The Art of Science: Ouine and the speculative reach of philosophy in natural science

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Abstract

In this essay it is shown that the imaginative art of scientific theorizing — at its technical best

— animates Ouine’s philosophy as importantly as the more Spartan norms honored in his pres- ent pantheon of virtues. By drawing a contrast between the standing of theories in philosophy and theories in science, it will be shown that the speculative reaches of philosophy, along with developments in semantic theory, now oblige an internal revision of Ouine’s stance against meaning as it was announced in “Two Dogmas of Empiricism'’ So, corollary to this proposed revision, I argue that in natural philosophy, the muse of the “art of science” deserves an address along with the more Spartan norms in Ouine’s present philosophical pantheon. As semantic theory and analyticity thus gain a measure of philosophical tenability, Ouine’s holism emerges as the more central doctrine of his mature vision.

1. *Znrroduciion* 1

*“Creating good hypotheses is an imaginative art, not a science. It is the art of science.” — W. V. Quine*

# With its initial appearance in 1951, W. V. Quine’s “Two Dogmas of Em- piricism 2 has become the most widely read paper in english language philos- ophy since Bertrand Russell’s 1905 essay “On Denoting'’ Forty years after “Two Dogmas,” Ouine issued “Two Dogmas in Retrospect,” and confirmed that his “reservations over analyticity are the same as ever, and they concern

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‘ I wish to express my gratitude to Professor Ouine for his correspondence and gener- ous comments on my questions. I am also indebted to Jerrold J. Katz and Arnold Koslow for important comments on earlier versions of this essay. Several others who have helped in the preparation of this essay are Jody Azzouni, Peter Simpson, Jan K. Ludwig, and Felmon Davis.

2 The Philosophical Review, 60 (January 1951): 20-43. Citations hereafter refer to

From A Logical Point or View (Cambridge: Harvard, 1980), 20-46. The paper was first read at

the University of Toronto in December 1950.

Dialectica Vol. 52, N° 4 (1998)

the tracing of any demarcation, even a vague and approximate one, across the domain of sentences in general'’ ' Most recently, in From Stimulus To Science (1995), Ouine spoke of his position by identifying a standing sentence as “the very locus of the philosophical notion of proposition: the meaning of a sen- tence of fixed truth value'’ 4 But of these Ouine wrote, “...I see no prospect of a clean-cut concept of sameness of meaning, even for the individual. It comes down to tacit and unsystematic correlations” For Ouine, the matter of meaning always has turned on his requirement that there is no entity without identity. Thus Ouine’s doubts about analyticity — true in virtue of meaning — devolve to the prospect of a scientifically adequate criterion for ‘sameness of meaning’, or ‘synonymy’.

In a 1992 review of Pursuit of Truth, Michael Williams wrote: “Though not drastically revisionary, the book shows a general drift towards the soften- ing of some of Ouine’s more radical theses. [However,] on the issue of meaning, Ouine makes no retreats: determinate meanings are a myth'’ 6 Quine has made it clear, however, that his strictures against meaning were not meant to rule out the possibility altogether, but rather to show that the distinc- tion needed for analyticity simply had not been drawn. “Two Dogmas,” Ouine points out, was written as a modest effort to show that the forays of the day simply ended in dead ends. 7

While leaving the door thus open allows for the possibility of semantic the- ory, let us recall that in terms of epistemological footing, Ouine also allowed that the gods of Homer were possibilities, for they differ from physical objects only in degree, not in kind. But unruly ontology and unactualized possibles, like “possible fat men in the doorway,” are of little interest to Quine unless they bear some theoretical promise. In what follows, I accept Ouine’s view that philosophy is continuous with science, but I will contend that in natural

" “Two Dogmas in Retrospect,” Canadian Journal of Philosophy, Volume 21, No. 3, September 1991, p. 271.

From Stimulus To Science (Cambridge Mass.: Harvard, 1995), 77. " Ibid., 79.

