstruction in which the conceptual structure emerges as that of difference: the Derridian structure of difference and deferral (see Chapter 5). Neither Mäki nor McCloskey would appear to have realized that herein lies the link between analytical philosophy and post-structural epistemology.

Theory of the Social Organization of Economics

There are more constraints Māki finds in McCloskey's texts: First there is the now familiar social constraint he calls an "elite theory of truth" which is formulated as follows:

[t4⁸] The truth (with small t) of a statement consists in its coherence with a certain set of beliefs that a privileged set of humans end up with in an ongoing conversation before the ideal limit of all conversation. (1309)

Mäki disapproves of this approach not on humanist egalitarian grounds but on the grounds that there is an internal contradiction in McCloskey's thesis when he writes:

We believe and act on what persuades us—not what persuades a majority of a *badly chosen* jury, but what persuades *well-educated* participants in the conversations of our civilization and of our field. To attempt to go

beyond persuasive reasoning is to let epistemology limit reasonable persuasion." (McCloskey, 1985, 46, in Mäki, 1995, 1310)

The contradiction is that McCloskey herself "goes beyond persuasive reasoning" in imposing social constraints that exclude the badly chosen and badly-educated from the conversation which is the forum for persuasive reasoning. Furthermore the social-dynamics of the rise of such an elite is not addressed at all.

With this notion of what I would call realpolitik truth [t4^s] we are just one step away from the full-blown bourgeois virtue based on Sprachethik; what Māki calls an "angel theory of truth" reformulated below:

[t4^m] The truth (with small t) of a statement consists in its coherence with a certain set of beliefs that a privileged set of humans, obeying the canons of *Sprachethik*, end up with in an ongoing conversation before the ideal limit of all conversation. (1309)

Now all that is to be done to complete the reconstruction is to plug [R5] into $[t4^m]$ as a characterization of a conversation obeying the canons of *Sprachethik*, and *voilà*:

The conjunction of [R5] and [t4^m] gives a concise summary of my reconstructive interpretation of McCloskey's conception of rhetoric as persuasion aiming at morally and socially constrained plausibility. (1310)

Mäki introduces a "Habermasian idiom" in order to view the [t4^m] notion of truth as herrschaftsfrei coherence: "truth as dominance-free plausibility" (1311) Mäki informs us that it was Jürgen Habermas who coined the term Sprachethik and introduces another Habermasian idiom as a plausible interpretation. Mäki reintroduces the supplementary (relegated to footnote 4) version of rhetoric to which I decided to award a full [R6] designation (see above) to reconstruct McCloskey's herrschaftsfrei social order. In Mäki's words—interlaced and echoing quotes that he sprach-ethically selects from McCloskey (1985b, 1988c, and 1989a)—it is:

the liberal market order. ...Laissez fair is the right policy regarding this market, not methodological control...Instead of methodological regulation from outside, economics can rely on the self-government by individual scholars obeying the dicta of *Sprachethik* ...Methodology and Epistemology spoil conversations; let's get rid of them (1311)

Whether knowingly or not, Mäki performs a deconstructive move in the following paragraph:

We have earlier cited Solow, whose concern was that McCloskey's metaphor of economics as an ongoing conversation (rhetoric in the sense

of [R1]) is "too permissive." We have now seen that it is permissive in the sense that it suggests liberating economists from external methodological regulation. At the same time, developed fully in terms of rhetoric in the sense of [R5], McCloskey's metatheory is extremely impermissive in that it imposes severe moral and social constraints on conversation. (1311, emphasis added)

Mäki demonstrates how in order to support the reversal of the hierarchical opposition underlying the debate on the problem of the real—coherent truth versus corespondent Truth in this case—McCloskey must resort to constraining the rhetoric of small-t truth. I used the term realpolitik truth to describe Mäki's [t4^s] (elite theory of truth) which together with [t4^m] (angel theory of truth) and its insistence on a liberal-market-order Sprachethik that is dominance-free: a sprach-politik—forms Mäki's reconstruction of McCloskey. A realpolitik truth with a moralistic sprach-politik can be seen as a real-ethik with all the dark connotations such a term tends to bring to a humanist such as McCloskey; surely not what she had intended. Here is where Mäki's diagnosis operates in the realm of what McCloskey in her reply calls "modern epistemology" (see below.) This is not a "gotcha" argument nor an analytical pointing-out-of-contradictions (though it may have started that way) and McCloskey has yet to respond to this critique. This however is not developed by Mäki or other McCloskey commentators that I am aware of. Furthermore, Mäki's deconstruction illustrates the point I have been trying to make throughout this text: deconstruction is a strategic rhetorical procedure that is an integral part of rational thought and its as-sociated phenomena such as argument, persuasion, analysis, reconstruction, and diagnosis. The only thing contemporary about it is that these processes are receiving close explicit attention in a Derridian reading such as mine.

In the next section Māki lists what McCloskey is not: she is not an intellectual anarchist, nor a postmodernist, nor is she a realist defined as one who subscribes to a correspondence theory of truth. The first negation should no longer be problematic, the last is seen as McCloskey's problem and is the basis of the proposed amendments Māki suggests in the following sections, and the middle one is misleading. Declaring McCloskey as not a postmodern may be good politics especially when defined by Māki as Political Correctness; she is not that offshoot of the obscure label of postmodernism. I strongly agree with Māki that the term postmodern often obscures more than it reveals and is hence rather useless (see Chapter 5).

McCloskey's early evaluation of mainstream economics were rather favorable, "implying that the major ingredients of the substance of mainstream economics are true in the sense of [t4^m], i.e., true or plausible or rhetorically justified in the sense of morally constrained coherence" (1313). McCloskey has since adjusted her evaluation unfavorably but Mäki is justified in calling the attention to her apologetic rhetoric when he observes that "If the moral constraint does not hold, as was to be expected, what purpose does McCloskey's angel theory of truth—i.e., [t4^m]—serve?" (1313). Since McCloskey admits and in fact stresses how abominable economics' record on *sprachethik* is,

in what sense is it possible to state that economics is well off, given that strict morality was built into the notion of truth? If economists are not going to behave like angels...does this turn McCloskey's small-t truth into yet another capital-T Truth, an unattainable utopia?" (1313)

Mäki is describing here the auto-deconstructive movement in McCloskey's reasoning or, more precisely, reconstruction thereof. McCloskey criticized economic formalism for lacking a *quantitative rhetoric of approximation* (McCloskey 1994, 141-42) and thus unable to be operational in the real world. Here the tables are turned:

McCloskey would like truth to be operational. But how would he operationalize it? How would he measure the degree to which the *Sprachethik* is observed? The only consistent method would be by checking whether meta-level statements about the degree to which the *Sprachethik* is observed are plausible in a morally constrained way. How should he measure the plausibility of these latter statements? Only by appealing to a morally constrained plausibility of an even higher degree. And so on, ad infinitum. An infinite regress becomes unavoidable, and truth is no longer operational. (1313)

Opting to reconstruct McCloskey based on the *elite theory of truth* [t4st] instead of the *angel theory of truth* [t4st] is also inoperational because of the problem of selecting the elite. I would suggest that using the supplementary characterization of rhetoric as an economics of ideas [R6] could specify a social-dynamic that could explain the rise and decline of an elite. In the *Tratato* (1916), Pareto had developed a theory according to which the social-residuals of combination (innovation) and conservation (conservatism) drive an elite-cycle. Briefly: strong combinatory tendencies in a social group lead to their ascendance through social, economic, and political innovations. Their success however leads to the strengthening of their conservative tendencies as they try to maintain their position as an elite. This inherent reduction in adaptability leads to their inevitable

decline and the rise of another social group that is more adaptable. This is essentially an argument based on social evolution, an example of which would be the decline of the aristocracy and rise of the bourgeoisie (on Pareto's political economy including his theory of Elite cycles see Tarascio 1968 and 1974). This extension could enhance what Māki calls McCloskey's elite theory of truth [t4⁵] but a reconstruction based on such an augmented [R6] and [t4⁵] could not escape auto-deconstruction either—no rational idea can.

The final diagnosis follows:

His own [McCloskey's] normative assessments of the ways of economics fail to be supported by his metatheory of economics. His assessments must have some other metatheoretical basis which his rhetorical metatheory fails to explicate. ... In order to help McCloskey avoid at least some of the above problems, I suggest a simple remedy: drop both elites and angels from your theory of truth as well as from your concept of rhetoric; give them a role at most in your theory of justification." (1315)

Māki's suggestions are indeed simple and come as something of an anticlimax in the narrative. Removing ethics (angels) and politics (elites) from both the concepts of truth and rhetoric—working with [t1] and [R4] for those who are still keeping track—in order to reduce thick readings to make them more consistent and operational is a traditional modernist move and is somehow surprising in such a carefully crafted text. Keeping the concepts of truth separate from the concept of plausibility solves all of the technical problems raised by Māki but at the cost of reducing McCloskey's work to triviality. In the name of being operational—implicitly defined as non-contradictory—Māki reduces the meta-conversation about the conversation about economics to the level of a weak defense (see Chapter 4):

Thus, the *Sprachethik* may be a useful means for attaining truths and for measuring the degree to which truths have been attained, even if it leads into problems if incorporated into our definition of truth. (1316)

McCloskey's reply to Mäki

McCloskey's reply appeared immediately following Mäki's diagnosis and was titled: "Modern Epistemology Against Analytical Philosophy: A Reply to Mäki" (McCloskey 1995a). It takes the form of a Socratic *elenchus* but, as always, with a touch of *Sprachethik* to temper the inherent Platonist aggressive and condescending tone of

such a cross-examination. McCloskey appreciates "the care and sympathy with which Uskali Māki has read my books" and observes that overall "his reading is notably accurate. I've had worse readers. Much. ...I agree therefore with most of what Māki says" (McCloskey 1995a, 1319). She agrees, for example, that her definitions of rhetoric are "fragmented and scattered" (Māki 1995 quoted in McCloskey 1995a, 1319) but argues that they are "justifiably fragmented and scattered, as Māki agrees" (McCloskey 1995a, 1319). Whether Māki *explicitly* agrees with this justification is not specified but the paragraph that follows sheds some light on the supposed—and perhaps only—agreement:

"Rhetoric" is a word like democracy or freedom or capitalism, a complicated matter not easily fitted onto a 3" x 5" card. It is an essentially contested concept, which concerns half of our intellectual culture since the Greeks. Unlike some readers, Mäki has troubled to become acquainted with the other half. (McCloskey 1995a, 1319)

So there is agreement that the subject matter at hand is complicated, old, and difficult; a traditional *Sprach*-ethical "back-slapping" that usually degenerates quickly into slapping *tout-court*.

The metaphor of fitting complex ideas into a 3" x 5" card undoubtedly refers to Mäki's [R1]-[R5] and [t1]-[T6] reconstructive series and thus implicitly accuses Mäki of over-reductionism. The rest of the quoted text is a little more confusing with its reference to half of our intellectual culture. Which half of whose intellectual culture is concerned with rhetorics? And what other half has Mäki acquainted himself with? The simple story could be that we are discussing Western intellectual culture, and that rhetoric is a concern of the latter half of hierarchically opposed concepts such as: science/art, fact/fiction, substance/form, etc. Mäki thus is admirable as a scholar operating in the former half (analytical philosophy's domain) who is willing to go "slumming" with the "other half'(i.e. modern epistemology that operates in the latter or even in both halves.) McCloskey's disagreement with Mäki is on the latter's project of assimilating the "uncanny" modern epistemology into analytical philosophy:

Where we disagree is on analytical philosophy. In a nutshell, Mäki wants to go on with a project of analytical philosophy c. 1955 that most professionals now think is dead. I by contrast would like to move beyond it, as would many recent philosophers, worldly and otherwise. (McCloskey 1995a, 1319)

McCloskey repeatedly "dates" Mäki with her reference to the year 1955 (no less than six times in this brief text). She appeals to authority in declaring at least Mäki's version of analytical philosophy dead. It is interesting she alludes to other "worldly" philosophers—which I understand as those concerned with the problem of the real (world)—who do not subscribe to Mäki's outdated approach. As often is the case, McCloskey is launching a double-pronged attack: Māki's diagnosis uses inappropriate tools—such as reconstructing primitives and locating contradictions—for a metatheoretical discussion of a complex and essentially contested concept such as rhetoric: an epistemological contradiction, while at the political level—in the broadest sense of a strategic agenda—he is aggressively helping McCloskey's own agenda by offering her what can be seen as a gift⁴ of a consistent and operational reconstruction along the lines of "analytical philosophy c. 1955."

McCloskey specifically takes issue with the principal hierarchical opposition underlying Māki's critique: correspondence *versus* coherence theories of truth. She describes the opposition's deployment as follows:

Having analyzed the definitions of truth into two sorts, the philosophers of 1955 and now Mäki make a strange rhetorical move: "O.K.: choose between them. Go ahead. You must." (McCloskey, 1995a, 1319)

She then argues that "correspondence and coherence do not have to be 'mutually consistent'" (McCloskey 1995a, 1319, "mutually consistent" is the term used by Mäki) and that, in fact, they are used simultaneously in scientific argument. McCloskey demonstrates this in Mäki's diagnosis:

Mäki uses correspondence to extract true statements about my writings; and the notions he is able to extract will depend on coherence with what he already believes—for example, about epistemology. (McCloskey, 1995a, 1319)

Mäki's definition of a *realist* as someone who believes only in a correspondence theory of truth is the foundational center of the argument according to which McCloskey is not a realist. McCloskey retorts that like many other people who call themselves realists, she does not hold *only* a coherence theory of truth.

^{4.} There is a small but fascinating body of literature about the status of the gift in economics. Best known is Marcel Mauss, "Essai sur le don" (1925), but more relevant here are recent works relating to postmodern interpretations of the gift including Philip Mirowski, "Refusing the Gift+" (1997), and Antonio Callari, "The Ghost of the Gift: The Unlikelihood of Economics" (1999).

I hold both coherence and correspondence theories (and while we're at it, 20 other theories: the vocabulary of persuasion is richer than one plus one). I don't see why scientists can't hold both, or 22, and yet remain free from hassling by old-fashioned analytic philosophers for being "inconsistent." (McCloskey, 1995a, 1320)

McCloskey's puzzlement over Māki's "strange rhetorical move" (McCloskey, 1995a, 1319, quoted above) in which he insists that correspondence and coherent theories of truth are mutually exclusive, has now taken a more aggressive tone. She points out that the imposed choice is between two versions of small-t truth: [t1] based on correspondence or [t4] based on coherence in Māki's reconstruction, and that her Godmetaphor for the transcendental Big-T Truth is misunderstood by Māki. Unfortunately McCloskey does not offer further information concerning this misunderstanding and concludes the part of the reply that addresses the reconstructive elements in Māki as follows:

It is therefore not surprising to conclude, as Māki does after some analytical heavy lifting, that Big-T Truth is not the same thing as small-t and that I don't think much of Big-T. (The reason I don't think much of it, incidentally, is its use for aggression.) (McCloskey, 1995a, 1320)

The incidental remark in brackets alludes to Mäki's diagnosis of McCloskey's preference for small-t truth as due to its "essential attainability" (Mäki 1995, 1307), and is perhaps a clue for understanding Mäki's misunderstanding. The point—as I deconstruct it—is that a relationship of *deferment* underwrites the concept of attainability. which is built into his reconstruction of McCloskey's concept of small-t truth and Big-T Truth. That, in turn, is what leads him to found his argument on the differential relationship between correspondence and coherence. This is an example of the prevalent confusion between the deferral and the difference that inhabit relations of difference which are, as we have seen, an integral part of rational thought. Though no "deconstructionist," Mäki does employ an implicit deconstructive move of his own when he shows how McCloskey is forced to erect social foundations for his concept(s) of truth in the absence of strict epistemological foundations. Specifically, McCloskey must resort to constraining the rhetoric of small-t truth: I used the term realpolitik truth to describe Mäki's [t4^s] (elite theory of truth) which—together with [t4^m] (angel theory of truth) and its insistence on a liberal-market-order Sprachethik that is dominance-free: a sprachpolitik—forms Mäki's reconstruction of McCloskey. The apparent incommensurability

and thus futility of the Māki and McCloskey's Wittgensteinian "language-game" makes way for interesting insights into alternative modes of rhetoric once a self-reflexive deconstructive reading is applied; another illustration of the effectiveness of Derridian deconstruction.

"After these philosophical preliminaries, Māki turns to my sociology of knowledge. He tries to convict me of an anti-democratic delight in an 'elite'" (McCloskey, 1995a, 1320). McCloskey underplays the *realpolitik* of her concept of the socially constrained economics conversation but does not answer questions concerning the emergence and social dynamics of an inevitable elite.

All I have in mind is that the people speaking in a conversation of science are often worth listening to when a scientific assertion is at issue. I don't see how else we can decide whether a scientific assertion is true. ... Māki quite properly emphasizes that my sociology becomes ethics when it turns to normative issues, such as what standard of persuasiveness an economic scientist should use. Again, I don't see how else we can talk about normative issues except by introducing norms. ... Māki sneers at the introduction of ethics—an "angel theory of truth," says he. He calls it "optimistic" and "utopian." ... That's what ethical talk is, and ethical talk permeates the scientific world. If you don't think so have a look at the latest controversy over cold fusion or over the elasticity of demand for health care. ... Correspondence and coherence are too simple a vocabulary to describe scientific persuasion. (McCloskey, 1995a, 1320-21)

Evaluating scientific standards on shaky moral practices that are evidently utopian is problematic for Mäki (and for myself I must add.) McCloskey characterizes the problem as a classical rhetorical device called *petitio principii* which the OED defines as: begging of the question, literally: petition of the principal. Mäki's concerns take the form: "Your theory is begging the question: How can we have ethical standards in an unethical world?" As with the problem of the elite, here too McCloskey disregards the specificalbeit multiple and complex—functioning of ethical standards in her sociology of knowledge. She replies that

the *petitio* is on the other *principium*. Mäki says that for the truth of my argument the economists must be observed acting ethically—"strictly." ... If it were not for the word "strictly" his charge of inconsistency would not work. ... In other words, it is Mäki, not McCloskey, who builds his conclusion into his premise, by inserting that word "strictly." His claim that I have indulged in a *petitio principii* is erroneous. He himself has indulged in it. Philosopher analyze thyself. (McCloskey, 1995a, 1321-22)

Has the discussion finally deteriorated to a series of tu quoque arguments? Is McCloskey engaged in an exchange of what she calls "gotcha" arguments? Hopefully she is merely performing them for dramatic illustration before moving on to a more satisfying explanation. "A rhetorical theory of truth is a theory of small-t not Big-T truth; only in a Big-T world is it inconsistent to claim Truth for the absence of Truth" (McCloskey 1995a, 1322, underline added). I think that there is a typographical error here: McCloskey's argument seems to require a lowercase-t in place of the underlined capital-T. With this correction her argument is an important one which I have addressed before. The concepts of inconsistency and paradox are contextual like any concept and should be studied as such.

