W.V. Quine’s “Two Dogmas of Empiricism”

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1. Quine’s architecture

Quine’s “Two dogmas” is a substantial paper on analyticity and reductionism. These are ideas that Quine has disliked for longer than most of his present-day readers have been alive. Anything new that he might have to say would be greeted with a lively interest. So one reads “Two dogmas” with a certain sense of occasion. It calls for the performance of two tasks. One is to expose the case “Two dogmas” advances against these targets. The other is to determine whether these animadversions represent a shift of any note in Quine’s philosophy. Loosely speaking, the first is about what “Two dogmas” says, and the second about what it means. I shall spend more time on the first than the second. But before dealing with either, I begin with some orienting remarks about Quine’s project for philosophy.

In times past there was a celebrated, and somewhat mythical, disagreement between William James and W.K. Clifford. Clifford thought that our cognitive ends were best advanced by a determined effort to avoid error. James thought that our cognitive flourishing was ineliminably linked to a venturing forth for truth. Each carries its own procedural implications. For James, it was Nothing Ventured, Nothing Gained. For Clifford it was Nothing Ventured, Nothing Lost. Of course, these are caricatures; but we know what’s meant, at least roughly.

The Clifford-James divide carves up Quine’s philosophical architecture in an important way. Quine is a Jamesian about science and a Cliffordian about philosophy. Quine knows that science will get nowhere if it is not allowed to make mistakes, lots of them. Like Peirce and Dewey, Quine is a fallibilist about science. He thinks that the correct, indeed the best, methods for science are those that get things wrong with a notable frequency. Even so, there are two considerations which make these the right procedures. One is that a condition of getting things right in science is getting things wrong, though not the same things at the same time. Another is that the error-susceptible

*Note to the readers of Topoi: Before starting, and in the spirit of the editorial design of this journal’s Untimely Reviews section, allow me to set some of the counterfactual parameters of the present exercise. In the pages to follow I will offer some thoughts in response to W.V. Quine’s most celebrated paper. To that end, I stipulate that “Two dogmas of empiricism” was written in late 1998 and appeared in print in early 1999 in, as I will call it, the Philosophical Record, and that my response to it appears not in Topoi in 2011 but in late 1999 – a year before the actual date of Quine’s decease – also in the Philosophical Record. The stipulation also provides that no version of “Two dogmas of empiricism”, under any title, appeared in 1951 or any year before 1999. Nor is there reason to imagine that Quine’s article is actually something old and, until now, forgotten or suppressed, or that its appearance is the result of decisions taken by Quine’s estate after his death. Accepting these stipulations occasions further counterfactual adjustments for reader and author alike, and on a scale that must surely evaporate any antecedent reservations about the merits of holism. Both author and reader are free to reflect on “Two dogmas” in the context of the huge literature that Quine’s writings compromise and have prompted, but only after the “Two dogmas” of 1951 has been counterfactually deleted from it, and all footprints occasioned by its appearance then are likewise expunged. (It fairly staggers the imagination.) By the same token, the present note is directed to the readers of Topoi, not the imaginary readers of the imaginary Philosophical Record.

methods of science contain the means to detect and correct the mistakes they allow for. Mistakes are unavoidable in science. But, properly controlled, they are affordable. Successful science embodies and thrives on a disciplined and efficient error-management system. An error-management system has two main components. One is its error-avoidance procedures. The other is its crisis-management procedures, the methods that are called into play when the error-avoidance component lets us down. The more robust a theory’s crisis-management routines, the more it can cut its error-avoidance procedures some Jamesian slack.

It is not this way in philosophy. Quine is not alone in thinking that a recurring weakness of philosophy is a fondness for metaphysical speculation, made idle by the absence of a systematic understanding of what counts for or against. Speculations are excess baggage. Some may be good and some may be bad, but we have no settled means for determining which is which. For those that chance to be bad, short of forgoing them all, we lack an efficient and disciplined error-management system for their avoidance and repair. So, while Jamesism is right for science, Cliffordism is right for philosophy. Philosophy must learn to curb its exuberance. Philosophy must learn to hold its tongue.

Philosophy’s modesty is a function of what it is good for. Quine is an empiricist about such things. He is an empiricist in the spirit of Carnap, that is, a logical empiricist. Like Carnap’s, Quine’s empiricism is an expression of what used to be called scientific philosophy. Scientific philosophy is philosophy liberated from its historical (and misconceived) mission to impart truths à priori about the fundamentals of the world. It is, in particular, a philosophy in which First Philosophy and its metaphysical articles of faith have no rightful place. Whatever is to be known of the world will be supplied by science. The ancient recipe for knowledge – true belief supported by logos – requires that knowledge be the product of theories – logos; and Quine is of the view that the only theories that give us knowledge of the world are the theories of our best science.

Quine is not a nihilist about philosophy. He does not think that philosophy’s only role is a respectful silence. Like his positivist forbears and contemporaries, he thinks that philosophy’s primary duty, and in some ways perhaps its only one, is to assist science in doing its job properly. Quine accepts the post-Baconian view that necessary for all science is successful negotiation of the observational checkpoints. This is empiricism, the doctrine that nothing can be admitted to our theories of the world without payment, in some true coin or other, of science’s observational dues. So Quine’s mission for philosophy is to assist science in maintaining its empiricistic integrity.

