

BEYOND TRUTH AND REFERENCE:
REFLECTIONS MAINLY ON QUINE'S "ONTOLOGICAL RELATIVITY"

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Abstract:

Quine has moved toward "naturalism" in philosophy, which I applaud; at the same time his work has touched off a new round of pseudo-problems in philosophy, which I lament. I read the pseudo-problems as evidence that the shift toward naturalism has not been thorough-going enough. In this paper I undertake an extended discussion of some of the problems and prospects of a thorough-going shift to a naturalistic viewpoint in philosophy, making frequent reference to Quine's work. I suggest, in particular, that the notions of truth and reference, so central to Quine's views, are not likely to survive as theoretically central notions within the kind of theory of language and thought which a more perfect naturalism (vaguely) foresees and works toward.

Beyond Truth and Reference:
Reflections Mainly on Quine's "Ontological Relativity"¹

No, our science is no illusion. But an illusion it would be to suppose that what science cannot give us we can get elsewhere. (Freud, The Future of an Illusion)

I

We continue to feel our way along in philosophy, trying to do our work even as we try to understand what work it is we are doing and where it is leading us. Our methodological self-consciousness is of course not all that it could be: we turn out, often enough, to be mere specialists in the cultivation of this or that corner of the current philosophical vineyard; and we soothe our consciences with some variant of the claim that reflection on the nature of philosophy is for the philosopher as ornithology is for the birds. Now however true this sort of claim may be as applied to other areas of human activity, in philosophy it just doesn't apply. Philosophy continues to be, at its best, an attempt to form a complete conception of things, philosophy included: philosophical activity is essentially self-reflective.

Professor Quine has long been guided in his work by a conviction about what he (at any rate) is doing in philosophy, and about where his work is leading him. This conviction is embodied in his oft-repeated naturalistic dictum, "Philosophy is continuous with science." He even says, "is an aspect of science." Or, as Word and Object has it,

philosophy..., as an effort to get clearer on things, is not to be distinguished in essential points of purpose and method from good and bad science. (p. 4)

¹Anyone who reads this paper and who has read Quine's work with any care will clearly see how much indebted I am to Quine for providing me with much more than a mere foil for my views. These debts of mine to Quine, unlike other of my debts, I am grateful for, and happy to acknowledge. Some readers may notice also that here and there I have borrowed a happy phrase from some author without acknowledging the source; if this proves offensive, I shall own these debts too.

Emphasis here must be on 'as an effort to get clearer on things': philosophy as an effort to get clearer on things is continuous with or an aspect of science. And so with the epigraph from Freud: an illusion it would be to suppose that what science cannot give us in the way of understanding we can get elsewhere. There are surely many things science cannot give us; and philosophy has been many things besides an effort to get clearer on things.²

I call Quine's dictum naturalistic because, at least as it proceeds from his mouth, it means much more than the obvious claim that philosophy, like science, aims at truth and claims acceptance on rational grounds.³ Beyond this, the doctrine thus summed up has served both as a guiding and informative and as a regulative principle in Quine's work. On the one hand it has permitted him to see empirical learning theory, for example, as being relevant to the solution of epistemological problems, and to see his own speculations on our acquisition of the whole objectificatory apparatus of the English language as being in turn contributions, at some theoretical remove and with philosophical considerations clearly in mind, to empirical theory of language. It is mainly in his contributions to a naturalistic epistemology and theory of language that we see the doctrine that philosophy is continuous with science doing its guiding and informative work in Quine's philosophy.

On the other hand, as Quine says,

Our dissociation from the old epistemologists has brought both freedom and responsibility. We gain access to the resources of natural science and we accept the methodological restraints of natural science. In our account of how science might be acquired we do not try to justify science by some prior and firmer philosophy, but neither are we to maintain less than scientific standards. Evidence must regularly be sought in external objects, out where observers can jointly observe it. Speculation is allowable if recognized for what it is and conducted with a view to the possible access of evidence at some future

²Just so as to forestall one possible misunderstanding at the outset, I should perhaps remark that just as for Quine science is self-conscious common sense, so common sense is unself-conscious science.

³Which is the interpretation M. Mothersill puts on it in a recent review in The Journal of Philosophy, 72 (January 30, 1975), p. 29. Whether Mothersill had Quine in mind in citing the dictum I do not know.

stage.⁴

Here is the regulative side of the doctrine. We must, in philosophy, accept the methodological restraints of natural science. Objective sense must be made of our theoretical notions; evidence must be sought in external objects, out where everybody can see it. Here especially is the source of Quine's rejection of the whole theoretical vocabulary of "uncritical semantics": 'meaning', 'synonymy', 'significance', 'proposition', 'entailment', 'analytic': no objective sense is to be made of these notions; therefore there is no hope that any serious understanding of thought or of language is to be gained by continuing to think in these terms. If we are to get clearer on language, in the only sense of 'get clearer' we know, it will have to be in other words than these. "...An illusion it would be to suppose that what science cannot give us we can get elsewhere." An important byproduct of Quine's rejection of the materials of uncritical semantics has been to drive him even further into the embrace of his naturalistic conception of philosophical activity. For with the lapse of the analytic/synthetic distinction all hope for an autonomous philosophical activity in the guise of "analysis" has had to be given up. The abandonment of uncritical semantics, on naturalistic grounds, has served to make Quine more methodologically self-conscious than ever. He has become more "positivistic" than the positivists.

Having abandoned the materials of uncritical semantics, the problem is to find other words and other forms of words which can profitably be pressed into service in our efforts to understand our language and thought. Our requirements are twofold. On the one hand we require that the theory toward which we work bear some relation to the solution of our problems in philosophy; our theory must have that sort of generality and depth. On the other hand, in accordance with our naturalistic bent we require that the theory toward which we work be empirical theory; it must end up being science. Quine, for his part, has long thought that the vocabulary of the theory of reference--'naming', 'truth of', 'truth', 'extension'--holds out some promise of yielding the sort of understanding we seek of our language and thought; understanding, for example, of questions of ontology, questions we hope can be gotten a grip on from within the framework of some empirical theory about the language in which our talk of objects is couched. In "Notes on the Theory of Reference" he says that

It is a striking fact that [the notions of the theory of

⁴W. V. Quine, The Roots of Reference (La Salle, Illinois: Open Court, 1973), p. 34.

reference], despite the paradoxes which we associate with them, are so very much less foggy and mysterious than the notions belonging to the theory of meaning. We have general paradigms...which, though they are not definitions, yet serve to endow 'truth-in-L' and 'true-in-L-of' and 'names-in-L' with every bit as much clarity, in any particular application, as is enjoyed by the particular expressions of L to which we apply them.⁵

Both Word and Object and The Roots of Reference are attempts by their author to press for an understanding of language in terms of the referential and objectificatory aspects of language, to see how we could end up discoursing of objects as we do and to see what our talk of objects comes to objectively. The focus is always on the notions of the theory of reference and their English-language auxiliaries--on truth and truth-of; on existence; on the articles and pronouns, the singular and plural, the copula, the identity predicate. It is clear that Quine hopes that by pressing these notions he can generate a theory of language, at least of the English language, that will at once be or approach empirical theory and shed light on fundamental philosophical problems.

The disappointing thing is how little it can seem to come to on the philosophical side. For those of us weaned on the standard distinctions between science and philosophy, between the study of how we learn language and the study of what language is and can be used to do (convey our meanings; refer to and speak the truth about objects), it has been easy to dismiss Quine's psychogenetic studies and speculations, the studies and speculations guided and informed by his naturalism, as beside our (philosophical) point--valuable as they may be in their own way. For just as we find Quine turning away from his empirical researches and concentrating on our problems--our problems about reference, say--we find that informative or guiding empirical considerations drop strangely from sight. All the evidence we would ever need seems to be in, just here. And it is just here that we find Quine holding distinctively philosophical views, views on which his (or anyone else's) empirical researches have no evident bearing at all. We find him holding, for example, that

the inscrutability of reference is not the inscrutability of a fact; there is no fact of the matter.⁶

⁵Quine, From a Logical Point of View, 2nd ed. (New York: Harper & Row, 1961), pp. 137-138.

⁶Quine, Ontological Relativity and Other Essays (New York: Columbia University Press, 1969), p. 47.

Of course this claim is based on Quine's naturalism, somehow; on his behavioristic philosophy of language. But here Quine's naturalism ceases entirely to inform his views, and plays a purely regulative role. We find him saying, a little later on, that

In their elusiveness, at any rate--in their emptiness now and again except relative to a broader background--both truth and ontology may in a suddenly rather clear and even tolerant sense be said to belong to transcendental metaphysics.⁷

And what, after that, would Quine have us make of truth and ontology? Truth and reference, two of the central notions of ontology, are transcendental, according to Quine, in the rather clear sense of requiring a metalanguage: these notions can be understood only inter-linguistically, in terms of the purely logical notion of the modelling of one theory in another.⁸ Yet Quine apparently continues to take these notions seriously also as metaphysical, as central to the enterprise of understanding how and where language and our linguistically-couched theories relate to the extra-linguistic world in the way of telling us what there is. The serious question arises as to whether Quine would have us stop taking the notions of truth and reference seriously as metaphysical notions, since they can be understood only inter-linguistically, and so would have us abandon metaphysics to all intents and purposes; or whether these notions are to continue to play some role in our philosophy--our metaphysics--as distinct from our science.

Three factors suggest the second interpretation--suggest, that is, that Quine's naturalism, for all his good intentions, leads him at last to hold a metaphysical, meta-scientific doctrine. For one thing, notice that Quine seems to be comfortable with his sudden realization; he seems to think both that he gets some real understanding of truth and reference by seeing them metalinguistically and that he can still in these terms make something of metaphysics, of the question of what there is outside of language. In neither case, however, is it in the least clear that this is empirical or scientific understanding that has been gained, either into the notions of truth and reference or into our metaphysical concerns.

⁷Quine, Ontological Relativity, p. 68.

⁸I am grateful to Quine for bringing home to me much more clearly than I had seen it myself this point about the sense in which he finds truth and reference transcendental; this he did in a letter in which he responded to an earlier draft of this paper.

Secondly, we find Quine continuing even in "Ontological Relativity" and later works to devote a good deal of space to consideration of ontological matters, to the discussion of what there objectively is, despite the fact that these matters have been consigned to a transcendental metaphysics that is purely a logical and inter-linguistic matter of modelling one theory in another, as opposed to any genuine empirical science. And then, thirdly, there are those metaphors Quine has found so compelling, the one that has us as sailors who must rebuild their ship plank by plank while staying afloat in it at sea, and the one that likens the totality of our beliefs to a field of force whose boundary conditions are "experience". Note especially the sense of "inside" and "outside" these metaphors convey. We are working within our ship, within our total theory or conceptual scheme; outside is the (inscrutable) sea on which we must stay afloat, the (unknowable) "experience" which constitutes the boundary conditions upon which the man-made fabric of our theory, along with its posited objects, impinges. This all sounds very familiar to philosophers: it sounds like some doctrine of phenomena and noumenon. To read "Ontological Relativity" in this light is to read it as a sort of latter-day Prolegomena to Any Future Metaphysics, based not on the question how synthetic a priori judgments are possible, but instead, somehow, on the doctrine that philosophy is continuous with science. What seems to happen in "Ontological Relativity" is that this doctrine ceases entirely to play its guiding and informing role, and now functions purely regulatively. In this capacity the doctrine seems to lead Quine to hold views which are distinctively philosophical, distinctively non-scientific, distinctively metaphysical. We begin to suspect that the doctrine that philosophy is continuous with science, as it plays its regulative role in Quine's philosophy, is itself an unempirical dogma of Quine's, a metaphysical article of faith.

