SYSTEMATIC PLURALISM AND THE FOUNDATIONALIST CONTROVERSY

Walter Watson

State University of New York at Stony Brook

In this paper I shall examine the foundationalist-antifoundationalist controversy from the standpoint of a systematic pluralist. All of these labels -- foundationalism, antifoundationalism, systematic pluralism-designate ambiguous commonplaces that are given definite meanings in the works of particular authors. For the antifoundationalist position, I shall use Richard Rorty's "pragmatism," for Rorty began the controversy with his *Philosophy and the Mirror of Nature*¹ and remains the leading antifoundationalist. Foundationalism then becomes whatever it is that Rorty is opposing, which is not a single position, but a heterogeneous group of positions called by various names: "traditional philosophy," "epistemology," "Philosophy" (with a capital "P").

"Systematic pluralism" refers to doctrines that have existed for about fifty years and have recently been given this name, thanks largely to the efforts of James E. Ford.² Pluralists in this context are those who share the conviction that multiple philosophic approaches are viable, but do not necessarily share the same philosophic approach. Systematic pluralists are those who systematize these philosophic approaches. The two most notable early systematic pluralists are Richard McKeon and Stephen Pepper. Pepper recognizes five relatively adequate "world hypotheses," mechanism, formism, organicism, contextualism, and selectivism.³ His doctrine is easy to understand and he now has a large number of followers in many fields, particularly literature and the arts. McKeon's schema of

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philosophic semantics took many forms, of which the last was presented in the 1965 Carus lectures and in the 1966 paper, "Philosophic Inquiry and Philosophic Semantics."⁴ This form of the semantic schema distinguishes philosophies according to their selections, interpretations, methods, and principles. McKeon is difficult to understand, and his philosophy is not so much a doctrine as a power to construct indefinitely many doctrines. He has influenced directly or indirectly a large number of people in highly diverse ways, rather like Socrates. Some of those he has influenced have worked out modified forms of his pluralism: among the systematic pluralists I would include David Dilworth and myself,⁵ and among the unsystematic pluralists Wayne Booth⁶ and also Richard Rorty, if he is a pluralist at all, for he too studied with McKeon.

The particular form of systematic pluralism that I represent distinguishes philosophies according to their *archai*, or archic elements. *Archai* are not the same as foundations, for even an anti-foundationalist such as Rorty has his *archai*. The kinds of *archai* that any philosophy must have, if it is to have meaning at all, are four: the authorial perspective, the reality known from this perspective, the method by which the knowledge of this reality is ordered, and the principles (in a narrow sense) which ground this knowledge or, more generally, enable the philosophy to function in whatever way it does function. The archic elements which characterize a particular philosophy constitute its archic profile. In understanding a philosophy or a controversy between philosophies it is useful to begin by determining what archic profiles are involved. I will therefore begin by seeking the antifoundational *archai* of Rorty and contrasting them with foundational *archai*, if indeed this distinction is applicable to *archai*.

1. Foundational and Antifoundational Archai.

A salient feature of Rorty's pragmatism is its anti-representationalism. The mind, Rorty says, is not a mirror of nature: "The picture which holds traditional philosophy captive is that of the mind as a great mirror, containing various representations -- some accurate, some not -- and capable of being studied by pure, nonempirical methods."⁷ Among the philosophers who hold that the mind in some sense mirrors or images or models nature are Democritus, Epicurus, Zeno the Stoic, Francis Bacon, Locke, Peirce, and Bertrand Russell. Mirroring or objectivist perspectives are foundational in the sense that within them we seek to know nature as it is in itself, independently of us.

Lest we be held captive by Rorty's picture of traditional philosophy, however, we should note that traditional philosophy also includes transcendental or disciplinary perspectives, for which the mind does not mirror nature but constructs its disciplines in accordance with its own interests and powers. Among the transcendental philosophers in this sense are Aristotle, Aquinas, Kant, Husserl, Dewey, and Habermas. "The received is in the receiver according to the mode of the receiver," as Aquinas succinctly puts it.⁸ We syllogize in our sciences, but this does not imply that nature syllogizes. The distinction of theoretical, practical, and productive science is determined by our interests, and does not mirror a distinction that pre-exists in nature. Whatever is said scientifically by these philosophers falls within a discipline constituted by the mind for its own purposes. Transcendental perspectives are foundational in the sense that they constitute disciplines.

For another group of philosophers that includes Plato, Bonaventura, Leibniz, Hegel, Heidegger, and Gadamer, there is a hierarchy of knowers and their correlative objects (e.g., the Divided Line), but truth does not lie in this correlative mirroring, for the object mirrored may be far from the truth. The mind approximates to the truth not by a better mirroring of its objects, but by transcending the limitations of the perspective it happens to have and apprehending objects that disclose the truth more fully. We can never escape the limitations of our finite perspectives, but we can be open to the absence in what is present. If these revelatory or diaphanic perspectives are mistakenly seen as providing a final truth, we have the usual misinterpretations of such texts as Plato or Genesis which make them easy to dismiss. The proper contribution of Plato to the foundationalist controversy is not to found foundationalism, but to explode the distinction between foundationalism and antifoundationalism, for the source of truth destroys whatever foundation we may suppose ourselves to possess.

Rorty groups together as representational all the kinds of perspective that differ from his anti-representationalism. His own perspective, which he views as entailed by his anti-representationalism, he identifies as *ethnocentric*. In the Introduction to *Objectivity, Relativism, and Truth*, he says,

The first and the last essay in this volume dwell on the topic of ethnocentrism. This is because one consequence of antirepresentationalism is the recognition that no description of how things are from a God's-eye point of view, no skyhook provided by some contemporary or yet-to-be-developed science, is going to free us from the contingency of having been acculturated as we were.⁹

To be ethnocentric is to divide the human race into the people to whom one must justify one's beliefs and the others. The first group -- one's ethnos - comprises those who share enough of one's beliefs to make fruitful conversation possible. In this sense, everybody is ethnocentric when engaged in actual debate, no matter how much realist rhetoric about objectivity he produces in his study.¹⁰ For Rorty, we always work within the perspective of some *ethnos*. These perspectives are relativistic not in the sense that what it means to be true is relative to one's perspective, but in the sense that what one holds as true is relative to one's perspective. This kind of perspective, that of the particular knower, either the individual or the group, has, like the others, a long history, beginning with the Hellenic Sophists and running through, thinkers such as Erasmus, Montaigne, Descartes, Voltaire, William James, and Sartre.

The appearance of Descartes' name in this list serves to remind us that, while a perspective in which the truth is inseparable from the knower lends itself to antifoundationalist uses, such a perspective does not preclude a foundationalist construction. If one considers only the individuality of the perspective, it is no great leap from Montaigne's "Sitting on the loftiest throne in the world we are still sitting on our own behind"¹¹ to Descartes' "My design has never extended beyond trying to reform my own opinion and to build upon a foundation which is entirely my own."¹² If Descartes' judgments are true, it is not because he has succeeded in setting aside his individual subjectivity in order to mirror the world objectively, in Baconian fashion, but because his individual mind has successfully developed itself as an individual mind. Rorty's antifoundationalism is thus not attributable merely to his ethnocentric perspective, but depends on other archic elements as well.