The last disagreement is with the contradiction Mäki finds in claiming both that Sprachethik is not observed, and that economics is "in a pretty good shape."

He [Mäki] wants me to offer philosophically acceptable reasons for saying it is [in pretty good shape.] But I am a simple economic historian and cannot offer philosophy to prove such a thing. I offer merely the evidence of my writing and reading on economic history and the teaching of price theory. I think that's where you judge whether economics is in good shape, out in the labs and libraries, not in the philosopher's study. (McCloskey, 1995a, 1322)

In conclusion McCloskey reiterates that "Mäki wants to go on with the old program of epistemology before 1955, the program of finding Big-T Truth independent of history or society or ethics." Incidentally, this would be the *fifth* time 1955 is mentioned. She appeals to several authorities—Bruno Latour (1984) and Hilary Putnam (1990)—including a strong paragraph from William Rozeboom's "Why I Know So Much More Than You Do."

No harm will be done, I suppose, by retaining a special name for true beliefs at the theoretical limit of absolute conviction and perfect infallibility so long as we appreciate that this ideal is never instantiated, but such sentimentality must not be allowed to impede development of conceptual resources for mastering the panorama of partial certainties which are more literally relevant to the real world. (Rozeboom 1967, 175-85)

Nevertheless McCloskey and Rozeboom are compelled to offer an alternative metaphysical "sentimental" world—albeit a thicker one—which for the reasons they so eloquently give, will intervene in the "development of conceptual resources." This is a

good illustration of what is so puzzling for metatheorists studying this aging debate: Neither McCloskey nor Māki are able to escape a certain paradigm which modern scientists—in the broadest sense—find especially captivating—also in the broadest of senses. This deep-rooted modern concept is *synthesis*. Indeed Foucault and even Derrida employ synthetic arguments, constructions, reconstructions, and other combinatory procedures, but they do not impose such a structure on the concept of knowledge and by implication truth. It is in this sense that I propose the term *post-synthetic* for Epistemology *circa* 2000.

The reply seems to end with a conciliatory paragraph which uses what speech-act theorist (like McCloskey seems to be at times) would perhaps call a performative of "camaraderie" of the specific form: "you were nitpicking so I showed you that I can do the same to you; but after all we basically agree and respect each other comrade." In McCloskey's words:

But I am emphasizing disagreements with Mäki, which in truth are minor. As I said, Mäki and I agree on a lot. We agree that economics has a rhetorical aspect, that sometimes its rhetoric is good and sometimes not so good. Most of all I think we agree that it's time to put away the philosophical tools, misunderstood and misused by most self-described philosophers of economics, and pick up the historical and sociological and rhetorical ones. There's more that such nonphilosophical tools can tell about what we're saying and how we're saying it. More, anyway, than the philosophers of 1955 shouting at us from their armchairs. (McCloskey, 1995a, 1322, emphasis added)

The tone of "camaraderie" starts shifting after "Most of all I think we agree..." and becomes rather shrill—from a *Sprach*-ethical point of view—at the end. The performative must have been used ironically, to the effect of something more in line with a performative that I would name "maternal condescension". Maternal for its *inverse*-aggressiveness of the smothering kind, and condescending for making such an obvious attack in a tone that suggests that the implied reader does not even appreciate the irony. On second thought it is possible that this is a *demonstrative* move designed to show Mäki the aggression of his own performative of a more common kind in the diagnosis which I would call "paternal condescension". It is such rhetorically sophisticated use of irony that makes reading McCloskey such a pleasure.

Chapter 9: The Rhetoric of Truth

Modern Epistemology Against Analytical Philosophy¹

At the very least, reading the Mäki-McCloskey conversation vividly highlights the rhetoric dimension of the philosophy of economics and science in general. My implied reader is already aware of many of the postmodern complications that are in play within this polemic. I have indulged in a philosophical excursion of the uncanny kind in Chapters 5-7 and have mentioned them in the body of the previous chapter but have refrained from embarking on lengthy discussions in an attempt to preserve the flow of Māki and McCloskey's *rhetoric*. The former rhetoric is so haughtily sober and polite, while the later is so cynically playful and irreverent. Both authors insist on the similarity between them in such an overstressed manner that prompts me to consider the performative or illocutionary purposes and strategic designs emerging in their texts.

What is it that both McCloskey and Mäki agree upon? I would suggest the following as the only likely candidate: the recognition of the importance of rhetoric in the archival process of knowledge production, accumulation, and distribution. This is indeed not a minor agreement but—once they accept and promote it—they follow separate paths. John O'Neill (1998) and Ramón García Fernández (1999) suggest that the principal difference lies in the *role* of rhetoric:

For the latter [Mäki], rhetoric would be compatible with, but not at the core of, economic knowledge, a position labeled "weak compatibilism" between rhetoric and reason (or science, or philosophy). For the former [McCloskey], the relation between rhetoric and the production of knowledge would be more central, configuring a case of "strong compatibilism". (Fernández, 1999)

^{1.} The section title comes from the title of McCloskey's response to Mäki's diagnosis (see previous chapter): "Modern Epistemology Against Analytical Philosophy: A Reply to Mäki" in the *Journal of Economic Literature*, 33, 3, 1995, 1319-23.

Fernández also opines that Māki's concern with the problem of truth is motivated in part by his reluctance to distance himself from mainstream economists—a political consideration. This is an interesting issue on which I have commented in my reading of McCloskey and is very much alive in many open debates such as the one between Philip Mirowski ("Refusing the Gift+," 1997, forthcoming) and Antonio Callari ("The Ghost of the Gift: The Unlikelihood of Economics," presented at the History of Economics Society 1999 meeting in Greensboro, NC) over the concept of the gift and its relation to the structure of value in economics.

There are also the issues of naïveté (angel theory of truth) and elitism (elite theory of truth) that have been much discussed lately. It is interesting to note how these criticisms of McCloskey take a tone reflective of the political arena: left-leaning critics stress the weaknesses of her (liberal—English definition) elitist criterion for truth, while right-leaning ones stress the weaknesses of her (liberal—American definition) sprachethik idealist criterion for truth. McCloskey is paying a toll for employing a non-monist process of inquiry. Like a mythical troll guarding a bridge, the archive charges an analytical fee for the production of knowledge structured non-paradigmatically. McCloskey's economic criticism has this too in common with deconstruction: it is structurally an outsider with regard to any synthetic school of thought. In opposition to Mäki, My suggestion for McCloskey is to cut the awkward apologetic ties which hold back her analysis and be more like deconstruction because only thorough and at times disturbing reevaluation of the archive could ever penetrate the obscurity of language.

For example consider the criticism regarding her naïve reliance on *sprachethik* for establishing small-t truths in economics. The problem here is her uncritical humanistic belief in the satisfactorily functioning of democracy *and* of markets. This is why she is a Neo-Utilitarian philosopher as well as a Neo-Classical economist. This is also how she alienated many of her most sympathetic readers who cannot accept that the mere insertion of "virtuous" institutions such as democracy and markets into the archive's adjudicative process guarantees "virtuous" science.

The double-gesture of deconstruction has, as I have argued, been an important influence on McCloskey via its paramount influence on literary theory. At the heart of

deconstruction lies the double-procedure for deconstructing hierarchical oppositions which I present schematically (and highly reductively) here:

- I. Show opposition is metaphysical (ideological) by revealing its presuppositions and its function in the metaphysical system it supports. Seen as a strategic function, the opposition auto-deconstructs the texts that employ it.
- II. Simultaneously maintain the opposition by employing it in your own argument with its hierarchy reversed. The strategic functions of the rhetoric of hierarchical oppositions is revealed through the effects of this reversal on its functioning in the texts that employ it and the metaphysical system it supports.

Consider as an illustration the position of deconstruction (or any other *post-synthetic* offshoot such as McCloskey's rhetoric or Tony Lawson's Critical Realism) in the *politics* of knowledge. In Jonathan Culler's words such a position

can always be attacked both as an *anarchism* determined to disrupt any order whatever and, from the opposite perspective, as an *accessory* to the hierarchies it denounces. Instead of claiming to offer firm ground for the construction of a new order or synthesis, it remains implicated in or attached to the system it criticizes and attempts to displace. (Culler, 1982, 150; *emphasis added*)

This "damned if you do and damned if you don't" position in which post-synthetic inquiry finds itself *vis-à-vis* the dominant synthetic approaches brings us back to epistemology which is—as McCloskey's reply correctly claims—the major difference between our two protagonists and indeed the first item on the agenda of current philosophy of all flavors.

Jonathan Culler defines reality as "the presence behind representations, what accurate representations are representations of" and philosophy as "a theory of representation." (Culler, 1982, 152). This should illuminate Richard Rorty's discussion of epistemology's role within philosophy in his famous *Philosophy and the Mirror of Nature*:

Philosophy as a discipline thus sees itself as the attempt to underwrite or debunk claims to knowledge made by science, morality, art or religion. It purports to do this on the basis of its special understanding of the nature of knowledge and of mind. Philosophy can be foundational in respect to the rest of culture because culture is the assemblage of claims to knowledge, and philosophy adjudicates such claims. It can do so because it understands the foundations of knowledge and it finds these foundations in a study of man-as-knower, of the "mental processes" or the "activity of

representation" which make knowledge possible. To know is to represent accurately what is outside the mind; so to understand the possibility and nature of knowledge is to understand the way in which the mind is able to construct such representations. (Rorty, 1980, 3)

Pragmatists such as McCloskey call to doubt not only the truth of our present beliefs but the criteria for "truthful" inquiry. This is why they have been and still are problematic for philosophy as a discipline. The pragmatic solution is to discard the basic definition of truth as what is, in favor of viewing truth as dependent on a system of justification. Pragmatists can thus consider themselves as realists, providing that truth is defined as a McCloskian small-t truth: Anything goes! ... So long as enough prominent academics agree. My Derridian deconstructive perspective cannot allow me to accept the hierarchical opposition in the pragmatic truth, which is founded on the *norm* that is, by definition, a product of the exclusion of the non-normal. In this I find myself in the analytical camp with Mäki. Deconstruction explicitly reaffirms the role of epistemology as "underwriting" theory and especially its self-reflexive character. Though epistemology cannot, as pragmatists assert, supply us with foundations on which to build new theories etc., it should not be rejected since it foregrounds the evolution of assumptions, institutions, and practices. For deconstruction, "truth is both what can be demonstrated within an accepted framework and what simply is the case, whether or not anyone could believe it or validate it." (Culler, 1982, 154)

The Mäki-McCloskey debate is part of a rich multidisciplinary discourse between realists subscribing to correspondence theories of truth and pragmatists with their coherence theories of truth based on a relative and institutional definition of truth. At the core lies paradox: Realists defend their view on pragmatic grounds: the existence of a real albeit unattainable truth is necessary if inquiry is to have a point. Pragmatists, on the other hand, claim that the truth is a social construct and is not absolute. A double auto-deconstruction in which each side defends a view with arguments whose logic contradicts the view they are defending. I will return to this paradox in detail later, but for now, I want to focus on the ensuing problem of reading and understanding versus misreading and misunderstanding as it relates to rational reconstructions as such. The difference is usually perceived as that between preserving and reproducing meaning, and distorting and introducing differences. A necessary condition for understanding is what Derrida

calls *iterability* (see Chapter 5) which is the characteristic of a text that allows it to be at least potentially understood by different people in different contexts. All the iterations that a text generates involve some degree of modification, some of which will achieve the status of "understood" if the differences they introduced are deemed to be sufficiently insignificant. The reversal is now complete: understanding is a special case of misunderstanding; it is misunderstanding whose misses do not matter. I have preserved here the distinction between misunderstandings that matter and those that do not while exposing the metaphysics of preserving authorial intent as a system of value judgements—the double gesture at work. Now we are able to see the history of thought, reading, and writing (the *archi-text*) as a history of misunderstanding, misreading, and miswriting some of which have under certain circumstances been regarded as understanding, reading, and writing. This approach is attuned to the interpretative relations supporting any narrative in the history of thought, while stressing the contextual and indeed ephemeral nature of knowledge-claims. The leading postmodern critic Barbara Johnson (1980b, 14) writes (or miswrites):

The sentence "all readings are misreadings" does not simply deny the notion of truth. Truth is preserved in vestigial form in the notion of error. This does not mean that there is, somewhere out there, forever unattainable, the one true reading against which all others will be tried and found wanting. Rather, it implies 1) that the reasons a reading might consider itself right are motivated and undercut by its own interests, blindness, desires, and fatigue, and 2) that the role of truth cannot be so easily eliminated. Even if truth is but a fantasy of the will to power, something still marks the point from which the imperatives of the not-self make themselves felt.

I have looked at the Mäki-McCloskey debate in some detail because I take it to be a particularly relevant illustration of the epistemological incommensurability that lurks in most methodological debates in economics today. Mäki's position—sometimes referred to as "idealization-abstraction"—is itself particularly instrumental for my purposes because he is explicitly addressing rhetorical issues arising within the metatheory of economics. He is also one of the only economic philosophers who has directly and explicitly engaged McCloskey's work, and attempted to bridge the epistemological gap with what he had at least hoped would be an internal criticism. It turns out that the polite performatives of camaraderie in which both McCloskey and Mäki have indulged

throughout their debate may have been less cynical than I initially suspected. They do agree on almost everything except for their epistemological framework: probably the most intractable of all essentially contested concepts.

The New Realists: Critical and Transcendental

In the following sections I will briefly outline different positions from which criticism has been raised against McCloskey and the rhetorical position. Due to terminological conflicts and complications in the literature that I will present here, it is important to clarify that most recent commentators have, as I do, identified McCloskey's philosophical position as ostensibly postmodern. McCloskey's postmodernism in my view is primarily characterized by her deconstructionist epistemological duality, but it should be clear by now that this moniker is highly ambiguous and can be interpreted in a multitude of different and often conflicting ways. Be that as it may—and apart from the ever diligent Mäki—most criticisms against McCloskey have been framed as criticisms against postmodern philosophy of science.

One of the most influential recent books in the metatheory of economics is Tony Lawson's Economics and Reality (1997). This book is the culmination of several papers in which he applies the philosophy of Roy Bhaskar in an attempt to develop a sustainable realist position for the philosophy of economics. Bhaskar's "Transcendental Realism," first expressed in his A Realist Theory of Science (Bhaskar, 1975), is derived from Kant's designation for the opponents of his "Transcendental Idealism" as it is most explicitly developed in the Critique of Pure Reason (1787). For Kant, Transcendental Realism was the position of those who view "time and space as something given in themselves, independently of our sensibility" (Kant, 1787, 346). For Kant, the mind affects itself in the form of time while it is affected by other things in the form of space. This relation to oneself is memory, which is produced by a process of subjectivation—a time-fold in Foucauldian terminology (see Chapter 6).

Bhaskar had initially coined two terms to describe his work:

I had initially called my general philosophy of science "transcendental realism" and my special philosophy of the human sciences "critical naturalism". Gradually people started to elide the two and refer to the hybrid as "critical realism". It struck me that there were good reasons not

to demur at the mongrel. For a start, Kant had styled his transcendental idealism the "critical philosophy". Transcendental realism had as much right to the title of critical realism. (Bhaskar, 1989, 190)

It is indeed by far more common to encounter the term "critical realism" than "transcendental realism" though Lawson (1997) attempts to revert back to the original distinction. He however introduces another semantical ambiguity by using the term "Critical Realism" to refer to a specific philosophy of the human sciences—what Bhaskar calls "Critical Naturalism." In my opinion this is unfortunate since while "Critical Naturalism" captures the idea of placing limits on the applicability of scientific method to the social sciences: philosophical *naturalism*, "Critical Realism" is devout of any such signification. Furthermore, as argued by the leading critical realist Andrew Collier (1994, xi), the term "critical" is inappropriate for a philosophical *position* because it is a term of approval in contrast with "dogmatic" or "naïve."

Transcendental realism was developed explicitly as a critique of positivism. Its aim was to solve some of the fundamental problems encountered by the growth-of-knowledge theorists (see Chapter 2). In Bhaskar's words:

A problem of all these trends [Popperians, Kuhnians, and Wittgensteinians] was to sustain a clear concept of the continued independent reality of being – of the intransitive or ontological dimension – in the face of the relativity of our Knowledge – in the transitive or epistemological dimension. (Bhaskar, 1998, x)

The problem of incommensurability between theories seems to logically lead to a relativist skepticism about the existence of a theory-independent world, or at least about any possibility for rational theory choice. Bhaskar's (1975, 248) "solution" is to note that if theories relate to each other not only by difference but also by *conflict*. This presupposes that they share a worldly "battle-ground" which is perhaps not the *real*—in the sense of perception-independent—world, but at least a compatible account of the world. This allows Bhaskar to reinstate the possibility and validity of internal methodological criticism along similar lines as proposed by Caldwell and others:

[I]f one theory can explain more significant phenomena in terms of its descriptions than the other can in terms of its, then there is a rational criterion for theory choice, and a fortiori a positive sense to the idea of scientific development over time. (Bhaskar, 1998, xi)

Transcendental realism offers an alternative for the positivist hypothetical-deductive model of explanation, which links testable hypotheses with higher-order hypotheses, theories, and universal laws. Universal laws are identified through the process of experimentation which, by definition, limits the actual universality (theoretical or empirical) of said laws by the specificity and necessity of the experimental framework.