6 Review,” Pursuit of Truth (1990), The Journal of Philosophy, 1 (January 1992): 48 - 51.

7 In a video production by Rudolf Fara, Quine commented on his position in “Two Dogmas” as follows.

My attitude throughout that paper, although perhaps it didn’t shine through altogether, was I was protesting that we had yet to see really what the distinction amounted to, not that it couldn’t be answered. And then, as part of my presentation, I went through various ways that one might — in fact various ways that various people had explained analyticity — and pointed out that these didn’t help me because they always ended up with a term that I was equally in the dark about. So, by the time I wrote that article, I was very doubtful that anybody was going to come up with it. (In Conversation with W.V. Quine, “Boolos Panel,” Video Production, Phil- osophy International, London School of Economics, 1994.)

# philosophy, what counts as theoretical promise needs to be distinguished from natural science. The difference will be examined by focusing on a semantic proposal that Ouine allows, “might conceivably acquit itself,” though he be- lieves it “extremely unlikely'’” My objective is to show that reflection on this proposal — taken from the semantics of Jerrold Katz — reveals a deep tension between prudential and speculative forces in Ouine’s philosophy. Here, I argue, even though Ouine views the proposal as extremely unlikely, it cannot be deemed “whistling in the dark” or speculation merely. Rather, it ap- proaches or meets what Ouine calls speculation at its technical best. And since the tenability of the available semantics was what “Two Dogmas” was written to rule out if a current proposal — compatible with recognized naturalistic methods — has a chance to pay its way in behavioral coin, then such a research program warrants its measure of philosophical tenability. Until further evi- dence is firmly in place, I conclude that “the speculative reaches” of natural philosophy must now prevail over the long embattled claim of “Two Dogmas of Empiricism” the claim that marked analyticity as “an unempirical dogma of empiricists and a metaphysical article of faith.”

Lest I am misunderstood, let me state that the focus of this essay is inter- nal; for indeed, the speculative features I gather were evident already in “Two Dogmas” when Ouine pledged his philosophy to hazard on “the supposed boundary between speculative metaphysics and natural science'’ ' 0 And in later years, Ouine enlarged on the point writing that, “the more general and speculative reaches of theory are what we look back on nowadays as distinc-

' While Katz’s proposal may be employed consistently in Canine’s naturalism, Katz him- self is not sympathetic to naturalism. He presents arguments for non-naturalism and the auton- omy of philosophy in The Metaphysics of Meaning (Cambridge, Mass.: M.I.T., 1990.)

" See Word & Object, 207.

" “Two Dogmas,” 20. Ouine otherwise treats of the natural philosopher’s role rather diversely, sometimes emphasizing that the ontological philosopher’s position is distinguished primarily by “breadth of categories... (and] making explicit what had been tacit, of making pre- cise what had been vague; exposing and resolving paradoxes, smoothing kinks, lopping off ves- tigial growths, clearing ontological slums” (Word & Object [Cambridge: MIT, 1960], 275). Furthering his immanent conception Quine says; ‘The old epistemologist failed to recognize the strength of his position. No longer dreaming of a first philosophy firmer than science,” Ouine’s epistemologist “emerges as a defender or protector...out to protect science from within against its self doubts'’ (The Roots of Reference [LaSalle: Open Court, 1974], 2-3.) More re- cently, Ouine has spoken of the distinctively speculative character of philosophy in science (“Has Philosophy Lost Contact With People,” Theories and Things [Cambridge: Harvard, 1981J, 190-93). Here, Ouine repeats his metaphor of “the busy sailor on Neurath’s boat... out to improve, clarify, and understand the system from within'’ (“Five Milestones of Empiricism,” Theories and Things, 72.) And lastly, a “gadfly” role is recognized where the philosopher- scientist “attempts [breaches] to induce a tension between law and anomaly to power the en- gines of science and make it forge ahead'’ (Ouiditties. An Intermittent Philosophical Diction- ary [Cambridge: Belknap/Harvard, 1987], 8.)

