FROM A LOGICAL POINT OF VIEW

Nine Logico-Philosophical Essays

Second Edition, Revised

• • • With a new Foreword by the author

WILLARD VAN ORMAN QUINE

FROM A LOGICAL POINT OF VIEW

9 *Logico-Philosophical Essays*

Willard Van Orman Quine
Edgar Pierce Professor of Philosophy
Harvard University

Second Edition, revised

HARVARD UNIVERSITY PRESS
Cambridge, Massachusetts
and London, England

PRINTED IN THE UNITED STATES OF AMERICA
Twelfth printing, 1999

LIBRARY OF CONGRESS CATALOG CARD NUMBER 79–92851
ISBN 0–674–32350–5 (CLOTH)
ISBN 0–674–32351–3 (PAPER)

To my
Mother and Father
H. V. Q. — C. R. Q.

FOREWORD, 1980

In 1950, having *Methods of Logic* and a revision of *Mathematical Logic* in hand, I set my sights on a book of more broadly philosophical character. It proved in the fullness of time to be *Word and Object,* and the fullness of time was nine years. I foresaw by 1952 that it would be a long pull and became impatient to make some of my philosophical views conveniently accessible meanwhile. Henry Aiken and I were with our wives in a Greenwich Village nightspot when I told him of the plan, and Harry Belafonte had just sung the calypso "From a logical point of view." Henry noted that this would do nicely as a title for the volume, and so it did.

The book did nicely as well. In the course of its two editions and its many printings it sold nearly forty thousand copies in English and I have no notion how many in Spanish, Italian, Polish, German, and Japanese. Eight of the nine essays have reappeared also independently in one or more anthologies, and each in one or more translations. The first two, indeed, have been anthologized to extinction: twenty-four and twenty-five times respectively and in seven and six languages. I am much gratified and flattered by all this, and likewise by the readiness of my friends at Harvard University Press to take over the paperback rights and keep up the output.

The time for revision is past. The book is dated, and its dates are 1953 and 1961. On the present occasion I have revised just a single page, one that contained mistaken criticism of Church and Smullyan. It is page 154, amid the tumultuous pages where most of the 1961 revision took place.

But I shall improve the opportunity in this preface for a few caveats. One is that "On what there is" is nominalistic neither in doctrine nor in motivation. I was concerned rather with ascribing ontologies than with evaluating them. Moreover, in likening the physicists' posits to the gods of Homer, in that essay and in "Two dogmas," I was talking epistemology and not metaphysics. Posited objects can be real. As I wrote elsewhere, to call a posit a posit is not to patronize it.

The holism in "Two dogmas" has put many readers off, but I think its fault is one of emphasis. All we really need in the way of holism, for the purposes to which it is put in that essay, is to appreciate that empirical content is shared by the statements of science in clusters and cannot for the most part be sorted out among them. Practically the relevant cluster is indeed never the whole of science; there is a grading off, and I recognized it, citing the example of the brick houses on Elm Street.

Both that essay and the next, "The problem of meaning in linguistics," reflected a dim view of the notion of meaning. A discouraging response from somewhat the fringes of philosophy has been that my problem comes of taking words as bare strings of phonemes rather than seeing that they are strings with meaning. Naturally, they say, if I insist on meaningless strings I shall be at a loss for meanings. They fail to see that a bare and identical string of phonemes can *have* a meaning, or several, in one or several languages, through its use by sundry people or peoples, much as I can have accounts in several banks and relatives in several countries without somehow containing them or being several persons. It is usually convenient elsewhere in linguistics to distinguish homomorphs by meanings or history—*sound* (sonus) and *sound* (sanus), for example—but when we are philosophically concerned about meaning we had best not bury it. I hope this paragraph has been superfluous for most readers.

Finally, some technical remarks about "New foundations." We see in pages 98–99 the superiority of ML over NF in respect of mathematical induction and the existence of the class of natural numbers. There remains, however, this related infirmity in ML: Rosser has shown that the class of natural numbers can-

not be proved in ML to be a set, or element, if ML is consistent.[1] We can still add an axiom to that effect, and indeed we need it for the theory of real numbers. But it is inelegant to have to add it.