Laws, then, and the workings of nature have to be analyzed dispositionally as the powers, or more precisely tendencies, or underlying generative mechanisms which may on the one hand – the horizontal aspect – be possessed unexercised, exercised unactualized, and actualized undetected or unperceived; and on the other – the vertical aspect – be discovered in an ongoing irreducibly empirical open-ended process of scientific development. A transcendental argument from the conditions of the possibility of experimentation in science thus establishes at once the irreducibility of ontology, of the theory of being, to epistemology and a novel non-empiricist but non-rationalist, non-actualist, stratified and differentiated ontology, that is characterized by the prevalence of structures as well as events (stratification) and open systems as well as closed (differentiation). (Bhaskar, 1998, xii)

The reader will immediately recognize the structure and vocabulary of Michel Foucault (see Chapter 6 and Foucault, 1966/1970) whom Bhaskar lists in his bibliography, but does not engage to any extent commensurable with the similarities of their respective ideas. Indeed I find that the literature of Critical Realism is woefully lacking in explicit Foucauldian (or other post-structuralists such as Derrida) references. Given the broad epistemological and ontological similarities, which any reader familiar with the two literatures will immediately detect, I would (hesitantly) venture to opine that the implied historiography of Critical Realism is genealogically misleading. I shall have more to say about this in the last section of this chapter. It may be that the relatively incestuous body of works in Critical Realism (see for example the papers in Archer and all, 1998)—almost exclusively Cambridge philosophers—deprived us of a fruitfully reflexive explicit debate on such a potentially powerful application of Foucauldian sociology to the problems of the philosophy of science.

The scope of this text cannot accommodate an adequate presentation of Lawson's application of Transcendental Realism to economic philosophy. I will therefor concentrate solely on the specific issues he raises with regard to McCloskey and his more general critique of the postmodern approaches to economic philosophy.

Anti-Methodology

Lawson addresses the meta-methodological issues underlying his project in a chapter aptly titled "The Nature of the Argument." His only direct criticism of McCloskey comes in the context of the debate over the usefulness and indeed possibility of prescriptive methodology. Lawson reconstructs the anti-methodological position from fragments of texts by McCloskey, Philip Mirowski, Roy Weintraub, and even Bruce Caldwell. The inclusion of Caldwell is particularly puzzling since he specifically asserts a quasi-prescriptive role for methodology in rationally reconstructing, comparing, and internally criticizing different meta-theoretical positions; this is hardly an anti-methodological position. I have already discussed many of the problems associated with prescriptive methodology but Lawson's argument is specifically directed to an aggregated position that can be neatly summarized with a notorious phrase from Roy Weintraub's "Methodology Doesn't Matter, But the History of Thought Might":

[A]ny normative role for Methodology rests upon a profound misconception [foundationalism: a privileged outside position], and thus Methodology cannot possibly have consequences for the way economics is done. Methodology ... cannot have any impact on the manner of practice. (Weintraub, 1989, 478, in Lawson, 1997, 295-6, footnote 2)

The special mode of inquiry that crosses the threshold of scientificity (to explicitly use Foucauldian terminology) by virtue of complying with a prescriptive methodology, has been successfully problemitized in the literature and in this text. There is however an important basis for this prescriptive skepticism that Lawson fails to discuss. I am referring to the evolutionary descriptive basis elaborated by Feyerabend in Against Method (1975) and Kuhn's Structure (1970) (see Chapter 2 and Balak, 2000b). Feyerabend argument—which is yet to deploy its full ordinance on the philosophy of science—was essentially that science has never followed an a priori methodology and thus any progress we are willing to admit (teleological, as positivist would have it, or not, as critical realists would have it), could not have been the result of following a prescriptive methodology.

Notwithstanding the significant contribution Lawson has made in introducing, systematizing, and applying an interesting post-positivist philosophical position to the economic profession, like many others, he has failed to seriously accost some of the most

enduring problems in the philosophy of the social sciences. In accusing even Caldwell of an overly hesitant position with regard to methodological prescription, and disparaging the growing concern with (and subsequent literature on) the tensions between methodology and *practice* in economics, he has undermined the most interesting and potentially fruitful link in his work. This link is in the realm of the history of thought (Weintraub would approve) and is precisely the postmodern tradition that has informed "the writings of McCloskey, Mirowski and Weintraub along with most others who engage in meta-methodology." (Lawson, 1997, 298, note 13)

Lawson thus finds an explicit postmodern position in the ideas of his fellow post-positivists in economics on top of the implicit yet unacknowledged postmodern basis for his *own* ideas. He only sees fit to enlighten us as to the workings of these ideas in the few pages he dedicates to McCloskey, Mirowski, and Weintraub, and directs us to yet another Cambridge economist (his graduate student) in the last words of an endnote: "On all this see Sofianou, 1995." (Lawson, 1997, 295, note 1) He is referring to a paper by Evanthia Sofianou titled "Post-modernism and the notion of rationality in economics" in—you guessed it—the *Cambridge Journal of Economics*. I will look at this paper in the next section.

The "Straw-Woman" of Postmodernism

Sofianou (1995) is an interesting paper that touches on many issues regarding postmodern approaches to modeling economic behavior in contrast to the familiar orthodox behavioristic models. Her philosophical position is squarely within the emerging literature of Critical Realism and she is evaluating postmodernism's effectiveness as an ally against positivism and not so much as an alternative position to her own. The relevance of this paper for my purposes is to illustrate the ambiguous rhetorical niche which the term postmodernism occupies in much of the current philosophical literature in economics and to point to some of the ways in which it is misunderstood. It is in this sense that I use the term "straw-woman" as a "Politically Correct" caricature of the naïve and reduced reconstruction of postmodernism in most of the antagonistic literature and even, as is the case here, in relatively complementary positioned texts.

I will use Sofianou's own abstract to describe the paper:

The article assesses contributions from economics who see the post-modernist framework as providing a viable alternative to the behaviouristic model of action in economics. It is found that although post-modernism identifies many of the problems of mainstream economics it too remains unable to sustain the notions of choice and agency which it preaches because it fails to escape the anthropocentrism of positivist philosophy. Once this anthropocentrism is abandoned, it can be seen that agency lies not only in linguistic redescription but also in the understanding of real causal mechanisms which exist and act independently of any human agents. (Sofianou, 1995, 373)

The conclusions she draws are based on showing how postmodernism's is unable to escape auto-deconstruction, an inability that, as we have seen, is shared by all systematic knowledge.

Specifically, she reconstructs the important postmodern rejection of the subjectobject distinction as a move from the positivistic view of the world as *our* knowledge about it, to the postmodern view of the world as *our* language about it (377). It is in this sense that she accuses postmodernism of subscribing to a positivistic anthropocentrism.

The general conclusion is that it [postmodernism] goes to far in its linguistification of reality in remaining narrowly anthropocentric, and in so doing renders both the possibility of knowledge, hence criticism and critique, unsustainable, and with it, agency and choice based on knowledge an impossibility. ... [P]ost-modernism recognises the mistakes embedded in foundationalist positivism, only to end up dismissing the possibility of (fallible) knowledge. In so doing, it neglects the indispensability of structure for the enactment of human agency and therefore is unable to see that knowledge of this structure is a prerequisite for the enactment of agency. (Sofianou, 1995, 387)

It should be pointed out that this argument is quite similar to the one forwarded by Lawson in his critique of what I called above the anti-methodological position. The levels of inquiry are however different²: Sofianou is attempting to restore human agency at the level of economic science while Lawson employs the same argument in restoring the role of prescriptive methodology at the metatheoretical level.

This depiction is furthermore entirely untrue with regard to Derridian deconstruction. As should be clear by now, Derridian postmodernism does not even attempt to replace positivist foundations but to study their working. In this sense it has

^{2.} See Tarascio (1975 and 1997).

sometimes been allocated a higher level of inquiry labeled meta-meta-theory(!) The point is that contextual knowledge is possible, and this possibility is based on the possibility of human agency to structurally repeat itself in recognizable form: grammar. Foucauldian sociology is already very similar to Bhaskarian and Lawsonian critical realism. What its proponents are missing is that the Kantian essentialism (the transcendental element) that is the linchpin of Lawson's prescriptive methodology as applied to economics, could use a healthy dose of Derridian "linguistification" from beyond the town of Cambridge. Foucault and Derrida's work (and others working in this tradition) on how meaning is locally and temporally stratified, packaged, and communicated, needs to be incorporated into a critical realist approach in order for the latter to constitute a viable step beyond methodological pluralism.

Roger Backhouse, who is overall less than thrilled with the prospects of Lawson's Critical Realism, is a much more astute reader of postmodernism. In *Truth and Progress in Economic Knowledge* he summarizes the postmodern position in methodology as follows:

[K]nowledge is the property of specific communities and .. it has to be understood as context-dependent. The absence of any knowledge that is not the property of a specific community is then taken to imply that there can be no objective, absolute knowledge that transcends discourse communities. ...

This argument that the absence of any privileged source of knowledge undermines the idea of methodology rests on a specific view of what philosophy is. Philosophy, the argument runs, is assumed to offer insights into the nature of knowledge in general, which are then used to pass judgement on knowledge claims in particular fields. ... Given that philosophy is simply one discourse amongst others, this view is, its critics argue, simply unsustainable. (Backhouse, 1997, 42)

While highly reductive, these paragraphs are a fair description of the postmodern antimethodological position. There is however an important element missing in that Backhouse fails to explicitly recognize the non-synthetic structure of sophisticated (Derridian primarily) postmodern argumentation. While the hegemony of traditional philosophy is indeed undone, no other dialectic system is inserted in its place; no synthesis is attempted. Much is achieved by "merely" elucidating the underlying structures and strategies with which philosophy, prescriptive methodology, and the whole institutional edifice of rationality have been producing, and continue to produce knowledge.

Backhouse (1997) also produces a brief survey of the criticism that has been forwarded against the postmodern position in economics. He argues on what he calls "more practical reasons" (44, note 1), that postmodernism can be conservative because, by rejecting all but internal standards, it sustains the status quo. This is a part of Mäki's diagnosis of McCloskey in which he views her definition of truth as elitist since it relies on a consensus among an academic elite (see Chapter 8). This is an endogenous complaint deriving from postmodernism's structural characteristics. As I argued in the section titled: "Modern Epistemology against Analytical Philosophy" (in this chapter above), the post-synthetic structural characteristic of the postmodern positions often leads to it being accused of being conservative in a radical guise because, as Jonathan Culler (1982, 150) explains: "[i]nstead of claiming to offer firm ground for the construction of a new order or synthesis, it remains implicated in or attached to the system it criticizes and attempts to displace." Backhouse illustrates this with McCloskey's "Chicago-style" assumption that "[t]here is no need for philosophical lawmaking or methodological regulation to keep the economy of the intellect running just fine" (McCloskey, 1986, 28, in Backhouse, 1997, 32).

In a related critique, Backhouse maintains that beyond it's potential conservatism, the postmodern "elite theory of truth" (to use Māki's terminology), which I labeled realpolitik truth (see Chapter 8) cannot justifiably function as a justification for knowledge claims. This is because it is a logical tautology in which "the definition of the community determines knowledge" (Backhouse, 1997, 46). Furthermore, as observed by Hutchison (1992), the value of a product should be determined by the consumers of that activity, not the producers. I'm not quite sure however how to interpret this idea since it would seem to me that the consumers and producers of knowledge within a certain discourse community are the same people.

Another question concerns the impact of the postmodern epistemological skepticism on the actual practice of economics. Backhouse (1997) argues that "postmodernist arguments end up treating all knowledge as similar in kind, whereas in practice this is not the case" (45). In practice, in a certain context it is possible to produce

historically stratified empirical evidence that could then be a basis for the production of certain kinds of knowledge. Neither Foucault nor Derrida nor I would have any objection to this claim. Furthermore, Backhouse continues to meta-prescribe a mode of prescriptive methodology that corresponds quite well to the kind of *sprachethik* McCloskey herself prescribes for methodology with a lowercase-m:

We could then use our knowledge of contemporary economics and the history of economic thought, together with such ideas from philosophy or any other relevant discipline, to explore the nature of economic knowledge and to make such generalizations as we can concerning the way in which economic knowledge progresses. Though the results of such inquiries will always remain, to a greater or lesser extent, conjectural, there is no reason in principle why they should not be used as the basis for methodological prescriptions. Such prescriptions will, inevitably, be only as strong as the arguments on which they are based, but that is no reason why they should not be made and debated. (Backhouse, 1997, 45)

This passage would in fact seem to be more of a defense of postmodernism than a critique. Specifically this scenario rebuffs the *tu quoque* (you also) circular argument that takes the form: "in asserting the truth of relativism you acknowledge a standard of truth!" Bruno Latour (1984) describes the rhetorician's *tu quoque* along similar lines as Backhouse:

Those who accuse relativists of being self-contradictory ...can save their breath for a better occasion. I explicitly put my own account in the same category as those accounts I have studied without asking for any privilege. This approach seems self-defeating only to those who believe that the fate of an interpretation is tied to the existence of a safe metalinguistic level. Since this belief is precisely what I deny, the reception of my argument exemplifies my point: no metalinguistic level is required to analyze, argue, explain, decide, or tell stories. Everything depends on what sort of actions I take to convince others. This reflexive position is the only one that is not self-contradictory. (Latour, 1984, 201)

Backhouse concludes that "discourse analysis (whether we see this as literary criticism, sociology of scientific knowledge, rhetorical analysis or whatever) and methodology are *complements*, not substitutes" (51). He quotes John Ziman (1994, 23) whom he describes as "a leading authority on the organization of science" (49) in support of interdisciplinary studies:

Scientific Knowledge now tends to grow particularly vigorously in interdisciplinary areas, or to make particularly striking progress when it

can be fitted together into a coherent *multidisciplinary*, conceptual scheme.

It would seem that under close scrutiny, postmodernism has few critics in the discourse communities of economics and its methodology, philosophy, and history. Yet few (including McCloskey) would voluntarily accept the designation of postmodernist. Furthermore many economists have reported complaints not dissimilar than those reported by Robert Solow in his entertaining and penetrating style:

I don't see how anything but good can come from studying how trained economists actually go about persuading one another. We will learn something about the strategy and tactics of their arguments. Self-knowledge might help to make the arguments better, or al least honest if they are not so. ... Nevertheless, I have to report a certain discomfort, a vague itch. It feels like my eclecticism warning me that Klamer and McCloskey are in grave danger of Going To Far. To be specific, I worry that their version of the occupational disease is to drift into a belief that one mode of argument is as good as another. In this instance I side with Orwell's pigs: All arguments are equal, but some are more equal than others. (Sollow, 1988, 32-3)

What may be behind Sollow's "itch" may have a lot to do with the politics of knowledge in which postmodernism—by virtue of what could be called its "holistic" approach to the social—is inevitably implicated. Furthermore, the term itself is so vague and over inclusive that it is probably useless at best. I have already addressed some of these issues in the beginning of Chapter 5 and will attempt to clarify some of the specific taxonomic confusions related to the postmodern in economics in the following section.

Who's Afraid of Postmodernism?

As part of the welcome reevaluation of the narratives and meta-narratives structuring the received history of science and economics, there is a need for an increasingly close and critical examination of the secondary texts on which our understanding relies significantly. It simply is not sufficient to rely on a few interdisciplinary applications to form any serious understanding of completely "alien" modes of inquiry. As McCloskey often declares: one must do one's homework. It is of course true that the rapid disciplinary speciation (i.e. the formation of new and distinct species in the course of evolution.) following the Scientific Revolution of the 17th century makes it extremely hard for a scholar to master multiple disciplines. Nevertheless it is

precisely this difficulty that must be addressed if the mechanisms of consilience (see Chapter 7) are to remain active in modern science. Otherwise we might find ourselves experiencing diminishing returns to our scholarly efforts in a world characterized by specialization without trade.

Furthermore, as historians of science our diligence is even more necessary since we are supposed to give a contextual account of interacting disciplines and not "merely" use certain insights from other fields.. The results of sloppy historiography are exemplified by the Critical Realist project in economics. Lawson and Sofianou criticize a highly reduced and simplified "straw-womnan" of postmodernism, while, at the same time and most likely unintentionally, basing a significant amount of their work on secondary, tertiary, and mostly extra-disciplinary reachings of the very texts which they attack. I am not saying that Lawson's work is not am important contribution to the philosophy of economics, but merely that as historians of economic thought we cannot allow ourselves the luxury of glossing over the intellectual genealogies that underwrite our historical narratives. I must however admit to sharing Backhouse's (1997) skepticism about Critical Realism's ready applicability to actual the ory-choice in economics.

Though a thorough contextual evaluation of postmodern ideas with their often subtle effects on our understanding of science, society, and economics is still significantly out of our reach, immediate benefit will be gained from much more modest excavations into the historical formations of knowledge. In this text, for example, I have attempted to converse with McCloskey on an explicitly rhetorical level and have thus, in effect, been particularly interested insignificantly deepening the excavations she had initiated. I have, as the reader is probably painfully aware, been forced to sacrifice some of the analytical coherence required by a rounded synthetic argument, in favor of engaging the literary dimension of economics on its own literary terms.

Such a rhetorically aware and linguristically self-reflexive project must address the political dimension of the postmodern. It is not my intention here to produce a historical account of postmodernism (see Chapter 5 for a thematic genealogical sketch), but to at least engage in a bit of "throat-clearing" with respect to the confusing diversity among postmodern "practitioners." This is necessary as a counterpoint to the accusations I have

made concerning the use of "straw-woman" rhetorical devices in attacks on postmodernism.

The Politically Correct overtones emanating from my coinage of "straw-woman" are quite intentional. It has become increasingly common in good historical accounts of post-positivism to distinguish between postmodernism and Political Correctness. The latter has become something of an "Incubus" which materializes from motivated simplistic readings of postmodernism to "doon hem but dishonour" (Chaucer, 1386, Wife's Tale, 24, quoted in the OED, under "incubus"³). Politically Correct postmodernists have diverges significantly from the writings of Foucault, Derrida, and other non-P.C. thinkers. That in itself is no sin where it not for the overall shoddiness of the works in question. I confidently pass judgement with my postmodern credentials intact since, as should be clear by now, stratified and contextual internal criticism is not only possible but indeed enabled by a Foucauldian or Derridian postmodernism. I have pointed out several of the major weaknesses of naïve—to use a gentler word—postmodernism throughout this text. The principal meta-theoretical mistake they make is attempting to replace the foundations they undermine with new and improved Politically Correct foundations. This of course completely invalidates the very point of postmodern analysis that, as we have seen, attempts to study and foreground the functioning of the foundations in metaphysical systems of knowledge. Derrida (1977, 145-146) writes:

What has always interested me the most, what has always seemed to me the most rigorous (theoretically, scientifically, philosophically, but also for writing that would no longer be only theoretical-scientific-philosophical), is not indeterminacy in itself, but the strictest possible determination of the figures of play, of oscillation, of undecidability, which is to say, of the différantial conditions of determinable history...