This is a further respect in which philosophy is a Cliffordian enterprise. It is absorbed by the task of keeping science from falling into error. For this to be true, we require a distinction, however rough, between two kinds of error into which science could fall. One is scientific error. The other is philosophical error. Vulcan and phlogiston were scientific errors, whose detection and repair were a matter for science itself. Philosophical error is something else, although not perhaps another thing entirely. If a scientific theory deferred to First Philosophy, that would be a philosophical error. If it gave to meanings and sense-data load-bearing roles, that too would be a philosophical error. It is open to question whether a philosophically flawed theory can be a good one scientifically. It depends on the strength of science’s obligations to empiricism. It may be that Quine is

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2 *Theaetetus* 201a-210a: “Knowledge is true belief with an account (meta logue alêthê doxan)”. See also *Meno* 98a1.
drawn to the idea that non-empiricist science is bad science, not just bad philosophy. If so, he is overdrawn. There are considerations that count against it. Quine thinks that the sense-datum is a bad idea philosophically. But a theory of perception which incorporated sense-data might do as well with observational checkpoints as a theory of perception with sense-data excluded; and, in any event, as Quine is notorious for saying, when it comes to theories of the observational data, there is a denumerable infinity of different ways to skin the cat. For present purposes, the Quinean minimum is to keep science from philosophical error, and in particular, to restrain it from betraying its own empiricism.

Quine engages some well-known methods – some inherited and some of his own contrivance – for fulfilling this duty to science. One is to provide the means to re-write the truths of science in an extensionalist language model on *Principia Mathematica*. That way, you keep science logically pure. Another is to demonstrate how a scientific theory can accommodate the abstractions of mathematics without having to give up on empirical content. Yet another is to teach science how to forgo unobservable and private mental entities in favour of behaviorism – at least, as much behaviorism “as anyone in his right mind” would feel safe in deploying.\(^3\)

A central preoccupation of Quine’s error-avoidance prescription for philosophy is to point out shortcomings in how these obligations are discharged by other philosophers, notably Carnap. Carnap was Quine’s greatest philosophical influence; there was no one Quine appreciated more than he. Carnap was also Quine’s greatest philosophical irritant. It is hardly too much to say that Quine’s whole philosophical purpose was to cleanse philosophy of Carnap’s errors. Why, we might ask, is Quine so hung-up on Carnap? Wouldn’t Quine also think that – say – Schopenhauer’s philosophical contributions are knee-deep in unpaid-for speculation? But Quine isn’t in the least bothered by Schopenhauer and the legions of those others who have misconceived philosophy’s rightful mission. Why pick on Carnap? The answer is that Quine thinks that Carnap gets the mission of philosophy right but gets its execution wrong. Carnap’s contributions aren’t faithful to the empiricist obligations of scientific philosophy. Perhaps Schopenhauer didn’t know any better, but Quine’s complaint against Carnap is that Carnap certainly did know better, and that his philosophical transgressions were knowing ones.

Fascinating as it is, I lack the space to look into the Carnap-Quine mise en scène in greater detail. So I will move on, but not before a short word about pragmatism. Quine and Carnap are pragmatists. They both think that in philosophy, as in life, you can only do the best you can, and sometimes you have to settle for less than you strive for. They would both agree that Voltaire was on to something important: “The perfect is the enemy of the good.” Both are of the view that, in the right circumstances, “Any port in a storm” is the way to go. There are some ports which even the roughest mariner would not want to set foot in, never mind the meanness of the weather. Some sailors are less fastidious. One of the ports Quine has spent a career staying out of is modal logic; and Carnap, too, for a good long while. But as early as 1938, Carnap’s resolve was weakening. In a letter that same year, he tells Quine:

> Your sermon against my sin of intensionality has made a great impression on me

... Although we do not like to apply intensional languages, nevertheless I think

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that we cannot keep analyzing. What would you think of an entomologist who refuses to investigate fleas and lice because he dislikes them? To which, in 1991, Quine retorts: “Well, the fleas and lice proved addictive. By 1946 he was championing modal logic.”

Carnap’s pragmatism allows for the possibility of fleas and lice. So does Quine’s.

There are various respects in which Quine gives up on positions to which his empiricism plights him. After a long struggle, he decides to temporize about the propositional attitudes. Until the brain sciences grow up, psychology can’t do without them. After another long struggle, he also gives up on the empirical content of mathematics. “I rest”, Quine writes, “with the … position … that mathematics lacks empirical content.” These are striking defections, and they tell us something about the pragmatism Quine shares with Carnap. It tells us that when push comes to shove, empiricism must yield to pragmatism. But the point to stress is that propositional attitudes and empirically empty mathematics are no less offensive to Quine’s empiricism than Carnap’s embrace of modal logic. So it cannot be all of what Quine has against him that Carnap holds views that offend empiricism.

Empiricist integrity to one side, Quine’s error-avoidance comes out in other ways, of which the most important – and most overarching – is the minimization of ontological commitment. The message here is that as ontological commitments shrink so does the occasion of error. Accordingly, the way to go is Ockham’s way: Entia non sunt multiplicanda praeter necessitatem. This is Cliffordism at its most pure. In matters ontological, the less said the better; less, so to speak, is more. This requirement of ontological parsimony cuts more deeply than the exclusions necessitated by empiricism. There are good physical theories that quantify over physical objects, some utterly small and others massively huge. Quine has nothing against physical objects on empiricist grounds. But he wants rid of them all the same. They aren’t needed for physics. They can be replaced salve veritate by classes of quadruples of real numbers in arbitrary coordinate systems. Classes are needed for mathematics and mathematics is needed for science. So classes are already in a minimal ontology for science. Since classes will do for physical objects, parsimony dictates that we keep classes and say good-bye to physical objects.