II

We've gotten on a familiar philosophical merry-go-round here, the one that turned earlier in this century on the question of the cognitive status of the verifiability criterion of meaning. The doctrine that philosophy, as an effort to get clearer on things, is continuous with science, is in its purely regulative role evidently no more than a latter-day methodological equivalent of the old verifiability principle; it plays the role in Quine's work that the old principle played in early logical positivism. We've been seeing that the principle itself can have much the look of an unverifiable metaphysical article of faith, especially when taken in conjunction with certain attractive metaphors.

Naturally no naturalistic philosopher of Quine's stripe--one who believes that philosophy is an aspect of science--likes to be convicted of holding views which are distinctively non-scientific. The goal of such a naturalist must be no metaphysics at all, not a "naturalistic metaphysics", whatever that would be. But now it has begun to appear that this very naturalism itself is no part of science. As evidence for this we could cite the lack of objective evidence for this naturalistic doctrine, and worse, our apparent inability to see how it is even open to the possible access of evidence at some future stage. We could also point to the metaphysical consequences Quine draws from it, as I have done above. As against the doctrine itself we would doubtless want to urge, if we were unsympathetic to Quine's brand of naturalism, all the apparent differences between philosophical and scientific activity, between philosophical and scientific questions and problems. These apparent differences would count, in the current jargon, as counterexamples to the doctrine in question.

The doctrine is: Philosophy, as an effort to get clearer on things, is continuous with science. The question is: Can the doctrine be understood as an empirical claim, susceptible of being verified or falsified some day, if not now? I believe it can, and shall try in the remainder of this paper to say how. I shall end up by saying how I think the doctrine could ultimately be verified or falsified. In the meantime I shall try to point the way past its degeneration into metaphysics; taking my cue from Quine I shall try to show how certain fundamental-seeming philosophical questions, such as those Quine attempts to come to grips with in "Ontological Relativity", are perhaps spurious questions which arise wholly from a certain particular type of language.⁹ I shall try to point the way beyond our long-standing concern with the notions of truth and reference. I begin here with some further reflections on Quine's naturalistic doctrine.

You could not presently persuade me to give up the doctrine (to which, I confess, I cleave), nor, presumably, could you persuade Quine to give it up, no matter what points you raised about the apparent differences between scientific and philosophical activity and problems. In this respect the doctrine is an article of faith; this much can be admitted on all sides. Coming to believe it is much more like getting religion than it is like opening your eyes and coming to be willing to assent to 'It's sunny' in the sunshine. But, as I believe, the doctrine is an empirical article of faith, not a metaphysical one.

⁹Compare Quine, From A Logical Point of View, p. 78.

It is an article of faith because, if you like, it is currently unfalsifiable. It is currently unfalsifiable because it is so vague. 'Philosophy as an effort to get clearer on things' and 'science', as terms of divided reference applicable to certain human enterprises, are both as vague as terms can be, and in both the ways terms can be vague: as to the several boundaries of their admitted objects and as to the inclusion or exclusion of marginal objects.¹⁰ The first kind of vagueness is a problem about count. How many sciences are there? Should physics and biology and biophysics each count as one, or should we reckon the latter to physics? How many branches of philosophy are there? Should epistemology and metaphysics each count as one, or should epistemology be reckoned to "the ontology of the knowing situation", as some philosophers have it?

The second kind of vagueness, as to the inclusion or exclusion of marginal objects, is the more important for our present purposes, and is what gives rise to our problems over the claim that philosophy is continuous with science. To take some noncontroversial examples first, we might wonder whether astrology is a science, or whether existentialism is a recognizable philosophical discipline. Or, to get to the point, we might debate the question whether philosophy, our marginally theoretical enterprise, is a part of science. We are debating that question. Not the least of our problems is with the notion of getting clearer, of gaining understanding, of formulating theories which yield more than an illusion of understanding. Another is with the notion of evidence; not all the evidence is in as to what can count as evidence for the sort of theory about things that gets us genuinely clearer about those things. We have seen already that Quine has insisted on the externalization of the notion of evidence, on the view that evidence must regularly be sought in external objects, out where observers can jointly observe it. But of course many philosophers believe that it is just in the case of the sort of theory they strive for that a kind of evidence different from that pertinent to science becomes relevant. We naturalists must admit that at this stage these questions remain open; marginally open, at least.

Vagueness in terms of divided reference, as one can come to sense, is of the essence. So it is no fatal flaw in the doctrine that philosophy is continuous with science, or in the view that the doctrine is an empirical article of faith, that the doctrine is vague.

¹⁰Here I am relying on Quine, Word and Object (Cambridge: MIT Press, 1960), p. 12.

Vagueness has its good uses, as Quine has noted.

Also, vagueness is an aid in coping with the linearity of discourse. An expositor finds that an understanding of some matter A is necessary preparation for an understanding of B, and yet that A cannot itself be expounded in correct detail without, conversely, noting certain exceptions and distinctions which require prior understanding of B. Vagueness, then, to the rescue. The expositor states A vaguely, proceeds to B, and afterward touches up A, without ever having to call upon his reader to learn and unlearn any outright falsehood in the preliminary statement of A.¹¹

But this, surely, is exactly what we want to say also about the usefulness of vagueness to those of us who investigate philosophical problems. It is an aid in coping with the linearity of our investigation. We believe that understanding the doctrine that philosophy as an effort to get clearer on things is continuous with science is necessary preparation for understanding our philosophical problems themselves; yet we find that our doctrine cannot itself be understood in correct detail, or substantiated, without, conversely, getting farther along in our investigations. And, so, vagueness to the rescue. Hopefully, when all is said and done, we shall not have to bring ourselves to reject as an outright falsehood our usefully vague doctrine. But we could, as I shall try to show toward the end of this paper.

We find ourselves, curiously enough, in very much the classical Augustinian position: ours is a fides quaerens intellectum, an empirical faith in quest of an empirical understanding. It perhaps behooves us, then, to heed the words of the author of I Peter 3:15, who adjures us to

Be ready always to give an answer to every man that asketh you a reason of the faith that is in you.¹²

I take this text, suitably secularized, seriously, but shall have to practice what it preaches on some occasion other than this one.

In the meantime there is already some touching up of the doctrine to be done, some deeper understanding of it to be

¹¹Quine, Word and Object, p. 127.

¹²The Authorized Version has 'hope' in place of my 'faith'; I hope purists will forgive my liberties with the text.

gained than Quine has explicitly supplied us with.¹³ I believe that we should take seriously the view that one finds hints of here and there in the philosophical literature that philosophy, insofar as it is an effort to get clearer on things, to achieve some theoretical understanding of ourselves and the world we live in, is proto-science. We should see ourselves as persons in quest of the forms of (scientific) theories, of the conceptual materials of theories, of the data for theories. We are toilers on the borders between fact and speculation, like theoretical scientists, trying to bring speculation over into fact; but our parts of these borders divide facts of such garden variety and so unsorted as to relative theoretical significance, from speculation in regions so uncharted, that we are hard-pressed to know even how to begin to transform the one into the other. We work with hints and clues in the form of metaphors and analogies that catch our eyes and ears, working both ends against the middle, trying to beef up our fund of facts under the guidance of our metaphors while articulating such theory as we have, theory again motivated by metaphor, downward toward the facts, toward objectivity. When a body of theory won't make that movement, as "uncritical semantics" apparently will not, we have no choice but to abandon it; likewise if a metaphor does nothing for the facts. As Dewey puts it, ours is "the work of developing, of forming, of producing (in the literal sense of that word) the intellectual instrumentalities which will progressively direct inquiry into the deeply and inclusively human...facts of the present scene and situation."¹⁴

Quine, in particular, has been most concerned with the form, the conceptual materials, the data for a theory of language, a science of science (which may well turn out to be inseparable from a theory of human consciousness). He has sought to understand what language and science are and what they can be used to do. It has become increasingly apparent that it is in language, somehow, that our philosophical problems lie, or at least that if our problems do not lie in language, we shall have to understand language before we correctly locate them; that if we could only get clear about language we would be well on our way toward gaining the sort of understanding of ourselves and the world we live in that we seek in philosophy. Whole ranges of other phenomena have submitted to empirical investigation, and our philosophical problems have not gone

¹³Or, indeed, might approve; I begin to see that I go well beyond Quine in expecting the dissolution of philosophy into science.

¹⁴John Dewey, Reconstruction in Philosophy, enlarged ed. (Boston: Beacon Press, 1948), p. xxvii.

away. They've not gone away because our science is couched in language, and it is just here that there remains room for philosophical debate--debate over how language and science themselves are to be understood. The impressive thing is how far we have to go. Dewey's claim of 1948 remains true today:

The science that has so far found its way deeply and widely into the actual affairs of human life is partial and incomplete science: competent in respect to physical and now increasingly to physiological conditions..., but nonexistent with respect to matters of supreme significance to man--those which are distinctively of, for, and by, man.¹⁵

My gloss on this passage is this: We do not, at this stage, have much of a good idea what a science of language or of science would be like.

There is a strong temptation among philosophers to believe that all the evidence we would ever need, all the data for a science of language, is already in; I invoked this line of thought earlier when I was trying to make a veritable metaphysician out of Quine. But this temptation must be resisted. Consider, by way of analogy, the weather. What do you suppose the data for something approaching a serious science of the weather would be? Well, it's overcast, partly cloudy, or clear. It fogs, smogs, mists, sprinkles, drizzles, rains, pours, and snows; it wets, soaks, drenches and floods. It hails acorns, golf balls, and the size of your fist. It's torrid, hot, perfect, cool, chilly, cold, downright frigid, and colder today than it was yesterday. It's damp or dry. It thunders and lightnings, and sometimes flares. It blows and is still. There are the times and the seasons.