Rorty's pragmatism is not only anti-representationalist, it is also anti-essentialist. Just as his anti-representationalism stands for an opposition to all non-ethnocentric perspectives, whether representational or not, so here his anti-essentialism stands for an opposition to all the kinds of reality that he opposes, whether essentialist or not. He tells us forthrightly what we should exclude from the real:

We do not think it anachronistic to say that Aristotle had a false model of the heavens, or that Galen did not understand how the circulatory system worked. We take the pardonable ignorance of our great dead scientists for granted. We should be equally willing to say that Aristotle was unfortunately ignorant that there are no such things as real essences, or Leibniz that God does not exist, or Descartes that the mind is just the central nervous system under an alternative description.¹³

It is evident even from this brief quotation that, according to Rorty, we should deny the essential realities of Aristotle, Descartes, Heidegger, Whitehead, and Dewey, and also the noumenal realities of Plato, Spinoza, Leibniz, and Kant. Not only this, but the remark on Descartes indicates that we should reject also the substrative realities of Democritus, Locke, the British scientific tradition, and Nietzsche in favor of a non-reductive physicalism that leaves us simply with alternative descriptions of the existential flux: "Just as the neural synapses are in continual interaction with one another, constantly weaving a different configuration of electrical charges, so our beliefs and desires are in continual interaction, redistributing truth-values among statements."¹⁴

The reality for Rorty's pragmatism is thus of the same kind as the reality of the Sophists, Cicero, Berkeley, James, Wittgenstein, and Sartre. There is no reality that is set over against appearances; they are the same. When Rorty's denial that there is any objective world for our knowledge to represent is compared to Berkeley's denial of the existence of material objects, it is primarily this aspect of their philosophies that is being noted. The existential flux is antifoundational in the sense that it does not supply an unchanging object of knowledge.

Rorty is not only anti-representationalist and anti-essentialist, he is also anti-methodical in the sense in which method is a rule-governed procedure. The logistic method is such a procedure, and it is in its nature foundational, basing each new step on what has preceded. Descartes figures as an arch-foundationalist in good part because of his logistic method, which begins from what is certain and builds upon this foundation in a way that assures the certainty of each new part of the structure. Such a method is used not only by Descartes, but also by Euclid, Leibniz, Spinoza, Newton, Locke, Hume, Husserl, and Russell.

Problematic or resolutive methods, such as those of Aristotle, Aquinas, Kant, and Dewey, are foundational not in beginning from what is certain or fixed but in achieving it. They begin from what is uncertain or indeterminate, but work toward a resolution, toward a definite settlement of what was in question. The result is that even though one does not have a foundation at the beginning, one may have one at the end.

Dialectical methods are at once foundational and antifoundational, establishing foundations by destroying them. The Socrates of Plato's *Apology* is uniquely well founded because he is quite without a foundation.

Rorty's opposition to representationalism, essentialism, and method, and his general confrontational and provocative stance, give us a clue to his own method, which appears to be agonistic or rhetorical. Rorty recognizes this antagonistic stance as essential to what he is doing. Hermeneutics is parasitic upon epistemology,¹⁵ the non-Kantian is parasitic upon the Kantian,¹⁶ and edifying philosophy is reactive rather than constructive. "Great systematic philosophers are constructive and offer arguments. Great edifying philosophies are reactive and offer satires, parodies, aphorisms."¹⁷

Rorty contrasts method, conceived as the reduction of rationality to rule, with deliberation concerning the relative attractions of various concrete alternatives: Even nonpragmatists think Plato was wrong to think of moral philosophy as discovering the essence of goodness, and Mill and Kant wrong in trying to reduce moral choice to rule. But every reason for saying that they were wrong is a reason for thinking the epistemological tradition wrong in looking for the essence of science, and in trying to reduce rationality to rule. For the pragmatists, the pattern of all inquiry -- scientific as well as moral -- is deliberation concerning the relative attractions of various concrete alternatives. The idea that in science or philosophy we can substitute "method" for deliberation between alternative results of speculation is just wishful thinking.¹⁸

Rorty goes on to identify method with *theoria* and deliberation with *phronesis*. He appears to think that, in Aristotelian terms, he is substituting *phronesis* for *theoria*, but it is evident from his characterization of deliberation as "between alternatives" that what he is really doing is replacing both *phronesis* and *theoria* by rhetoric. Deliberation for Aristotle is inquiry into the means by which to attain an end, and is like the mathematical inquiry that analyzes a figure in order to be able to construct it,¹⁹ whereas rhetoric *is* concerned with the relative attractions of various concrete alternatives. Rorty elsewhere recognizes that his method is rhetorical and depends on topics:

Without this model [the science of Galileo and Newton] to go on, the notion of "a scientific method" would never have been taken seriously. The term "method" would have retained the sense it had in the period prior to the New Science, for people like Ramus and Bacon. In that sense, to have a method was simply to have a good comprehensive list of topics or headings -- to have, so to speak, an efficient filing system.²⁰

Rorty's anti-methodical method belongs in the tradition of rhetorical or agonistic methods running from the ancient Sophists through the Skeptics, Ramus, Galileo, Voltaire, Berkeley, and Nietzsche. As agonistic, such a method is well-suited to shaking anything that purports to be an unshakable foundation.

What is it that motivates all this anti-representationalism, antiessentialism, and anti-methodism? What is Rorty's aim in philosophy? His answer, in a word, is *solidarity*. The pragmatist, says Rorty, is "dominated by the desire for solidarity."²¹ He views even the epistemologists as pursuing objectivity for the sake of agreement with other human beings: "The dominating notion of epistemology is that to be fully human, to do what we ought, we need to be able to find agreement with other human beings."²² His ground for rejecting foundationalist philosophy is that it has failed to produce agreement, and this is why he proposes that we abandon it and get along as best we can without a foundation, or only the foundation provided by our conversation with our fellow human beings. Rorty relates the primacy of solidarity to the acceptance of the contingency of all starting points:

Let me sum up by offering a third and final characterization of pragmatism: it is the doctrine that there are no constraints on inquiry save conversational ones -- no wholesale constraints derived from the nature of the objects, or of the mind, or of language, but only those retail constraints provided by the remarks of our fellow-inquirers....

l prefer this third way of characterizing pragmatism because it seems to me to focus on a fundamental choice which confronts the reflective mind: that between accepting the contingent character of starting-points, and attempting to evade this contingency. To accept the contingency of starting-points is to accept our inheritance from, and our conversation with, our fellow-humans as our only source of guidance.²³