As ordinarily practiced, science is not much attuned to these Ockhamist exertions. True, theories must pay their observational dues, but, as we saw, there are all kinds of

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6 Fleas and lice: Exodus, the ten plagues of Egypt?
10 It is, all the same, a sad parting of the ways – an “ontological débâcle” (“Whither physical objects?” Boston Studies in the Philosophy of Science, 39 (1976); p. 503), and a “humiliating demotion” (“Ontology and ideology revisited”, Journal of Philosophy, 80 (1983); p. 501).
ways of doing this equally well. Quine’s preferred to admit into the range of a theory’s quantifier only those entities in whose absence the theory (a) would cease being true and (b) would lose its empiricistic *bona fides*. Accordingly, a valuable part of a philosopher’s contributions is to show how this parsimony might be achieved. This has a direct bearing on Quine’s project in “Two dogmas”. Analyticity and reductionism are not only bad empiricism. They are also ontologically surplus to need.

Quine’s advice to philosophers is to try for theories with a Quineian architecture. Quine’s *project* is to follow that advice in his own work, to construct his theories on the blueprint of that architecture. It is easier to give advice than follow it. When the thing advised produces a steep curve for compliance, trouble is bound to arise. One is liable to fall short of the recommended standards. So a fundamental part of Quine’s project is its procedures for dealing with setbacks. In Quine’s hands, philosophy is as much and more about crisis-management as error-avoidance. Good crisis-management shows you what to do when you get into trouble. The heart and soul of good crisis-management is the minimization of the damage threatened by the trouble you’re in. A good crisis-manager is nimble; he is light on his feet. This is where Quine shines.


Quine’s title invites a certain misreading. It might lead one to think that analyticity and reductionism are necessary for and peculiar to empiricism. Of course, this is not true. What is true is that analyticity and reductionism are incompatible with Quine’s empiricism, and therefore if Carnap or anyone else wants to be that kind of empiricist, he will have to rid himself of these anti-empiricistic embarrassments.

Given the title’s intent, and in light of his dissatisfactions with Carnap, we might expect that Quine’s whole case against analyticity and reductionism is that they are bad empiricism; that is, that in one way or another they fail the stringent obligations of empirical significance. But search as we might the pages of “Two dogmas”, we will find hardly anything of the sort, and then only fleetingly. It is helpful to note that anyone who wanted to discredit these dogmas would have two strategic options to choose from. He could argue *narrowly* or *broadly*. A narrow argument would be one whose sole onus is empiricistic disreputability. A broad argument would expose a deficiency of greater provenance. It would be a deficiency whose presence implies empiricist disreputability, but which also remains bad news if empiricism itself chanced to be false and empiricistic reputeability a never-mind. If the broad arguments succeeded against these targets, there would be more wrong with them than their offence to empiricism. If narrow arguments were available, broad arguments would be surplus to need. If narrow arguments weren’t available, broad arguments would be the only recourse. If that were the situation here, if Quine were unable to ditch analyticity and reductionism with narrow arguments, then it could no longer be said that Carnap is their target, except by the way.

That is the case here. There are in “Two dogmas” no narrow arguments against Quine’s targets. If so, doesn’t this subject its anxieties about empiricist disreputability to a kind of demotion? Perhaps it does. But if it did, it wouldn’t matter as much as one might think. This was my point a page ago. Quine cannot think that being bad for empiricism is a philosophical deal-breaker. Quine’s own empiricist defections are rescued by his pragmatism. Why couldn’t the same be said for Carnap’s? The answer is that the same *could* be said for Carnap. There are fleas and lice in both their philosophies. So Quine
wants to stir up some trouble for analyticity and reductionism over and above their badness for empiricism. He wants arguments that would make analyticity and reductionism unsafe for anyone, not just for empiricists of Carnapian stripe. It is a tall order.

Before getting down to cases, it would also be useful to note a point of similarity between Quine and Descartes. Descartes insisted that our ideas be clear and distinct. So does Quine, albeit not in precisely these words. In Quine’s usage, an idea has clarity when it is clear enough for some specified or contextually understood purpose. Distinctness has to do with recognition. Our concept of something meets the distinctness requirement to the extent that we’re able to tell what its instantiations are. At its most powerful, distinctness is decidability, that is, effective recognizability. Most concepts aren’t decidable, but there are approximations, more or less, that we can be happy with. There is a rough rule about this: The more work a concept does in a theory, the more it should be a distinct idea. Quine’s attachment to distinct ideas is marked by one of his most quoted aperçus: “No entity without identity”, by which he means that in a well-made philosophy you shouldn’t speak of things for which you can’t furnish identity-conditions. A mark of the failure of distinctness is loss of control of the relevant distinctions. If concept K is indistinct, then the distinction between K-things and non-K-things is compromised. In extremis, it is lost to us. So we might say on Quine’s behalf, as a companion to “No entity without identity”, “No distinction without distinctness.”

ANALYTICITY

In “Two dogmas”, the clarity and distinctness of ideas play the central role. Two of Quine’s objections to the concept of analyticity allege a failure of the clarity requirement. Two of them charge a failure of distinctness. Accordingly, we might speak of Quine’s clarity arguments and his distinctness arguments. A further two are of a different stripe, as we will see when the time comes. Let’s turn now to the clarity arguments.