So much could have been known before that splendid century, the seventeenth. Only then, however, did anything approaching "hard" data--the sort of data of which are made the predicates we project in our current theory of the weather--start coming in. Galileo invented a sort of thermometer in 1603, but since the "bulb" on it was open, it did not measure temperature independently of atmospheric pressure. By 1654 Ferdinand II had sealed the bulb, and lo, temperature. Torricelli invented the barometer, and settled the dispute among philosophers over whether air had weight. Only in this century have we developed the means of communicating our findings on air temperature and pressure instantaneously across wide fronts, and so discovered the front. The jet stream, which has great influence on

¹⁵Dewey, p. xxviii.

weather patterns, was not discovered until World War II, with the help of the high-flying bomber. Now we have rockets and satellites and telemetry, we know about the relation between sun-spots and the Northern Lights, we understand thunder and lightening, and what makes it rain, snow, hail and blow. We are beginning to have a science of the weather.¹⁶

The point was one about the data for a theory of language or a science of science. Philosophers are tempted to suppose that for such theory as we would be interested in the data must somehow all be in, that it lies right on the surface of our talk about language, in our talk, for example, of meaning, reference and truth. Especially in our talk of meaning, reference and truth. Even such a scientifically-minded philosopher as Peirce, who could say in one breath that "Philosophy is a positive science", that it is "really an experimental science", could say in the next that it "contents itself with observations such as come within the range of every man's normal experience, and for the most part in every waking hour of his life."¹⁷ But those of us anyway who are believers in Quine's naturalistic dictum in both its regulative and its guiding and informative guises, and who see ourselves as working toward a science of language and of science, should resist any temptation to agree here with Peirce. There is simply no reason to think that any theoretical science can rest on unrefined observations of completely garden variety. Our still unflagging efforts to puff the obvious into the portentous can only result in "theories" possessed of the bottomless superficiality of so much of what we have become accustomed to.¹⁸ It took the thermometer to make 'temperature' respectable; 'temperature' projects. We are going to have to devise instruments of some kind that will do for the science of language what the thermometer did for the science of the weather. Who knows but what our descendents will see Quine's method

¹⁶I am indebted to Isaac Asimov, The Intelligent Man's Guide to the Physical Sciences (New York: Pocket Books, 1964), for much of the information in this paragraph.

¹⁷C. S. Peirce, Philosophical Writings of Peirce, ed. J. Buchler (New York: Dover Publications, 1955), pp. 60, 139 and 66, respectively. There is more space between these quotations from Peirce than there is between one breath and the next; I have chosen the lines I thought made the point most clearly; Peirce does say things to the same effect within the space of one sentence of two.

¹⁸It reminds you of what they used to say about George Romney: "Way down deep, he's shallow."

of query and assent, his test for stimulus meaning, as a first halting step in the right direction, akin to Galileo's open-bulbed "thermometer"?

I said earlier that Quine has become more "positivistic" than the positivists. Here I add: And rightly so. The positivists did not carry their reform of the vocabulary and methodology of philosophy far enough. The cure for "positivism" is more, not less, of somewhat the same medicine; the cure is self-conscious adherence to Quine's naturalistic dictum, which carries with it both acceptance of the methodological restraints of natural science and, what is most welcome, a fresh access to all the resources of natural science. Our philosophical problems remain; we continue to believe that a deeper understanding of our language promises to be the key, or an important key anyway, that will unlock many of their high-sounding secrets. But what is wanted is a natural science of language. An illusion it would be to suppose that what science cannot give us in the way of understanding we can get elsewhere.

III

Where should we begin looking for the conceptual materials of a science of language? Initially we can do no other than look on the surface of our talk of language for hints and clues, surveying, sifting, classifying, botanizing, all in a highly observational way. Our talk of everything starts out observationally and evolves there. All our predicates are born free and equal, all children of the Lord; but like all God's chillun, many are called but few chosen--in this case, to the high vocation of theoretical science. Our talk of the weather started out observationally, scattered in every direction; some of the words we were throwing around, like 'is warmer than', turned out to project better than others in terms of basic science. Our talk of inanimate physical objects started out observationally, with the color predicates on a par with talk of weight and speed and distance; refined versions of the latter terms turned out to be more important to basic science than the color predicates. What we need to do is sift our surface, observational talk of language in a search for terms that can be so refined as to project nicely in the way of a science of language that will give us basic understanding of what language is and what it does for us.

We are disposed, under various circumstances in no way clearly specifiable, to accept some words, phrases, sentences, paragraphs, in lieu of others, as saying equally well, in those circumstances, what we started out to say in other words.

Hence our loose observational talk of meaning and sameness of meaning, which some students of language have tried to puff into that part of recent theory of language which Quine has criticized under the head of uncritical semantics or theory of meaning.

Our talk of truth and reference also gets started out observationally; that is to say, it gets started out among the observation sentences and terms, where it always continues to enjoy its clearest and least disputable applicability in practice. In a passage already quoted, Quine says that we can "endow 'true-in-L' and 'true-in-L-of' and 'names-in-L' with every bit as much clarity, in any particular application, as is enjoyed by the particular expressions of L to which we apply them." And how much clarity is that? It varies, clearly, with the relative observability of the particular expression of L. The farther we recede from observability, in any one of various directions (e.g., toward generality, or toward theoreticality, or toward modality of any variety), the less clearly applicable in practice is our talk of truth and reference.

Take just the example of the recession from observability toward theoreticality, so clearly observable no matter where you locate observability. Philosophers have been so struck by the gradual loss of clear criteria for the applicability in practice of the notions of truth and reference in the course of this recession, that many of them have felt compelled to explain away the "apparent" continued applicability of these notions at "theoretical" levels of discourse. The language still has the same forms here, they say, the forms which at other levels are pertinent to truth and reference; but at these levels these forms are vestigial, forms that have lost their original point or function, and now serve only to frame linguistic devices that have a function or functions other than that of referring to and speaking the truth about objects. This line of thought ("scientific instrumentalism", in one of its forms) is less attractive nowadays than formerly, chiefly, I think, because of our loss of confidence in the possibility of any sharp distinction between observational and theoretical levels of discourse; we don't know where truth and reference would stop being the central points and something else would start. But the urge to it remains: the farther you retreat from observability into theoreticality, the less clearly applicable in practice are the notions of truth and reference. These notions are at home among the observation sentences; in that sense they are part of our observational talk of language. As such they are candidates, like other observation terms applicable to language, for the office of basic predicates in a theory of lan-

guage, a theory, of course, subject to the methodological restraints of natural science.

I see "Ontological Relativity" as Quine's most serious attempt to come to grips with the question of what objective sense can be made of the notions of reference and truth. For me this question is inseparable from the question of how we are to understand language and thought from the point of view of natural science; and more particularly, of which observational aspects of language are likely to turn out to be important from the point of view of a science of language, or a science of thought, or a science of science. We have noted Quine's rejection of the materials of uncritical semantics as candidates for such a role; we have noted also that for Quine the notions of reference and truth have seemed likelier candidates. Both as a logician, chasing truth up the tree of grammar, and as a semanticist and epistemologist of reference, reflecting on how we could end up discoursing of objects in the ways we do, Quine has made a sustained attempt to pursue the notions of reference and truth, always with an eye on the possible access of empirical evidence at some future date. Quine's effort has evidently been guided by the belief that these notions would figure as basic theoretical predicates in an empirical science of language. Here in "Ontological Relativity" he faces the crucial question: What objective sense can be made of these notions, in and of themselves?

It is certainly true that the kind of science of language we seek must shed a good deal of light on these two notions. If it did not, it could hardly be relevant to our concerns in philosophy. The serious question, however--the question that seems to me to be especially pressing in view of "Ontological Relativity"--is whether these notions must emerge as basic predicates in our science of language.

Consider an analogous question with respect to the weather. It is certainly true that a science of the weather must shed a good deal of light on cloudiness, the wind and the rain, and so on. The question would be, antecedently to any science of the weather, whether these phenomena must turn out to be basic to our understanding of the weather.

Or consider an analogous question with respect to inanimate physical objects and their behavior. Physical objects have many different observable properties, not the least of which are colors. Certainly a science of physical objects must shed a good deal of light on color; and antecedently to such a science, color would be as good a place as any to start looking for predicates that would project nicely in such a science. As we know, however, color is secondary; it is a surface phe-

nomenon. Quite other predicates have proved to project in the way of physical science. We have even come so far as to be able to see why color should seem so important to animals like us while being so unimportant cosmically:

Color is helpful at the food-gathering level. Here it behaves well under induction, and here, no doubt, has been the survival value of our color-slanted quality space. It is just that contrasts that are crucial for such activities can be insignificant for broader and more theoretical science. If man were to live by basic science alone, natural selection would shift its support to the color-blind mutation.¹⁹

Earlier I alluded to the problem of interpreting certain aspects of "Ontological Relativity"; the last third of it, roughly, and especially those remarks at the end about truth, ontology and transcendental metaphysics. I suggested that if we read these remarks in the light of Quine's continuing concern about ontological matters and in the light also of his dominant metaphors, he can come out sounding very Kantian.

But there is another option, the one I prefer. We can read "Ontological Relativity" in accord with Quine's doctrine that philosophy, as an effort to get clearer on things, is continuous with or a part of science. It is a proto-scientific work: it consists of prolegomena to any future science of language.

These prolegomena are more in the nature of conceptual slum-clearance than of any positive building toward a future theory. This is regress as progress, much like the opening stages of psychoanalysis. The message of "Ontological Relativity" is that we should not expect the notions of reference and truth to play any significant or fundamental role in a future science of language. It simply turns out that nothing much can be made of them when you try to press them toward a serious understanding of language; you end up, in practice, having to acquiesce in your mother tongue and taking the reference of its words at face value; you end up, in practice, having to acquiesce in the best empirical theory you can get going at any given time and taking its doctrines as "the truth". Beyond that nothing is to be learned, at this stage, about reference and truth. As for the notions of reference and truth apart from practice, the subject of the latter pages of "Ontological Relativity", our attitude as naturalistic philosophers can only be a shrugged "What of them?". As Quine has emphasized, there is nothing in language beyond what is implicit

¹⁹Quine, Ontological Relativity, pp. 127-128.

in people's dispositions to overt behavior. If by these standards we can make nothing of the central terminology of the theory of reference, so much the worse for the terminology of the theory of reference.

Think again for a moment of the dispute, mentioned a few pages ago, between advocates of "instrumentalist" and "realist" interpretations of various segments of our language--say, in particular, the "theoretical" parts of the language of science. Faced with the gradual loss of clear criteria for the applicability in practice of the notions of truth and reference as science becomes more and more involved theoretically, instrumentalists have wondered whether, at the theoretical level, sentences should even be called true or false; whether terms should still be seen as referential; whether, in short, at this level, the objectificatory and individualistic style of the language, so crucial to our understanding of the notions of truth and reference, might not just be a secondary characteristic, a vestigial appendage that has lost its original point or function. Realists, on the other hand, impressed with the gradual nature of the movement of science toward theoretical involvement, and perhaps suspecting also that even at the level of the observation sentences there is already some pretty heavy theoretical involvement once truth, and especially reference, are in point, and wanting a uniform treatment in the absence of clear dividing lines--in the face of all this realists have insisted on treating even the most highly theoretical levels of science as if truth and reference were still the main point, as they and the instrumentalists think they are at the level of observationality.²⁰ What I wish to suggest is that truth and reference are nowhere the main point, that they are everywhere secondary characteristics of language, in the sense that language is nowhere to be understood primarily in terms of them. I am with the realists in wanting a uniform treatment of all of the language of science, and with the instrumentalists in suspecting that truth and reference are not the main point at the level at least of theoretical science; I suspect that truth and reference are secondary even at the level of observationality. Truth and reference, I think, are not what make language tick.