[I]t will be understood that the value of truth (and all those values associated with it) is never contested or destroyed in my writing, but only reinscribed in more powerful, larger, more stratified contexts.

Though hardly suffering from an excess of false modesty or cautious understatements, this is a far cry from Politically Correct postmodernism which is, as ably explained by Sofianou (1995), founded on an anthropomorphic fallacy similar to positivism (see above). In other words it is just as metaphysical as positivism without

^{3.} The entire quote reads: "Wommen may so saufly vp and doun...Ther is noon oother Incubus but he And he ne wol doon hem but dishonour".

being critically aware of its auto-deconstructive predicament. "[They] are dispossessed of the longed-for presence in the gesture of language by which [they] attempt to seize it" (Derrida, 1967a/1976, 141).

I have stated in several instances that exposing the inherent and unavoidable autodeconstructive move of any synthetic system of thought is not in any way to refute it. The problem is precisely that too many postmoderns are operating in what Poovey (1998) calls a "denunciation mode" which consists of a moralistic denunciation of an opposing discourse's foundations on implicit ethical grounds.

But not all is rotten in the postmodern kingdom, and the Political-Correctness shibboleth has come under increasing attacks from within its own discursive community. I would argue that a significant degree of confusion is still rampant in postmodern circles today, but that this paradigmatic incommensurability can, and is already, reduced by careful rational analysis. Attending a conference-section of feminist economists, for example, would probably surprise many economists whose understanding of the feminist project relies primarily on Rush Limbaugh's definition of a "feminazi." What is unfortunate is that these denunciative feminists (or any other Politically Correct postmodern offshoot), are, almost by definition, more flamboyant and cavalier, and tend to attract devastating criticisms that are then attached to significant work by association. One of the most dramatically nonsensical examples given by Sokel and Bricmont (1997, 104) comes from the literary sub-genre of feminist criticism: Luce Irigaray (1987, 110) supports her claim that science is "sexualized" by re-interpreting Einstein's equation of matter and energy (E=MC²) as "privileging" the speed of light over "other speeds" because light, in its speediness, is a male value (maybe due to Apollo being the god of light?). I hope that this text has convinced the reader that postmodernism, at the very least, cannot be reduced to such crude textualism, and at best, that it can inform science.

PART V – PERORATION: EVALUATION AND CONCLUSIONS

Chapter 10: Metatheoretical Economic Criticism

The Lucas Critique: Auto-Deconstructive Economics

One of the more intriguing things McCloskey states is that as economists we are particularly well placed to assimilate the new critical theory into our view of the world. She argues that the complexity of economic phenomena has made economists particularly aware of the shortcomings of positive dogma in the business of doing economics. This is in fact the basis of her distinction between economists and economic methodologists, the latter being the torchbearers of modernism in economics. This has been picked-up by Jane Rossetti in her pioneering "Deconstructing Robert Lucas" (1990) where she proceeds to perform a "textbook" deconstruction of the Lucas Critique (Lucas, 1976). The paper received hardly any serious responses beyond sporadic references ostensibly remarking that economic texts can be deconstructed which, as should be clear by now, is a triviality. Even McCloskey in her commentary on Rossetti (1990) and Mirowski (1990) remarks that Rossetti has "done her homework" unlike Mirowski but is running the risk of scarring economists with the "D-word" (My "term"). Rossetti attempted to update her paper (Rossetti, 1992) by elaborating a little more about how her deconstruction is—like any deconstruction—already inscribed in the object-text itself and functions as a structural critique, but again, no fruitful reactions ensued. Some of the "blame" should be borne by Rossetti herself for trying to present ideas that require much getting used to in a brief paper. I am attempting to address this issue here but must admit that I have a much larger, though hardly sufficient, canvas.

Rossetti's choice of the Lucas Critique is very astute. The auto-deconstructive structure of the Critique is familiar to economists since it is the very point he is trying to

make. The Critique argues that economists are wrong to base policy recommendations on a static structure representing the economy since the policies they propose would themselves inevitably change the structure of the economy due to public expectations thus rendering the policies no longer appropriate. The result would be increased "noise" in the system with no way of determining the outcomes, and thus no way of designing good economic policies. When he talks of structural parameters shifting due to expectations and thus invalidating predictions based on the original parameters, he is talking about a structure of difference and deferral. A conceptual structure that captures both the passive preexisting economic structure as well as the active event of anticipation that produces it—a simultaneous "toggling" between event and structure.

Observable Events and Structural Coefficients

To understand this structure another paradox is helpful: that of an *event* such as a word, and a *structure* such as a language. The meaning of a word is given by the meaning assigned to them in prior *speech-acts*: uttering words in order to perform an action—persuade for example. In fact, the same logic would lead to the conclusion that the whole structure of a language is produced by speech-act events. The "original events" that determine structures, are themselves determined by pre-existing structures that, in turn, are derived from prior speech-acts; a system of *infinite regression*. Even if we trace the grunt that conveyed to our primate ancestors the idea of "it feels good to eat!" to the very first time it was grunted, we would have to assume a prior deferred structure that must at the very least establish that sounds emitted—the grunt—are linked to events experienced—fresh kill. Furthermore, this structure is a structure of differences. In this example there are at least a few oppositions that should be mentioned: this specific grunt versus other grunts, feeling good versus feeling bad, eating versus not eating, etc. Derrida writes:

There is a circle here, for if one distinguishes rigorously langue [trans.: language, a structure] and parole [trans.: word, an event], code and message, schema and usage, etc. ... one does not know where to begin and how something can in general begin, be it langue or parole. One must therefore, prior, to any dissociation of langue and parole, code and message, and what goes with it, a systematic production of differences, the production of a system of differences. (Derrida, 1972b, 40/28)

Thus, as I have mentioned above in relation to the Lucas Critique, here too we find a structure of difference and deferral. A simultaneous double-gesture spanning both event and structure capturing both the passive preexisting structures—language in this example—as well as the active event of differing—an utterance or word in this example—that produces them: différance (see Chapter 5).

Grafting rational expectations onto classical economics is a structural *intervention* in classical and Keynesian economics. The structural shift of economic parameters can be grafted back onto the *logic* of the Critique thus projecting it to a meta-theoretical level at which one can glimpse the evolution of theories. At this level, reading a text is actively intervening in a multitude of texts and the grafts that connect them.

The Psychoanalysis of the Text

The psychoanalysis of the text can be illustrated by Culler's reading of Derrida's "Spéculer—Sur 'Freud'" (1980) which is, in turn, Derrida's reading of Freud's *Beyond* the Pleasure Principle (1920):

If a text's description of its own procedures is always a graft that adds something to those procedures, there is a related graft whereby the analyst applies the text's statements to its own processes of enunciation. Asking how what the text does relates to what it says, he often discovers an uncanny repetition. ...

This sort of analysis, in which a discourse is shown to repeat the structures it is analyzing and in which the disruptive insights of this transference are explored, has become one of the major activities of deconstruction. It is related to another graft involving the relation of a text's statements to its own procedures: the inversion of a previous interpretative graft. Where one text claims to analyze and elucidate another, it may be possible to show that in fact the relationship should be inverted: that the analyzing text is elucidated by the analyzed text, which already contains an implicit account of and reflection upon the analysts moves. (Culler, 1982, 137, 139)

This is the reason I have worked with pairs of texts such as McCloskey-Mäki, Derrida-Culler, and Foucault-Deleuze. The study of interpretation should seek its objects within interpretative relations; where, as Foucault could have said, the tension between the inside and the outside is felt. As can be expected, often the valuable insight gained from such secondary texts is not simply the author's understanding and considered reconstruction but his misunderstandings and exclusions. Furthermore because this

approach uses the logic of supplementarity as an interpretative strategy to displace—not replace—the hierarchical opposition functioning within the interpretations themselves, it tends to foreground these oppositions and the concepts they support in the "original" author, the "secondary" author, and my own interpretations.

Why Use Deconstruction?

It is often said that deconstruction is no longer even fashionable among critical and literary theorists and should thus be left to historians of literary theory. I however would strongly caution against such a view even if it does appear in many secondary postmodern texts. My reason is that deconstruction can be confidently regarded as the most important paradigm in postmodern thought; an irreducible view of structure to which most other theories can be readily reduced. There are intriguing new variants of deconstruction or even what seem to be entirely novel approaches in different disciplines, but they all eventually auto-deconstruct whether consciously or not. Deconstruction in philosophy is historically similar to the Lucas Critique in economics. This time I am not referring to the structural and theoretical similarities I discussed above but to their respective place in the history of their fields.

Through its questioning of the philosophical oppositions on which critical thought has inevitably relied, deconstruction raises theoretical issues that critics must either ignore or pursue. By disrupting the hierarchical relations on which critical concepts and methods depend, it prevents concepts and methods from being taken for granted and treated as simply reliable instruments. (Culler, 1982, 180)

The Lucas Critique questioned the hierarchical opposition of policy and its effect on which at the very least Keynesian concepts and methods depended. The Critique signaled an era in economics in that none could proceed as if it never happened. In fact it would seem that most economists converted "en block" to rational-expectations-augmented-Neoclassicism and the study of macroeconomic policy became a study of why policy never works. As economists we are intimately familiar with the Critique and vaguely familiar with the "relativist nonsense" called postmodernism. Educated non-economists know, in most likelihood, nothing of the Critique, and are perhaps just as confused by postmodern philosophy. Such an observer could not however fail to notice the changes in economics as well as philosophy over the past thirty years. These changes were brought

about by developments in human inquiry, which manifest themselves as the emergence of neoclassical dominance in economics as well as the rising acceptance of postmodern philosophy. These changes and the forces working through them, their structure, and their history, are addressed by deconstruction at all levels of its self-reflexive inquiry.

Interpreting deconstruction for readers from an analytical tradition is sometimes dangerous. Once the initial shock is over, the reader finds that a lot of this is actually pretty well known in the cannons of Western culture. McCloskey, for example, described deconstruction as Greek rhetoric with French flare and exuberance. My realization—after doing the homework—is that deconstruction highlights and offers means to investigate the defining aspects of our intellectual culture that have always been central but rarely explicit in human knowledge as such, while keeping the focus on their socio-political function and those who have a stake in it. It would however be useful to reiterate the major channels through which deconstruction intervenes:

Deconstruction has an impact on a series of critical concepts (text, truth, literature, etc.) Such fundamental concepts are shown to rely on hierarchical oppositions. Applying the logic of the supplement and the double-science allows us to view the excluded supplement as a general case of the "high" concept. Looking at philosophical (non-literary, scientific, positive) discourse as a species of writing allows Derrida

to study the philosophic text in its formal structure, its rhetorical organization, the specificity and diversity of its textual types, its models of exposition and production—beyond what were once called genres—and, further, the space of its staging [mises en scènes] and its syntax, which is not just the articulation of its signifieds and its references to being or to truth but also the disposition of its procedures and of everything invested in them. In short, thus to consider philosophy as "a particular literary genre," which draws upon the reserves of linguistic system, organizing, forcing, or diverting a set of tropological possib-ilities that are older than philosophy. (Derrida, 1972a, 348-49)

Mimesis: Originality and Imitation

Deconstruction effects the concept of *mimesis*: the problem of originality and imitation. We have seen how interpretations derive their meanings from multiple sources that are themselves interrelated via a history of grafts. Neither the author, nor the reader, nor the text, nor the social context, nor even the archive can alone fix a meaning.

Furthermore texts inform each other across time in a temporally ambiguous way: my text is an interpretation of McCloskey's text which, in turn, is an interpretation of mine. The tendency to convert differences within a text to differences between texts manifests itself in the displacement of problems within a text into differences between the text and its critical interpretations. Thus important internal conflicts in the text are not addressed as such but instead reveal themselves as disagreements between different critiques of the text. The literary theorist Shoshana Feldman explicates:

Quarrels between critics about the story are in fact an uncanny transferential repetition of the drama of the story, so that the most powerful structures of the work emerge not in what the critics say about the work but in their repetition of or implication in the story. (Feldman, 1977, 270, in Culler, 1982, 270)

Mimetic relations are thus *intertextual* relations within which only positing an absolute original can give rise to the mimetic opposition of original and copy.

Semiotics Reinstated

The principal structural break between structuralism and post-structuralism appears to take place in the concept of the sign. However by working with its double-science, deconstruction is able to reassert and even employ the mechanics of semiotics by displacing its foundation of difference with a non-foundation of difference. Saussure's strict requirement for the sign to have a residue-free differential structure is the core of his metaphysics in his *Cours* (1907). Derrida recognizes the necessity of such a move if one seeks to "distil" an independent subject from an infinite chain of intertextual relations that form meaning; a "pure" concept that functions as a fixed fundamental reference that itself refers to nothing:

Maintenance of the rigorous distinction—an essential and juridical distinction—between the signans [signifier-word] and the signatum [signified-concept] and the equation between signatum and the concept leaves open in principle the possibility of conceiving of a signified concept in itself, a concept simply present to thought, independent from the linguistic system, that is to say from a system of signifiers. In leaving this possibility open, and it is so left by the very principle of the opposition between signifier and signified and thus of the sign, Saussure contradicts the critical acquisition of which we have spoken. He accedes to the

traditional demand for what I have proposed to call a "transcendental signified," which in itself or in its essence would not refer to any signifier, which would transcend the chain of signs and at a certain moment would no longer itself function as a signifier. On the contrary, though, from the moment one puts in question the possibility of such a transcendental signifier, the distinction between signifier and signified and thus the notion of sign becomes problematic at its root. (Derrida, 1972b, 29-30/19-20)

This is also the place where deconstruction places itself at another epistemological level than most other current postmodern and post-structural critiques I am aware of. It is now commonplace to view the meaning-production process of signification as not a pair arbitrary signifier and signified concept—but as a chain in which signified concepts function as signifiers for other concepts who, in turn, signify yet other signifieds etc. Each link in such a chain is *contextually* determined as signifier or signified according to its function at a specific space-time location. This is what puts the post- in poststructuralism. However the conceptual distinction between the functions of signifiers and signifieds is paramount to the study of language, and moreover, it is necessary for any thought whatever. Deconstruction questions any foundational structure attributed to this distinction but, simultaneously, reaffirms and employs it to elucidate the question of its necessity. Jonathan Culler admonishes overzealous post-structuralists of a potential and unfortunately common misunderstanding concerning what has sometimes been called (following Paul Feyerabend) "anything goes" or, more affectionately, "Derridadaism". I reproduce below in its entirety a passage I believe should be required reading for any aspiring critical theorist and postmodern philosopher:

However, literary critics should exercise caution in drawing inferences from this principle. While it does enjoin skepticism about possibilities of arresting meaning, or discovering a meaning that lies outside of and governs the play of signs in a text, it does not propose indeterminacy of meaning in the usual sense: the impossibility or unjustifiability of choosing one meaning over another. On the contrary, it is only because there may be excellent reasons for choosing one meaning rather than another that there is any point in insisting that the meaning chosen is itself also a signifier that can be interpreted in turn. The fact that any signified is also in the position of signifier does not mean that there are no reasons to link a signifier with one signified rather than another; still less does it suggest, as both hostile and sympathetic critics have claimed, an absolute priority of the signifier or a definition of the text as a galaxy of signifiers. ... The structural redoubling of any signified as an interpretable signifier

does suggest that the realm of signifiers acquires a certain autonomy, but this does not mean signifiers without signifieds, only the failure of signifieds to produce closure. (Culler, 1982, 189)

"The 'primacy' or 'priority' of the signifier," writes Derrida, "would be an absurd and untenable expression. ... The signifier will never by rights precede the signified, since it would no longer be a signifier and the signifier 'signifier' would have no possible signified" (Derrida, 1967a, 32n/324, in Ibid.).

Framing: the Internal and the External

Derrida discusses the issue of framing—The *Parergon*: the external, the *hors* d'oeuvre—in its relation to judgement in his analysis of Immanuel Kant's *The Critique of Judgment* (1790):

Every analytic of aesthetic judgement presupposes that we can rigorously distinguish between the intrinsic and the extrinsic. Aesthetic judgment *must* concern intrinsic beauty, and not the around and about. It is therefore necessary to know—and this is the fundamental presupposition, the presupposition of the fundamental—how to define the intrinsic, the framed, and what to exclude as frame *and* as beyond the frame. ... And since when we ask, "what is a frame?" Kant responds, it is a *parergon*, a composite of inside and outside, but a composite which is not an amalgam or half-and-half but an outside which is called inside the inside to constitute it as inside. (Derrida, 1978/1979, 53/12)

There is a major ontological complication here which manifests itself as a paradox: The parergonality paradox arises when we notice that the framing device which signals genre is itself not a member of that genre. For example: the archive is not knowledge and knowledge is not the archive. More particularly: writing that McCloskey lacks a serious engagement with the epistemological underpinnings of her work is not a serious engagement with the epistemological underpinnings of her work, and vice versa. This is related to Vincent Tarascio's (1975, 1997) discussions on levels of inquiry that I have mentioned before, but, as we have become accustomed to expect, the gaps are displaced. While Tarascio takes the "traditional" approach consisting of distinguishing between levels of inquiry, Derrida looks at distinctions operating within each level. The two are compatible with the added advantage of being able to examine differences between differences: how inter-level and intra-level distinctions relate to each other and to the concepts they distinguish between.

The distinction between criticism and the text it criticizes is a distinction between a discourse of the outside—metalanguage—and a discourse of the inside—language. Culler recognizes that the authority of a critic's metalinguistic position depends significantly on the metalinguistic discourse within the work:

They [critics] feel securely outside and in control when they can bring out of the work passages of apparently authoritative commentary that expound the views they are defending. When reading a work that apparently lacks an authoritative metalanguage or that ironically questions the interpretive discourses it contains, critics feel uneasy, as if they were just adding their voice to the polyphony of voices. They lack evidence that they are indeed in a metalinguistic position, above and outside of the text. (Culler, 1982, 199)

This uneasiness stems from the uncanny repetition of the inside in the outside. A critical discourse "authorized" by the text can be seen as "a pocket of externality folded in, whose external authority derives from its place inside." But if the metalinguistic discourse appear within the work, it intervenes and "unfolds" (see Chapter 6) the critic's relation to externality and thus his authority.