The non-contingent counter to all contingency is thus the desire for solidarity with our fellow-humans. This is an elemental principle, dominating both pragmatism and its opposite. Rorty recognizes the continuity of his principles with those of Hume: "I should like the sentiments of pity and tolerance to take the place of belief-systems (or of what Habermas calls 'the commitment to rationality') in bonding liberal societies together. I want a meta-ethics that follows up on Hume rather than on Kant."²⁴ Elemental principles ordinarily lead to foundationalist philosophies, as in Democritus, Plotinus, Hume, or Russell. But they can also be used, as in the Hellenistic Skeptics and Wittgenstein, as a foundation for antifoundationalism. The case is the converse of Descartes' use of the personal perspective, which is ordinarily anti-foundational, to establish a foundation. The true antifoundational principles are the creative principles, which do not counter contingency with human solidarity, but begin from the contingency. Because of their arbitrariness, they lend themselves to antifoundationalist uses, but, once laid down, they can become foundations. They have been used by the Sophists, St. Augustine, Locke, Heidegger, Whitehead, Dewey, Sartre, and many others.

Among the non-contingent starting-points are the reflexive principles of Aristotle, Descartes, Spinoza, Kant, Hegel, and Husserl, which serve as foundations for their sciences. A conspicuous variety of foundationalism unites reflexive principles with the logistic method, as in Descartes, Spinoza, and Husserl. Comprehensive principles, as in Confucius, Plato, Leibniz, and Comte, are antifoundational in the sense that we can never wholly know or possess them, but foundational in the sense of providing ideals toward which we can orient ourselves.

The archic profile that we have found, then, has three Sophistic elements, the ethnocentric perspective, the rhetorical or agonistic method,

and the contingent web of existential reality, and one Democritean element, the desire for solidarity. This is also the profile of Erasmus and Voltaire.²⁵ A comparison of these three, Erasmus, Voltaire, and Rorty, would provide a welcome variation on the usual comparisons of Rorty with his contemporaries.

All three practice what might be called serious playfulness. The seriousness comes from the elemental principles, which provide a moral base for the fun and games. "There is a moral purpose behind this light-mindedness," Rorty says.²⁶ The ridicule, the making fun of folly. comes from the agonistic method. The opposition is formulated as one between we wise fools, or we who are enlightened, or we heirs of the Enlightenment, on the one hand, and the unenlightened on the other. because the perspective is that of the particular knower. Formal argument or proof is not really possible within this profile, for the existential reality precludes generality and the idiocentric or ethnocentric perspective makes arguments inseparable from the knower. Philosophers and the whole profession or *fach* of philosophy are thus a favorite target for all three. Literature is preferable to philosophy because it can present what is existential rather than abstract and because it can attach positions to particular characters. There is little point in arguing against those who have this profile, as when a theologian replies to Erasmus or a philosopher to Rorty, for there is no argument to argue against, and one will simply provide them with a further occasion for ridicule. It is better to enjoy the ridicule they provide, and every age has suitable targets for ridicule. We are always in need of persons with this profile to help liberate us from our follies. In Rorty's terms, they are among the edifying philosophers, for they are reactive rather than constructive and offer satires, parodies, and aphorisms rather than arguments.²⁷

It is often instructive to compare a thinker with those who differ from him in only one archic element, particularly when the comparison is with one of the pure types, Sophistic, Democritean, Platonic, or Aristotelian. (I use the word "Sophist" in a descriptive, not a pejorative, sense, and mark this use by capitalizing the "S.") Rorty resembles the Hellenic Sophists in all but principle. In principle he resembles rather the Hellenistic Skeptics, who replaced the Sophistic concern with rule, power, and the shaping of the future, with indifference and tranquility. For Rorty our self-creations are adaptive and in the interest of the reflective equilibrium of principles and intuitions.²⁸ A society's "loyalty to itself is morality enough."²⁹ It is this aspect of Rorty that irritates activists with creative principles and revolutionary agendas.

The primacy in Rorty of what is human, as distinguished from that is independent of us, recalls the humanism of Erasmus and also the humanism of Protagoras' famous opening sentence, "Of all things the measure is man, of the things that are, how they are, and of the things that are not, how they are not."³⁰ The perspective of Rorty's pragmatism is human and ethnocentric, and does not mirror a reality independent of us. The reality is human and existential, without the generality of essences or Ideas or the physicalist reduction of the physical philosophers. The method is one of human rhetoric or debate, setting vocabularies and descriptions in opposition to one another as alternatives, and does not claim to discover Nature's Own Vocabulary by means of rules of rationality. The principle is the desire for solidarity with other human beings with which we confront the contingency of all starting-points.

We can see a similarity in more than title between Rorty's "The World Well Lost" and Gorgias' "On the Nonexistent or On Nature." Gorgias' arguments, viewed as formal proofs, are of doubtful value, yet as a mode of ridiculing his predecessors they are not without interest. We may recall Rorty's remarks to the effect that he is not trying to prove anything, but only to change the subject. Gorgias' work can in fact be considered the founding document of antifoundationalism, for in it Gorgias attacks the foundationalism of all his predecessors who had written works on nature. The three theses of Gorgias are "first and foremost, that nothing exists; second, that even if it exists it is inapprehensible to man; third, that even if it is apprehensible, still it is without a doubt incapable of being expressed or explained to the next man."³¹

The importance of solidarity in Rorty, and the priority of democracy to philosophy, correspond to the need for the arts of Zeus in addition to those of Hephaestus and Athena in the great myth of Plato's *Protagoras*, although with the difference, resulting from the difference in principle, that Protagoras is concerned with solidarity and conversation not as a ends in themselves, but as sources of power in the struggle for existence. Rorty's picture of the all-purpose intellectual of the post-Philosophic culture, ready to offer a view on pretty much anything,³² recalls Plato's statement about Gorgias, that he makes himself available to any of the Greeks to ask anything he wishes, and there is no one he does not answer.³³ Rorty himself, who is well aware of his intellectual affinities, notes that his vision of the philosophy of the future brings us back to where the Sophists were before Plato invented "philosophical thinking":

It is so much a part of "thinking philosophically" to be impressed with the special character of mathematical truth that it is hard to shake off the grip of the Platonic Principle [that differences in certainty must correspond to differences in the objects known]. If, however, we think of "rational certainty" as a matter of victory in argument rather than of relation to an object known, we shall look toward our interlocutors rather than to our faculties for the explanation of the phenomenon. If we think of our certainty about the Pythagorean Theorem as our confidence, based on experience with arguments on such matters, that nobody will find an

objection to the premises from which we infer it, then we shall not seek to explain it by the relation of reason to triangularity. Our certainty will be a matter of conversation between persons, rather than a matter of interaction with nonhuman reality. So we shall not see a difference in kind between "necessary" and "contingent" truths. At most, we shall see differences in degree of ease in objecting to our beliefs. We shall, in short, be where the Sophists were before Plato brought his principle to bear and invented "philosophical thinking": we shall be looking for an airtight case rather than an unshakable foundation.³⁴

Rorty differs from the Hellenistic Skeptics and Wittgenstein35 only in his ethnocentric perspective, and from Nietzsche only in using an existential rather than a substrative reality, but I will not pursue these comparisons because they lead away from the problem of understanding antifoundationalism.