The first clarity argument. Quine begins with the observation, which he states as a fact, that the concept of analyticity is in need of clarification. He then examines a number of attempts – for example, that a sentence is analytic if and only if it becomes a logical truth on replacement of synonyms by synonyms. Quine’s complaint is that analyticity “is no less in need of clarification than synonymy itself” and synonymy itself is not clear enough. (p. 34) This is Quine’s complaint against the other attempts to clear up analyticity – as truth by meanings alone; as logical necessity; as statements sanctioned by a semantical rule; and so on. They all deploy or presuppose concepts no less in need of clarification than analyticity itself. In lodging this complaint, Quine is arguing broadly, not narrowly. His objection at this point is that analyticity is insufficiently clear, not that it lacks empirical content. Perhaps, all the same, insufficient clarity implies insufficiency of empirical significance. If so, Quine doesn’t say so, and his argument doesn’t show it.
How convincing is this line of attack? What Quine is not saying here is important. He is not saying that it is *not true* that a statement is analytic if and only if it is true by meanings alone; or that it is *false* that a statement is analytic if and only if uniform replacement of synonyms with synonyms yields a truth of logic. Quine is saying that these definientia aren’t clear enough, made so by the fact that they aren’t clearer – *more* clear – than their intended definiendum. We might grant that none of analyticity’s defining terms is less in need of clarification than analyticity itself. But they possess clarity enough to enable Quine to say with a marked confidence that they are interdefinable in these ways. They are clear enough for Quine to see that the network of interdefined terms is circular – if not “flatly”, then in “the form, figuratively speaking, of a closed curve in space.” (p. 39) They are clear enough to prompt from Quine the judgement that analyticity’s interdefinitional circle can’t be escaped. They are clear enough for the observation that we can’t do for analyticity what Quine himself taught us to do with the propositional functions of *PM*, namely, forgo them in favour of classes. There is clarity enough to conclude that analyticity’s need of clarification is unmeetable and that we should “just stop tugging at our bootstraps altogether.” (p. 45)

The insistence that analyticity is not clear enough is made in the absence of a base-line. This is problematic. Quine is drawn to the view that there is something *x* which analyticity is not clear enough *for*. Although he doesn’t specify *x* – this is the base-line problem – we aren’t wholly in the dark about what Quine has in his mind. Quine thinks that the *x* which analyticity isn’t clear enough for is *good philosophy*. Quine thinks that nearly all of philosophy is bad. So the window of opportunity for clear concepts is very narrow. We also know that Quine thinks that the only good philosophy is empirically reputable philosophy. We know that Quine thinks that analyticity is empirically disreputable. But *why* does he think this? He thinks it because it is not a sufficiently clear concept for good philosophy, that is, for empirically reputable philosophy. Perhaps this is so, but in the reasoning that says so there’s a circle tight enough to be a *dot*.

*The second clarity argument.* As the case against analyticity evolves, Quine changes course. He considers a possible defence of analyticity along the following lines. Suppose that we built a partially interpreted artificial first order language *L₀*, “whose semantical rules have the form explicitly of a specification, by recursion or otherwise, of all the analytic statements of *L₀*.” (p. 42) Wouldn’t this be explanation enough of analyticity in *L₀*? Wouldn’t that be all the analyticity we need for science? Quine thinks not:

Now here the difficulty is simply that the rules contain the word ‘analytic’, which we do not understand! (p. 42)

The exclamation point is Quine’s, and well it might be. Quine has now upped the ante against analyticity. Formerly the trouble was that, although clear enough to ground a recognition of the interdefinabilities Quine says we can’t get away from, analyticity isn’t clear enough. That was then. The complaint now is that analyticity isn’t clear at all; that analyticity is *unintelligible*.

We understand what expressions the rules attribute analyticity to, but we do not understand what the rules attribute to those expressions (p. 42).

11 Indeed, “we know enough about the intended significance of ‘analytic’ to know that analytic statements are supposed to be true.”
This is a disturbing development. It goes massively too far. How in all consistency can Quine’s move against the predicate “is analytic in $L_0$” succeed yet not also succeed against the predicate “is a logical particle of $L_0$”? There is an interesting literature about what it takes for an expression to be a logical particle, that is, how the predicate “is a logical particle” is to be understood. It is widely agreed, by Tarski and many others, that neither presently nor in prospect is there a satisfactory definition of “logical particle”.

If the case against “is analytic in $L_0$” were to go through, then the answer to our present question would be that “is a logical particle of $L_0$” cannot be understood. We understand what expressions the syntactic rules attribute to logical particlehood to – “not”, “or”, “all”, and the rest – but we do not understand what the rules attribute to those expressions. If the unintelligibility of analyticity costs Carnap his empiricism, the unintelligibility of logical particlehood costs Quine his logic and the canonical notation for all of science. Of course, it’s all nonsense, and a good thing too.

The first distinctness argument. We come now to another shift. Quine writes: “That there is such a distinction [between analytic and synthetic statements] to be drawn at all is an unempirical dogma of empiricists, a metaphysical article of faith” (p. 45). In so saying, Quine is on to something new. He now says that we lack a suitably principled way of telling when a statement is analytic or synthetic. For this to be so, it is not necessary that nothing be analytic, and not necessary that analytic and synthetic statements never be recognizable as such. Quine is sometimes content to acknowledge the analyticity of “Bachelors are unmarried men” and the syntheticty of “Bachelors on average have a shorter life-span than married men”. The trouble is not that there is nothing to the distinction, but only that there is not enough to it. The analytic-synthetic dualism is not, as a mathematician might say, well-defined. There are just too many cases in which we’re not able to tell which is which. As we recall, no distinction without distinctness. The present trouble with it is that analyticity is not a distinct idea.