## tively philosophical. What is pursued under the name of philosophy today, moreover, has much these same concerns when it is at what I deem its techni- cal best'’ ” So, the present essay is designed to show that the overall effect of pulling together Ouine’s views on the speculative art of scientific theorizing, reveals that this art animates natural philosophy as importantly as the virtues Ouine has explicitly recognized (modesty, conservation, simplicity, refuta- bility, etc.). Consequently, while Ouine has said that his skepticism about ana- lyticity and his anti-reductionism (mitigated holism) were “almost identi- cal,” ’2 this essay argues that Quine’s holism has emerged as the more central doctrine of his mature vision. 13

1. *Motivation and Backgmund*

## In the beginning — in 1950 — Ouine was invited to give a paper presenting his views on analyticity at the December American Philosophical Association meetings. This assignment became the genesis of “Two Dogmas,” and Quine tells us thai before accepting the task he “had not thought to look on his stric- tures over analyticity as the stuff of revolution. It was mere criticism, a nega- tive point with no suggestion of a bright replacement'’ 14 When he wrote the essay, Ouine tells us, his effort was only intended to survey the available means then being considered to demarcate a scientifically viable distinction. But the exploration simply “ended in dead ends'’ ’5 While this way of phrasing the matter appears to leave future options open, in the essay itself Ouine ac- cented his conclusion with what appeared to be resolute finality.

But for all its a priori reasonableness, a boundary between analytic and synthetic state- ments 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. l‘

# As years passed critical responses proliferated, and in 1960, Ouine re- sponded with a thought experiment in radical translation.'7 The result was his

" “Has Philosophy Lost Contact With People?” Theories and Things (Cambridge: Bel-

knap/Harvard, 1981), 191.

' 2 In Conversation with W. V. Ouine, “Goldfarb Panel.”

13 There is some anecdotal evidence that Ouine agrees with this assessment. In a 1989

conference, Quine remarked — during questions — that iI he was to write “Two Dogmas” again, he would switch the dogmas. “Reductionism,” he said, “was the bigger villain!’ Conference, Rutgers University (March 30, 1989).

" “Two Dogmas in Retrospect,” 267.

" See R. Barrett and R. Gibson, eds., “Comment on Katz,” Perspectives on Ouine (New

York: Blackwell, 1990), 198.

'6 Two Dogmas,” 37.

” See Chapter Two, Word & Object.

# thesis of the indeterminacy of translation and a consequent claim that there is no fact of the matter to meaning beyond dispositions to verbal behavior. While the experiment in radical translation may have helped to make the problem of meaning more graphic, critics had been frustrated in their efforts to locate the central argument supporting Ouine’s staunch skeptical stance. For instance, Ouine said that he was misunderstood in the widespread view that his position finally rested on the circularity that he demonstrated within the notions of synonymy, necessity, etc;" Ouine also denied that his skepti- cism was driven by nominalist scruples.'9 Further, Ouine was unmoved by an influential challenge that the sweeping conclusion of “Two Dogmas” must be regarded as a non sequitur. 20 Some responded thus that Ouine’s steadfast per- sistence must reflect standards of clarification that are unreasonably high. But for Ouine, there was no non sequitur, since the context of his critique was an empirical one, 21 and Ouine responded to his critics with the following state- ment on his standards.

We find it argued that the standard of clarity that I demand for synonymy and analyticity is unreasonably high; yet I ask no more, after all, than a rough characterization in terms of disposi- tions to verbal behavior. 22

# Let us pause at this point to allow that some explanation is needed to con- nect this “tolerant” standard from Word & Object, to the hard bottom line of “Two Dogmas'’ Indeed, the difference between the two is so striking, that one has to wonder if the assignment that led to “Two Dogmas” contained some hint that Ouine might include some contentious judgements to spark de- bate. 23 However, even though Ouine has registered regrets for his “needlessly

" In “Responses to Ouestions,”(Conference at The City University of New York Grad- uate Center, November 30, 1984, 8.) Ouine wrote, “...I have been misunderstood on the matter of circularity. The circular interdefinability of analyticity, synonymy, consistency, etc. was of it- self no ’sign of a troubled family of concepts,’ in my view it was merely a dead end encountered in the course of seeking an explication of analyticity'’

” See W. V. Quine, “Review” of P. F. Strawson, Skepticism and Naturalism: Some Va- rieties, The New York Review of Books, 32 (1985), 32. Also see L. Hahn and P. Schilpp eds., “Reply to Nelson Goodman,” The Philosophy of W. V. Quine (LaSalle: Open Court, 1986), 162.