2. The Foundationalist-Antifoundationalist Opposition as an Antifoundationalist Artifact.

The inquiry into Rorty's archic profile was undertaken not for its own sake but for its bearing on the foundationalist-antifoundationalist controversy. The profile enables us to understand, first of all, why Rorty formulates the issue as an opposition and why the opposed positions are stated as they are. Rorty's method, as we have noted, is the rhetorical presentation of alternatives. His perspective is that of the particular knower, and this leads to a formulation of oppositions in which Rorty and whoever is included in his "we" are on one side and everyone else is on the other. It is "us" versus "them." Thus, for Rorty, perspectives are representationalist or anti-representationalist; realities are essentialist or anti-essentialist; methods are methodical or anti-methodical; we give sense to our lives either by objectivity or by solidarity; philosophy is "traditional philosophy" or "pragmatism." The fundamental opposition is between the primacy of the human, of anthropos metron, and of the non-human; the opposition of solidarity and objectivity is just this opposition.

The formulation of oppositions in this way, then, is appropriate to Rorty's position because of its ethnocentric perspective and its rhetorical or agonistic method. From the standpoint of any of the positions on the other side of the oppositions he constructs, this is not an appropriate way of formulating an opposition or a problem. We can see from the many different ways in which the archic elements lend themselves to foundational uses that from the side of foundationalism the simple contrast between foundationalism and antifoundationalism will need to be reformulated to suit the profile of the foundationalist. The opposition between "traditional philosophy" and "pragmatism" is cast in the historical terms required by an existential reality. It is not presented, for example, as an opposition of essential possibilities, but as an opposition of old and new, of traditional Philosophy, with a capital "P," and the lower case philosophy of the future. The old Philosophy we may hope will fade away, like that old soldier, theology. Presenting the opposition as one between the old and the new is again not an acceptable way of stating the opposition for those in other modes. For the essentialist, for example, the opposition between the Sophists and the Others is as old as the history of philosophy, and the narrative of the Others fading away and leaving the Sophists in possession of the field has little plausibility.

The reasons why the Sophist presents his views as replacing those of the whole previous tradition lie in the nature of Sophistic itself. Its perspective is that of the knower and his own time, its reality is the existential present, which really is different from anything in the past, its method of rhetorical challenge lends itself to claiming a radical break with the past, and its principles, if they are creative, make the Sophist himself the agent of change. If the principles are elemental, as in Rorty, they can be used to deflate the pretensions of rationalism. In either case the Sophist rightly sees himself as different from anything that has preceded him, and at most there can be a family resemblance between himself and earlier philosophers.

The same factors that relate the Sophist to his own time rather than to an atemporal reality lead subsequent generations to dismiss the Sophists as peripheral, or perhaps as not philosophers at all, and thus to marginalize their tradition. When I speak of the Sophistic tradition 1 mean to include not only those with the pure sophistic profile, but also those in whom Sophistic elements predominate, such as Cicero, Sextus Empiricus, John of Salisbury, Erasmus, Montaigne, Voltaire, Berkeley, and William James. No matter how prominent these philosophers may be in their own time, they tend to be marginalized by subsequent generations. When Rorty distinguishes peripheral from mainstream philosophers, he cites William James as peripheral, whereas Peirce is in his terms mainstream.³⁶ Or think of the many well-known Sophists of the Hellenic period -- Protagoras, Gorgias, Prodicus, Thrasymachus, Hippias, Antiphon, Critias, Isocrates -- and compare them with the one Plato whose decidedly odd views could hardly be called mainstream. The Platonic Socrates repeatedly notes that his views are shared by very few.37 That man is the measure of all things is what "they" say, according to the Athenian Stranger in the Laws.³⁸ Isocrates boasts that he has had more pupils than all the rest put together who are occupied with philosophy³⁹ -- the Academy was no match for his school in popularity. But later

generations of philosophers find that they have more to learn from the one Plato than from the many Sophists, and so he becomes mainstream and they become peripheral. Kirk and Raven in their book, *The Presocratic Philosophers*, for example, exclude the Sophists altogether. This retrospective marginalizing of the Sophists is what makes it plausible for Rorty to treat the foundationalists as mainstream and the antifoundationalists as peripheral.

Rorty is well aware of the ephemeral character of his kind of philosophy: "Great systematic philosophers, like great scientists, build for eternity. Great edifying philosophers destroy for the sake of their own generation."⁴⁰ "The best hope for an American philosopher is Andy Warhol's promise that we shall *all* be superstars, for approximately fifteen minutes apiece."⁴¹

Rorty's narrative, then, makes his pragmatism a break with the mainstream philosophical tradition since Plato. The fitting of individual philosophers to the two sides of this traditional-novel opposition also occasions differences between Rorty and others. To make Plato look traditional, it is enough to rely, as Rorty does, on the commonplaces that pass for his doctrines, it being supposed that every philosopher must have doctrines. This is why Rorty's picture of Plato strikes a Platonist such as Stanley Rosen as little more than a caricature. Rorty's agonistic method leads him to set Plato and himself in opposition, whereas Rosen's dialectical method leads him to suggest their hidden identity:

Rorty's pluralism, rejection of foundations, criticism of dualism, and invocation to conversation and intellectual experimentation, are all good things. As a Platonist of the kind that finds no place, either in Rorty's book or in most analytical accounts of Plato, I embrace them all. Perhaps it is not altogether false to suggest that inside every hermeneuticist, a Platonist is struggling to emerge.⁴²

While Plato is forced into the role of opponent, John Dewey is forced into the opposite role of ally. Dewey in fact has no archic elements in common with Rorty, yet Rorty manages to recreate him in his own image. The contrast between Rorty's method and Dewey's is particularly striking: Rorty's method sets positions in agonistic opposition to each other, whereas Dewey's method seeks to undercut such oppositions in order to discover and solve genuine problems. This is one reason why it seems to Richard Bernstein that Rorty does violence to Dewey.⁴³ Since Rorty has no archic elements in common with either Plato or Dewey, he could equally well, and perhaps with more interesting results, have made Plato an anti-traditionalist ally and Dewey a traditionalist opponent.

Violence in interpretation is not only permissible but desirable from the standpoint of the Sophistic profile, for a text, like the world, is in itself

indeterminate, and the problem is to use it effectively. The pragmatist, according to Rorty, will offer us what Harold Bloom calls "strong misreadings":

The critic asks neither the author nor the text about their intentions but simply beats the text into a shape which will serve his own purpose. He does this by imposing a vocabulary -- a "grid," in Foucault's terminology -- on the text which may have nothing to do with any vocabulary used in the text or by its author, and seeing what happens.⁴⁴

What is important about Rorty's narrative is not that it be historically correct, for there is no such correctness, but that it be effective. The commonplace Plato and the almost unrecognizable Dewey are strong misreadings that serve Rorty's purpose.