The second distinctness argument. The untenability of the analytic-synthetic distinction is linked to Quine’s holism. We might want to say that an analytic truth is confirmed by every true observation and that a synthetic truth is confirmed only by some. Like the idea or not, Quine’s holism spoils it. In Quine’s hands, holism is the denial of a certain view of scientific confirmation; it denies that “each statement [of a scientific theory], taken in isolation from its fellows, can admit of confirmation or infirmation at all.” (p. 49). If this is right, then on its present definition analyticity and syntheticty are – again in the mathematician’s sense – undefined, and radically so. No statement is confirmed by every observation. No statement is confirmed by any observation. None is disconfirmed by every observation. None is disconfirmed by any observation. It is not that, as applied to statements, “is confirmed by every observation”, “is confirmed by only some observations” and so on, are unclear predicates. The problem is that, as applied to statements, there is nothing whatever that satisfies them.

Fourteen pages in, we find Quine’s first mention of analyticity’s empiricist frailties, in the claim that the analytic-synthetic distinction is an “unempirical dogma”.

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Why is it unempirical? Is it unempirical because its relata lack empirical content? This does not strike me as Quine’s point here. It is, rather, the broadly argued point that since the idea of analyticity fails the distinctness requirement, it has no place in good philosophy, together with the narrowly argued consequence that indistinct ideas have no place in a rigorous empiricism either.

The first distinctness argument, whether for scientific philosophy or philosophy at large, is that analyticity is not well-defined. In so saying, we have a link straight back to the second clarity argument. The concept of logical particle isn’t well defined either. If non-well-definedness puts the concept of analyticity out of business, why wouldn’t it do the same for the concept of logical particle?

Since the second distinctness argument pivots on Quine’s holism, perhaps it is stretching things to pin the blame on indistinctness. Consider the predicate “x is confirmed by some observations”. Quine can’t have his holism – he can’t even state his holism – if “x is confirmed by some observations” is not an empirically allowable predicate. Consider now two possible values for x – a scientific theory T and any of the theory’s statements S. Then Quine’s holistic point is that “x is confirmed by some observations” may well be true of T, but it is never true of S. True, we could say that such predicates are not defined for any S and that, accordingly, it is impossible to tell the S_i that satisfy it from the S_j that don’t. But this is vacuous. The better thing to say is that claims in the form “S is confirmed by some observations” is a category-mistake. That is, as applied to statements, neither “is confirmed by some observations” nor any of its contraries has legitimate application. I will come back to Quine’s holism a bit later.

I want to move now to move to two further matters which Quine thinks are both problematic and inextricably linked to the doctrine of analyticity. One is the problem of intensions. The other is essentialism. Each is the subject of a form of argument different from the clarity and distinctness varieties. I will call it them logic arguments. In my view, it is difficult to see how this new pair plays a necessary or coherent role in the project against analyticity.

The first logic argument. Quine intentions towards intensions are not always clear. He approaches them both as entities and as contexts. On the one hand, intensions are meanings. Since “meaning” is a count noun, what it denotes (or purports to) are semantic objects. On the other, “Necessarily …” is an intensional context. Quine is much fussed by intensional contexts. They are contexts in which the law of uniform substitution of extensionally equivalent expressions breaks down. In the opening paragraphs of “Two dogmas”, Quine seems to suggest that intensions, the entities, and intensions, the contexts, are systematically related. This is not an idea original to Quine. Its modern form ensues from Frege’s worry about oblique contexts, and it carries through to Carnap. Origins apart, consider the statement

(1) Given the meaning of the words he uttered, it is clear that what Harry was saying that p.

(1) is an intensional context. Substitution for p of any identically truth-valued statement will in nearly every case convert the statement from a truth to a falsehood. It might appear that (1) also makes explicit mention of intensions, which is presumably what the meanings of Harry’s words are. Perhaps it is not too much of a leap to suppose that it is
Harry’s intensions that make for the contextual intensionality of what Harry said. But nothing remotely like that can be said in general. “Necessarily p” is an intensional context, but in it no mention is made of intensions. “Harry believes that p” is an intensional context, but no mention is made of intensions. “Harry ought to do x” is an intensional context, but it makes no reference to meanings.

It is clear that Quine dislikes both meanings and intensional contexts. But even if the intensionality of a context sometimes did derive from its mention of meaning – as in “Harry means p” (possibly) – it would be nice to know which is the trouser-wearing offence. Is it because meanings are off-limits? Or is the major offender intensional contexts themselves? Nothing in “Two dogmas” comes close to formulating this question, never mind answering it. So let us ask, “What would answer it?” What is it, if it is not its mention of meanings, that makes a context intensional? What is it, if not its mention of meanings, that makes intensional contexts bad for philosophy? The answer is that the context in question is not extensional. That is, it is one in which the substitution law breaks down. This is true, but why would this be anything to fret over? Isn’t it perfectly obvious, both in science and the conversation of mankind, that lots and lots of contexts are not extensional in this sense?

There is an answer to this question that for years has hovered unvoiced over most of Quine’s oeuvre. Certainly it has no express presence in “Two dogmas”. But unless I am mistaken, there is scarcely a move of more central importance to Quine’s philosophy than it. I will give it voice now. It is that since unfettered employment of the substitution law allows for the conversion of truth to falsity, the law of substitution is invalid. This is a consequence which Quine cannot abide. He cannot abide it because substitution is a law of logic, and it lies in the nature of the laws of logic to be valid. No validity, no law. So if the substitution law is invalid, we have found a principle of logic that must be given up. This is too much for Quine to bear. In science and philosophy alike, logic is the last to go. Better that we give up on intensional contexts.