I am suggesting that in view of "Ontological Relativity" we must consider seriously the possibility that the notions of truth and reference will turn out to be, like color and cloudiness, secondary, to be surface phenomena; more like color in particular in looming so large and being so crucial to current consciousness and concerns in virtue of the way our language and consciousness have evolved to date, but in

²⁰Quine, of course, is decidedly a realist.

being insignificant for a broader and more theoretical science of language. Quine himself has compared certain of our puzzles about reference with some puzzles about color. Speaking of the "inscrutability" of reference he says that

The present point is reflected...in the riddle about seeing things upside down, or in complementary colors.... What our present reflections are leading us to appreciate is that the riddle about seeing things upside down, or in complementary colors, should be taken seriously and its moral applied widely.²¹

I am suggesting that the resemblance here is more than skin deep; that just as color is cosmically secondary, so also may be truth and reference. Quine says also, in a different place, that

Credit is due man's inveterate ingenuity, or human sapience, for having worked around the blinding dazzle of color vision and found the more significant regularities elsewhere. Evidently natural selection has dealt with the conflict by endowing man doubly: with both a color-slanted quality space and the ingenuity to rise above it.²²

I am suggesting that before we shall understand language, and human sapience, we shall have to work around our current fascination with the notions of truth and reference and find the more significant traits of language elsewhere.

"Ontological Relativity" should then be seen as a sequel to "Two Dogmas of Empiricism". "Two Dogmas" stands to uncritical semantics as "Ontological Relativity" stands to what we should now call uncritical theory of reference. The claim that

For all its a priori reasonableness, a boundary between analytic and synthetic statements simply has not been drawn. That there is such a distinction to be drawn at all is an unempirical dogma of empiricists, a metaphysical article of faith

stands to the rejection of the materials of uncritical semantics, the notions of idea, meaning, proposition, as the claim that,

²¹Quine, Ontological Relativity, p. 50.

²²Quine, Ontological Relativity, p. 128.

the inscrutability of reference is not the inscrutability of a fact; there is no fact of the matter

stands to the rejection of the materials of uncritical theory of reference, the notions of reference, satisfaction, truth. The higher criticism being invoked is the doctrine that philosophy is continuous with science; here the doctrine plays its regulative role; it tells us that we should not expect to gain any insight through the use of conceptual materials that do not measure up to certain standards. The fiery trial that separates theoretical gold from the dross among our terms and concepts is the trial by measurement against the methodological standards of natural science: the gold emerges rooted and grounded in objectivity. Truth and reference emerge as dross.

Slum clearance--to revert to the earlier figure--is a necessary though thankless task. It is especially thankless in cases like this one: in one fell swoop Quine is opening our eyes to the shabbiness of the theoretical dwelling-place we have found so comfortable (it has engendered an illusion of understanding in us), and bringing it down around our ears; and to add insult to injury, he hasn't give us anything to replace it with; nothing is even in sight. Such work is necessary because our present sub-standard theoretical housing occupies precisely the ground upon which any future science of language must stand, and is getting in the way of progress. It blinds us, in effect; keeps us from looking around for more significant facts about language than we yet have: again, we think we are already in possession of the most significant facts, if we could only understand them.

IV

Have we succeeded in opening any distance between ourselves and Kant? It's not so clear: for what, exactly, is the difference between saying that reference and truth belong to transcendental metaphysics and taking that seriously as Quine does in terms of Neurath's metaphor and his relativistic doctrine of ontology, and saying, on the other hand, that reference and truth are not fit concepts for a science of language? These doctrines appear to be perfectly compatible with each other. In spelling out what I take to be the difference I shall be trying also to point the way past the degeneration of Quine's naturalistic dictum into metaphysical dogma.

Part of the difference, at least for me, is that I do not share Quine's sanguine sense that we are much clearer either on truth and reference or on metaphysics as a (marginally)

theoretical enterprise for all of having said that there is a "suddenly rather clear and even tolerant sense" in which we now see that truth and ontology belong to transcendental metaphysics. I agree that there is a clear and tolerant sense in which truth and reference are transcendental: if you want to try to make something of a language L in terms of the notions of truth and reference, you must do so from outside and above, in terms of a metalanguage. In doing so, however, you surely do not learn much about 'true-in-L' or 'true-in-L-of'; these terms are only as clear in the metalanguage as are the expressions of L to which they are applied in any particular case, which can be none too clear, in practice, once they are applied to relatively un-observational expressions of L.

What then is this insight into truth and reference that we get by going the metalinguistic route, if not insight into 'true-in-L' or 'true-in-L-of'? Just this, I believe: it finally comes home to us that our ordinary talk of truth and reference will not puff into any sort of acceptable theory of language except as truth and reference are understood interlinguistically in the strictly limited way in which logicians "understand" them. And there, precisely, is the rub, and the mystery, and what makes Quine's talk of truth and reference thus linguistified as belonging to transcendental metaphysics seem so strange. I see that this is still nominally metaphysics, this talk of Quine's of modelling one theory in another; all the central notions of metaphysics are still in point, "understood" now in terms of this modelling relation. You might say though that this is all meta, no physics; for all the objective import has here been drained out of truth and reference. I see that there is even a vague, tenuous sense in which it could be claimed that this new rarefied metaphysics-as-pure-logic is part of empirical theory; for one could claim, as Quine does, that even logical theory is a part of our overall empirical theory of the world. But how far we are from understanding in terms of any genuine, full-bodied natural science of language just where logic fits! And how far we are from understanding how and why it is that the central notions of ontology--the notions of truth and reference and object and existence and identity--should loom so large to us, and seem to be such central features of our language, and promise so much in the way of deep and important insight into ourselves and our world, and have such power to compel our thought in certain directions, all of this when they come to so little objectively and never break out of language at all and seem so secondary cosmically. We believe by faith that there is something less to truth and ontology than meets the eye because these notions in their weighty senses do not measure up to the methodological restraints we impose on ourselves; but we do not yet understand what less, nor should we have any illusion that we understand what less.

Another difference, I believe, is in the metaphor. We must see our way past that metaphor of the ship, for it is part of what makes us (Quine) continue to take truth and reference half-seriously, to continue to feel the compulsion to give serious consideration to ontological matters despite the thin thing they've become. Or maybe the compulsion makes the metaphor attractive; maybe it works both ways.

Neurath's metaphor is part and parcel of the fly in the fly-bottle syndrome--part of the tangled web we weave for ourselves when first we practice to exalt our ordinary, humdrum talk of reference, so useful among the observation sentences, in practice, in making connections between some words and some objects, and so useful also as a linguistically immanent short-cutting device, into serious theory of language. We want to account theoretically for the way in which language is "tied down to the world", and since it can look as though the reference relation is central among the observation sentences in this connection, we take it to be central everywhere, and try everywhere to locate and describe it. Some full-blooded notion of reference as a relation between word and object, mediated by the user of the word, by his intention, seems so clearly to exist; the relation we have in mind is so transparent. Here is Quine and here 'Quine' and I use the one to refer to the other; here is the desk and here the word 'desk' and the one is true of the other. It seems that without any trouble at all we (or at least our thoughts) pass right through language to the object itself--by means of reference. The trouble is that the minute we try to say what this relation is between word and object, even at the observational level, we run up against just what we wanted to escape and talk about--language. No objective sense can be made of this notion of reference as the fundamental connection between language and the world. The notion of reference is everywhere linguistically immanent, everywhere already presupposes language. This is the theme of "Ontological Relativity",²³ and what makes the notion of reference so unpromising as science-of-language-grade material. Yet the picture of this transparent word/object relation holds us captive; this comes out in the sense of "inside" and "outside" we get from the metaphor of the ship, and also in Quine's willingness to espouse his relativistic doctrine of "ontology", all that is left to him of ontology after he sees that in practice, objectively, nothing comes of the notion of reference beyond mere acquiescence in his home language and the taking of its words at face value.

I think that Neurath's metaphor is exactly the one you

²³And also of parts of the Philosophical Investigations.

would find compelling if you got just this far. You would come to believe that there is no hope for any understanding of language from outside of language or of science from outside of science: there is no magical relation in the mind between some words and some objects, a relation which "presents itself" to the mind, where what you see is exactly what you get, a relation in terms of which language is tied down to "the world", in terms of which some words are infused directly with their proper quotient of "meaning" or descriptive content and directly connected with their proper objects. You would see epistemology and the study of language, then, as ultimately taking their places within science, as chapters of psychology, perhaps. You would also, while giving up foundationalist epistemology and the principle of acquaintance, continue to take the notions of reference and truth seriously; you would continue to believe that these notions, in view of their obvious practical importance, would have some fundamental or central role to play in a serious science of language: it is possible, evidently, to be captivated by these notions but not by the quest for certainty. You would see yourself, as user of language, as trapped within your overall theory (which is thoroughly fallible, no doubt), unable to get outside it so as to check it against whatever is outside; whatever it is a theory of; whatever its terms really refer to.

The inside/outside opposition gets its start innocently enough, then, if this account is plausible; it gets started as an opposition between theories inside or outside of science. Here is our earlier question: is philosophy, as an effort to get clearer on things, part of science or isn't it? This question gets answered in the affirmative; and then the philosopher himself gets nudged off inside the theory too, in a different and highly dubious sense of 'inside'. It is this sense of 'inside' that Neurath's metaphor conveys. And it is just before the last move here that we should put a stop to things. Yes, philosophy is part of science. No, I am not in any theoretically interesting or informative sense at sea in a ship, a thinker trapped within my evolving conceptual scheme. For what, in any theoretically interesting sense, would the sea be? And in what sense would I be inside the ship of my theory, rebuilding it plank by plank? To suppose that any of this makes any sense at all is to suppose that there is, despite "Ontological Relativity", some absolute notion of reference, some notion of reference that does not already presuppose language. Let us instead retire the figure; it has served well and long enough.

I have dwelled on Neurath's figure because I think it makes a significant difference in one's interpretation of the central conclusion of "Ontological Relativity":

The inscrutability of reference is not the inscrutability of a fact; there is no fact of the matter.

Given just this much, you can make Quine come out sounding like Kant, as he himself does, or you can make him come out sounding more like the later Wittgenstein, as I prefer, depending, in part, on how seriously you take that metaphor. I take Quine to have shown that the concepts of reference and truth have no basic role to play in any serious theory of language. The thought that there is serious theory apart from science is a snare and a delusion; so much is our article of faith. The thought that the concepts of reference and truth must have some basic theoretical role to play in a theory of language is an inducement to the wide gate and the broad way that lead to theory which is not science; Quine's relativistic theory of ontology is a case in point.

It would only be if you could drive reference inside, make it essentially private, make the objects show themselves for what they are through and through to the eye of the intending mind, that you could make anything theoretically interesting of the notion of reference, and hence perhaps of truth. Uncritical theory of reference, like uncritical theory of meaning, depends ultimately for its plausibility as serious theory of language on the old mentalistic dream of a science of pure thought or pure reason, on the dream of the possibility and theoretical utility of a begriffsschrift. It was a beautiful dream, while it lasted, and after all not a bad place from which to start looking for a theory of language and of thought and of science: you always have to begin by isolating and idealizing some observational features of the phenomenon you want to study, and pressing them for all they're worth. This we have done with the notions of meaning, truth and reference; and it simply happens that such theory of language as we are able to generate in these terms turns out not to be science. The cash in such theory turns out to be private, not publicly negotiable, its evidence subjective, not objective; and so we give it up, in accordance with our article of faith, as generating at most an illusion of understanding.