2' See H. P. Grice and P. F. Strawson, “A Defense of Dogma,” Philosophical Review 65, 2 (1956): 141-58.

2' In “Comment on Katz” (1990), Perspectives on Quine, 198, Quine identified the con-

text of analyticity as empirical and not amenable to “proof'’ See footnote forty-six.

22 Word & Object, 207.

2’ At the Eastern Divisional Meetings of The American Philosophical Association (Bos- ton: December, 1994), Hilary Komblith presented a paper on “Naturalistic Epistemology and its Critics'’ Kornblith begins his paper saying: “My instructions from the program committee indicate that, although the session is to be informational,... it will add interest to the session if there are some contentious judgements expressed..'’

## strong statement of holism,” 24 Ouine has yet to indicate that his findings on the analytic-synthetic were expressed with undue or rhetorical emphasis. Let us see then if some connections can be realized by taking note of a crucial link between the indeterminacy thesis and Ouine’s behaviorism.

Critics have said that the thesis [of indeterminacy] is a consequence of my behaviorism. Some have said that it is a reductio ad absurdum of my behaviorism. I disagree with second point, but I agree with the first. I hold further that the behaviorist approach is mandatory. In psychology one may or may not be a behaviorist, but in linguistics one has no choice. 2’

It seems clear that if we are plausibly to connect the statement from “Two Dogmas” to Ouine’s standards from Word & Object, the claim that the beha- viorist approach is mandatory must be reckoned into our account. Consider the following argument: Since the thought experiment in radical translation was meant to show there are no behaviorally sufficient ways to clarify the se- mantic relations of synonymy, analyticity, etc., and since we now learn that the behaviorist approach in linguistics is mandatory; we might conclude that there can be no principled way of achieving a clarification in any case. Perhaps Quine had recruited indeterminacy to show that all avenues of semantic clari- fication were destined to “end in dead ends'’ While this argument appears to narrow the gap between the two statements, in a 1984 conference, 26 Ouine made some remarks that appeared to foil this way of viewing his position. After the conference, I presented the problem to Ouine as follows:

It has seemed to me that the indeterminacy thesis has widely been thought to have estab- lished a powerful in principle argument against countenancing semantic facts into a scientific ontology. However, in some of your comments at the CUNY conference (especially your “Reply to Katz”), it occurred to me that you might nonetheless be willing to consider, while per- haps not encourage, a possible avenue for locating semantic facts in a manner similar to what has occurred regarding clarification of the “gene'’ In your response to Professor Katz, you men- tion that you have thought well enough of the method that Professor Katz is calling “theoretical explanation” to have used it for your own purposes in Roots of Reference. As you noted, the method turns on there being “no definition in prior terms, but only an account of properties wanted for purposes of the rest of the theory!’ You then hasten to qualify what might seem like an endorsement by adding that the method “is an approach that has to be assessed on the merits of its specific applications'’ What I found surprising in these remarks is that it sounds like you might be willing to allow that “depending on the merits of its applications,” this method could provide an in principle means for circumventing the implications of indeterminacy, even if you continue to believe that such enterprising in semantics remains implausible. 2’

2’ “Two Dogmas Revisited,” 268.

°^ Pursuit of Truth, 37-38. Also see “Indeterminacy of Translation Again,” The Journal of Philosophy, 1 (January, 1987): 5.

°6 Responses to Ouestions,” CUNY Conference, 8.

2’ C. Clark, Correspondence, 8 March, 1988.

# Ouine responded affirmatively:

**You** are **right** in your inference from my reply **to Katz. I have no** objection in principle to ad- **mñting** meanings and ideas and **synonymy** relations in a behaviorally irreducible **way,** on a **par** with various notions of theoretical physics, and with my own relation of perceptual similarity. Such a step is to be assessed on its contribution to our overall understanding of the causal mech- anisms involved. The present example, if really successful, would be part of a drastic revision of our scientific theory of mind and nature, and a revision therewith of my own philosophy of mind and language; for my naturalistic philosophy is continuous with science and shares its fal- libility. But let me emphasize that it is part of my present scientific and philosophical outlook to view this eventuality as extremely unlikely. 2