It is necessary to guard against a certain confusion. It might appear that I am saying that Quine never, or hardly ever, mentions the breakdown of substitution. This couldn’t be further from the truth. He mentions it all the time. But when Quine tells us that intensional contexts are those in which substitution fails, he is usually telling us what intensional contexts are, rather than what’s wrong with them. At least, he’s not telling us this in the simple and direct way that’s open to him. When we get the egregious falsehood, “Necessarily the number of planets is 9”, by substitution of identicals for identicals on the truisms, “Necessarily 9 is 9”, the culprit that Quine fastens on is “necessarily”, and the complaint he lodges against it is its intensionality. It is the same way with “is analytic”. He doesn’t say – he never comes close to saying: “Look, analyticity is a context in which substitution fails. But substitution is a law of logic. It can’t fail. That’s what’s wrong with analyticity. Clarity is not the issue, nor distinctness. Logic is the issue.” Compare this with what Quine does say, as recently as four scant years ago:

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13 But consider, “Harry said that p.” This is very close in sense to (1). It makes no mention of meaning(s). So we should not be too ready to concede that (1) itself is about meaning(s).
Extensionality is much of the glory of predicate logic, and it is much of the glory of any science that can be grammatically embedded in predicate logic. I find extensionality necessary, indeed, for my full understanding of a theory.\textsuperscript{14}

From the point of view of persuasive power, the gap between what could have been said against intensionality and what was actually said (repeatedly) is striking. It pits the faint-hearted, “I don’t understand it”, against the lion-hearted “Logic forbids it.”

These days logic is awash in a proudly embraced pluralism. There are now more logics than you can shake a stick at, a great many of them formalizations of intensional idioms. Quine greatly dislikes this pluralism. He is a hold-out for good old-fashioned classical logic. This steadfastness will strike some readers as quaint, even ludicrously passé and dogmatic. Quine may be his own kind of dogmatist, but he is no naïf. He wants to say that the very words we use to say that substitution is a law of logic which rightly breaks down in intensional contexts embody a \textit{contradiction}; and he challenges deviant logicians to demonstrate that it doesn’t. Right or wrong, it all turns on the truth values of

(2) if something is a law of logic, it is valid; that is, it holds in all philosophically admissible contexts

and its implication

(3) any context in which a law of logic fails is not a philosophically admissible context

and

(4) substitution is a law of logic

with Quine voting for and the others voting against. This helps us see that Quine has two dug-in positions on logic, not one. One is that in any competition between logic and other truths we’re inclined to hold, the nod goes to logic. The other is that in a conflict about whether to accept or reject (2), (3) and (4) the nod goes to acceptance. It is true, steadfast as he might be, that Quine is a grudging revisionist about both these positions. His pragmatism drags from him the concession that no statement “is immune to revision”; so there could in principle be philosophically admissible contexts in the laws of classical logic to genuinely break down. But in the spirit the captain who goes down with his ship, they should be the last to go.

If (2) is false, logic loses that feature alone in virtue of which its separation from mathematics is a principled one. But if logic \textit{is} universal, it can’t be true that there are exceptions. Admit them if you like, but intensional contexts will cost you logic. \textit{That} is the sin of analyticity.

Why, we might wonder, didn’t Quine press this argument against Carnap in a straight line, so to speak? The answer appears to be that doing so would flat-out beg the question. One of the mainstays of Carnap’s mature philosophy is that there are many apparently conflicting logics, and that there is no fact of the matter as to which, if any, is the right one. Carnap’s subscription to this view is not grudging. It is enthusiastically rendered, championed by the proclamation in 1934 of his Principle of Tolerance.

Of course, it won’t quite work for even Quine. Quine has long thought that logic might with some plausibility extend its name to the systems wrought by intuitionists and quantum theorists.\textsuperscript{15} A bit more recently – intensions be hanged – he has thrown in the

\textsuperscript{14} From \textit{Stimulus to Science}, p. 91.

towel on quantum logic.\textsuperscript{16} Quantum contexts cost us universality; but now they don’t, just so, cost us logic. Likewise for analyticity. Yes, analyticity is in principle admissible to good philosophy, but we shouldn’t admit it all the same. Admitting it would be bad practice. It would be bad practice because analyticity is not needed for philosophy. So, at bottom, it is not clarity or distinctness or even logic that carry the day. It is the shave we get from Ockham’s Razor.

The second logic argument concerns essentialism. “The Aristotelian notion of essence was the forerunner, no doubt, of the modern notion of intension or meaning.” (p. 32). The purported connection to analyticity comes about as follows. If man is essentially rational, then the truth of “Man is a rational animal” is founded on the meaning of “man”. So we might say that “Man is a rational animal” is analytic. We might see in this a principled flow from essence to meaning to analyticity. If so, an argument modus tollendo tollens now looms. Since analyticity is philosophically objectionable, so in turn are meaning and essence. For good or ill, this is not Quine’s problem with essentialism at the second and third pages of “Two dogmas”. True, if “Man is essentially rational” is understood as saying “that rationality is involved in the meaning of the word ‘man’ while [say] two-leggedness is not” (p. 33), then essentialism suffers the fate of meanings whatever it turns out to be. But here Quine has a quite particular objection to essentialism. He thinks that it has an incoherence all its own, apart from the difficulties it is thought to have inherited from meanings. If rationality is essential to humans, then rationality is involved in the meaning of “man”. But two-leggedness is just as involved in the meaning of “biped”. Now consider Harry, a human biped. Quine says that “from the point of view of the doctrine of meaning it makes no sense to say of [Harry] that his rationality is essential and his two-leggedness accidental or vice versa” (p. 33).