There is no more reason to think that we should have privileged access to the most important facts about ourselves--our language and consciousness--facts that will project nicely in theory--than that we should have privileged access to the most important facts about the weather or the inanimate physical objects. In all these cases we have access; we are conscious both of the clouds and the colors and the fact that we often refer to and speak the truth about objects. In all these cases the facts of which we are initially conscious are not basic as such. Reference and truth, in particular, are not what make language tick. They could only be seen as such if

we could see ourselves as having privileged access to them at some point, which we cannot. Instead, reference and truth are, somehow, surface phenomena, like the babbling of a brook or the sighing of the wind in the trees. We shall need to go much deeper than reference and truth before we shall understand what language is, how it works, what it does for us, what reference and truth are.

Part of our current fascination with truth and reference is surely due to a scaling problem; we are having a problem of perspective. We are well acquainted with the difficulty of understanding human events aright while standing too close by them. This is a problem as well with events on the scale of subjectivity as it is with events on the scale of universal history. One problem with understanding truth and reference, I suggest, is that we are too close to them; they loom too large from our present point of view. We need to gain some distance--theoretical distance--from these notions before we shall properly place them. My hypothesis is that when we properly place them, they will assume somewhat the same scale of importance with respect to basic understanding of language and thought as the color predicates have assumed with respect to basic understanding of the behavior of inanimate physical objects.

One sometimes hears it said that doing philosophy is like putting together a jigsaw puzzle. If so, ours must be a puzzle in which the pieces we have already are elastic--they can assume different shapes and sizes--and one from which many of the most important pieces are still missing and have yet to be invented, as Dewey suggests. Having said this, one simply drops the analogy as uninformative. At any rate it is surely not a matter of merely arranging and rearranging the same old conceptual pieces, trying to get things to fit. The philosophical promised land is not just beyond the next counter-example.

I have wandered a bit from the main theme of this section, which is the differences I see between, shall I say, my "positivistic" or fully naturalistic, and Quine's apparently "Kantian", interpretation of the upshot of "Ontological Relativity". I have laid much of the difference on my rejection of Neurath's metaphor, and have tried to make something of an analogy between the color predicates and the notions of truth and reference. I would now like to draw out the color analogy a bit more, and link it with another metaphor that has come down to us from Kant--another metaphor we should reject. This is the famous metaphor of the glasses.

I suggested three paragraphs ago that we need to gain theoretical distance from the notions of truth and reference be-

fore we shall properly understand them. But this can look quite impossible. We can come to think of certain features of our language as forms of the language, as features everywhere presupposed by the language, everywhere pervading it, everywhere coloring it. Quine's view is in fact that the language of science in particular is (or can be made) everywhere objectual, that well-individuated objects to which reference can be made and about which the truth can be spoken, whose existence can be asserted or denied, are always the central point in science. This view is summed up in the idea that the formal apparatus of first-order quantification theory, objectually interpreted, is or can be made the formal apparatus of all of the language of science. And once we make this distinction between the forms of language and its content, we can easily begin to wonder how the forms themselves could ever be accounted for theoretically in a science of language couched, inevitably it seems, in the same old linguistic forms. Science, it seems, presupposes the forms of language central to the notions of truth and reference; and so how could it be possible to gain theoretical distance from these forms and these notions from within science? This I think is one of the forms that Kant's doctrines and dilemmas about the forms of experience and of thought can take in this day of semantic ascent and the ascendancy of logic studies.

Expounding Kant's doctrines on the forms of experience and thought, one often reverts to the analogy of the glasses. The forms of experience and thought (one says), are like glasses through which we must look when looking out upon the world or in upon ourselves, glasses ground to a prescription whose effects in experience we can describe but glasses which we can never take off and never see around. And since we can never "see" without our conceptual glasses, since they color all of our experience and thought, we seem to be utterly incapable of studying the glasses themselves, of getting an uncorrected view of what comes through them before it comes through, and so of gaining any understanding of what the prescription is in these glasses and what contribution it makes to our "knowledge" of the bare unfiltered world. If we take this analogy seriously we are squarely back in the fly-bottle, still seeing ourselves as thinkers trapped within our "conceptual scheme", within the ship of our theory, afloat on an inscrutable sea. We rebuild this ship a bit at a time, surely, even while staying afloat in it; but we never alter its basic form. Our theory is always of objects, always referential, always claims to be the truth. These are some of the effects of the prescription in our glasses; but what they are effects of it is impossible to know. Whatever theory we are able to articulate inevitably presupposes these notions, and so we can gain no theoretical distance from them.

Quine, it must be said, has never been entirely taken in by this analogy of the glasses. He has rejected as spurious any firm distinction between the "form" and the "content" of science or of the language of science; he has insisted on the thorough mutability of our evolving conceptual scheme; he has said that

We cannot strip away the conceptual trappings sentence by sentence and leave a description of the objective world; but we can investigate the world, and man as a part of it, and thus find out what cues he could have of what goes on around him. Subtracting his cues from his world view, we get man's net contribution as the difference.²⁴

Here, it would seem, would be a method of getting at man's net contribution--the net contribution of his conceptual and linguistic glasses--to his theory of the world; and so a method of studying the glasses themselves. We would study the world and ourselves scientifically, and then turn around, as it were, given that theoretical distance from ourselves, and try to see how creatures like our science says we are, living in a world like our science says we live in, could end up holding theories like we hold about the world we theoretically describe.

It sounds good. And yet, if you are gripped by the thought of those glasses, it surely won't do. We are to subtract man's cues from his world view, and get his net contribution as the difference. But our view of the "cues" would be no view of what lies just the other side of our conceptual glasses; the only "cues" we could describe would be objects already seen through and constituted by those glasses. We would still be afloat on an inscrutable sea. We would have gained theoretical distance from our theoretical selves, but still no distance from the forms of our language and thought, for the language and thought of our theory would still be couched in and presuppose and be constituted by the same old forms.

I am no partisan of the glasses analogy, and agree completely with Quine on the methods we may expect at last to yield to us an understanding of ourselves. The fault I find with Quine is that he seems not to have seen clearly how we are to escape from or gain theoretical distance on the "forms" of our language and thought, and so understand them at last, even from within language and thought still "formed" as always. What is wanted is some insight into how it is at once

²⁴Quine, Word and Object, p. 5.

possible that certain features of our language and consciousness should be pervasive, so as to seem to be "formal", and yet still possible to understand those features, so pervasive, from within a language and consciousness so pervaded.

I find such insight in terms of my earlier parallel between the color predicates and the notions of truth and reference. Color pervades our visual experience; our vision is in color (compare 'of objects in space and time'). Note also that our science is anchored at the observational end mostly visually; our science would not suffer significantly if sight was the only sense we had. Still, we have managed to study color and color vision visually, that is, in terms of our visually anchored science. We have done this, as Quine says, by working our way around the blinding dazzle of color vision and finding the more significant regularities elsewhere. We have studied colored objects from "within" our color-pervaded visual consciousness and in terms of our visually anchored science, and so learned a lot about color and color vision, by the simple expedient of ignoring the color in the vision until such time as we could see our way to beginning to account for it, as it happens, as a cosmically secondary feature of our scene and situation. Visual experience pervades and grounds our science; and color pervades our visual experience; yet we have not had to write off color as a "formal" feature of our visual experience, impossible to study or account for in scientific terms.²⁵

In just the same way, I suggest (and here I only echo Quine), we need not write off the forms of our language and thought which seem to pervade it and which seem central to the notions of reference and truth as "formal" in any serious sense, as impossible to study or account for in terms of a science pervaded still by these same forms. But what we need to do, as in the case of the pervasive color in our vision, is gain theoretical distance from these features of our language and thought by working our way around them and finding its more significant traits elsewhere; and we can expect these of its pervasive features to emerge, properly accounted for, as secondary or surface traits of language and thought, as color is a secondary or surface trait of inanimate physical objects. It is in respect of this last suggestion of mine that I think I differ most from Quine. In my view he has pressed too directly for an understanding of language in terms of the notions of

²⁵I am far from claiming, of course, that we yet understand "phenomenological" color, color as it occurs "in consciousness". Such understanding awaits an adequate science of consciousness, which we do not yet begin to have.

reference and truth and their linguistic auxiliaries. As I have said before, it wasn't a bad idea at the time. The trouble is that when we come to try to make sense of these notions, in and of themselves, they waver and dissolve; they prove unfit to play the role of central or basic notions in a natural science of language. It is as though we had tried to press the color predicates directly toward a serious understanding of inanimate physical objects, hoping to account for other features of their behavior in terms of color. It wouldn't have worked; color is too superficial, too capricious. "Truth" and "reference", like "meaning", are certainly capricious. We can also expect that a science of language, couched still in the forms of language we have thought central to the notions of truth and reference, will find these forms and these notions to be superficial features of itself and of the rest of language.

V

"Ontological Relativity" is mainly an attack (to my mind) on the notion of reference. Yet Quine himself links the notions of reference and truth in that closing sentence of his about truth, ontology and transcendental metaphysics, and I have persistently linked the two in my general thesis, which has been that both should be abandoned, at least for the time being, as unpromising terms in which to try to understand language. It has long been clear that the two notions are intimately connected; that truth could be defined, for example, in terms of truth-of or satisfaction. Is it now clear, after "Ontological Relativity", that the notion of truth must go the way of the notion of reference into our conceptual scrap-heap?

Oddly enough, no. One upshot of "Ontological Relativity" could be seen to be the divorcement, after all these years of connubial tranquility, of the notions of truth and reference.²⁶ This would come about as follows. We would be impressed, as I think we ought to be, by the fact that Quine has succeeded in locating the observation sentences for us, has succeeded in characterizing in a clear and enlightening way the notion of observationality, without once appealing to the notion of reference. This is a radical departure from more traditional approaches to observationality, which for the most part have

²⁶I got my first glimpse of this possible upshot of "Ontological Relativity" from Quine, in a talk we had while I drove him to the airport after he had read a paper in Iowa City. See also Quine's "Comment on Donald Davidson," *Synthese*, 27, 1974, pp. 325-329, which Quine called to my attention.

proceeded by first seeking a characterization of observation terms in terms of the notions of reference ('true-of') and of observable object, and have then sought a definition of 'observation sentence' in terms of 'observation term'. Quine's characterization of the observation sentences locates them more primitively, independently of the grammatical distinction between noun and verb and so independently of the notion of reference, as unanalyzed "one-word" sentences which have a certain fairly clearly-definable empirical property. One of the glories of Quine's insight into observationality is that it enables us to see for the first time, mental magic and the principle of acquaintance aside, how the observation sentences could be learned: they are the sentences that could be learned by straightforward induction, by conditioning, with a little help from your friends. Language is tied down to the world at the observational end; and we now see that it is not tied down by reference; observationality in its theoretically useful sense has nothing to do with reference. More's the comfort, since we can make so little of reference. And so much the worse, by the way, for the notion of reference; it proves dispensable just here, where we thought we needed it most.²⁷

The truth predicate, as we have seen, is at home among the observation sentences; it is here that the clear-cases of its applicability in practice lie. Since we can get a grip on the observation sentences independently of the notion of reference, it would appear that we can get a grip on the truth predicate independently of the notion of reference as well; a rift begins to appear between 'is true' and 'is true of', between truth and reference. And now to complete this cleavage we note that whereas nothing comes of the notion of reference when you press it, the truth predicate projects rather well, in a way; it projects along the grammatical joints of the language, those forms of the language that seem everywhere to pervade it, and the result is a very impressive artifact: logic.