In denying their externality we subvert the metalinguistic authority of the critic, whose externality had depended on the folds that created this internal metalanguage or pocket of extenality. The distinction between language and metalanguage, like the distinction between inside and outside, evades precise formulation but is always at work, complicating itself in a variety of folds. (Culler, 1982, 199)

Thematization

Deconstruction is often characterized by its production of innovative themes such as the relationship between speech and writing, original and copy, form and content, female and male, etc. Such a project of thematization is laudable in that it produces "raw material" for further critique. Critics of deconstruction have often questioned the relevance of these themes for specific texts based on an implicit assumption of what is called thematic criticism: that the relevance of a theoretical discourse is determined by the theme of the object of investigation. Thus rational expectations is not a suitable theme for criticizing Shakespeare's sonnets, and meta-theory is irrelevant for the estimation of next years unemployment rate. McCloskey has already raised substantial arguments against the later, but what of the former? Surely I do not intend to advocate using

neoclassical economics to criticize poetry! To answer, I will first consider what such criticism will look like: "Shall I compare thee to a summer's day..." entails a certain system of expectations with regard to what comparisons will in fact be made given that the first is only implied via a rhetorical question. Suffice it to say that we could imagine a way to make such a criticism work by exploiting concepts of expectations and surprises in the study of the elements of suspense in a poem. Whether this "rational-expectations literary criticism" approach is any good is another question. My point is that its apparent contrived foolishness does not originate in the inappropriateness of its themes but in the shallowness of the analysis; excellent work could potentially be done on the subject.

Historically it was Marxist critics who were accused of such thematic inappropriateness when they addressed apparently "non-social" works. The Marxist critic Terry Eagleton (1976, 6) explains that Marxism is an attempt

to understand the complex, indirect relations between works and the ideological worlds they inhabit—relations which emerge not just in "themes" and "preoccupations" but in style, rhythm, image, quality, and form.

Deconstruction's themes strive to go beyond Marxian theory of ideology to allow an unprecedented enlargement of the context to a level that incorporates ideologies themselves. For example: themes of self-reflexivity developed with concepts like S'entendre parler (translation: hearing/understanding oneself speak, see Chapter 5) attempt to explain the origins of originality.

Probably the most prevalent theme of deconstruction is that of supplementarity that drives the system of hierarchical oppositions sustaining human thought and reason.

In certain respects the theme of supplementarity is doubtless no more than one theme among others. It is in a chain, carried by it. Perhaps one could substitute something else for it. But it happens that this theme describes the chain itself, the being-chain of a textual chain, the structure of substitution, the articulation of desire and of language, the logic of all conceptual oppositions ... It tells us in the text what a text is; it tells us in writing what writing is; in Rousseau's writing it tells us Jean-Jacques' desire, etc. (Derrida, 1967, 233/163)

Such a theme is perhaps best viewed as an *archi*-theme along similar lines as the *archi*-text is a generalized writing (see Chapter 5).

In The Critical Difference: Essays in the Contemporary Rhetoric of Reading (1980), The literary critic and deconstructrice Barbara Johnson describes deconstructive reading as follows:

Reading, here, proceeds by identifying and dismantling differences by means of other differences that cannot be fully identified or dismantled. The starting point is often a binary difference that is subsequently shown to be an illusion created by the workings of differences much harder to pin down. The differences between entities (prose and poetry, man and woman, literature and theory, guilt and innocence) are shown to be based on a repression of differences within entities, ways in which an entity differs from itself. But the way in which a text thus differs from itself is never simple it has a certain rigorous, contradictory logic whose effects can, up to a certain point, be read. The "deconstruction" of a binary opposition is thus not an annihilation of all values or differences; it is an attempt to follow the subtle, powerful effects of differences already at work within the illusion of a binary opposition. (Johnson, 1980, ix-xi, in Culler, 1982, 241-2)

She then briefly defines deconstruction as "the careful teasing out of warring forces of signification within the text" (Ibid., 5). These signification conflicts can be of several sorts: First are hierarchical oppositions which I have discussed and are clearly reexplained in the longer quote from Johnson above.

Second, the reader should look for "points of condensation" that are usually marked by an *uncanny opacity*. Key terms which unite different values or logical systems (*parergon*, *pharmakon*, etc.) are where the tension between the two aspects of the double-science are felt; between the desire to subvert an order of meaning and the need to impose it.

Third are moments of what Derrida calls the text's *Écart de soi* (transtation: difference from itself.) These are elements within the text that manipulate the reader's presuppositions through self-referentiality. Reading is always performed with a system of presuppositions that can be violated by the text. This violation can be conscious or unconscious, intentional or unintentional. A common example in literature is a change in the narrative voice such as when Shakespearean heroes address the audience directly as if in order to explain what is *really* happening on stage. If the director is good—unfortunately not always the case—the hero will assume a specific physical point of view (blocking) that will allow the audience to see the hero's monologue as his specific misinterpretation of the play. In economics I could illustrate this concept with McCloskey

herself. I am referring to the dissonous transformation she performs from a patient explicator to a shrill preacher when she addresses the epistemological problems underlying her distinction between truth and Truth in *Knowledge and Persuasion in Economics* (see Chapter 4). The reader's figurative eyebrow is raised a little higher when she repeats the move—albeit with more *finesse*—in her reply to Mäki. It is in fact this obvious and uncharacteristic discomfort which led me to my epistemological focus here.

Fourth, the reader should be attuned to parallels between conflicts in the text and conflicts in readings of the text. This aspect has already been addressed at several points. I would however like to emphasize that the Mäki – McCloskey debate is an excellent example of the displacement of gaps. There is the displacement of McCloskey's shaky epistemology by Mäki who brings them under the light of analytical philosophy. When McCloskey attempts to counter the perceived threat by questioning the very legitimacy of the displacement, she is in fact reaffirming the "shakiness" of her epistemology again. In general I am referring to how problematic aspects in a text are often reflected in the secondary literature when complex multiplicities are refined down to a monism which drives a specific reading. Looking at the secondary literature is crucial for deconstruction.

Finally, Johnson recognizes a fifth type of signification conflict: that of the marginal. Examining the forces that allow *other* texts to classify the text under consideration as marginal can illuminate the complexities of bodies of work. Deconstruction thus studies "the contextual determination of meaning and the infinite extendibility of context" (Culler, 1982, 215).

I'll conclude with a quote from a critical commentary by Gayatri Spivak on a story by a Bengali feminist writer. Spivak explains why she is so interested in deconstruction, an explanation I wholeheartedly agree with for an interest I share:

The aspect of deconstructive practice that is best known in the United States is its tendency towards infinite regression. The aspect that interests me most, however, is the recognition, within deconstructive practice, of provisional and intractable starting points in any investigation effort; its disclosure of complicities where a will to knowledge would create oppositions; its insistence that in disclosing complicities the criticas-subject is herself complicit with the object of her critique; its emphasis upon "history" and upon the ethico-political as the "trace" of that complicity—the proof that we do not inhabit a clearly defined critical space free of such traces; and, finally, the acknowledgment that its own

discourse can never be adequate to its example. (Spivak, 1981, 382-83, in Culler, 1982, 224-5)

Chapter 11: The (lowercase) truth about McCloskey

Introduction

As promised in the introduction to the dissertation, the last chapter applies the concepts presented and developed throughout the text. Understanding McCloskey turns around ethics: both her realistically-leaning and her relativistically-leaning critics have accused her of relying on what amounts to an ethical commitment to *laissez fair* discourse-ethics based on the social conventions of an academic elite: what I would facetiously call "Chicago Metaphysics". I will focus on what I believe is a crucial structural role of ethics in rhetoric and rational thought. In so doing I will summarize some of major concepts and approaches explained in the preceding chapters in order to contextualize and concretize them.

I have argued that deconstructive reading strategies do not so much raise new philosophical considerations, as much as develops a conceptual framework—a language—with which to address the structural oppositions driving the most fundamental ongoing problems in the history of epistemology. The epistemological history of the opposition between description and prescription in the methodology of economics in particular, is part of a historical complex of hierarchical oppositions that have a central role in the rhetoric of Aristotelian logic, the Scientific Revolution of the 17th century, and modern science and economics.

In the context of economic methodology and philosophy, we know this tension well: the problem of theory-leaden observations, apriorism and positivism, realism and relativism, various paradoxes, etc. To understand the persistent thorn in modern philosophy's side: irreducible duplicities that render any systematic knowledge both over- and under-determined by reality, I employ what I tentatively call: *critical ethics*. The one discursive regime that has evolved to deal with issues of irreducible duplicities is

ethics and its recent stagnation has a history of its own which informs the role it can play in the current epistemological landscape.

The intersection between ethics and economics can be traced to well before their segregation into separate—and often seemingly antagonistic—disciplines. The ethical imperative of private property, for example, is enshrined in the urtext of Judeo-Christian morality: the Ten Commandments. Early Greek excursions into economic theorizing were primarily concerned with justice in economic activity and Aristotle—the vehicle by which Classical thought reentered the West—formalized the concept of economic justice in his *Nichomachean Ethics* (350BCE, book V). Throughout the rich history of economic thought, ethical considerations are paramount whether they function as a foundation, logic, political agenda, or as a metaphysical "other" against which rational thought is defined.

Ethics in critical theory

Critical theory is, as I have argued in Chapter 5, the least misleading name for the amalgam of ideas, positions, procedures, and texts otherwise known as postmodern (in philosophy) or poststructural (in literary and linguistic studies). The English professor and literary theorist Geoffrey Galt Harpham argues that the most defining characteristic of this elusive concept is that virtually all its practitioners subscribed to a Nietzschean interpretation of ethics: "a mere fabrication for purposes of gulling: at best, an artistic fiction; at worst, an outrageous imposture" (Genealogy of Morals in Harpham, 1995, 389). The Marxist critic Fredric Jameson defined ethics as "the ideological vehicle and the legitimation of concrete structures of power and domination" (1981, 114). Consequently, a lot of ink was spent in what Mary Poovey (1998) calls a "denunciatory mode" in which anything and everything was subjected to deconstructive exposure as ethically and thus politically motivated. Specific social (and thus political and economic) institutional arrangements were convincingly shown to metaphysically depend on the acceptance of universal ethical principles.

Both Friedrich Nietzsche and later Karl Marx, in their focus on interpretative contexts eventually encountered the *aporia* of self-reflexivity and resorted to what I would call an *anthropo-utopical* epistemological position. Since knowledge depends on

the interpretative context in which it is produced (Christian or petty bourgeois for example), an epistemological position "outside" of the context is impossible. Nietzsche needed a potential Superman who, in evolving beyond human, would finally be able to evaluate human knowledge. Marx, remained uncomfortable with this paradox in his Theory of Ideologies, and offered little more than a weak prescription calling for explicit recognition of ideological positions and a commitment to a discipline of critical self-reflection. It is important to note that the works of Nietzsche and Marx were harbingers of the radical philosophical skepticism of the 20th century continental tradition I am using.

The strong skepticism regarding ethical discourse that united a generation of critical theorists reached a defining historical impasse in 1987. The influential and even paradigmatic Paul de Man was exposed on the pages of the New York Times as having written a large number of articles for a Belgian collaborationist newspaper in 1941-42. Practitioners of deconstruction, who had hitherto resisted any evaluation of an author let alone an ethical one—found it impossible to ignore the ensuing criticism and its political implications. Jacques Derrida, Michel Foucault, Francois Lyotard, and Jacques Lacan among others from the literary tradition, as well as Alasdair MacIntyre, Martha Nussbaum, and Richard Rorty among others from the philosophical tradition, were quick to address how critical theory could survive a resurgence of ethical discourse. The uniting characteristic of these texts is their view of ethics as a discourse whose domain is made out of claims to otherness. This approach is well within the Foucauldian tradition since it attempts to uncover the structural regularities in ethics, and thus develop a conceptualization of ethics as a "discursive regime", which proceeds by imposing binary hierarchical oppositions (such as self/other, good/evil, positive/normative, etc.). One term is always superior to the other, but they are both ontologically and epistemologically interdependent.

The metaphysical system of hierarchical oppositions

The structural role of these oppositions in Western rational thought cannot be overstated. Derrida traces this anti-skeptical metaphysical tradition to Plato's attack on the Sophists in the *Phaedrus* (360BCE). Derrida attempts to understand the contradiction

in reading a text that denounces its very textuality. It will become clear that this is structurally similar to a normative discourse that denounces its ethical underpinnings. Since philosophy (and its modern counterpart: science) are after all usually written, it follows that they too are subject to rhetoric manipulation. In order to underplay these "ill effects" and maintain their claim to a direct access to logic, reason, and truth, philosophy and science must define themselves against rhetoric and writing.

Derrida argues that the most general definition of writing is based on the notion of iterability. Even in its simplest role as a means to convey a speaker's words to a third party, writing must be repeatable in the sense that the words must function repeatedly while separated from any "original" speaker. This will hold for signs in general which must be recognized as such in different circumstances in order to function. So instead of viewing writing as "parasitic" on speech, speech becomes a special case of generalized writing (archi-écriture). The speech/writing hierarchical opposition can be reversed by revealing that it is based on strategic considerations within a specific (albeit immensely broad) context of Platonist rational thought. Phonocentrism—the view that speech is privileged over writing due to its closeness to the original idea expressed—leads to logocentrism which is philosophy's orientation toward an order of meaning conceived as a foundation existing in itself—the traditional concept of reason. This metaphysical system functions as an ontological foundation for foundationalism itself because it always supports its deductive chains on a "presence". There is for example the presence of the original speaker, the justification conveyed to ideas by the presence of a specific dogma, and the fundamental role of concepts that metaphorically refer to a presence (clarifying, grasping, revealing, etc.). Jonathan Culler (1982) shows how even the concept of the world outside of ourselves—reality—is constructed in our mind as a presence. The Cartesian cogito ergo sum is thus interpreted as relying on the idea that the self can avoid doubting its existence because it is present to itself in the act of thought. Derrida suggests that the experience of simultaneously hearing and understanding oneself as one speaks is different from the experience of hearing another voice, decoding it, and understanding the signified concepts. When we speak, words and symbols seem to efface themselves before the signified concepts which thus appear to emerge spontaneously from within the self. This establishes consciousness as self-presence based on the

difference between the outside and the inside of ourselves. It has even produced the idea of the real world, which is *outside* consciousness, and is the necessary condition for the idea that anything can be outside of interpretation.

Many readers of Derrida's obscure prose fail to appreciate that he concedes that the metaphysical system of hierarchical oppositions underlying human inquiry is in fact necessary for rational thought. It is necessary not as a "crutch" we can now finally discard in order to embrace a new epistemic paradigm that will lead us to some form of holistic knowledge. Derrida has always maintained that evaluation within a context is not only possible but also necessary for analysis, and has seen his work as a study of context in the broadest sense. Derrida (1988, 136) is not an anti-rationalist but a student of rationalism.

What is called "objectivity," scientific for instance (in which I firmly believe, in a given situation), imposes itself only within a context which is extremely vast, old, powerfully established, stabilized or rooted in a network of conventions (for instance, those of language) and yet which still remains a context. And the emergence of the value of objectivity (and hence of so many others) also belongs to a context. We can call "context" the entire "real-history-of-the-world," if you like, in which this value of objectivity and, even more broadly, that of truth (etc.) have taken on meaning and imposed themselves. That does not in the slightest discredit them. In the name of what, of which other "truth," moreover, would it? One of the definitions of what is called deconstruction would be the effort to take this limitless context into account, to pay the sharpest and broadest attention possible to context, and thus to an incessant movement or recontextualization.

This is the important point that so many postmodern relativists fail to appreciate: even though rational systems of knowledge are indeed erected with no secure foundations, they miraculously manage to stay precariously aloft. Even when one crumbles into the abyss, a new and mighty "castle in the air" quickly takes its place. Having no foundations is *not* a problem in itself, and merely denouncing an idea for its lack of absolute justification is only valuable insofar as it is no longer news. In our post-Kuhnian, post-Feyerabend, and postmodern age we should concentrate more on just how it is that such apparently flimsy structures shape our understanding so profoundly. Reason and its metaphysical foundations constitute humanity's greatest and most enduring edifice that should be studied within its context. I believe that it is not with disdain but with

admiration that one should study the architects and builders of our tradition of rational systematic knowledge.

The ethical structure and moral acts

On a more practical level, ethics promises to answer questions arising from an inevitable human dilemma: one has to make specific decisions based on universal laws or principles in an uncertain world. Harpham (1992, 1995) suggests that there is a fundamental incommensurability between the two questions that dominate ethical inquiry: "how ought one live?" and "what ought I to do?" Answered separately, they are unethical or even impossible since the first requires a detached godlike perspective, while the second a sociopathic level of self-absorption. Both are necessary but incoherent since an action will always be overdetermined by the two structurally different questions: the specific and the general. The philosopher Stuart Hampshire (1983) shows that while an ethical decision is overdetermined by the questions, ethical reasoning is underdetermined by the answers. This is because ethical reasoning is predicated on norms that are to be accepted or rejected as such. This is why ethical questions cannot be resolved by logical reasoning. Furthermore, the apparent logical underdetermination of ethical choice conceals the fact that its structural overdetermination implies another choice: a choice between different principles. I will loosely follow the philosopher Bernard Williams (1985) in referring to this (specific) prior and implicit choice of principles as a (specific) morality. To borrow from the terminology of game theory: ethics is the rules of the game while morality is a specific strategy.

Viewing the ethical discursive regime as structured by the general imperative to make ethical choices, and the specific moral principles on which one acts, has an important implication. Ethics has the same structural duplicity as the hierarchical oppositions that it governs: ethics requires taking a moral position in order to come to a decision and be ethical, but moral positions necessarily refer to ethical authority to be moral. Harpham (1995, 395) writes that "[t]he real paradox of ethics is that a discourse that seems to promise answers is so obsessed with questions. ... Articulating perplexity, rather than guiding, is what ethics is all about".