Ouine’s reply not only defeats the argument from indeterminacy given above, but it presents us with two further issues. First, one senses an impend- ing paradox that on the one hand, in linguistics behaviorism is mandatory (we have no choice), while on the other hand, Ouine has no objection in principle to admitting linguistic meanings and synonymy relations in behaviorally irre- ducible ways (we do have a choice?) Secondly, by considering the proposal as, “extremely unlikely,” it appears that Ouine might be prepared to recognize another needlessly strong emphasis in his statement against analyticity from “Two Dogmas'’

1. *Fmm an immanent point of view*

Beginning with the apparent paradox, let us recall that Quine’s immanent naturalism reminds us that philosophically, there is no apriori tribunal to which science must answer; Ouine is speaking within what he considers the current, though evolving terms and standards of science. So, when Ouine as- serts that in linguistics behaviorism is mandatory, and we have no choice, these claims must be understood scientifically and fallibilistically. As such, the apparent paradox is reconciled, for immanence requires us to say — fallibilisti- cally — we have no choice under current scientific standards. The term ‘man- datory’ must be construed immanently as well. By ‘mandatory’ we imply no suprascientific standard, but refer to the mahdates of current science; and for Ouine, there are no higher tribunals of truth and factuality. °’

Ouine has underscored the importance of his immanent move by noting that Roger Gibson plausibly surmised that the major obstacle to understand- ing his position is failure to take his commitment to naturalism seriously.'° But Gibson too falls victim to the tendency. For instance, Gibson gives an account

2' W. V. Quine, Correspondence, 11 March, 1988.

29 See “Reply to Robert Nozick,” The Philosophy of W. V. Ouine, 367. ' Ibid., 367.

## of Quine’s view of language as a naturalistic-behavioristic thesis (NB thesis). The NB Thesis, he says is, “[n]aturalistic in that it makes the study of language accessible to empirical investigation and behavioristic in that it relies upon be- havior as the substance of observable data.” 31 And in a footnote, Gibson re- fers to the NB thesis as a central axiom of Ouine’s system:

In calling the thesis an axiom, I do not mean that it is without empirical support. When I say it is central, I mean it is one of those theses that Ouine would hold come what may.’2

## In contrast to Gibson’s claim, we have just seen that in principle, Ouine’s conception of naturalism could allow meanings to be introduced in behavio- rally irreducible ways. And while Ouine has emphasized that successfully in- troducing meanings in behaviorally irreducible ways appears extremely un- likely, it now looks mistaken to conclude that Ouine is committed to view, “behavior as the substance of observable data, come what may.” Recently, Quine clarified the point by drawing a crucial distinction between posits and data. Quine wrote,

When I claim that behaviorism is mandatory in linguistics, I am referring to data, not posits. I am objecting to appeals to introspected synonymy or meaning as an irreducible datum. But the fact remains that our behavior is caused by neural activity, and more remotely by our chro- mosomes. Research in those domains is a going concern, co• iectura1 in varying degrees. There the scientist might see his way to positing some hypothetical force or corpuscle or whatever to fill out his causal theory. Such a move is to be judged by its fruits. This is where I conceded that something in Katz’s line might conceivably acquit itself, though it seemed “extremely un-

likely\*’ 3’

For Quine, thus, meanings may indeed be introduced in intensional non- behavioral terms, but the “pay off” must end up in conformance with the be- havioral criterion cited from Word & Object. While Ouine’s mandatory beha- viorism is thus data dependent, we may posit freely when considering auxil- iary devices, intermediaries, or objects in an effort to explain the causal mech- anisms involved. Given the empirical data, the constructions themselves are to be judged by their fruits.

The second point we must now consider is Katz’s view of “theoretical ex- planation” and how it applies to Ouine’s standards.'4 We have just seen that while he finds it extremely unlikely, Ouine concedes that something in Katz’s line might conceivably acquit itself. Let us turn to Katz’s conception:

"’ Enlightened Empiricism. An Examination of W. V. Ouine’s Theory of Knowledge

(Tampa: **University** of Florida Presses, 1988), 1-2. ’° Ibid., 179n.

” W. V. Ouine, Correspondence, 29 June, 1996.