Rorty's narrative of foundational philosophy gone wrong and, so it is hoped, about to be replaced by antifoundationalism is thus essentially an artifact of his own antifoundationalism. If it is taken seriously, it will not be accepted by those with other archic profiles, to whom it will seem only a rhetorical myth that falsifies the past and dreams idly about the future. It will seem neither to state nor to solve any philosophic problem. It will represent progress only in the sense appropriate to Rorty's philosophy, for it keeps the conversation going, even if going nowhere.

3. Is Philosophic Disagreement a Threat to Solidarity?

I now want to turn to the genuine concern or problem that may be supposed to motivate Rorty's attack on philosophy. Rorty says his best argument against the tradition is that it is not working any more, that it is not doing its job:

The best argument we partisans of solidarity have against the realistic partisans of objectivity is Nietzsche's argument that the traditional Western metaphysico-epistemological way of firming up our beliefs simply isn't working anymore. It isn't doing its job.⁴⁵

Not only is philosophy not doing its job now, it apparently never did, for it has been a failure for many centuries. When the realist says that truth consists in a correspondence of sentences to the world, "the pragmatist can only fall back on saying, once again, that many centuries of attempts to explain what "correspondence" is have failed, especially when it comes to explaining how the final vocabulary of future physics will somehow be Nature's Own."⁴⁶

I would have supposed that Peirce gives Rorty exactly what he is asking for here, as other objectivists also have, each in his own way. And when we turn to the special arts and sciences, we find that those who hold the belief that Rorty is opposing, the belief that we should endeavor to know nature as it truly is, have produced and continue to produce success after success -- Newton, Darwin, Max Weber, Freud, Einstein. If we judge this belief pragmatically, by its consequences, we should celebrate and cherish it, not condemn it and look forward to its disappearance. And the same holds for the other *archai* and for the philosophies in which they have been examined and defended, for they have all in their various ways been successful.

What then does Rorty mean when he says that traditional philosophy has failed? He means, I think, that it has not produced agreement. Agreement is in general not essential to the philosophers he is criticizing, who seek to state the truth regardless of whether anyone agrees with it or not. Agreement is essential to Rorty, however, because he has nothing outside the conversation to serve as a ground for beliefs, and philosophic disagreement seems to jeopardize human solidarity. I propose in what follows to consider whether philosophic disagreement need be a bar to human solidarity.

One way to reconcile philosophic disagreement and human solidarity is to privatize philosophy and seek a politics and a kind of community that do not depend on philosophic convictions. This is the path that Rorty has followed. There is another and an opposite path, which has been explored by pluralism. This path seeks solidarity not by relegating philosophic differences to the private domain, but by affirming their value in all domains. This solution requires that it be possible for different philosophies, each for its own reasons, to appreciate the possibility and value of pluralism.

We may note that simply as a matter of fact it is possible for persons with different philosophies to comprise a single *ethnos* in Rorty's sense. Consider for example the galaxy of seventeenth century European philosophers who sought to justify their beliefs to one another and among whom more or less fruitful conversation was possible: Hobbes, Gassendi, Descartes, Arnauld, Boyle, Huygens, Spinoza, Locke, Newton, and Leibniz. But the solidarity of such a group is perhaps rather minimal, and the mere fact of its existence gives us no insight into the reasons why it is possible.

In seeking these reasons, we may observe first that Rorty's own view provides an obvious ground for including foundationalists in the conversation. If it is thought that an adequate philosophy must correspond to the way the world really is, that it must be written in Nature's Own Language, then each philosophy is in contradictory and incompatible oppositions to the others. But if "there are no constraints on inquiry save conversational ones -- no wholesale constraints derived from the nature of the objects, or of the mind, or of language,"⁴⁷ then different philosophies simply lead to alternative hypotheses that open up the way to progress in investigation and to intelligibility in the comparison of doctrines. In viewing foundationalist philosophies as incompatible with each other and with his own view, Rorty seems to be retaining an element from the very outlook he is condemning. As McKeon says in a paper in which he has analyzed the various conceptions of time and temporality:

If these variations in the meanings and instances of time were presented as an account of doctrines or of statements alleged to be true, they would each be in contradictory and incompatible oppositions to the others. Since they have been presented as a pattern of commonplace possibilities for analysis, inquiry, and application, they stand instead in the relation of alternatives which focus on different aspects of time brought to the attention by different temporalities from which time takes its meanings. As alternatives they open up the way to progress in the investigation of time and the way to intelligibility in the comparison of doctrines of time developed in different philosophies in different cultures and at different times in each tradition.⁴⁸

But to show that Rorty's philosophy is consistent with a genuine pluralism is not to solve the general problem. The general problem, as has been said, requires one to show that a similar possibility exists for philosophies of all kinds. And the remarkable fact is that the development of philosophic pluralism in its multiple forms has shown precisely this. Each of the perspectives distinguished earlier has its characteristic reasons for the existence of pluralism.⁴⁹ If one's perspective is ethnocentric, different philosophies within an ethnos result from differences in the individual knowers. If one thinks of the mind as a mirror of nature, one can follow Stephen Pepper and explain the differences of philosophies not in terms of the peculiarities of knowers but as the result of the fact that different world hypotheses have proved relatively adequate and at present we have no way of deciding which, if any, is correct. If one thinks that any human perspective is limited and partial, one can follow Wayne Booth and see the cause of pluralism in an inexhaustible truth that transcends and validates any particular and necessarily fragmentary portion of it. If one thinks that the mind in its autonomy constitutes its philosophies, one can do as 1 have done and show that an ineluctable pluralism results from a reciprocal priority of principles such that each subsumes all the others.⁵⁰

The problem of the relation of philosophic disagreement to human solidarity is not adequately resolved by showing that philosophic pluralism is possible within any perspective. What remains to be shown is the value of such a pluralism. Rorty says, for example, "Whatever good the ideas of 'objectivity' and 'transcendence' have done for our culture can be attained equally well by the idea of a community which strives after both intersubjective agreement and novelty -- a democratic, progressive, pluralist community of the sort of which Dewey dreamt."⁵¹ Rorty here suggests that a community without objectivists and transcendentalists, a community in which everyone has more or less the philosophic views of Rorty, could attain all the good that a more pluralistic community could attain, that the Great Conversation of Robert Maynard Hutchins, in which everybody is to speak his mind,⁵² could just as well be replaced by the diminished conversation of Rorty, in which the voice of foundationalism is no longer heard. The diminution is no small one, for the Great Conversation consists mainly of the voices of foundationalists, with the anti-foundationalists often central in their own time but ultimately peripheral.