...Logic explores the truth conditions of sentences in the light of how the sentences are grammatically constructed. Logic chases truth up the tree of grammar.²⁸

²⁷I have discussed Quine's definition of observationality in more detail in a paper, "Observationality and the Comparability of Theories", in Boston Studies in the Philosophy of Science, vol. XXXII, ed. R. S. Cohen and M. W. Wartofsky (Dordrecht and Boston, D. Reidel Publishing Co., 1976), pp. 271-289.

²⁸Quine, Philosophy of Logic (Englewood Cliffs, N.J., Prentice-Hall, 1970), p. 35.

If nothing can be made of the grammatical forms of the language (or of much else) in terms of the notion of reference, much can be made of them in terms of the notion of truth. This, along with its base in the domain of the observation sentences, would seem to be the saving grace of the truth predicate.

One gets some sense of this divorce of truth from reference in "Ontological Relativity". According to the relativistic doctrine of ontology, it makes no sense to say what the objects of a theory are, what the terms of the theory refer to, beyond saying how the theory can be interpreted and re-interpreted in other theories. This affair of interpreting one theory in another is purely a matter of logical structure; questions of reference, and even of description, factor out in the process, for, as Quine notes, "Always, if the structure is there, the applications will fall into place."²⁹ We seem to be left with applications, the realm of the observation sentences, and structure, the realm of grammar; as we have seen, these are the joint abodes of the truth predicate.

My thesis has been that both truth and reference are cosmically secondary. This would seem to commit me to the view that logic itself, which makes so much of truth, is cosmically secondary as well, for all its "centrality" to our current conceptual scheme.

I see one striking problem with the thought that the truth predicate could play a central or basic or primary role in a science of science. This is not a new problem; but I think it is time we take it more seriously than heretofore. A science of language would itself be linguistically couched, would be language. A science of science would itself be science. We would surely require, then, that such sciences be reflexive, as no science has been up until the present day; such sciences would have to give account of themselves qua language or qua science, as well as giving account of the rest of language or science; they would have to be directed upon themselves from within, in all relevant respects. This result is an inevitable consequence of our naturalistic stance with respect to the study of science and language: we are out to understand language and science substantially from within, "for there is no $\pi\omicron\tilde{\nu}$ $\sigma\tau\tilde{\omega}$ ".³⁰

We know, of course, that we must, on pain of paradox, keep

²⁹Quine, Ontological Relativity, p. 44.

³⁰Quine, Ontological Relativity, p. 6.

the truth predicate from a language out of the language itself--insofar as we are trying to make something theoretically interesting out of the truth predicate. This is the sense in which Quine finds truth "transcendental", and the result of this is the hierarchy of languages and metalanguages that spreads itself before our eyes in logic studies. This hierarchy of metalanguages is related, as Quine points out, to the hierarchy (or multiplicity, anyway) of background languages necessary, according to "Ontological Relativity", in making theoretical sense of reference; and we may wonder in both cases, as we have, how close we are getting, for all our pains, to understanding truth and reference any better.

The present point is a different one, however. Whatever sort of "understanding" of truth we may think we get by projecting it in the ways that we do in logic, the crucial fact is that the truth predicate, as the sort of theoretically interesting predicate we have tried to make of it, cannot be understood at all intralinguistically; it is not fit to play any central role in a reflexive science of language, or in a reflexive science of science. Consequently, if we steadfastly require, as I think we must, that the understanding of science and language that we seek be scientific understanding, linguistically couched, and so essentially reflexive, we should not expect the truth predicate to play any important role.

The problem of self-application is one that every sufficiently articulate philosophical doctrine faces, and that many flounder on. We (naturalists) may as well face the problem squarely, right off. No hierarchy of languages and metalanguages will get us off the hook: at some point, we must discuss human language. Period. This we can only do from within.

Russell thought that Wittgenstein's paradoxical Tractarian views about what can only be shown, not said, might be avoided by the articulation of some doctrine of languages and metalanguages. Wittgenstein was correct in rejecting this thought: he was trying to articulate a view about language generally, indeed, any possible language, including the one he was using. As he saw it, of course, this violated the theory of types (which could not in any case be stated, as theory) and hence was, strictly, meaningless--as stated.

Our aims are more modest than Wittgenstein's in the Tractatus. We are interested in human language--that being the only kind available for study, unless we count the birds and the bees. And we are not committed in advance to any particular theoretical vocabulary--this being science, not metaphysics.

In particular, we are not committed to 'truth' and 'reference'. A good thing, too; otherwise we would have problems of paradox--and no spellbinding poem about

Logic--all-embracing logic,
Which mirrors the world...
An infinitely fine network,
The great mirror

to help us swallow it, either.

I do not mean to suggest, I repeat, that our science of language would have no account to give of truth and the truth predicate; of course it would, as it would account for the peculiar propensity of the truth predicate to ramify so impressively in the way of logic. It is just that the dimensions of language across which the truth predicate projects so nicely would emerge as secondary. Logic now appears to us as something sublime. It appears to Quine as the location of the most sublime of all disciplines: metaphysics. From within our science of language, I believe, it will look much more like froth; it will prove to be much more ephemeral and transient than we can now easily conceive.

Quine has called logic a science; like any science, he says, the business of logic is the pursuit of truth.³¹ But what a difference! Here we find no seeking of evidence in external objects, out where everybody can see it; here we find speculation not conducted with a view to the possible access of empirical evidence at some future stage. Logic, if a science at all, is one like no other. Logicians pursue truth, all right, but in a sense of 'pursue' quite other than that in which empirical scientists pursue truth: logicians project the truth predicate itself down the ways of the language, make it echo through the grammar; but neither the truth predicate nor the grammatical constructions are themselves ever made objective sense of. Indeed, Quine sees the details of logical grammar as dictated by considerations of logical convenience only:

The grammar that we logicians are tendentiously calling standard is a grammar designed with no other thought than to facilitate the tracing of truth conditions.³²

Perhaps those grammatical forms that can seem to pervade our language and that logicians try to make pervasive in the lan-

³¹Compare Quine, Methods of Logic, 3rd ed. (New York: Holt, Reinhart, Winston, 1972), p. 1.

³²Quine, Philosophy of Logic, pp. 34-35.

guage in the service of the truth predicate are not even naturally occurring secondary features of language, as color is of physical objects, but mere artifacts of past misguided study of language.

What sort of science could logic be? What would the evidence for it be, as theory? We saw earlier that this question of what evidence must be like for such theories as we seek is one of the things that induces vagueness into our naturalistic belief that philosophy is continuous with science; and perhaps just here, in our articulation of logical theory in hopes of getting clearer on truth, some kind of evidence other than the objective kind required for empirical science would be appropriate. Logicians and other seekers after logical form, it would seem, are our phenomenologists of language par excellence; they are beholden to no consideration other than that of bringing logical theory, the theory of valid inference, into consonance with that set of inferences we would accept as being valid. As Goodman puts it,

A rule is amended if it yields an inference we are unwilling to accept; an inference is rejected if it violates a rule we are unwilling to amend. The process of justification is the delicate one of making mutual adjustments between rules and accepted inferences; and in the agreement achieved lies the only justification needed for either.³³

In the agreement achieved lies the only justification needed or possible for logical theory. Here there is no objective control, no relating of the terms of our theory to the sort of evidence that is out where everybody can see it. The evidence for logical theory is purely a product of introspection. Here again is our previous insight: logical theory, and the uncritical theory of reference of which it is a central part, is a mental science, if a science at all. But this again is nothing new; we've known for a long time that logic is a purely a priori discipline. It's just that we naturalistic philosophers have got to take this old fact more seriously, and draw the consequences.

In one of those arresting, pregnant, hard-to-understand lines one finds scattered throughout Quine's work, he tells us that

The way to a full and satisfactory theory of meaning is, I begin to suspect, a phenomenology of act and intension, but one in which all concepts are defined finally in be-

³³Nelson Goodman, Fact, Fiction, and Forecast (Indianapolis: Bobbs-Merrill, 1955), p. 64.

havioral terms.³⁴

I believe some insight into this passage is to be had by linking it with Davidson's idea about the way to a full and satisfactory theory of meaning and with my reflections above on the quest for logical form. Davidson's idea, as expounded in these sentences of Quine's, is that "the way to develop a systematic account of meanings for a language is to develop Tarski's recursive definition of truth for that language." For, "you have given all the meanings when you have given the truth conditions of all the sentences."³⁵ But, if I am not mistaken, the search for logical form, the attempt to give the truth conditions of all your sentences--in short, the effort to chase the truth predicate clear through the language--is a pure exercise in the phenomenology of language. Perhaps what Quine is seeing in the passage displayed above is the phenomenological nature of the quest for logical form.

Quine sees the connection Davidson has drawn between truth and meaning as redounding to the credit of the otherwise flimsy notion of meaning; as we have seen, he has long believed that the theory of reference is in better shape than the theory of meaning. I would like to suggest a different interpretation of Davidson's insight.

Even in the above passage Quine sticks to his naturalistic guns: he requires that all the concepts of our theory of meaning, the future product of our phenomenological reflection, be defined finally in behavioral terms. But now a recursively specifiable set of truth conditions for all the sentences of our language would be the resultant of two factors, truth and grammar--a grammar, in particular, constructed with an eye on truth. And where and how, one wants to know, are we to define the basic concepts of such a theory of meaning behaviorally? Where and how will we make objective sense of the truth predicate--the kind of objective sense that would relate truth importantly to meaning? Where and how will we make objective sense of the grammar we design with our eye cocked on truth? These questions are especially urgent in view of the various objective indeterminacies involved in the task of the grammarian that Quine has been calling to our attention.

Far from reflecting well on meaning, I suggest, Davidson's

³⁴Quine, "Reply to Kaplan," in D. Davidson and J. Hintikka, eds., Words and Objections (Dordrecht: D. Reidel Publishing Co., 1969), p. 343.

³⁵Quine, "Reply to Davidson," in Words and Objections, p. 333.

link between meaning and truth should reflect ill on truth. Both the theory of meaning and the theory of reference belong to an uncritical mentalistic semantics. Both belong to a pure phenomenology of language or phenomenology of thought; both would be part of a science of mind or of pure thought as distinct from a science of everything else, if such a science of mind there could be, if such a thing could be called science. I believe (admittedly by faith), and believe Quine believes, that such a thing is impossible.