NF and ML can be further criticized for allowing self-membership, which beclouds individuation. The glory of classes, over against properties, is their clear individuation: they are identical if and only if they have the same members. This, however, is relative individuation; classes are individuated only as clearly as their members. Under self-membership the individuation ceases to wind down.

Russell's theory of types has an epistemological advantage over NF and ML: it lends itself to a more plausible reconstruction of the genesis of high-level class concepts.[2] From the theory of types to the set theories of Zermelo and von Neumann, in turn, a natural transition can be made.[3] NF is to be reckoned as an artificial alternative devised afterward for its convenience and elegance; and ML is another. The advantages are real, despite the above reservations.

During the forty-odd years since NF was first published, much ingenious work has been done by Rosser, Beneš, Specker, Orey, Henson, Jensen, Boffa, Grishin, and others in hopes of either deriving a contradiction or proving that the system is consistent if a more classical set theory is consistent. The problem is still open, but a number of curious and surprising relationships have been uncovered in the course of the search.[4]

Cambridge, Massachusetts *W. V. Q.*

[1] J. B. Rosser, "The axiom of Infinity in Quine's New Foundations," *Journal of Symbolic Logic* 17 (1952), 238-242.

[2] See *The Roots of Reference* (La Salle, Ill.: Open Court, 1973), pp. 120ff.

[3] See *Set Theory and Its Logic* (Cambridge: Harvard, 1963, 1969), §§ 38, 43.

[4] See M. Boffa, "On the axiomatization of NF," *Colloques Internationaux du C.N.R.S.*, No. 249 (1975), pp. 157-159, and "The consistency probelm for NF," *Journal of Symbolic Logic* 42 (1977), 215-220, and further references in both papers. See also R. B. Jensen, "On the consistency of a slight modification of Quine's *New Foundations*," in D. Davidson and J. Hintikka, eds., *Words and Objections* (Dordrecht: Reidel, 1969), pp. 278-291.

FOREWORD TO THE SECOND EDITION

The principal revision affects pages 152–159, on the controversial topic of modal logic. A point that was made in those pages underwent radical extension on page 198 of my *Word and Object* (New York, 1960); and lately the situation has further clarified itself, thanks in part to a current doctoral dissertation by my student Dagfinn Føllesdal. These revised pages embody the resulting assessment of the situation.

Independently of that matter, I have made substantive emendations also of pages 103, 118, 125, 148, and 150.

Boston, Mass., April 1961 *W. V. Q.*

PREFACE

Several of these essays have been printed whole in journals; others are in varying degrees new. Two main themes run through them. One is the problem of meaning, particularly as involved in the notion of an analytic statement. The other is the notion of ontological commitment, particularly as involved in the problem of universals.

Various previously published papers which seemed to call for inclusion presented twofold problems. For one thing, they overlapped as papers will which are so written as to spare readers excessive use of libraries. For another, they contained parts which I had grown to recognize as badly formulated or worse. The upshot was that several essays seemed to warrant fairly integral reproduction under their original titles, while others had to be chopped, culled, mixed, eked out with new material, and redivided according to new principles of unification and individuation which brought new titles in their train. For the provenience of what is not new see Origins of the Essays, in the back pages.

The pair of themes named at the top of this page is pursued through the book with the aid, increasingly, of the technical devices of logic. Hence there comes a point, midway, when those themes must be interrupted for the purpose of some elementary technical preparation in logic. "New foundations" is reprinted both for this purpose and for its own sake; for it has figured in subsequent literature, and offprints continue to be sought. Its reproduction here creates an occasion also for supplementary remarks, touching on those subsequent findings and relating the

system of "New foundations" to other set theories. However, this intrusion of pure logic has been kept resolutely within bounds.