Whether or not this does make sense has nothing to do with whether “meaning” makes sense. Quine himself insists that essentialism is about things and not about language.\textsuperscript{17} (p. 33) If this is right, it ought to be possible to formulate essentialism without calling on meanings. It is possible, roughly as follows: For any individual \(x\),

\[
(5) \text{ } x \text{ has property } F \text{ essentially iff } x \text{ has } F \land (\neg (x \text{ has } F) \to \neg (\exists y (y = x))).
\]

Informally: If \(F\) is an essential property of \(x\) then \(x\)’s not having it extinguishes \(x\)’s existence; that is to say, there is no possible way for \(x\) to be if \(x\) fails to be an \(F\). Although (5) makes no claim about meanings, its RH-clause is an intensional context, owing to the presence of \(\neg (\exists y (y = x))\). We know what Quine thinks of intensional contexts. Having had my own say about what he thinks of them, I’ll let the matter be.

Every argument against analyticity, except the Ockhamist one, is replaceable by a logic argument. Analyticity is an intensional context, and intensional contexts threaten logic. Analyticity involves meanings, and meanings are intensional contexts, hence analyticity threaten logic. On fair readings of “Two dogmas” it is hard to see how Quine’s dissatisfactions with intensions and essence advance the anti-analyticity project in any material or even coherent way. The connections Quine portends are nowhere in sight. Good or bad, the logic argument is not manifest there. But if my speculations are


\textsuperscript{17} In fact, Quine rejects both the things-version (the “Aristotelian” version) and the linguistic (or “necessity”) version. But here it is the linguistic version that is uppermost in Quine’s mind.
right, it is there all the same, treading more softly than need be. And it ties together all
but one of the objections to analyticity, reducing the apparently many to just one.

REDUCTIONISM

The keystone of logical empiricism is the verification theory of meaning. Quine
takes a “dim view of meaning”, in no small part because “meaning” doesn’t admit of
empirical redefinition. According to the verification theory of meaning, “the meaning of a
statement is the method of empirically confirming or infirming it” (p. 45). On the face of
it, this is empirical redefinition. So it begins to look as if the anxieties which dominated
the first two-thirds of “Two dogmas” might have been for naught. Even so, there is a
problem with reductionism. Reductionism, says Quine, is a dogma that survives in the
supposition that the verification theory of meaning is true. For good or ill, Carnap’s
stopped subscribing to it at the same time as he launched the Principle of Tolerance. Why
would Quine attack Carnap on a matter on which they both agree? Quine is troubled by
difficulties other than those that dog repeated attempts to find a coherent and stable
formulation of verification, well-chronicled by Hempel and others. Carnap’s failure is
not his subscription to verificationism. Carnap’s error is his failure to be a holist.

My present suggestion is that it is nonsense, and the root of much nonsense, to
speak of a linguistic component and a factual component in the truth of any
individual statement. Taken collectively, science has its double dependence upon
language and experience; but this duality is not significantly traceable into the
statements of science taken one by one (p. 50; emphasis added).

Indeed, the “unit of empirical significance is the whole of science.”

Why would Quine think this? A scientific theory T is an assembly of statements,
terelated in web-like ways. When T makes a prediction, it makes a bet as to how things
will pan out observationally. When observation counts against P, modus tollens clicks
into action. The observation that discredits P also discredits T. Sometimes it discredits T
outright. Mostly it occasions a lesser damage. It discredits either P’s mode of derivation,
or it stirs some trouble for T’s aggregated assertions. To pin the blame for P’s
observational failure on any particular statement of T would be the fallacy of division –
of ascribing to a part a property that discredits the whole. Quine thinks that the
interconnections of sentences within T are so far-reaching, complex and tight, that
picking on this statement rather than that as the fall-guy is nearly always beyond our
observational powers. Accordingly, the purported distinction between a statement
disconfirmed by P’s observational failure and the statements not disconfirmed by P’s
failure is untenable. Its purported relata are not so much indistinct ideas as empty.

Quine is far from saying that in the face of P’s observational failure we are
powerless to restore T to good order. The history of science is the history of the
theoretical adjustment occasioned by recalcitrant experience. In addition to its error-
avoidance mechanisms science has its own procedures of crisis-management. In this we
can be guided by all sorts of considerations – simplicity, minimal mutilation, women and
children first, and whatever else. But the point to heed is there is nothing in the

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18 Carl G. Hempel, “Problems and changes in the empiricist criterion of meaning”, Revue Internationale de
recalcitrance of recalcitrant experience that tells you how to do this. Theories are underdetermined by the observational data. Again (and without mention of Poincaré) there are infinitely many different ways of skinning the cat of observation.19

The doctrine that the unit of empirical significance is the whole of science is holism, which has long been known as the Quine-Duhem thesis (although there is no mention of Duhem either).20 Quine thinks that because holism is true it puts analyticity out of business. As we saw, this happens because analyticity is defined for statements and cannot be otherwise: a statement is analytic if and only if every observation confirms it. But since confirmation is not well-defined for statements, no statement is analytic.

Reductionism is the right word for Carnap’s Aufbau but an odd choice for the view Quine sees lingering in the verification theory of meaning. If Carnap were a verificationist about meaning, it would not be this that makes him a reductionist. Carnap’s reductionism is a linguistic form of phenomenalism. It asserts that every true physical-thing statement maps in a truth-preserving way to a suitably formalized language of sense-data. It provides that physical objects are logical constructions of sense-data. It rejects the widely held view that physical objects are entities inferred from sensory experience, in favour of something stronger: Physical-object statements are contextually eliminable in favour of sense-datum statements. That is to say, physical-object statements reduce to sense-datum statements. When we ask how these mappings work, Carnap gives a sketch of an answer. The Aufbau is huge, and the slightness of his reductive sketch is modulo the size of the book. Still, a lot more is unsaid than said. The general idea, however, is easy to state: You reduce a physical object statement to the sense-datum statements that confirm it.