I share Quine's conviction that phenomenological reflection on language and consciousness, on what it's like to be and to have come to be the ways we are, to think and speak the ways we do, is part of the way to a full and satisfactory theory about ourselves. The problem is that there are many things it's like to be and speak and think the ways we are and do, many metaphors that hold out promise of being articulable into a deeper theoretical understanding of ourselves and our world. Our control on our theorizing is our naturalism, our conviction that we are to maintain no less than scientific standards, our refusal to suppose that what empirical science cannot give us in the way of understanding we can get elsewhere.

The problem with the Quine-Davidson attempt to arrive at a theory of language through the pursuit of the truth predicate is not that the result is a product of phenomenological reflection on language. The problem is that this reflection pursues the wrong quarry. We know this because of the elusiveness of the notions of truth and grammar when we come to try to make objective sense of them. This quarry starts and flies, yea, soars, but off into mentalistic regions where we can no longer get our scientific sights trained on it.

The thought we started out this section with, of divorcing the notion of truth from that of reference, was then a wrong one: truth and reference belong together--indeed, deserve each other--after all; what therefore God hath joined together let not man put asunder. We noted that the truth predicate was at home (in practice) among the observation sentences; but so, of course, is the notion of reference, in practice. We were impressed by the fact that Quine has characterized observability in its theoretically interesting sense independently of the notion of reference; but he has done so also independently of the notion of truth. We had to admit that the truth predicate projects or is made to project wonderfully, in a way--across dimensions of the language logicians discover or create with the sole thought of chasing the truth predicate itself clear through the language. The result is logical theory, perhaps even theory of meaning; theory of some sort, anyway, but not, I think, the sort of theory that

gets us any closer to a natural science of language, our real goal, since this logical theory or theory of meaning is couched in terms that will not tie down objectively and rests on evidence that is not out where observers can jointly observe it. In both these respects it is like and goes hand in hand with the sort of theory that comes of pressing the notion of reference toward a theoretical understanding of certain aspects of language. We would secure the references and meanings of some terms at the foundations of language, at the observational end; we would define truth in terms of reference (satisfaction); and we would chase truth clear through the language, thus hoping to understand the whole in terms of these two notions at home in practice only in one part. But the notion of reference won't do its job here unless driven inside and made a very private matter of acquaintance; and the theory of truth conditions has introspection as its only evidence; nowhere do the crucial terms break out and tie down objectively, and nowhere do we hew to the methodological restraints of natural science.

I believe we are in possession of enough evidence now to make my conclusion more probable than not: Semantical theory as we philosophers know it, both as theory of meaning and as theory of reference, is not leading us where we naturalistic philosophers want to go. It does not succeed in making the objective connection. Its central terms can be understood only inter-linguistically, as from one background or meta-language to another, and "understood" in only a very thin sense at that. Understood in such terms language and thought are left cut off from the extra-linguistic world in which, in point of fact, they live and move and have their being. As far as a natural science of language goes, we are still in the beginning, brooding upon the face of the deep. The most that can be said from this point of view of researches in "semantics" is that every once in awhile people who think a lot about it notice something else relatively observational about language and thought--something else we put into our growing unsorted file of facts for future reference. Language and thought are just not the sorts of things they would have to be if the central terms of "semantics" were going to do the trick for us in the way of a real science of language. Reason is not at the bottom of language as it is at the top--any more than it is of things in general. We are going to have to look elsewhere; we are going to have to work our way around the notions of truth and reference and their linguistic auxiliaries before we shall begin to gain any serious understanding of our language and our thought.

VI

I would like to engage now in some arrant speculation on

what we might expect a science of language and of science to show us or do for us. And I must make good on my promise to try to say how we might come to bring ourselves to reject as an outright falsehood our vague doctrine that philosophy, as an effort to get clearer on things, is continuous with or part of science.

"We are prone," Quine says, "to talk and think of objects."

Physical objects are the obvious illustration when the illustrative mood is on us, but there are also all the abstract objects, or so there purport to be: the states and qualities, numbers, attributes, classes. We persist in breaking reality down somehow into a multiplicity of identifiable and discriminable objects, to be referred to by singular and general terms. We talk so inveterately of objects that to say we do so seems almost to say nothing at all; for how else is there to talk?³⁶

To say we talk of objects seems almost to say nothing at all; yet this seemingly trivial observation about our discourse has dominated much of the philosophical literature through the centuries. It has certainly dominated Quine's work in philosophy: Quine, in his roles as logician, semanticist, epistemologist, ontologist, has been concerned to find his way about our talk of objects, to distill and regiment it, to study various of the notions central to it, to understand its acquisition and its divagations, and to try to say, from within it, what objects there must be to be referred to if our talk of objects is true. For Quine the objectificatory and individuating features of our language and thought have seemed central, have seemed to be those of its features we would have to understand first if we were ever to understand it at all.

We have known for quite some time that there are serious problems with the project of making good sense of the ostensibly central and important individuating features of our discourse. To name just a few: there are all the puzzles involved with making sense of the notions of object, of truth, of truth of, of existence, of identity; all the forms of words in which these seemingly central notions seem strangely to get lost sight of while still in plain view; all the difficulties we've had in trying to organize these notions into a genuine and informative theory about ourselves, about who we are and what we are saying and what we can know. We get no penetration, anywhere, in these terms, only superficiality; press most of these notions and you are led off into a metaphysical

³⁶Quine, Ontological Relativity, p. 1.

wilderness. These problems have been obvious enough to us; but there has been in any case no alternative to thinking and talking in these terms and taking them seriously; for how else is there to think and talk, and what other terms, applicable to language, are there to take seriously?

To the mind of a born-again four-square naturalistic philosopher like myself there have been in the middle third of this century two ways one could approve of dealing with these central problems of philosophy, problems which look to be impervious to empirical resolution. There is, first, the way of the later Wittgenstein: trying to show us out of the problems that present themselves so seemingly irresistibly in connection with certain forms of words by showing us past the language that has captivated us; trying to effect a switch in the aspect under which these forms of words appear to us; trying to change what looks like a rabbit into a duck and vice versa, trying to change forms of words that grip and compel into innocent phrases devoid of cosmic significance and vice versa; trying to help us get the hang of the trick; trying to show us it is a trick, a thing words do or a thing we do with words; thinking if we would only see this the one look of the words would lose its compulsion; patiently assembling his reminders, trying to make our philosophical problems go away so that we could get on with other things. The trouble is that this method seems only to work sometimes and for some people; and if it works at all it is dependent on a conjurer with the language of the skill of Wittgenstein. Further, it points to no positive theory, but only to the cessation of the search for theory in certain directions; in short, to the cessation of philosophy as an autonomous effort to get clearer on things.

On the other hand we have had the example of Quine to look up to. Quine has continued to worry at and tried to solve the philosophical problems Wittgenstein would have us get over, but he has proceeded with the firm good sense of a man working toward a future empirical theory in which these problems would find their solution. He has continued to press the same old seemingly important words in his effort to understand them and language in terms of them, but he has attempted to press them toward incorporation in an empirical theory of language, refusing (except on rare occasion) to be stampeeded off the green pastures of science into the metaphysical wastelands. I have been urging that we interpret Quine's failure to make objective sense of the notions of truth and reference (in particular) as evidence that these notions, after all and for all of their seeming centrality to our language and thought, have no central role to play in an empirical theory of language and thought. This conclusion fits nicely with Wittgenstein's sense that the aura of impor-

tance that surrounds these and some other words is delusive.

There is a third, underground tradition in philosophy which it is perhaps time we "analytic" philosophers, and especially we students of language and consciousness, began to take more notice of. I refer to the mystical tradition, embodied in the writings of those who have sought and achieved the beatific vision (or its non-Christian equivalent) and then have come back and tried to convey to the rest of us, by description, in language, some "understanding" of what they have come to appreciate, as it were, by acquaintance, by means of a raised consciousness which transcends our mundane consciousness and language.

This is surely no place for a long discussion of mysticism; nor am I presently capable of such a thing. What impresses me about what the mystics say, at this stage, is just that it is so consistent with the trouble we have had in trying to understand ourselves and our language and our consciousness in terms of those features of our conceptual scheme which have occupied the minds of us philosophers so: in terms, that is, of the notions of truth and reference, of the notions of individuation, discrimination, identity, existence, object. What the mystics tell us is that these features of our current language and consciousness are cosmically secondary, breeding mere appearances. Watts sums it up as follows:

Reality is neither multiple, temporal, spatial, nor dual. Figuratively speaking, it is the One rather than the Many. But it appears to be the Many by a process variously described as manifestation, creation by the Word, sacrificial dismemberment, art, play, or illusion--to name but a few of the terms by which the doctrine accounts for the existence of the conventional world.

The conventions of time, space, multiplicity, and duality are false until they are seen to be conventional, whereafter they are "redeemed" and attain the full dignity of art.³⁷

And here, in particular, is Meister Eckhart on the relation of our current kind of objectual, individuating consciousness, in terms of which we understand the world, to the raised or transcendent mystical consciousness:

Say, Lord, when is a man in mere "understanding"? I say to you: "When a man sees one thing separated from another."

³⁷Alan Watts, Myth and Ritual in Christianity (New York: Vanguard Press, 1953), pp. 17 and 23, respectively.

And when is a man above mere understanding? That I can tell you: "When he sees all in all, then a man stands beyond mere understanding."

The mystical vision transcends our verbal intellection, apparently, precisely in transcending the discriminatory, objectificatory, individuating apparatus of intellection and scientific understanding.

There are then these signs and portents, these straws in the philosophical wind: there are Wittgenstein's reminders; there is the resistance of the notions of truth and reference and the other parts of the individuating apparatus of our language to being made objective sense of; and there is the mystical vision of the world, in which individuation seems to go by the boards, to be transcended.

It seems to me that we might expect something like the following outcome. We will continue to press toward a scientific understanding (for there is no other) of science, of language and of consciousness, pursuing features of these phenomena other than those individuating and objectificatory features which have so far loomed so large in our eyes.

Our science of ourselves will continue to be couched in the same old objectificatory and individuating framework of our current language. For there is, as Quine has stressed, no other way to talk; our current "conceptual framework" is the framework of science, and no understanding is to be gained except in its terms.

But from within the framework of such a science we will see clearly, we will understand, scientifically, how and why the objectificatory and individuating features of the language of science, so central to our current limited understanding of language and science, are cosmically secondary. We will see "objects", at least in the sense of 'object' of which we have tried to make theoretical hay, as artifacts of the language and consciousness of science. We will see truth and reference themselves as secondary to language, like color is to physical objects; important, no doubt, to certain activities which loom large to our present consciousness and concerns but insignificant for a broader and more theoretical science of language. In seeing how the true/false dichotomy and other untenable dualisms are "conventional" we will redeem them, and they and the language and science which embodies them will attain the full dignity of art.

We should also expect our science of language to make it

clear to us why it is that certain words, applicable to language, should have seemed so important to the understanding of language for so long, why they seemed to promise so much in the way of understanding while coming to so little in the way of genuine theory. It should enable us to understand our old compulsion to ontological speculations, for example, and at the same time arm us once and for all against the compulsion. It should let us stop worrying at truth, reference and ontology by showing us at last exactly the sense in which they belong to transcendental metaphysics and exactly what is wrong with transcendental metaphysics. The result would not be a metaphysical theory of any new or old variety; it would be the dissolution of metaphysical questions, a making of our "uniquely philosophical" problems to go away through a scientific vision of their artificiality and spuriousness, a vision of the way language spawns them as its bastard children and our philosophical orthodoxy keeps them alive by its gratuitous assumptions.