Few, I think, would prefer the diminished conversation. William James brought Josiah Royce to Harvard and did what he could for Peirce as well. And it is not only in philosophy that objectivists and transcendentalists are needed, but in all the arts and sciences. The role of the diversity of philosophic principles in the special arts and sciences has been a particular concern of philosophical pluralists, including McKeon, Pepper, Booth, and myself. In a passage that anticipates Thomas Kuhn's distinction between normal and revolutionary science, but that relates the distinction, as Kuhn does not, to philosophic interpretations, methods, and principles, McKeon says:

In the sciences consensus is possible because the statement of laws and principles is tested by repeated use of the same method in application to the same things. The increase of knowledge is therefore cumulative in the history of science, since principles can be held by experts, at least for a time, and can be modified and improved to explain, order, or control the subject matter to which they are applied. The problems of science assume something of a philosophic character whenever the development of novel methods makes new or different facts relevant to a subject-matter or to a problem and whenever scientists differ on the interpretation of facts or the validity of principles. At such points the progressive accumulation of knowledge in the history of the sciences is punctuated by the abrupt formulation of new principles (or the reassertion of abandoned principles rendered more plausible by fuller knowledge) and by the recognition of new facts (or the rediscovery of discredited facts rendered more relevant by fuller exploration of their contexts.)⁵³

The consequences of philosophic principles are worked out in the special arts and sciences, and therefore the examination of these principles in philosophy complements their use in the special arts and sciences. The principles examined in philosophy acquire concrete

significance in the special arts and sciences, and the use of principles in the special arts and sciences is enlightened by their examination in philosophy. The multiplicity of philosophic approaches, including ideals of objectivity and transcendence, far from being a hindrance to progress in the special arts and sciences, has everywhere contributed to it. I think I can best make clear the value of a pluralism that countenances different philosophic approaches, foundationalist as well as antifoundationalist, by showing how the different approaches complement each other in actual inquiry. The inquiry I shall examine concerns the relation between Dalton's atoms and Gay-Lussac's gaseous volumes.

John Dalton founded his new system of chemical philosophy on the concept of elementary atoms from which compound atoms are derived by composition. One cannot of course directly observe atoms or the ratios in which they combine, and Dalton was guided in his assignment of molecular formulas by his rules of chemical synthesis, which in turn depended on his conception of atoms as centers of force attracting atoms different in kind and repelling atoms of the same kind. If only one compound of two elements can be obtained, its compound atoms are presumed binary, that is, composed of two atoms, one of each element. If two compounds can be obtained, one is presumed binary and the other ternary, that is, composed of two atoms of one element and one of the other. The ternary compound is presumed to be the one with the greater gaseous density. If three compounds can be obtained, one is presumed binary and two ternary, and so on.

These rules yield for water the formula HO, not H₂O. (For convenience, I use the familiar notation of Berzelius rather than the pictographic notation of Dalton, which has, however, the advantage of exhibiting the structure of the molecule.) His formulas for the oxides of nitrogen fared better than his formula for water: NO, N₂O, NO₂, NO₃, and N₂O₃. The formula for water together with the weights of hydrogen and oxygen that enter into its composition determine the relative atomic weights of hydrogen and oxygen. Similarly, the formulas for the oxides of nitrogen together with the weights of nitrogen and oxygen that enter into their composition determine the relative atomic weights nitrogen and oxygen. Once we know the atomic weights of both hydrogen and nitrogen relative to oxygen, we also know their weights relative to each other. The formula for ammonia then follows directly from these atomic weights and the weights of nitrogen and hydrogen that enter into its composition. Thus the arbitrariness in the assignment of molecular formulas diminishes as the system expands. If Dalton had had accurate combining weights for water, the oxides of nitrogen, and ammonia, he would have been obliged to assign ammonia (NH₃) the formula N_2H_3 . But he argues that the data are consistent with a binary formula for ammonia, NH. At the end of his work, Dalton presents a table of thirty-six atomic weights and the

formulas for fifty-one compounds, "all the compounds which have hitherto obtained a tolerably good analysis." The implications of this table are in rough agreement with the rough experimental data that were then available.

Gay-Lussac, like Dalton, sought a foundation for the whole of chemistry, but instead of the Democritean distinction between the simple and the compound he used the Platonic distinction between the uniform and the variable, and sought a foundation in uniform laws that are the same for all bodies. He begins his "Memoir on the Combination of Gaseous Substances with One Another" as follows:

chemical phenomena to calculation.54 perhaps not far off when it will be possible to submit the greater part of what some very distinguished chemists have advanced, that the time is on combination also follows a uniform law. I hope by this to give a proof of very simple ratios, and that the contraction of volume which they undergo uniform, by proving that these substances combine amongst themselves in am going to make known some new properties in gases, whose effects are placed in like circumstances, present simple and uniform laws. At least, I that it is only when it is entirely destroyed, as in gases, that bodies, being therefore the cause that modifies their specific properties; and it appears of each gas. The attraction of the molecules in solids and liquids is only those of elastic fluids which are equal and independent of the nature liquids and solids have hitherto afforded no uniform law, and it is again for all elastic fluids. Similarly, heat expands all bodies; but the expansion of diminution of volume different for each of them, while it would be equal compression applied to all solid or liquid substances would produce a then no longer follow any uniform law (loi regulière). The same appear to be modified by this force, very variable in its intensity, and which are independent of the force of cohesion; but they also have others that Bodies possess, in the solid, liquid, or gaseous state, some properties that

When the two systems of chemistry are juxtaposed, the one based on indivisible atoms and the other on the simple numerical ratios of gaseous volumes, the problem immediately arises as to how the atoms are related to the volumes. Dalton saw at once that Gay-Lussac's

notion of measures is analogous to mine of atoms; and if it could be proved that all elastic fluids have the same number of atoms in the same volume. or numbers that are as 1, 2, 3, &c. the two hypotheses would be the same, except that mine is universal and his applies only to elastic fluids. Gay-Lussac could not but see (page 188, Part 1. of this work) that a similar hypothesis had been entertained by me, and abandoned as untenable.⁵⁵

Dalton abandoned the hypothesis that equal volumes of different gases contain equal numbers of molecules because if equal volumes of nitrogen and oxygen could be united to form nitrous gas (NO), there would be only a slight reduction in the total volume while the number of particles would be reduced by one half:

It is evident the number of ultimate particles or molecules in a given weight or volume of one gas is not the same as in another: for, if equal measures of azotic and oxygenous gases were mixed, and could be instantly united chemically, they would form nearly two measures of nitrous gas, having the same weight as the two original measures; but the number of ultimate particles could at most be one half of that before the union. No two elastic fluids, probably, therefore, have the same number of particles, either in the same volume or the same weight.⁵⁶

Dalton did not think the experimental data justified Gay-Lussac's conclusion that gases combine in simple integral ratios by volume. In fact, he thought that they justified the contrary conclusion, that gases never combine in simple integral ratios by volume: "The truth is, I believe, that gases do not unite in equal or exact measures in any one instance; when they appear to do so, it is owing to the inaccuracy of our experiments."⁵⁷ Different philosophic conceptions, of an idealized reality and of a physical reality, here result in contrary interpretations of the same data, both defensible. An ideal mathematical gas is not a physical gas.