The spirit of Carnap’s reductionism is Ockhamist. Since physical-object statements aren’t necessary for science, no ontological commitment to physical objects need – or should – be made. Quine has two reservations about Carnap’s reductionism. One has to do with sense-data, and the other with the reduction relation. Quine’s complaint against sense-data is that Carnap’s Ockhamism didn’t go far enough, that sense-data in turn are subject to removal. Sense-datum statements are themselves contextually eliminable in favour of statements about neural excitations – “nerve-end hits.” The complaint about the reduction relation itself we have already considered. We say that a true physical-object statement reduces to the statements that confirm it. But confirmation is not well-defined for statements. The problem that defeats analyticity also wrecks the reduction relation, moving Quine to note that “[t]he two dogmas are, indeed, at root identical.” (p. 49).

There is, to my mind, a striking difference in the quality of Quine’s treatment of the two different dogmas of empiricism. His case against analyticity is ill-disciplined and confused, in comparison to which the rejection of reductionism is as clear as a bell. Given the great store he puts in the clarity that analyticity lacks, it is irksome that Quine’s prosecution of the charge should itself display so little of it. There are just two instances in which the dismissal of analyticity is clearly reasoned. One is by way of the logic argument. The other is by way of the anti-reductionism argument. But the logic argument is, for Quine, an undropped shoe. He has it, but doesn’t wear it; and the anti-

reductionism argument is a narrowly argued consequence of a much more broadly argued thesis about the structure of scientific confirmation.

The argument against reductionism might not be good, but it is clear: If holism is true, reductionism is not. It’s all down to holism. It’s all down to how confirmation and information actually work when science is on its best behaviour. One of the attractions of “Two dogmas” is the charm of Quine’s metaphors in his ruminations about how this question might be answered. But there is little in “Two dogmas” to demonstrate that Quine’s aggressive holism is indeed true or, if true, what makes it so. In “Two dogmas”, holism is a promissory note.


Quine’s project for philosophy imposes the obligation to implement Quine’s architecture. As we saw, it is a demanding architecture which compromises the wherewithal for compliance. It also sets high the probability of trouble. It makes it likely that trouble will come in two forms: The work will be too complex for realistic completion, and the mandated norms will be impossible to honour. Empiricism has always been a tough row to hoe. But Quine’s empiricism is a shocker. It is empiricism stripped of empiricism’s traditional tools. It is empiricism with one hand tied behind its back. Quine’s self-imposed austerities summon up his crisis-management routines. In Quine’s deft hands this, in caricature, is how they work: Stick to your guns. Retreat if you must, but not without a fight, and as little as possible. Retrench, and then re-engage. Don’t capitulate, reinterpret instead. Guard your rear. Negotiate. Be strategic. Let pragmatism remove the sting of counterexample. Rationalize your errors. Never surrender.

Quine is philosophy’s Churchill – his problems are that serious and his address of them that resolute. Quine’s philosophical career has been dominated by endless application of this resolution and is, by far, his philosophy’s most interesting and most brilliantly realized feature. In matters of theme, Quine is constant – indeed rock-solid. In matters of substance, Quine is Heraclitean. You can hardly ever step twice into the same Quinean river. Prompted by the troubles it attracts, Quine’s contributions to philosophy shift and evolve. They bob-and-weave. They feint. They temporize. They promise. It is well to emphasize that, even from the beginning, all this evolution is catered for by Quine’s pragmatism. Over the years, it has achieved such prominence that it calls into question whether the evolved Quine is an empiricist at all.

Where is “Two dogmas” in this evolution? What reinterpretations does it show need of? Quine’s philosophy is a history of readjustment, as modest as individual occasion allows for, but substantial in the aggregate. There is virtually nothing of note in Quine’s early writings that hasn’t been subject to major attenuation, and much in his later writings reflects wistful recognition of the sheer steepness of empiricist heights and of the welter of compromises it has necessitated over the years. The list is long. Extensionality is compromised by physics and psychology. Mathematics has lost its fight for empirical content. The behaviourism that is available to anyone “in his right mind” is hardly any of it. Holism, too, is in a straightened condition, now qualified by the pleasurable adjective “moderate”. And from Word and Object (1960) onwards, meanings and analyticity are given a provenance, carefully to be sure, but something more than the empirical significance of the old logical positivist remit. Here are two examples: In Roots of
Reference (1974), a sentence is analytic if and only if everyone in its linguistic community learned its truth in the course of learning its constituent words. In Pursuit of Truth (1990/1992), sentences are synonymous when they are interchangeable salva confirmatione. “Two dogmas” is at variance with all this change, with this record of well-managed retreat. Reading “Two dogmas” is like a flash-back. It seems more of a piece with “Truth by convention” (1936) and “Carnap and logical truth” (1954/1960) than From Stimulus to Science (1995). The prior two are part of the warm-up for Word and Object. “Two Dogmas” has the same kind of preparatory feel. It harkens to a purer conception of empiricism, before all those off-loadings to pragmatism. If “Two dogmas” stands as the abandonment of that pragmatism, and the shrugging-off of all those compromises, there is nothing whatever in it that says so. If that is not its intent, I am wholly at a loss as to why Quine would have published this particular paper in present circumstances. I wouldn’t, that is to say, know what it meant.21

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21 For conversation or correspondence on an earlier draft, I am much indebted for criticisms and suggestions to Dagfinn Føllesdal, Nicholas Rescher, Ori Simchen, Robert Pinto, Lorenzo Magnani, and the editor of Untimely Reviews, Fabio Paglieri.