As noted in some detail in the back pages, the content of this volume is in large part reprinted or adapted from the *Review of Metaphysics*, the *Philosophical Review*, the *Journal of Philosophy*, the *American Mathematical Monthly*, the *Journal of Symbolic Logic*, the *Proceedings of the American Academy of Arts and Sciences*, and *Philosophical Studies*. I am grateful to the editors of these seven periodicals and to the University of Minnesota Press for their kind permission to make this further use of the material.

I am obliged to Professors Rudolf Carnap and Donald Davidson for helpful criticisms of early drafts of "New foundations" and "Two dogmas" respectively, and to Professor Paul Bernays for noting an error in the first printing of "New foundations." The critique of analyticity to which "Two dogmas" is in large part devoted is an outcome of informal discussions, oral and written, in which I have engaged from 1939 onward with Professors Carnap, Alonzo Church, Nelson Goodman, Alfred Tarski, and Morton White; to them I am indebted certainly for stimulation of the essay, and probably for content. To Goodman I am indebted also for criticism of two of the papers from which "Logic and the reification of universals" was in part drawn; and to White for discussion which influenced the present form of that essay.

I thank Mrs. Martin Juhn for her good typing, and the administrators of the Harvard Foundation for a grant in aid. I am grateful to Messrs. Donald P. Quimby and S. Marshall Cohen for able assistance with the index and proofs.

W. V. QUINE

Cambridge, Massachusetts

CONTENTS

I

ON WHAT THERE IS

A curious thing about the ontological problem is its simplicity. It can be put in three Anglo-Saxon monosyllables: 'What is there?' It can be answered, moreover, in a word—'Everything' —and everyone will accept this answer as true. However, this is merely to say that there is what there is. There remains room for disagreement over cases; and so the issue has stayed alive down the centuries.

Suppose now that two philosophers, McX and I, differ over ontology. Suppose McX maintains there is something which I maintain there is not. McX can, quite consistently with his own point of view, describe our difference of opinion by saying that I refuse to recognize certain entities. I should protest, of course, that he is wrong in his formulation of our disagreement, for I maintain that there are no entities, of the kind which he alleges, for me to recognize; but my finding him wrong in his formulation of our disagreement is unimportant, for I am committed to considering him wrong in his ontology anyway.

When *I* try to formulate our difference of opinion, on the other hand, I seem to be in a predicament. I cannot admit that there are some things which McX countenances and I do not, for in admitting that there are such things I should be contradicting my own rejection of them.

It would appear, if this reasoning were sound, that in any ontological dispute the proponent of the negative side suffers the disadvantage of not being able to admit that his opponent disagrees with him.

This is the old Platonic riddle of nonbeing. Nonbeing must

in some sense be, otherwise what is it that there is not? This tangled doctrine might be nicknamed *Plato's beard*; historically it has proved tough, frequently dulling the edge of Occam's razor.

It is some such line of thought that leads philosophers like McX to impute being where they might otherwise be quite content to recognize that there is nothing. Thus, take Pegasus. If Pegasus *were* not, McX argues, we should not be talking about anything when we use the word; therefore it would be nonsense to say even that Pegasus is not. Thinking to show thus that the denial of Pegasus cannot be coherently maintained, he concludes that Pegasus is.

McX cannot, indeed, quite persuade himself that any region of space-time, near or remote, contains a flying horse of flesh and blood. Pressed for further details on Pegasus, then, he says that Pegasus is an idea in men's minds. Here, however, a confusion begins to be apparent. We may for the sake of argument concede that there is an entity, and even a unique entity (though this is rather implausible), which is the mental Pegasus-idea; but this mental entity is not what people are talking about when they deny Pegasus.

McX never confuses the Parthenon with the Parthenon-idea. The Parthenon is physical; the Parthenon-idea is mental (according anyway to McX's version of ideas, and I have no better to offer). The Parthenon is visible; the Parthenon-idea is invisible. We cannot easily imagine two things more unlike, and less liable to confusion, than the Parthenon and the Parthenon-idea. But when we shift from the Parthenon to Pegasus, the confusion sets in—for no other reason than that McX would sooner be deceived by the crudest and most flagrant counterfeit than grant the nonbeing of Pegasus.