A critical history of the basic epistemological unit: the fact

For Aristotle, facts depended on a-priori self-evident universal commonplaces. The epistemological historian Mary Poovey (1998) reconstructs the Scientific Revolution of the 17th century as insisting on a role for particular events—as opposed to Aristotelian deduction from commonplaces—in the production of knowledge. Frances Bacon's facts depended on "errors, vagaries, and prodigies of nature," from which to conceptualize "nuggets of experience detached from theory" (Peter Dear, 1995). Dear makes the following distinction: Baconian facts substitute the Aristotelian justification of being universal and common: evident, for the structural function of evidence as justification for a theoretical construct. The central tension structuring the modern fact is thus between the particular observable event and the abstract structure of systematic knowledge to which it is subjected. Since the fact serves as the basic indivisible epistemological unit (epistemem), this tension inhabits all discourses of truth. The concept of the modern fact is itself more than a "brut" fact: it lives in a discursive system and serves as the outside establishing the presence of the real world. The presence of a factual realm is the link between the inside (consciousness) and the outside (reality), and is established by a process of structural subjectification that is knowledge-production. Structural subjectification, in turn, is the domain of ethics that adjudicates between subjective perspectives and the general systems of laws to which they are subjected, and by which they are subjectified. Ethics deals with irreducible duplicities that, as the name suggests, cannot be reduced to a monism-neither absolute nor relative-and thus necessitate a moral choice in the sense that it cannot be substituted by rational logic of any kind. For example: I choose to use induction on a daily basis even though, it cannot be placed on an absolute deductive foundation—the sun may after all, as David Hume suggested, not shine tomorrow.

Events, structures, the Lucas Critique, and Zeno's arrow

There would seem to be a complicated, interdependent, and *consequential* relationship between a specific *event* (such as an observation, a message, or a word), and a *structure* (such as a general law or theory, a code, or a language). In the literary/linguistic domain, the meanings of words are given by the meaning assigned to

them in prior speech-acts: uttering words in order to perform an action (persuade for example). In fact, the same logic would lead to the conclusion that the whole structure of a language is produced by speech-act events. The "original" events that determine structures, are themselves determined by pre-existing structures that, in turn, are derived from prior speech-acts: a system of infinite regression. From an anthropological perspective it would be possible to attempt to trace a grunt signifying "it feels good to eat!" to the very first time it was grunted. But we would have to assume a deferred prior structure that must at the very least establish a causal relationship between sounds emitted (the grunt) and events experienced (fresh kill). Furthermore, this structure is a structure of differences. In this example there are at least a few oppositions that should be mentioned: this specific grunt versus other grunts, feeling good versus feeling bad, eating versus not eating, etc. We thus have a structure of difference and deferral. A simultaneous double-gesture spanning both events and structures capturing both the passive preexisting structures (language in this example) as well as the active event of differing (an utterance in this example) that produces them. Jacques Derrida (1972/1981, 40/28) recognized that drawing a rigorous distinction between "code and message" is impossible since "one does not know where to begin and how something can in general begin". He calls therefore for a study of the production of, and the attempts to control meaning by systems of difference, which have a hierarchical structure.

Jane Rossetti's (1990, 1992) "Deconstructing Robert Lucas" is an illustration of how this structure functions in economics. Her choice of the Lucas Critique (1976) was very astute because it is familiar to economists, and because the very point Lucas is making is based on the logic of deconstruction. The Critique argues that economists are wrong to base policy recommendations on a static structure representing the economy since the policies they propose would themselves inevitably change the structure of the economy due to public expectations thus rendering the policies no longer optimal. Derrida shows that the simultaneous "toggling" between specific events experienced and general structural models of the world, makes it impossible to establish non-contextual and static meanings to words and ideas. This is because the event of a concept's use destabilizes the very structural code according to which its meaning is contextually produced. Lucas is also performing a paradigmatic deconstruction of macroeconomic

theory. When he talks of structural parameters shifting due to the active event of anticipation (expectations), thus invalidating predictions based on the passive preexisting economic structure (original parameters), he is talking about a structure of difference and deferral.

To remind the reader of the nature of this structure I will use Jonathan Culler's (1982) interpretation of Zeno's familiar paradox of the impossibility of motion demonstrated by the flight of an arrow. The paradox is only paradoxical because it is presented within a metaphysical system of presence that sees reality as what is present at any given instant. At any given moment the arrow is in a particular point and never im motion. But we all know that the arrow is in motion! Yet the arrow's motion is never present at any moment; hence the paradox. The paradox is not the arrow's: it is cheerfully moving, ready to penetrate the heart of any skeptic who stands in its way. The paradox is in our conception of the real as what is present at any given instant as a simple, indivisible, and autonomous absolute. The presence of motion is only conceivable if the present instant is not something given, but a product of relations between past and future. Motion requires that every instant be already marked with the traces of the past and future. Something can be happening dynamically at a given instant only if the instant is already divided within itself: differentiated, and inhabited by the deferred non-present: that which preceded it and that which will follow it. The event of being present at one moment must be conceived in combination with a structure: the passage of time.

Aristotle was not troubled by the process of conflating events into structures since he defined the capacity to produce knowledge as the ability to do precisely that kind of transformation: recognizing universals. When the commonplaces/observations hierarchy was reversed during the Scientific Revolution, the problem of induction (which was raised already by Protagoras and other Greek philosophers) was rearticulated by Hume to plague the modern fact and the knowledge systems that used it as their basic epistemological unit. Deductive logic, inductive techniques, and specific disciplinary rhetoric have been employed to justify this leap of faith over Humean skepticism. Poovey (1998) suggests that the epistemological history research program may have uncovered an historical dialectic around the skeptical moments in Western rational discourse. She goes on to argue that a thoroughly "postmodern" conception of the fact could go a long

way towards "answering" Humean skepticism, while, at the same time, put in motion the conceptual machinery that will eventually produce a new skeptical crisis to which yet another discursive formation will have to respond.

Though Poovey's conclusions are perhaps a bit audacious, her cyclical view of what I would call—to bring Kantian deontological ethics into mind—a "Skeptical Imperative" is sound and empirically corroborated. The ethical crisis in critical theory (following the 1987 exposure of Paul de Man as a Nazi sympathizer in the 1940's) had a similar logic, and I would suggest that it is the latest skeptical crisis to intervene in the cycle of skeptical imperatives in Western thought. Harpham (1995, 389) writes "the repressed—ethics, which had been repressed, ironically enough, because it was seen as an agent of repression—was returning in force". This crisis triggered an autodeconstruction of deconstruction itself thus allowing it to benefit from a severely self-critical evaluation, which has resulted in the emergence of a strong postmodern articulation of ethics. Furthermore, deconstruction has virtually ceased to exist as such but has evolved into a major hypo-textual philosophical influence operating in the proverbial "smoke filled rooms" of almost all non-foundationalist schools of thought. Deconstruction has not gone out of fashion; it has been disseminated into contemporary thought.

Economics and ethics

In their survey of ethical values in economics, Charles Wilber and Roland Hoksbergen (1986) and Wilber (1998) recognize three locations in which ethics has entered into economic discourse:

- 1. Economic agents subscribe (consciously or not) to ethical imperatives in the business of doing business (market or non-market activities).
- 2. Economic institutions and policies do not have uniform effects on people and thus ethical evaluations are involved (explicitly or not) in their evolution and evaluation.
- 3. *Economists subscribe* (consciously or not) to ethical imperatives in the business of doing economics.

I will start by critically reconstructing their taxonomy and linking it to problematic aspects and extensions found at the intersection of economics and philosophy.

The role of ethics in individual agents' decision-making has known a renaissance in the 1990s. A convenient starting point could be Jerry Evensky's (1993) study of the ethical underpinnings in Adam Smith's concept of the invisible hand. Specifically, Evensky looks at the sensitivity of the achievement of the common good to the assumption that most agents are motivated not only by self-interest but according to internalized moral laws. Consequently he draws two major conclusions that have been ostensibly ignored by the profession for most of this century: First, economic agents are dually motivated by their specific interests as well as by the ethical imperatives enforced by their society. Second, economic efficiency requires internalized ethical behavior. The second conclusion has a radical flavor but would also include well-defined economic phenomena such as the free-rider problem, and moral hazard.

Those economists who are committed to utility theory but yet choose not to disregard these complications have been attempting to formally incorporate moral values into their work. The first approach is to treat internalized morality as altruistic preferences and incorporate these into the utility function. Vincent Tarascio has argued that Vilfredo Pareto had in effect "left" economics for sociology in an attempt to formalize his theory of inter-subjective utility in his relatively unexplored Trattato di Sociologia Generale (1916, translated in 1935 as The Mind and Society). In a nutshell, Pareto worked with matrices of simultaneous utility functions in which each agent's utility was derived from the weighted utilities of all other agents in the economy. Applying intersubjective utility functions even theoretically involves an intractable degree of complexity and consequently the approach is almost only discussed at the meta-theoretical level. Even though it could potentially offer a more satisfying account of preferences than most available models, it only addresses economic behavior that is not self-interested: altruism or misanthropy. In order to address the broader category of ethical norms, another approach is needed. It is possible to view norms as external constraints on maximization in which individual desires are limited by social imperatives via some implicit social contract. An approach most notably employed by Amartya Sen (1987) uses an analogy from Freudian psychoanalysis to further develop this approach by specifying that individual preference-orderings are potentially reordered by moral metapreferences. Sen's framework is able to deal with internalized social norms that

contradict self-interested preferences such as not purchasing one's preferred brand of athletic shoe because of working conditions in the company's factories. But Sen can also explain other non-rational residuals effecting preference ordering such as the meta-preference of Nicotine addiction overturning a smokers preference to quit. This approach captures more of the essentially flexible *interior* character of ethical norms than rigid exterior constraints.

Evaluating economic policy and, more broadly, the institutions with which it interacts, is another ethical dimension of economics that has received some attention. The issue turns around the complex and thickly political concept of interpersonal utility comparisons, which was already a central problematic in the Aristotelian ethical distinction between distributive and commutative justice. Neoclassical theoretical economics is enamoured with Pareto Optimality since it provides a convenient formal criterion for evaluating economic outcomes. The triumphant QED typically associated with proving the potential existence of a Pareto-optimal outcome tautologically depends on what one sets out to demonstrate. Vincent Tarascio (1968, 1969) has argued that Pareto himself developed this concept as a demonstration of just how limited the new mathematical economics will remain until it is augmented by sociological "microfoundations". It is a sad irony that the rest of the profession adopted this *norm* uncritically while its author saw it as a scientific dead-end.

The only kind of policy that can be meaningfully evaluated with Pareto Optimality is one in which there are no interpersonal tradeoffs. Since this excludes almost all relevant policy issues, welfare economists have developed the concept of potential Pareto improvement which only requires that the overall change in utility due to a policy is positive. The potentiality is key since in order for a Pareto improvement to materialize, winners are required to share it with losers by offering compensating payments. It is in this respect that neoclassical economics is "joined at birth" with the philosophy of 19th century British Utilitarianism. The several flavors of Consequentialism in philosophy are Utilitarianism's progeny. I will only note one pertinent consequence of this philosophy here: by definition, the domain of ethical considerations is restricted to an evaluation of the economic consequences of a policy ex post facto. Ethics is thus excluded from the

scope of economics and relegated to a supplemental *political* role that is typically assigned to non-economists. Hausman and McPherson (1994, 256) argue the following:

The facts that economists need to know some morality to know what questions to ask, that economists can rarely describe moral commitments without evaluating them, and that economists effect what they see by how they describe it, provide even purely positive economists with reasons to think about both the morality accepted in the society they study and the morality they think should be accepted. Moral reflection has a role in both normative economics and in much of what is called positive economics. In principle, positive economics might be separable from all evaluative propositions, but positive economists will be influenced by their moral values and their attitudes toward the values of the agents they study.

This structural view of the denial of an ethical dimension to economics can define what Deirdre McCloskey (1983, 1985, 1994, and 1996) and others have called Modernist economics. It is the *ethical* mechanism by which scientists disown the ethical consequences of their work.

The orthodox framework for examining the ethical values of economists is often drawn from John Neville Keynes's The Scope and Method of Political Economy (1891) in which he subdivides political economy along ethical lines: Theory (positive), welfare economics (normative), and policy (practical). Succinctly, Wilber (1998, 138) explains that "[t]he first deals with 'what is', the second with 'what ought to be', and the third with how to get from one to the other." He then highlights the ensuing opposition between those who tenaciously subscribe to a view of economics as value-neutral and those who resign to viewing it as permeated with value judgements. Advocates of the latter are arguing along the lines suggested by Thomas Kuhn (1970) that scientific facts are theory and ethics-laden since scientists work within a paradigm that sets a specific example for what is considered justified scientific knowledge. Advocates of the former (positivistic) view of economics forward two classes of arguments in defense of valueneutrality: The weak defense merely recognizes the imperative to separate the positive from the normative in economics but accepts that this distinction is a human social construct (McCloskey could fit this category when she is apologetic of neoclassical and especially Chicago economics in-use). The strong defense supplements the weak with an insistence on at least potential objective access to a "real" world via sense experience and thus the possibility of a positive science that fulfils its internal criteria. Wilber does not

explicitly address why the possibility of positive knowledge establishes that normative knowledge is outside the proper scope of economics. To answer this question I will examine some of the specific ethical characteristics of value as they come into play in economics (see next section). At this point it should suffice to note that such an exclusion of norms from the domain of economics is in itself an ethical decision between two types of knowledge that may conceal an underlying agenda.

Hausman and McPherson (1993, 1994) and McPherson (1984) follow Fritz Machlup (1969) in rejecting the philosophical and empirical validity of the fact-value opposition and the supplementary structural role of ethics in economics. Machlup argued that policy problems typically involved more than "purely technical" considerations and that in formulating what they conceive to be "purely technical" solutions, "economists will have to rely on some of their own values to fill in the gaps" (Hausman and McPherson, 1994, 254). At the proverbial blackboard, economists are able to design policies that can be evaluated with well-defined criteria: typically versions of Pareto Optimality that are shown to potentially exist given a set of assumptions. Raising the minimum wage, for example, will increase unemployment as well as the welfare of unskilled workers. Once analysis leaves the positive world of the blackboard it becomes apparent that the policy problem itself (to raise or not to raise the minimum wage) overdetermines the theoretical model used to address it. What is missing according to McCloskey (1994) is a "quantitative rhetoric of approximation" to allow economists to evaluate (in this example) not whether the tradeoff exists but what are its quantitative effects. Such rhetoric cannot eschew explicit interpersonal comparisons that neoclassical rhetoric suppresses by displacing them into what Hausman and McPherson (1993, 1994) call a "normative theory of rationality".

The ethical foundations of the theory of rationality

Ethics has been increasingly recognized by many historians, methodologists, and philosophers of economics to inhabit at least the periphery of economics whether explicitly or implicitly. Hausman and McPherson (1994, 252-277) argue that ethics is a central and fundamental element in the theory of rationality underlying modern economics. Rationality is minimally defined in economics as having complete and

transitive preferences, and that a rational agent's choices are determined by these preferences. The first problem that arises is how to deal with the risk and uncertainty associated with most economic activities. The standard solution is to assume that agents' subjective *beliefs* fully conform to a probabilistic framework and that preferences are mutually independent. We thus have what is known as *expected utility theory* but rationality is still defined as having a well-defined, coherent, and stable set of preferences, and rationally maximizing simply means making choices according to these preferences. In Hausman and McPherson's (1994, 258-9) words:

[T]he identification of the actual with the rational remains. It does not depend on any particular formulation. It is, rather, a reflection of the fact that economics simultaneously provides a theory of causes and consequences of people's economic choices and of the reasons for them. ... [T]he positive theory of choice is simultaneously a theory of rational choice and thereby serves to evaluate even as it predicts and explains agents' conduct.

This tautology strongly supports positive theory against the most devastating falsifying instances. The assumption that people's preferences are transitive and complete has been repeatedly and powerfully falsified both from a theoretical perspective (psychology) and from an experimental perspective (see for example Vernon Smith's work on experimental game theory). This however is conveniently resolved by using the *normative* theory of choice to declare all such behavioral phenomena as irrational and unstable and thus not within the domain of positive science.

Hausman and McPherson (1994) then employ a deconstructive strategy to study the ethical stakes that orthodox economics holds in a specific normative theory of choice. They proceed by deriving normative economics from the theory of rationality augmented by the typical assumptions that agents are exclusively self-interested and have perfect knowledge. The first auxiliary assumption establishes that agents prefer what they believe to be better for them. The second assumption assures that an agent's beliefs are true and thus leads to the orthodox normative principle according to which welfare is the same as satisfying preferences. The essentially problematic issue of making interpersonal welfare comparisons is thus wholly avoided because what are being compared are different degrees of preference satisfaction that are structurally identified with welfare. So far so good: all that is needed now is the uncontroversial assumption of minimal benevolence

according to which people's economic welfare Es morally good—ceteris paribus of course. Consequently, normative economics should evaluate whether economic institutions and policies allow individuals to satisfy their preferences.

An ethical evaluation of a policy of school vouchers, for example, can thus justifiably ignore the politically and philosophically charged question of whether parents are sufficiently informed and qualified to direct their children's education etc. The standard analysis shows instead how such voucher schemes are Pareto improvements that have the added benefit of increasing the extent of competition in the market for public education. In order to interpret such arguments we need to introduce the first welfare theorem stating that perfectly competitive equilibria are Pareto efficient and thus, given minimal benevolence, a moral good. At this point the deductive chain becomes a strong defense of perfect competition (ceteris paribus of course) to which most economists throughout the political and professional spectrum—subscribe. The second welfare theorem is the last step towards establishing perfect competition as an ethical imperative at the center of orthodox economics. It states that all Pareto optima can be obtained as competitive equilibria from a specific initial distribution of endowments. Much like the related concept of potential Pareto improvements, imitial endowments are extremely hard to manipulate in actuality, and it is even doubtful that they are conceptually tractable given the problematic nature of what is exactly meant by initial in this context.