An Aristotelian teleological principle made it possible to unite the results of Dalton with those of Gay-Lussac. Avogadro replaced Dalton's indivisible atoms and Gay-Lussac's uniform laws with a conception of a natural norm of molecular mass functioning as a final cause, a conception not unlike G. N. Lewis' later conception of stable electron shells that he used to explain the bonds between like atoms that Avogadro had discovered. Avogadro's conception enabled him to accept the hypothesis that equal volumes of all gases contain equal numbers of molecules, and thus to use Gay-Lussac's law to confirm or rectify Dalton's results: "Our hypothesis, supposing it well founded, puts us in a position to confirm or rectify his results from precise data, and, above all, to assign the size of compound molecules from the volumes of the gaseous compounds, which depend in part on the division of molecules of which this physicist had no idea."58 Avogadro points out that his hypothesis implies that if water, ammonia, nitrous oxide (N₂O), and nitrous gas (NO) were to be formed directly from their elements, the resulting molecules must divide into two:

Thus in all these cases there must be a division of the molecule into two; but it is possible that in other cases the division might be into four, eight, etc. The possibility of this division of compound molecules could even have been conjectured a priori; for without it the integral molecules of bodies composed of several substance and having a rather large number of molecules would be of an excessive mass in comparison with molecules of simple substances; we could therefore have thought that nature had some means of bringing them back to the order of the latter, and the facts have pointed out to us the existence of this means.⁵⁹

This splitting of the compound molecules entailed the splitting of Dalton's atoms, and Dalton had therefore rejected Avogadro's hypothesis before Avogadro stated it. "Thou knows... no man can split an atom," Dalton is reported to have said.⁶⁰

Avogadro saw clearly that Dalton's and Gay-Lussac's results taken together implied two extraordinary consequences, but both of these consequences were *prima facie* implausible, and neither was supported by independent evidence. The first was that there can be a chemical bond between atoms of the same element. If, as Dalton thought, atoms are centers of force attracting atoms different in kind and repelling those of the same kind, it is not possible that atoms of the same kind should unite to form a stable molecule.⁶¹ The second, stated in Avogadro's language, but easily translated into a proposition in the kinetic theory of gases, was that "the molecules in gases being at such a distance that their mutual attraction cannot be exercised between them, their different attraction for caloric may be limited to condensing a greater or less quantity around them, without the atmosphere formed by this fluid having any greater extent for some than for others, and, consequently without the distance between the molecules varying."⁶²

The issue of the relation between Dalton's atoms and Gay-Lussac's volumes therefore remained unresolved within the scientific community as a whole for fifty years, until the Karlsruhe congress of 1860. The resolution depended upon yet a fourth philosophic view, the Sophistic phenomenalism of Cannizzaro. Atoms for Cannizzaro were not physical particles attracting and repelling each other according to some law of force, but simply the greatest common factors in properly constructed tables of component weights.⁶³ Mendeleev, who was present at the Karlsruhe congress, describes it as follows:

I well remember how great was the difference of opinion, and how a compromise was advocated with great acumen by many scientific men, and with what warmth the followers of Gerhardt, at whose head stood the Italian professor Cannizzaro, followed the consequences of the law of Avogadro. In the spirit of freedom . . . a compromise was not arrived at, nor ought it to have been, but instead the truth, in the form of the law of Avogadro-Gerhardt, received. . . a wider development, and soon afterwards convinced all minds.⁶⁴

Let me note three points about this episode. First, Platonic, Democritean, Aristotelian, and Sophistic elements all contributed, in their distinctive ways, to the final resolution. In Dalton we see the power of indivisible atoms, in Gay-Lussac the power of abstract form, in Avogadro the far-reaching power of mind, and in Cannizzaro the power of working with the way things appear to us as a means of achieving human solidarity. Second, any one of these approaches, taken alone, would have been less successful than their synergy. If Dalton refused to recognize Gav-Lussac's discovery even after it was made, it is not likely that he would have made it himself, and if both Dalton and Gay-Lussac rejected Avogadro's reconciliation of their views, it is unlikely that either of them would have pursued Avogadro's hypothesis in the thoroughgoing way that Cannizzaro did. And if Cannizzaro had not had the results of his foundationalist predecessors, he would have had nothing to apply his method to. It is not the case that the result of this episode could have been attained equally well if all the chemists had been following the method of Cannizzaro. Third, if Rorty or anyone else aspires to be the Cannizzaro of philosophy, achieving solidarity by setting aside foundational questions, he should note that Cannizzaro did not use the setting aside of foundational questions as a way of rejecting the achievements of his foundationalist predecessors, but as a way of accepting them. This is why he was successful in convincing all minds.

1. Richard Rorty, *Philosophy and the Mirror of Nature* (Princeton, NJ:Princeton University Press, 1979).

2. Ford compiled a full bibliography of systematic pluralism through 1988, which was printed in his *Systematic Pluralism* Vol. I, No. 1 (Fall, 1988). The term "systematic pluralism" appears to have been first used by Henry Alonzo Myers in "Systematic Pluralism in Spinoza and Hegel," *The Monist* 45 (1935): 237-63, but in a sense different from that intended here. Ford organized a memorable first meeting of systematic pluralists of all kinds that took place in April, 1990. He also edited the July, 1990, issue of *The Monist* (Vol. 73, No. 3) on the general topic of Systematic Pluralism.

3. For Pepper's pluralism, see Stephen C. Pepper, World Hypotheses: A Study in Evidence (Berkeley, CA: University of California Press, 1942), The Basis of Criticism in the Arts (Cambridge, MA: Harvard University Press, 1956), and Concept and Quality: A World Hypothesis (La Salle, IL: Open Court, 1967).

4. "Philosophic Semantics and Philosophic Inquiry" has been published in Richard McKeon, *Freedom and History and Other Essays*, ed. Zahava K. McKeon (Chicago, IL: The University of Chicago Press, 1990), pp. 235-56. McKeon's systematic pluralism is, paradoxically, not a system, and is expressed in his many articles taken as a whole. *The Journal of the History of Ideas* 67 (1986): 654-62 has a nearly complete bibliography of his published books and articles; it lists 11 books and 158 articles.

5. See David Dilworth, *Philosophy in World Perspective: A Comparative Hermeneutic of the Major Theories* (New Haven: Yale University Press, 1989), and Walter Watson, *The*

Architectonics of Meaning (Albany: State University of New York Press, 1985).