The notion that Pegasus must be, because it would otherwise be nonsense to say even that Pegasus is not, has been seen to lead McX into an elementary confusion. Subtler minds, taking the same precept as their starting point, come out with theories of Pegasus which are less patently misguided than McX's, and correspondingly more difficult to eradicate. One of these subtler

minds is named, let us say, Wyman. Pegasus, Wyman maintains, has his being as an unactualized possible. When we say of Pegasus that there is no such thing, we are saying, more precisely, that Pegasus does not have the special attribute of actuality. Saying that Pegasus is not actual is on a par, logically, with saying that the Parthenon is not red; in either case we are saying something about an entity whose being is unquestioned.

Wyman, by the way, is one of those philosophers who have united in ruining the good old word 'exist'. Despite his espousal of unactualized possibles, he limits the word 'existence' to actuality—thus preserving an illusion of ontological agreement between himself and us who repudiate the rest of his bloated universe. We have all been prone to say, in our common-sense usage of 'exist', that Pegasus does not exist, meaning simply that there is no such entity at all. If Pegasus existed he would indeed be in space and time, but only because the word 'Pegasus' has spatio-temporal connotations, and not because 'exists' has spatio-temporal connotations. If spatio-temporal reference is lacking when we affirm the existence of the cube root of 27, this is simply because a cube root is not a spatio-temporal kind of thing, and not because we are being ambiguous in our use of 'exist'.[1] However, Wyman, in an ill-conceived effort to appear agreeable, genially grants us the nonexistence of Pegasus and then, contrary to what *we* meant by nonexistence of Pegasus, insists that Pegasus *is*. Existence is one thing, he says, and subsistence is another. The only way I know of coping with this obfuscation of issues is to *give* Wyman the word 'exist'. I'll try not to use it again; I still have 'is'. So much for lexicography; let's get back to Wyman's ontology.

[1] The impulse to distinguish terminologically between existence as applied to objects actualized somewhere in space-time and existence (or subsistence or being) as applied to other entities arises in part, perhaps, from an idea that the observation of nature is relevant only to questions of existence of the first kind. But this idea is readily refuted by counter-instances such as 'the ratio of the number of centaurs to the number of unicorns'. If there were such a ratio, it would be an abstract entity, viz. a number. Yet it is only by studying nature that we conclude that the number of centaurs and the number of unicorns are both 0 and hence that there is no such ratio.

Wyman's overpopulated universe is in many ways unlovely. It offends the aesthetic sense of us who have a taste for desert landscapes, but this is not the worst of it. Wyman's slum of possibles is a breeding ground for disorderly elements. Take, for instance, the possible fat man in that doorway; and, again, the possible bald man in that doorway. Are they the same possible man, or two possible men? How do we decide? How many possible men are there in that doorway? Are there more possible thin ones than fat ones? How many of them are alike? Or would their being alike make them one? Are no *two* possible things alike? Is this the same as saying that it is impossible for two things to be alike? Or, finally, is the concept of identity simply inapplicable to unactualized possibles? But what sense can be found in talking of entities which cannot meaningfully be said to be identical with themselves and distinct from one another? These elements are well-nigh incorrigible. By a Fregean therapy of individual concepts,[2] some effort might be made at rehabilitation; but I feel we'd do better simply to clear Wyman's slum and be done with it.

Possibility, along with the other modalities of necessity and impossibility and contingency, raises problems upon which I do not mean to imply that we should turn our backs. But we can at least limit modalities to whole statements. We may impose the adverb 'possibly' upon a statement as a whole, and we may well worry about the semantical analysis of such usage; but little real advance in such analysis is to be hoped for in expanding our universe to include so-called *possible entities*. I suspect that the main motive for this expansion is simply the old notion that Pegasus, for example, must be because otherwise it would be nonsense to say even that he is not.