Our science of ourselves will also show us the sense in which it is true to say that philosophy, as an effort to get clearer on things, is continuous with or a part of science. It will vindicate our article of faith in at least two ways. It will show us that (just as we thought all along) philosophical problems, both genuine and spurious, are not autonomous from science, that empirical considerations are relevant to their solution or dissolution, deep as they are or can be made to seem: our genuine problems will find their scientific solutions; our spurious ones will dissolve in the solvent of our science. And it will, having given us an understanding of understanding, make it clear beyond dispute that there is no understanding, no getting clear on things, apart from science. There is much we do with and in language besides trying to get clear about or understand things: there is poetry, there is myth, there is religion, there is philosophy as Plato perhaps saw it, as the important activity of telling plausible stories, of telling them beautifully:

Here is my song for the asking
Ask me and I will play
So sweetly I'll make you smile.³⁸

Much of philosophy will take its place under this head (although, one must admit, not much of current philosophy). It can be very like theatre too: one incarnates certain possible ways--very abstract--of being a human being, many of which verge on madness; this not only entertains, it instructs.

³⁸Paul Simon, "Song for the Asking."

But I digress. All of this insight, I was saying, is to be gained from within a science still couched objectually. In Tillich's phrase, we would continue to practice in the light of the myth of objects, but the myth would be broken, and so any temptation to its literalistic interpretation in the way of pressing it toward theory would be transcended. We would continue to talk and think in the same old ways, but our conception of what we were doing would be radically different than it is now. Our theory, in its reflexive way, would tell us that speculation even on its objects was beside the point. While being fully objectual, this science would not take as central to itself any predicates relating to that fact about itself or other parts of science.

We would then perhaps usher ourselves into an age of post-individuative consciousness; from within a science couched still in the same individuative language we would see our way beyond individuation. The crowning and last achievement of our reflexive consciousness would be a reflexive science which would point the way beyond the ultimate untenable dualism, that between subject and object, and so point the way beyond all possibility of reflexivity.

I must emphasize that I do not mean to suggest that none of the notions philosophers have found it important to try to understand would play central roles in the future science I envision; just those would which could be secured objectively. It seems to me that Quine's work on the notion of observationality provides one good example of the way in which we might begin to see our way from within the individuative and objectifactory apparatus of our language beyond that apparatus. For recall that one of our problems has been to understand where and how language is "tied down" to the world; we've seen that it is tied down at the observational end, but we have thought that observationality was to be understood in terms of reference. Quine has shown us that observationality is not a matter of reference at all; observationality continues to be important, but reference goes by the boards. Observationality is a matter of the conditioning of sentences holophrastically as responses to various ranges of sensory stimulations; reference only comes in later, in our current, parochial ways of thinking and speaking. Observationality is linguistic common coin and is bound to be; it is primary to language. Reference is local, linguistically immanent, cosmically secondary. This insight of Quine's into observationality is, I say, an example of how our science of language could settle an important question about itself as well as about other parts of science. This is what we should expect to happen generally.

The future I envision differs from one Quine has suggested.

Toward the end of "Speaking of Objects" he says that

It seemed in our reflections on the child that the category of bulk terms was a survival of a pre-individuative phase. We were thinking ontogenetically, but the phylogenetic parallel is plausible too: we may have in the bulk term a relic, half vestigial and half adapted, of a pre-individuative phrase in the evolution of our conceptual scheme. And some day, correspondingly, something of our present individuative talk may in turn end up, half vestigial and half adapted, within a new and as yet unimagined pattern beyond individuation.³⁹

Perhaps, perhaps. If I find mine the more probable future it is because I think I can see how we can presently work at realizing it, hastening the day of its coming. I find it imaginable even now, for there are those signs and portents. Also one apparently finds no hint of a post-individuative pattern of talk among the mystics. There one finds only the redemption of the individuative pattern through the vision of its "conventionality".

I warned the reader that these speculations would bearrant, and I believe I have been as good as my word. I have wanted to convey some impression of how basic a successful science of language and of science would be, and so what kind of changes it could bring about in our conception of ourselves. We have some experience already of the sort of alterations of consciousness that scientific revolutions can bring about. The race has lived through three such within relatively recent memory, those of Copernicus, Darwin and Freud, and each has wrought profound changes in our thinking about ourselves. A science of language, of science, of consciousness, could hardly fail to do as much, for it would strike much closer to home; it would hit us where we live.

Talking to people about these things can be unnerving. Almost everyone seems willing to grant that of course one day we shall have a science of language and of science (if, perhaps, not of consciousness); for language and science are phenomena that occur in the physical world, and everyone seems to believe that whatever occurs in the physical world is subject to physical determinism and is therefore subject to some sort of causal explanation. But how, they ask, could such explanation be relevant to our problems as philosophers?

One thing behind this sort of wonderment is perhaps a tacit

³⁹Quine, Ontological Relativity, p. 24.

exclusion of consciousness from the domain of science, or perhaps, conversely, a too-quick readiness to "identify" conscious states with relatively simple events in the brain. Another thing behind it is a failure to appreciate the radical sort of reflexivity a science of language and of science would involve. People seem to think that a science of language or of science could be shallow, that it is just around the corner, almost in hand (what with recent advances in neurophysiology and all that). I think, on the other hand, that we are very far right now even from having anything approaching the right data for a science of language; we are in the same position relative to our future science of language that sixteenth-century meteorologists were in relative to their future science of the weather. We not only do not have the right data, but we also lack appropriate conceptual materials. Our most promising candidates to date--the materials of the theory of reference--are, I take Quine to have shown, not going to do the trick for us.

We are perhaps in somewhat the same position Freud was in when he began his work. Freud, like most other psychologists of his day, believed in the principle of psychic determinism. That meant that he, like most others, would have believed that the phenomena of madness, dreams, slips of the tongue, errors, random thoughts, and so on, had causes and could be explained, somehow. One might have expected, prior to Freud, a shallow explanation of these phenomena, perhaps a behavioristic explanation which would have seen them as the result of superficial associations of ideas or some such thing; mess-ups in the synapses perhaps. Freud's breakthrough was the insight that the causes of these phenomena lie deep; he saw that they serve a purpose in the psychic economy of people and that we would not properly understand them until we had a much fuller understanding of psychic economy, of the relations between the conscious and the unconscious, of the genesis of consciousness and the purpose it serves in the lives of us human animals. Freud evidently expected, through much of his career, the ultimate reduction or replacement of psychoanalytic theory to or by purely physical theory, but he saw that no physical understanding of psychic phenomena could be gained prior to the sort of deep understanding of them in other words which he sought in terms of psychoanalytic theory. Prior to that, the appropriate data for a physical theory would be lacking; it wouldn't have the ghost of a chance.

In the same way, I believe, we must not expect any quick physicalistic science of language or of science. We should strive for a "phenomenological" theory of these things, akin perhaps to "phenomenological" thermodynamics. Our theory should be, or approach, science; it should be a theory in which all concepts are defined finally in behavioral or some other objectively specifiable terms. It must be a reflexive

theory, applicable to itself. We should strive for depth of understanding, the sort of depth that would make our empirical theory relevant to the solution or resolution of the deepest problems of all, those of philosophy. And finally, being naturalists, we may perhaps expect the ultimate reducibility of our phenomenological theory of language and science and consciousness to physical theory, after the fashion of the reducibility of phenomenological thermodynamics to statistical mechanics.

The notion of the reduction of one "theory" to another has played a large role in philosophy for at least the last three centuries. Empiricists have classically striven for some reduction of all of meaningful discourse to some basic vocabulary rendered meaningful and secured in point of reference by "acquaintance" and to some basic sentences couched in that vocabulary known to be true again through "acquaintance". Such programs take meaning or description, truth and reference to be basic to language; they seek to secure these notions at the basis of language and project them, in a way, up through the language. We have witnessed recently other reductive programs of this ilk: of talk of minds to talk of behavior; of talk of sensations to topic-neutral talk; of the language of morals to this or that other part of the language. All of these programs take one part of the language as it stands and try to reconstrue it in terms of some other part of the language as it stands for one reason or another, usually having something to do with the bafflement of philosophers at the wonderful fecundity of our linguistic powers.

For Quine too the notion of reduction plays a large role. Quine abandons in "Ontological Relativity" the notions of description and reference ("Always, if the structure is there, the applications will fall into place") and so he loses sight of one important restraint on inter-theoretic reduction in science, namely, the requirement that the sentences which correlate the basic terms of the two theories involved be empirically testable in some way. Still, Quine sees a role for reduction in his sense--the mere modelling of one theory in another--in terms of his relativistic doctrine of ontology.

I too continue to see a role for the reduction of one theory to another in our basic enterprise of trying to gain an understanding of our language and ourselves. I see nothing to be gained by Quine's modelling of one theory in another, which is a merely logical exercise; nor do I hold out any hope for a reduction of all of meaningful discourse to some fundamental sentences or of this or that apparently autonomous part of our current language to other parts. I see us striving for an empirical science of language at some non-basic or "phenomenological" level, a science in which the notions of

truth and reference would play only a secondary role, and one which would make it clear to us why it is that the other sorts of reductive programs I have mentioned are beside the point. Once we had achieved such a science it would be appropriate to ask whether it was reducible, in the way one empirical theory is reducible to another, to some more basic, perhaps purely physical, science. I do not see that it would be a particular disappointment if this turned out not to be possible. We still remain unclear about what such reducibility, insofar as it ever occurs unalloyed, teaches us about the ways of the world. But this again is one of the questions we can expect our future science of language and of science to settle for us.

The most disappointing thing that could happen would be the achievement of a science of language and of ourselves that was at once clearly adequate to its task but was at the same time shallow, in the sense that it did not reach as deep as our philosophical problems. Such a science would presumably clarify but not vindicate our naturalistic article of faith that philosophy, as an effort to get clearer on things, is continuous with or a part of science. The achievement of such a science would force us to give up our article of faith as an outright falsehood. If it is possible, once our science of language and science is achieved, to continue in good faith and full scientific self-consciousness to believe that philosophy as an effort to get clearer on things can go on apart from science, that there is something more to be learned that science cannot teach us, then I think I shall give myself over to sublime metaphysical reflections, and seek to know the noumenon from the phenomena. In the meantime I shall adhere to my article of faith in good faith, believing, as I do, that it is an empirical, not a metaphysical creed. I shall continue to press, with Quine, for an empirical understanding of science, language and consciousness.

This enterprise is not born or borne of pride in human understanding, as some might think; for we know from past experience how humbling increased knowledge of ourselves can be, and we have the testimony of the mystics as to how little our vaunted rationality comes to cosmically. On the other hand, surely there is room for hope that the deeper is our understanding of ourselves, the more we shall know how so to number our days that we may apply our hearts unto wisdom, and to make ourselves glad according to the days wherein we have seen evil.

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