The vital and controversial assumption in this deductive chain is not minimal benevolence but the seemingly straightforward assumption that maximizing one's economic welfare is identical to satisfying one's preferences. Sen (1973) has argued against the latter assumption based on two conceptually broad counter-examples. People make mistakes (even with excellent information; let alone without it), people have preferences regarding tradeoffs between personal well-being and other goals, and people have wants that are motivated by various reasons only one of which is economic well being. To analytically circumvent these problems requires both the assumptions of perfect information and exclusive self-interest (see above). To justify these radical assumptions both rhetorically and ethically (implicitly of course since such discourses are not legitimate science) our profession has adopted the word rational to signify these two assumptions (exclusive self-interest with perfect information). Hausman and McPherson

note that in ordinary speech rational is often synonymous with *prudence* and leave it at that. The concept of prudence—associated with the Christian virtue of temperance—has an important history in classical economics and 19th century thought in general. McCloskey (2000) has noted the central role this concept played in Victorian ethics and consequently in classical economic ethics. This cultural perspective supports the analytical conclusions of Hausman and McPherson in recognizing that establishing the moral imperative that only prudent behavior is rational is a major moral commitment that supports the entire deductive chain on which most choice-theories in economics depend. It would seem that the historical and cultural context in which modern economics evolved has left an *aporetic* or paradoxical *trace* stratified in the analytical deductive structure of the discipline.

Critical ethics

My reading of Hausman and McPherson (1994) is an example of using deconstructive procedures for studying ethics in that they show how a set of metaphysically based beliefs serves as a hidden ethical foundation for both normative and positive economics. Deductively deriving normative economics from the theory of rationality does not suggest "better" foundations for the theory of choice, but it does allow us to locate, illuminate, and explain the ethical underpinnings of both positive and normative economics and the specific moral commitments of our discipline. The ethical commitment to competition in general is based on establishing perfect competition as an ethical "good" because, with the first and second welfare theorems, it guarantees preference satisfaction (see above). This in itself does not present a problem if it is accompanied with a healthy dose of skepticism concerning the policy applicability of the general equilibrium model. The recent history of economics' explicit ethical commitment to competition hides a deformed sibling in the attic: the implicit moral position that views competition as a "good" in itself (deontologically), which gives rise to damaging interpretations in popular political culture. This "misunderstanding" as to the complex ethical structure of our discipline has even misleads some economists into making errors in policy proposals with devastating effect on multitudes of people—Russian privatization comes to mind.

I have also argued that McCloskey should be credited with stimulating much of the recent interest in applications of modern non-analytical philosophy to economics. Her rhetoric has successfully undermined a major hierarchical opposition supporting the metaphysical system of positivist methodology: substance/form. In doing so she has joined the ranks of philosophers and scientists, who engage in internal criticism of universal methodological criteria, showing how they fail to fulfil their own criteria. Her Sprachethik (Jürgen Habermas's neo-Kantian discourse-ethic) is a call for enlightened methodological pluralism that few of us would reject but is founded on a norm that is, by definition, a product of the exclusion. Her norm is based on a restricted community (economists) employing a rhetorical ethic of conversation to produce justified economic truth. She has thus substituted the content/form hierarchical opposition with a different but closely related opposition in her ethics of truth: Absolute "capital-T" Truth/socially-constructed "lowercase-t" truth. This of course leads directly to the longest and most circular conversation in human history: the realist versus relativist debate, and, for awhile, it seemed that McCloskey had lost her way in that quagmire.

Using the approach I tentatively call "critical ethics" to understand McCloskey's enterprise—both her critique of economic methodology and her philosophy of economic rhetoric—shows that she has introduced the opposition with its traditional hierarchy reversed: lowercase-t truth dominates uppercase-T Truth ethically because its pluralism and tolerance is a contextually appropriate reference in ethical scientific conversation: Sprachethik. This is a textbook deconstructive move: McCloskey shows the substance/form opposition to be metaphysical or ideological by revealing its presuppositions and its function in the metaphysical system it supports, and shows how it undermines the texts that employ it. Simultaneously she maintains the oppositional structure by employing it in her text, and reverses its hierarchy to see how this would effect its functioning in the texts that employ it and the metaphysical system it supports.

McCloskey has recently shifted her philosophical interest towards ethics, seemingly neglecting rhetoric altogether. For many critics this is seen as an indication that she has failed in her philosophical engagement with the rhetoric of economics and has prudently selected to focus her intellectual energy on her methodological criticisms of economics and most ardently on the misuse of statistical significance. Critical ethics

reveals however that McCloskey's ethical move is philosophically "appropriate" in order to engage the problems raised by her philosophical project. Her methodological prescription is a commitment to *Sprachethik*. It is however based on an exogenous discourse regime in the form of the academic community whose membership requirements are obviously social and contextual (peer-review is by definition social). It is thus impossible to justify a methodological *laissez-fair* prescription on anything *but* "Chicago-metaphysics." This is what I believe to be the most severe criticism raised against McCloskey (externally by Māki and internally in this text). It is also the reason she was also (I mention Nietzsche and Marx above) forced to assume an idealistic (or more specifically *anthropo-utopical* to use my ugly but descriptive term) position and define her relative and socially dependent "lowercase-t truth" as the discourse of an ethical and enlightened elite (to which she herself belongs.)

Ethics may yet save the day because it is the study of human choice: an absolute decision in relative ignorance. This is precisely what the economic elite is supposed to adjudicate. I have argued that ethics is a choice arena for examining the complex relationship between absolutes and relatives. This is because ethics is structured by the tensions between the inside—the subjective self with its interpretations and interests—and the outside, the other, to which we cannot have direct access, and therefor must be conceived in ideal form: the law.

This approach must draw on Kant and Nietzsche—whose positions articulated the modern era's ethical tensions—to trace the genealogy of the postmodern ethics of Foucault and Derrida. I suspect that many surprising detours and illuminating consiliences of induction would emerge from such an effort, and could enrich our understanding of the evolution of the context in which we produce economic knowledge. A historical, structural, and skeptical ethics: a critical ethics, can enhance our understanding of the irreducible duplicity of our knowledge of the real world and how it effects its economies, its academies, and everything in between.

- Anderson, W.; Arrow, K. J.; Pines, D. (1988), editors, *The Economy as an Evolving Complex System*, Santa Fe Institute Studies in the Sciences of Complexity, MA: Addison Wesley Publishing Company.
- Archer, Margaret; Bhaskar, Roy; Collier, Andrew; Lawson, Tony; and Norrie, Alan. (1998), editors, *Critical Realism: Essential Readings*, London; New York: Routledge.
- Austin, John. (1962), How to Do Things with Words, Cambridge, MA: Harvard University Press.
- Ayer, Alfred Jules. (1936, 1946), Language, Truth and Logic, London: V. Gollancz.
- (1959), editor, Logical Positivism, Glencoe, IL: Free Press.
- Backhouse, Roger E. (1994), editor, New Directions in Economic Methodology, London; New York: Routledge.
- (1997), Truth and Progress in Economic Knowledge, Cheltenham, UK; Lyme, NH: Edward Elgar.
- Balak, Benjamin. (1999), "The (lowercase) truth about McCloskey", presented at the History of Economics Society's 26th annual meeting at the University of North Carolina at Greensboro, June 1999.
- (2000a), "Economic facts, Disciplinary Authority and Feminist Interpretations", invited by the International Association For Feminist Economics for presentation at a panel on Mary Poovey's (1998) History of The Modern Fact at the Eastern Economic Association meeting in Crystal City, Virginia, March 2000
- (2000b), "The Growth of Knowledge and the Meta-Narratives of Scientific Evolution", presented at the History of Economics Society's 27th annual meeting at the University of British Columbia, Vancouver, June 2000.
- (2000c), "McCloskey: Ethically Deconstructing Economic Thought", presented at the History of Economics Society's 27th annual meeting at the University of British Columbia, Vancouver, June 2000.
- (2000d), "The Ethics of Description and Prescription", presented at the Eastern Economic Association meeting in New York City, February 2001.
- Barthes, Roland. (1977), Image, Music, Text, New York: Hill and Wang.
- Bellofiore, Riccardo. (1994), "The Poverty of Rhetoric: Keynes versus McCloskey", in Marzola and Silva (1994).

- Bhaskar, Roy. (1975, 1997), A Realist Theory of Science, London: Verso.
- (1989), Reclaiming Reality, London: Verso.
- (1998), "General Introduction", in Archer, Bhaskar, Collier, Lawson, and Norrie (1998).
- Blaug, Mark. (1985), *Economic Theory in Retrospect*, (4th ed.), Cambridge, UK; New York: Cambridge University Press
- Bloom et al. (1979), editors, Deconstruction and Criticism, New York: Seabury Press.
- Boland, Lawrence. (1977), "Testability in Economic Science", South African Journal of Economics, 45.
- Boulding, Kenneth E. (1974), *Collected Papers*, Boulder, CO: Colorado Associated University Press.
- Boylan, Thomas A.; and O'Gorman, Paschal F. (1995), Beyond Rhetoric and Realism in Economics: Towards a Reformulation of Economic Methodology, London; New York: Routledge.
- Braithwaite, Richard. (1953), Scientific explanation; a study of the function of theory, probability and law in science (Based upon the Tarner lectures, 1946), Cambridge, UK: Cambridge University Press.
- Brock, W. A. (1988), "Introduction to Chaos and Other Aspects of Nonlinearity" in W.A. Brock and A. G. Malliaris, eds., *Differential Equations, Stability, and Chaos in Dynamic Economics*, New York: Elsevier Science Publishing Company.
- Brodbeck, May; and Feigl, Herbert. (1953), editors, *Readings in the Philosophy of Science*, New York: Appleton-Century-Crofts.
- Broody, Baruch. (1970), editor, *Readings in the Philosophy of Science*, Englewood Cliffs, NJ: Prentice-Hall.
- Buck, R.; and Cohen, R. (1970), editors, S.A. 1970: In Memory of Rudolf Carnap. Boston Studies in the Philosophy of Science, Vol. VIII, Dordrecht, Netherlands: D. Reidel Publishing Company.
- Caldwell, Bruce J. (1982, 1994), Beyond Positivism: Economic Methodology in the 20th Century, London; New York: Routledge.
- Carnap, Rudolph. (1934, 1937), *The Logical Syntax of Language*, London: K. Paul, Trench, Trubner & co.

- (1937), "Testability and Meaning," Philosophy of Science, 3.
- (1942), Introduction to Semantics, Cambridge, MA: Harvard University Press.
- (1947), Meaning and Necessity, A Study in Semantics and Modal Logic, Chicago: University of Chicago Press.
- (1959a), "The Elimination of Metaphysics through Logical Analysis of language", in Ayer (1959).
- (1959b), "The Old and the New Logic", in Ayer (1959).
- Coats, A. W. (1987), "Comment on McCloskey", Eastern Economic Journal, 13.
- Collier, Andrew. (1994), Critical Realism: An Introduction to Roy Bhaskar's Philosophy, London: Verso.
- Collins, Randall; and Makowsky, Michael. (1972), *The Discovery of Society*, New York: Random House.
- Critchley, Simon; and Dews, Peter. (1996), editors, *Deconstructive Subjectivities*, Albany, NY: State University of New York Press.
- Culler, Jonathan. (1982), On Deconstruction, Ithaca, NY: Cornell University Press.
- Davis, John B.; Hands, Wade D.; and Mäki, Uskali. (1998), editors, *The Handbook of Economic Methodology*, Cheltenham, UK; Northampton, MA: Edward Elgar.
- Deleuze, Gilles. (1986, 1988), Foucault, Minneapolis: University of Minnesota Press.
- Derrida, Jacques. (1967a, 1976), De la grammatologie, English translation: Of Grammatology, Baltimore: Johns Hopkins University Press.
- (1967b, 1978), L'Ecriture et la différence, English translation: Writing and Difference, Chicago: University of Chicago Press.
- (1972a), Marges de la philosophie, English translation: "Signature Event Context", in Glyph, 1, 1977.
- (1972b, 1981), Positions, Chicago: University of Chicago Press.
- (1972c, 1981), La Dissémination, English translation: Dissemination, Chicago: University Press.
- (1977), "Limited Inc a b c", Glyph, 2.

- (1978, 1979), "Le Parergon", in La Vérité en peinture, English translation: "The Parergon" in October, 9, 3-40.
- (1979), "Living On: Border Lines", in Bloom (1979), 81.
- (1980, 1978), "Spéculer—'Sur Freud'", in La Carte postale: De Socrate à Freud et au-delà, English translation: "Speculating—On Freud", Oxford Literary Review, 3, 78-97.
- (1988), Limited Inc., Graff Gerald ed., a collection including Signature Event Context, "Limited Inc a b c", and "Afterword: Toward an Ethic of Discussion", Evanston, IL: Northwestern University Press.
- (1995), Archive Fever: A Freudian Impression, Chicago; London: The University of Chicago Press.
- Dupree, Hunter A. (1959), Asa Gray, 1810-1888, Cambridge, MA: Belknap Press of Harvard University Press.
- Eagleton, Terry. (1976), Marxism and Literary Criticism, Berkeley, CA: University of California Press.
- (1983), Literary *Theory: An Introduction*, Minneapolis: University of Minnesota Press.
- Eco, Umberto. (1981), The Role of the Reader: Explorations in the Semiotics of Texts, Bloomington: Indiana University Press.
- (1995), The Search for the Perfect Language, Oxford, UK; Cambridge, MA, USA: Blackwell.
- (1998), Serendipities: Language and Lunacy, New York: Columbia University Press.
- Eiseley, Loren. (1958), Darwin's Century: Evolution and the Men Who Discovered It, Garden City, N.Y., Doubleday.
- Evensky, Jerry. (1993), "Ethics and the Invisible Hand", Journal of Economic Perspectives, 7, 2, 197-205.
- Feldman, Shoshana. (1977), "Turning the Screw of Interpretation", Yale French Studies, 55/56, 94-207.
- Fernández, Ramón García. (1999), "McCloskey and Mäki on Truth," paper presented at the History of Economics Society 26th annual meeting in Greensboro, NC.

- Feyerabend, Paul K. (1970a), "How To Be a Good Empiricist A Plea for Tolerance in Matters Epistemological", in Broody (1970).
- (1970b), "Consolations for the Specialist", in Lakatos and Musgrave (1970).
- (1975), Against Method: Outline of an Anarchist Theory of Knowledge, London: NLB; Atlantic Highlands: Humanities Press.
- (1999), Conquest of Abundance: A Tale of Abstraction versus the Richness of Being, Terpstra Bert Ed., Chicago: The University of Chicago Press.
- Fish, Stanley. (1980), Is There a Text in This Class?: The authority of interpretive communities, Cambridge, MA: Harvard University Press.

Foucault, Michel. (June 1966), "La pensée du dehors", Critique, 229, 523-46.

- (1966, 1970), Les mots et les choses, trans. The Order of Things: an archaeology of the human sciences, London: Tavistock Publications.
- (1969, 1972), L'archéologie du savoir, trans. The Archaeology of Knowledge, New York: Pantheon Books.
- (1972, 1973), Naissance de la clinique (earlier version, 1963), trans. The Birth of the Clinic: an archaeology of medical perception, New York: Pantheon Books.
- (1973, 1983), Ceci n'est pas une pipe, trans. This is not a pipe, Berkeley: University of California Press.
- (1975, 1977), Surveiller et punir. Naissance de la prison, trans. Discipline and Punish: The Birth of the Prison, New York: Pantheon Books.
- (1976a), "Two Lectures," lecture 2, 93, in Taylor (1986).
- (1976b), La volonté de savoir (Histoire de la sexualité I), Paris: Gallimard.
- (1984), L'usage des plaisirs (Histoire de la sexualité II), Paris: Gallimard.
- Fraser, L. M. (1937), Economic Thought and Language: A Critique of Some Fundamental Economic Concepts, London: A. & C. Black.
- Freud, Sigmond. (1919), "The Uncanny", in Complete Psychological Works (1953-74).
- (1920, 1922), Beyond the Pleasure Principle, London; Vienna: The International psycho-analytical press.

- (1953-74), Complete Psychological Works, edited by James Strachey, London: Hogarth Press.
- Friedman, Milton. (1953), Essays in Positive Economics, Chicago: Chicago University Press.
- Galison, Peter; and Stump, David J. (1996), The Disunity of Science: Boundaries, Contexts, and Power, Stanford, CA: Stanford University Press.
- Gibbard, A.; and Varian, Hal R. (1979), "Economic Models", Journal of Philosophy, 75.
- Gross, Alan G. (1990, 1996), *The Rhetoric of Science*, Cambridge, MA; London, UK: Harvard University Press.
- Grundy, Richard. (1973), editor, *Theories and Observation in Science*, Englewood Cliffs, NJ: Prentice-Hall.
- Hanson, Norwood R. (1958), Patterns of Discovery; an inquiry into the conceptual foundations of science, Cambridge, UK: Cambridge University Press.
- Harpham, Geoffrey Galt. (1992), Getting It Right: Language, Literature, and Ethics, Chicago: University of Chicago Press.
- (1995), "Ethics", in Lentricchia & McLaughlin (1995).
- Harré, Rom. (1986), Varieties of Realism: A Rational for the Natural Sciences, Oxford: Basil Blackwell.
- Hausman, Daniel M. (1984, 1994), editor, *The Philosophy of Economics: An Anthology*, Cambridge, UK; New York: Cambridge University Press.
- Hausman, Daniel and McPherson, Michael. (1996), *Economic Analysis and Moral Philosophy*, Cambridge, UK; New York: Cambridge University Press.
- (1994), "Economics, rationality, and ethics", in Hausman (1994).
- (1993), "Taking Ethics Seriously: Economics and Contemporary Moral Philosophy", Journal of Economic Literature, 31, 671-731.
- Hawthorn, Jeremy. (1992), A Concise Glossary of Contemporary Literary Theory, London; New York: Edward Arnold.
- Hempel, Carl G. (1959), "The Empiricist Criterion of Meaning," in Ayer (1959).
- (1966), *Philosophy of Natural Science*, Englewood Cliffs, NJ: Prentice-Hall.