Still, all the rank luxuriance of Wyman's universe of possibles would seem to come to naught when we make a slight change in the example and speak not of Pegasus but of the round square cupola on Berkeley College. If, unless Pegasus were, it would be nonsense to say that he is not, then by the same token, unless the round square cupola on Berkeley College were, it

[2] See below, p. 152.

would be nonsense to say that it is not. But, unlike Pegasus, the round square cupola on Berkeley College cannot be admitted even as an unactualized *possible*. Can we drive Wyman now to admitting also a realm of unactualizable impossibles? If so, a good many embarrassing questions could be asked about them. We might hope even to trap Wyman in contradictions, by getting him to admit that certain of these entities are at once round and square. But the wily Wyman chooses the other horn of the dilemma and concedes that it is nonsense to say that the round square cupola on Berkeley College is not. He says that the phrase 'round square cupola' is meaningless.

Wyman was not the first to embrace this alternative. The doctrine of the meaninglessness of contradictions runs away back. The tradition survives, moreover, in writers who seem to share none of Wyman's motivations. Still, I wonder whether the first temptation to such a doctrine may not have been substantially the motivation which we have observed in Wyman. Certainly the doctrine has no intrinsic appeal; and it has led its devotees to such quixotic extremes as that of challenging the method of proof by *reductio ad absurdum*—a challenge in which I sense a *reductio ad absurdum* of the doctrine itself.

Moreover, the doctrine of meaninglessness of contradictions has the severe methodological drawback that it makes it impossible, in principle, ever to devise an effective test of what is meaningful and what is not. It would be forever impossible for us to devise systematic ways of deciding whether a string of signs made sense—even to us individually, let alone other people—or not. For it follows from a discovery in mathematical logic, due to Church [2], that there can be no generally applicable test of contradictoriness.

I have spoken disparagingly of Plato's beard, and hinted that it is tangled. I have dwelt at length on the inconveniences of putting up with it. It is time to think about taking steps.

Russell, in his theory of so-called singular descriptions, showed clearly how we might meaningfully use seeming names without supposing that there be the entities allegedly named. The names to which Russell's theory directly applies are complex

descriptive names such as 'the author of *Waverley*', 'the present King of France', 'the round square cupola on Berkeley College'. Russell analyzes such phrases systematically as fragments of the whole sentences in which they occur. The sentence 'The author of *Waverley* was a poet', for example, is explained as a whole as meaning 'Someone (better: something) wrote *Waverley* and was a poet, and nothing else wrote *Waverley*'. (The point of this added clause is to affirm the uniqueness which is implicit in the word 'the', in '*the* author of *Waverley*'.) The sentence 'The round square cupola on Berkeley College is pink' is explained as 'Something is round and square and is a cupola on Berkeley College and is pink, and nothing else is round and square and a cupola on Berkeley College'.[3]

The virtue of this analysis is that the seeming name, a descriptive phrase, is paraphrased *in context* as a so-called incomplete symbol. No unified expression is offered as an analysis of the descriptive phrase, but the statement as a whole which was the context of that phrase still gets its full quota of meaning —whether true or false.

The unanalyzed statement 'The author of *Waverley* was a poet' contains a part, 'the author of *Waverley*', which is wrongly supposed by McX and Wyman to demand objective reference in order to be meaningful at all. But in Russell's translation, 'Something wrote *Waverley* and was a poet and nothing else wrote *Waverley*', the burden of objective reference which had been put upon the descriptive phrase is now taken over by words of the kind that logicians call bound variables, variables of quantification, namely, words like 'something', 'nothing', 'everything'. These words, far from purporting to be names specifically of the author of *Waverley*, do not purport to be names at all; they refer to entities generally, with a kind of studied ambiguity peculiar to themselves.[4] These quantificational words or bound variables are, of course a basic part of language, and their meaningfulness, at least in context, is not

[3] For more on the theory of descriptions see below, pp. 85f, 166f.

[4] For more explicit treatment of the bound variable see below, pp. 82, 102f.