6. See Wayne C. Booth, Critical Understanding: The Powers and Limits of Pluralism (Chicago: University of Chicago Press, 1979).

7. Philosophy and the Mirror of Nature, p. 12.

8. Summa Theologica I, q. 84, art. 1, in Introduction to Saint Thomas Aquinas, ed. Anton C. Pegis (New York: Modern Library, 1948), p. 379.

9. Richard Rorty, *Objectivity. Relativism, and Truth: Philosophical Papers*, Volume I (Cambridge: Cambridge University Press, 1991), p. 13.

10. Ibid., p. 30.

11. Montaigne, Essays, Bk. II, chap 13: Of Experience, in The Essays of Montaigne, trans. E. J. Trechman (New York: Oxford University Press, n.d.), Vol. II, p. 600.

12. Discourse on Method, Part II, trans. Elizabeth S. Haldane and G.R.T. Ross in The Philosophical Works of Descartes (Cambridge: Cambridge University Press, 1911), Vol. I, p. 90.

13. "The Historiography of Philosophy: Four Genres," in *Philosophy in History: Essays on the Historiography of Philosophy*, ed. Richard Rorty, J. B. Schneewind, and Quentin Skinner (Cambridge: Cambridge UniversityPress, 1984), p. 49.

14. Objectivity, Relativism, and Truth, p. 123.

15. Philosophy and the Mirror of Nature, p. 365-66.

16. Consequences of Pragmatism. (Essays: 1972-1980) Minneapolis: University of Minnesota Press, 1982), p. 108.

17. Philosophy and the Mirror of Nature, p. 369.

18. Consequences of Pragmatism, p. 164.

19. Nicomachean Ethics iii. 3. 1112b20.

20. Consequences of Pragmatism, p. 194.

21. Objectivity, Relativism, and Truth, p. 30.

22. Philosophy and the Mirror of Nature, p. 316.

23. Consequences of Pragmatism, p. 166.

24. "Thugs and Theorists: A Reply to Bernstein," Political Theory 15 (1987): 578, n. 24.

25. See Dilworth, *Philosophy in World Perspective*, Index. To work out for the first time the archic profile of a thinker is a difficult and time- consuming task, and it is easy to go wrong. The great merit of Dilworth's book is that it makes readily available the archic profiles of all the major figures in all the philosophic traditions of the world.

26. Objectivity, Relativism. and Truth, p. 193.

27. Ibid.

28. Ibid. p. 184.

29. Philosophy and the Mirror of Nature, p. 369.

30. Objectivity, Relativism, and Truth, p. 199.

31. Protagoras DK 80 B 1.

32. Consequences of Pragmatism, p. xxxix.

33. Gorgias DK 82 B 3, trans. George Kennedy in *The Older Sophists*, ed.Rosamond Kent Sprague (Columbia: University of South Carolina Press, 1972), p. 42.

34. Meno, 70B.

35. Philosophy and the Mirror of Nature, p. 156-7.

36. That Wittgenstein has the profile of the Hellenistic Skeptics was one of Dilworth's discoveries; see especially *Philosophy in World Perspective*, pp. 132-33, nn. 28, 29.

37. Philosophy and the Mirror of Nature, p. 367-8.

38. See, for example, Crito, 49D or Gorgias, 472A.

39. Laws, iv. 716C.

40. Antidosis, 41.

41. Philosophy and the Mirror of Nature, p. 369.

42. Consequences of Pragmatism, p. 216.

43. S[tanley] R[osen], Review of Philosophy and the Mirror of Nature, Review of

Metaphysics 33 (1979-80): 801.

44. Richard J. Bernstein, *Beyond Objectivism and Relativism: Science, Hermeneutics*, and Praxis (Philadelphia, PA: University of Pennsylvania Press, 1983), p. 205, n. 48, which refers us to Bernstein's "Philosophy in the Conversation of Mankind," *Review of Metaphysics* 33 (1980): 745-76.

45. Consequences of Pragmatism, p. 151.

46. Objectivity, Relativism, and Truth, p. 33.

47. Consequences of Pragmatism, p. xxvi.

48. Ibid., p. 165.

49. Richard McKeon, "Time and Temporality," *Philosophy East and West* 24 (1974): 127. 50. See Walter Watson, "Types of Pluralism," *The Monist* 73 (1990): 350-76.

51. Robert M. Hutchins, *The Great Conversation: The Substance of a Liberal Education* (Chicago: Encyclopaedia Britannica, Inc., 1952), p. 1: "The tradition of the West is embodied in the Great Conversation that began in the dawn of history and that continues to the present day... Everybody is to speak his mind."

52. Objectivity, Relativism, and Truth, p. 13.

53. Richard McKeon, "Philosophy and Method," Journal of Philosophy 48 (1951): 654. For the relation between the philosophic and scientific treatment of basic concepts, see Richard McKeon, "Process and Function," Dialectica 7 (1953): 191-231. For the relation of scientific and philosophic revolutions, see "Scientific and Philosophic Revolutions," in Science and Contemporary Society, ed. Frederick J. Crosson (Notre Dame: University of Notre Dame Press, 1967), pp. 23-56. For a survey of McKeon's contributions to the philosophy of science, see Walter Watson, "Reconceiving the Philosophy of Science" in The Power of a Pluralistic Truth: Essays on the Work of Richard McKeon, ed. Wayne C. Booth and Donald N. Levine (Chicago: University of Chicago Press, forthcoming).

54. J. L. Gay-Lussac, "Memoir on the Combination of Gaseous Substances with One Another," *Memoires de la Société d'Arcueil* 2 (1809): 207-34.

55. John Dalton, *New System of Chemical Philosophy*, Part II (Manchester: 1810), p. 556. 56. *Ibid.*, Part I (Manchester: 1808), pp. 70-71.

57. Ibid., Part II (Manchester, 1810), p. 559.

58. A. Avogadro, "Essai d'une manière de déterminer les masses relatives des molécules élémentaires des corps, et les proportions selon lesquelles elles entrent dans ces combinaisons," Journal de Physique 73 (1811): 58-76, sec. iii.

59. Ibid., sec. ii.

60. See John Dalton, "Observations on Dr. Bostock's Review of the Atomic Principles of Chemistry," Journal of Natural Philosophy, Chemistry, and the Arts 39 (1811): 145-48.

61. Avogadro, "Essai," sec. i.

62. J. R. Partington, A History of Chemistry, Vol. III (London: 1962), p. 806.

63. Stanislao Cannizzaro, *Sketch of a Course of Chemical Philosophy*, Alembic Club Reprint No. 18 (Edinburgh: 1910), trans. J[ames] W[alker] from *Il Nuovo Cimento* 3 (1858): 321-66.

64. Dmitri Mendeleev, *Principles of Chemistry* (1905), Vol. I, p. 341; quoted by J. R. Partington, *A History of Chemistry*, Vol. IV (London: 1964), p. 489.