- Hempel, Carl; and Oppenheim, Paul. (1948), "Studies in the Logic of Explanation", *Philosophy of Science*, 15, in Brodbeck and Feigl (1953).
- Henderson, Willie; Dudley-Evans, Tony; Backhouse, Roger. (1993), editors, *Economics and Language*, London Routledge.
- Hirsch, E. D. (1976), The Aims of Interpretation, Chicago: University of Chicago Press.
- Horwich, Paul. (1993), editor, World Changes: Thomas Kuhn and the Nature of Science, Cambridge, MA; London: The MIT Press (a Bradford book).
- Hoy, David. (1986), editor, Foucault: A Critical Reader, Oxford; New York: Basil Blackwell.
- Hume, David. (1739-40), A Treatise of Human Nature: Being an Attempt to introduce the experimental Method of Reasoning into Moral Subjects, the full text is available online from the Centre d'Histoire de la Pensée Economique (http://panoramix.univ-paris1.fr/CHPE), http://panoramix.univ-paris1.fr/CHPE/Textes/Hume/treat0.html.
- (1748), An Inquiry Concerning Human Understanding, the full text is available online from the Centre d'Histoire de la Pensée Economique (http://panoramix.univ-paris1.fr/CHPE), http://www.ecn.bris.ac.uk/het/hume/enquiry
- Hutchison, Terence. (1938, 1965), *The Significance and Basic Postulates of Economic Theory*, New York: A. M. Kelley, Bookseller.
- (1992), Changing Aims in Economics, Oxford, UK; Cambridge, MA: Basil Blackwell.
- Ihde, Don. (1993), Postphenomenology: Essays in the Postmodern Context, Evanston, IL: Northwestern University Press.
- Johnson, Barbara. (1980a), The Critical Difference: Essays in the Contemporary Rhetoric of Reading, Baltimore: Johns Hopkins University Press.
- (1980b), "Nothing Fails like Success", SCE Reports, 8, 7-16.
- Kant, Immanuel. (1987, 1964), Critique of Pure Reason, London: Macmillan.
- Keynes, John N. (1891, 1904), *The Scope and Method of Political Economy*, London; New York: Macmillan.
- Kincaid, Harlod. (1996), Philosophical Foundations of the Social Sciences: Analyzing Controversies in Social Research, Cambridge, UK; New York: Cambridge University Press.

- Kitcher, (1981), "Explanatory Unification", Philosophy of Science, 48, 507-31.
- Klamer, A.; McCloskey, D.; and Solow, R. (1988), editors, *The consequences of economic rhetoric*, Cambridge, UK; New York: Cambridge University Press.
- Klamer, Arjo; and Colander, David. (1990), *The Making of an Economist*, Boulder, CO: Westview Press.
- Klein, Lawrence. (1985), *Economic Theory and Econometrics*, Edited by Jaime Marquez, London: Basil Blackwell.
- Kuhn, Thomas. (1962, 1996), *The Structure of Scientific Revolutions*, Chicago; London: The University of Chicago Press.
- (1970) "Reflections on My Critics", in Lakatos and Musgrave (1970).
- Lakatos, Imre. (1970), "History of Science and Its Rational Reconstruction", in Buck and Cohen (1970).
- "Falsification and the Methodology of Scientific Research Programmes", in Lakatos and Musgrave (1970).
- Lakatos and Musgrave. (1970), editors, Criticism and the Growth of Knowledge, Cambridge, UK; New York: Cambridge University Press.
- Lanham, Richard. (1991), A Handlist of Rhetorical Terms, Berkeley; Los Angeles: University of California Press.
- Latour, Bruno. (1984, 1988), *The Pasteurization of France*, Cambridge, MA; London: Harvard University Press.
- (1987), Science in Action, Cambridge, MA; London: Harvard University Press.
- (1999), Pandora's Hope: Essays on the Reality of Science Studies, Cambridge, MA; London: Harvard University Press.
- Latour, Bruno; and Woolgar, Steve. (1979), Laboratory Life. The Social Construction of Scientific Facts, Beverly Hills: Sage Publications.
- Lavoie, Don C. (1990), editor, *Economics and Hermeneutics*, London; New York: Routledge & Kegan Paul.
- Lawson, Tony. (1997), Economics and Reality, London; New York: Routledge.
- Lentricchia, Frank; and McLaughlin, Thomas. (1990, 1995), editors, Critical Terms for Literary Study, Chicago; London: The University of Chicago Press.

- Lucas, Robert E. (1976), "Econometric Policy Evaluation: A Critique", in Brunner & Meltzer, editors, *The Philips Curve and Labor Markets*, Supplement to the *Journal of Monetary Economics*, 19-46.
- Mach, Ernst. (1895, 1898), Popular Scientific Lectures, Chicago: Open Court..
- (1959), The Analysis of Sensations, New York: Dover.
- Machlup, Fritz. (1963), Essays on Economic Semantics, Englewood Cliffs, NJ: Prentice-Hall.
- (1978), Methodology of Economics and other Social Sciences, New York: Academic Press.
- Madison, Gary B. (1982), *Understanding: A Phenomenological-Pragmatic Analysis*, Westport, CN: Greenwood Press.
- (1990), "Getting Beyond Objectivism: The Philosophical Hermeneutics of Gadamer and Ricoeur", in Lavoie (1990).
- Mäki, Uskali. (1988a), "How to combine Rhetoric and Realism in the Methodology of Economics", *Journal of Economics and Philosophy*, 4, 1, 89-109.
- (1988b), "Realism, Economics, and Rhetoric: a Rejoinder to McCloskey", *Journal of Economics and Philosophy*, 4, 1, 167-69.
- (1992), "Social Conditioning of Economics" (see also commentary by A.W. Coats), in de Marchi (1992).
- (1993), "Two Philosophies of the Rhetoric of Economics", in Henderson et al. (1993).
- (1995), "Diagnosing McCloskey", Journal of Economic Literature, 33, 3, 1300-18.
- Mäki, Uskali; Gustafsson, Bo; and Knudsen, Christian. (1993), editors, *Rationality*, *Institutions and Economic Methodology*, London: Routledge.
- de Man, Paul. (1979a), Allegories of Reading: Figural Language in Rousseau, Nietzsche, Rilke, and Proust, New Haven: Yale University Press.
- (1979b), Shelley Disfigured, in Bloom et al. (1979).
- de Marchi, Neil. (1988), editor, *The Popperian legacy in economics*, Cambridge, UK: Cambridge University Press.

- (1992), editor, *Post-Popperian Methodology of Economics: Recovering Practice*, Boston: Kluwer Academic Publishers.
- Marzola, Alessandra; and Silva, Francesco. (1994), editors, *John Maynard Keynes:* Language and Method, Aldershot, Hants, UK; Brookfield, VT: Edward Elgar.
- McCloskey, Deirdre. (1983), "The Rhetoric of Economics", Journal of Economic Literature, 21, 481-517.
- (1985, 1998), *The Rhetoric of Economics*, Madison, WI: The University of Wisconsin Press.
- (1988a), "The consequences of rhetoric", *The consequences of economic rhetoric*, Klamer, McCloskey and Solow (1988), 280-93.
- (1988b), "Two Replies and a Dialogue on the Rhetoric of Economics: Māki, Rappaport, and Rosenberg", *Journal of Economics and Philosophy*, 4, 1, 150-166.
- (1988c), "Thick and Thin Methodologies in the History of Economic Thought", in de Marchi (1988).
- (1988d), "The Limits of Expertise. If You're So Smart, Why Ain't You Rich?", American Scholar, 57, 393-406.
- (1989a), "The Very Idea of Epistemology: Comment", *Journal of Economics and Philosophy*, 5, 1, 1-6.
- (1989b), "Why I Am No Longer a Positivist", Review of Social Economics, 47, 3, pp. 225-38.
- (1991), "Economic Science: A Search Through the Hyperspace of Assumptions?", *Methodus*, 3, 1, 6-16.
- (1992), McCloskey's commentary on Mirowski, Philip, "Three Vignettes in the State of Economic Rhetoric", in de Marchi (1992), 261-71.
- (1994), Knowledge and Persuasion in Economics, Cambridge, UK; New York: Cambridge University Press.
- (1995a), "Modern Epistemology Against Analytical Philosophy: A Reply to Mäki", Journal of Economic Literature, 33, 3, 1319-23.
- (1995b), "The insignificance of Statistical Significance", *Scientific American*, April, 32-3.
- (1995c), "Computation Outstrips Analysis", Scientific American, July, 26.

- (1996), The Vices of Economists The Virtues of the Bourgeoisie, Amsterdam: Amsterdam University Press.
- (1999a), "Cassandra's Open Letter to her Economist Colleagues" in "Other Things Equal" regular column in the *Eastern Economic Journal*, 25, 3, 357-63.
- McMullin, Ernan. (1992), editor, *The Social Dimensions of Science*, Notre Dame, IN: University of Notre Dame Press.
- McPherson, Michael S. (1984), "Limits on self-seeking: The Role of Morality in Economic Life", in *Neoclassical Political Economy*, David Colander, editor, Boston: Ballinger Press.
- Mill, J. S. (1866), The Edinburgh Revue, Vol. CXXIII, 335, in the Oxford English Dictionary 2nd ed., under "elenctic".
- Miller, David. (1985), Popper Selections, Princeton, NJ: Princeton University Press.
- Miller, J. Hillis. (1976), "Steven's Rock and Criticism as Cure", Georgia Review, 30, 335-38.
- Mirowski, Philip. (1988), "Shall I Compare Thee to a Minkowski-Ricardo-Leontief-Metzler Matrix of the Mosak-Hicks Type?", in Klamer, McCloskey, and Solow (1988), 117-45.
- (1989), More Heat than Light. New York: Cambridge University Press.
- (1990), "The Philosophical Bases of Institutional Economics", in Lavoie (1990).
- (1992), "Three Vignettes on the State of Economic Rhetoric", in de Marchi (1992), 235-59.
- (2000), "The Good, the Bad, and the Bungly", Journal of the History of Economic Thought, 22, 1, 85-91.
- Mulberg, Jon. (1995), Social Limits to Economic Theory, London; New York: Routledge.
- Nagel, Ernst. (1961), The Structure of Science: Problems in the Logic of Scientific Explanation, New York: Harcourt, Brace and World.
- Nietzsche, Friedrich W. (1964, 1995), The Complete Works of Friedrich Nietzsche, Stanford, CA: Stanford University Press.
- (1870, 1979), Philosophy and Truth: Selections from Nietzsche's Notebooks of the Early 1870's, Atlantic Highlands, NJ: Humanities Press.

- (1888), "The Will to Power", in *The Complete Works*, 1964, 1995.
- O'Neill, John. (1998), "Rhetoric, Science and Philosophy", *Philosophy of the Social Sciences*, 28, 2, 205-25.
- Ormerod, Paul. (1994), The Death of Economics, London; Boston: Faber and Faber.
- Papineau, David. (1996), editor, *The Philosophy of Science*, Oxford; New York: Oxford University Press.
- Pickering, Andrew. (1995), *The Mangle of Practice: Time, Agency, and Science*, Chicago; London: The University of Chicago Press.
- Pinker, Steven. (1994), *The Language Instinct: How the Mind Creates Language*, New York: William Morrow and Company.
- Pojam, Louis (1993), editor, *The Theory of Knowledge: Classical and Contemporary readings*, Belmont, CA: Wadsworth Publishing.
- Poovey, Mary. (1998), A History of The Modern Fact: Problems of Knowledge in the Sciences of Wealth and Society, Chicago; London: The University of Chicago Press.
- Popper, Karl. (1934, 1959), The Logic of Scientific Discovery, New York: Basic Books.
- (1970), "Normal Science and Its Dangers," in Lakatos and Musgrave (1970).
- (1972), Objective Knowledge: An Evolutionary Approach, Oxford: Clarendon Press.
- Putnam, Hilary. (1990), Realism with a Human Face, Cambridge, MA: Harvard University Press.
- Reichenbach, Hans. (1938), Experience and Prediction: An Analysis of the Foundations and Structure of Knowledge, Chicago: University of Chicago Press.
- Rorty, Richard. (1978), "Philosophy as a Kind of Writing: An Essay on Derrida", New Literary History, 10, 141-60.
- (1980), *Philosophy and the Mirror of Nature*, Princeton, NJ: Princeton University Press.
- Rosenberg, Alexander. (1988a), "Economics is Too Important to be Left to the Rhetoricians", *Economics and Philosophy*, April, 4, 1, pp. 129-49.
- (1988b), "Rhetoric is Not Important Enough for Economists to Bother About", Economics and Philosophy, April, 4, 1, pp. 129-49.

- (2000), *Darwinism in Philosophy, Social Science and Policy*, Cambridge, UK; New York: Cambridge University Press.
- Rossetti, Jane. (1990), "Deconstructing Robert Lucas", in Samuels (1990).
- (1992), updated and revised version of "Deconstructing Robert Lucas", in de Marchi (1992).
- Rozeboom, William W. (1967), "Why I Know So Much More Than You Do", in Pojam (1993), pp. 175-85. Originally appeared in the American Philosophy Quarterly, 1967, 4, 281-90.
- Ruse, Michael. (1975), "Charles Darwin's Theory of Evolution: An Analysis", Journal of the History of Biology, 8, 219-41.
- (1981), "What Kind of Revolution Occurred in geology?", in Asquith, P; and Hacking, I, editors, *PSA 1978*, 2, 240-73, East Lansing, Michigan: Philosophy of Science Association.
- (1998), Taking Darwin Seriously: A Naturalistic Approach to Philosophy, New York: Prometheus Books.
- Russel, Bertrand; and Whitehead, Alfred N. (1910-13), *Principia Mathematica*, Cambridge, UK; New York: Cambridge University Press.
- Salmon, Wesley; and Wolters, Gereon. (1994), editors, Logic, Language, and the Structure of Scientific Theories: Proceedings of the Carnap-Reichenbach Centennial, University of Knostanz, 21-24 May 1991, Pittsburgh, PA; Konstanz, Germany: University of Pittsburgh Press; Universitätsverlag Konstanz.
- Samuels, Warren J. (1990), editor, Economics as Discourse: An Analysis of the Language of Economics, Boston: Kluwer Academic Publishers.
- Samuelson, Paul. (1947), Foundations of Economic Analysis, Cambridge, MA: Harvard University Press.
- de Saussure, Ferdinand. (1907, 1960), Cours de linguistique génerale, London: Peter Owen.
- Searle, John R. (1970), Speech Acts: An Essay in the Philosophy of Language, Cambridge, UK: New York: Cambridge University Press.
- (1977), "Reiterating the Differences: A Reply to Derrida", Glyph, 1, 198-208.

- Sen, Amartya. (1987), On Ethics and Economics, Oxford: Basil Blackwell.
- Schlick, Moritz. (1959), "The Turning Point in philosophy", in Ayer (1959).
- (1959), "Positivism and Realism", in Ayer (1959).
- Schumpeter, Joseph A. (1954), *History of Economic Analysis*, New York: Oxford University Press.
- (1967), Economic Doctrine and Method: An Historical Sketch, New York: Oxford University Press (a Galaxy Book).
- Smith, Adam. (1759, 1976), The Theory of Moral Sentiments, Oxford: Clarendon Press.
- Sofianou, Evanthia. (1995), "Post-modernism and the notion of rationality in economics", Cambridge Journal of Economics, 19, 373-389.
- Sokal, Alan D. (1996), "Transgressing the Boundaries: Towards a Transformative Hermeneutics of Quantum Gravity", Social Text, 46/47, 217-252.
- Sokal, Alan D.; and Bricmont, Jean. (1997), Impostures intellectuelles, Paris: Odile Jacob.
- Sollow, Robert. (1988), "Comments from inside economics" in Klamer, McCloskey, and Solow (1988).
- Spivak, Gayatri. (1981), forward to the English translation of Mahasveta Devi's "Draupadi", in *Critical Inquiry*, 8, 381-402.
- Stettler, Michael. (1995), "The rhetoric of McCloskey's rhetoric of economics", Cambridge Journal of Economics, 19, 391-403.
- Suppe, Fredrick. (1973, 1977), editor, *The Structure of Scientific Theories*, Urbana, IL: University of Illinois Press.
- Tarascio, Vincent. (1968), Pareto's Methodological Approach to Economics: A study in the History of Some Scientific Aspects of Economic Thought, Chapel Hill, NC: The University of North Carolina Press.
- (1969), "Paretian Welfare Theory: Some Neglected Aspects", *Journal of Political Economy*, 77, 1, 1-20.
- (1974), "Pareto on political economy", History of Political Economy, 6, 361-380.
- (1975), "Intellectual History and the Social Sciences: The Problem of Methodological Pluralism", 55, Social Science Quarterly.

- (1997), "The Problem of Knowledge in Economics", in the Southern Economic Journal, 64, 1.
- Tarascio, Vincent; and Caldwell, Bruce. (1979), "Theory-Choice in Economics: Philosophy and Practice", *Journal of Economic Issues*, 13, 983-1006.
- Tarski, Alfred. (1956), Logic, Semantics, Metamathematics, Oxford: Clarendon Press.
- Taylor, Charles. (1986), "Foucault on Freedom and Truth", in Hoy (1986), 69-102.
- Tompkins, Jane. (1981), "Sentimental Power: *Uncle Tom's Cabin* and the Politics of Literary History", *Glyph*, 8.
- Turner, Mark. (1996), *The Literary Mind*, Oxford, UK, New York: Oxford University Press.
- Weber, Samuel. (1977), "The Divaricator: Remarks on Freud's Witz", Glyph, 1.
- Weintraub, Roy. (1989), "Methodology Doesn't Matter, But the History of Thought Might", Scandinavian Journal of Economics, 91, 2, 477-93.
- (1999), "How Should We Write the History of Twentieth-Century Economics?", Oxford Review of Economic Policy, 15, 4, 139-52.
- Wilber, Charles; and Harrison, Robert. (1978), "The Methodological Basis of Institutional Economics: Pattern Model, Storytelling, and Holism", *Journal of Economic Issues*, 12.
- Wilber, Charles and Hoksbergen, Roland. (1986), "Ethical Values and Economic Theory: A Survey", *Religious Studies Review*, 12, 3/4, 205-14.
- Wilson, Edward O. (1998), Consilience: The Unity of Knowledge, New York: Random House (Vintage Books).
- Wittgenstein, Ludwig. (1961), *Tractus Logico-Philosophicus* (with intro. By Bertrand Russell), New York: Humanities Press.
- Ziman, John. (1994), *Prometheus Bound*, Cambridge, UK; New York: Cambridge University Press.