"4 The arguments presented here remain neutral on long range prospects and on whether

other semantic conceptions can be forged consistently within Ouine’s outlook.

There is, then the option of explaining meaning, **synonymy,** and analyticity on the model of Chomsky’s explanation of syntactic notions like ‘well-formed’. We can construct an abstract system of semantic representations that formally describes the meaning of sentences, charac- terize semantic notions like meaningfulness, synonymy, and analyticity in terms of such formal representations, and then justify both the representational system and the definitions indirectly on the basis of how well they predict and explain judgements of fluent speakers about such se- mantic properties and relations of sentences.°^

## It can be seen that this approach conforms to Ouine’s rough standard of behavioral check points precisely by exploiting Ouine’s data dependent and posit free behavioraldistinction. And indeed, when presented with the propo- sal, Ouine responded with general sympathy.

In general I am sympathetic to what Katz calls “theoretical explanation,” if I understand him. I used it in introducing my notion of perceptual similarity in Roots of Reference. Physicists use it whenever they posit a new elementary particle; for there is never a definition in prior

terms, but only an account of properties wanted for the urposes of the rest of the theory, ...It is not an attitude that had to await generative

# But while Ouine has yielded the possibility, and while he admits a general sympathy with the method, Ouine has stopped short of encouraging its use in the case of meaning. Ouine continued to say:

But it is an approach that has to be assessed on the merits of its specific applications. If a no- tion thus introduced achieves a substantial simplification or illumination of some empirically well attested body of theory, and in a such a way as to bear promise of eventually finding its place in an explanatory physical or physiological mechanism, then we should have no reserva- tions. A shining example is the gene, as posited at the turn of the century... On the other hand postulation by theoretical explanation is less promising in the case of the soul, or grace. In the case of meanings, or ideas, or even sameness of meaning, my misgivings can be allayed only by specific details of the proposed theory. 37

# Let us be very clear about the effect of these remarks, for while Ouine is generally sympathetic to the method, when it comes to the case of meaning, his misgivings remain and will be allayed only by specific details of the pro- posed theory. However, in light of Ouine’s general sympathy, and since the circularity demonstrated in “Two Dogmas” was not supposed to prove that intensional hopes for semantic clarification are rendered untenable, it would appear that if Ouine is to maintain the strong skeptical claim of “Two Dog- mas,” it must be shown that: (A) the proposal under consideration really is not an immanent possibility, or at least that (B) it is clearly untenable to pose within Ouine’s naturalistic paradigm. In what follows, I will review the weight of Ouine’s scientific “misgivings,” but argue that the speculative reaches of natural philosophy indicate that neither claim is presently supportable.

” “Common Sense in Semantics,” Notre Dame Journal of Formal Logic, 2 (April 1982): 174-218.

°^ “Responses to Ouestions,” Cuny Conference, 7.

’7 Ibid., 7. Note that the remark appears to allow that the preliminary criterion for clarity from Word & Object has been satisfied.

1. *Immanent Hazards of meaning*

## Ouine’s assertion that there is no fact of the matter to meaning — to adjudi- cate empirically adequate though divergent translation manuals — involves an ontological commitment to follow the immanent mandates of current physi- cal theory. Quine writes:

...when I say there is no fact of the matter, as regards, say, the two rival manuals of transla- tion, what I mean is that both manuals are compatible with all the same distributions of states and relations over elementary particles. In a word, they are physically equivalent.""

To proceed as a physicalist, yet by-pass problems and paradoxes such as those that attend the particle notion, Ouine recurs to his familiar expedient of semantic assent. Ouine sees the claim of physicalism as maintaining,

Simply that there is no difference in matters of fact without a difference in the fulfillment of the physical state predicates by space-time regions. Again this is not reductionism in any strong sense. There is no presumption that anyone be in a position to come up with the appropriate state predicates for the pertinent regions in any particular case.”

## But again, Ouine’s commitment to the ontology of physical theory does not philosophically rule out the possibility of meanings. Indeed, if sufficient clarity can be achieved, Ouine is willing to recognize an abstract ontology for meanings.

If in general I could make satisfactory sense of declaring two expressions to be synonymous, I would be more than pleased to recognize an abstract object as their common meaning. The method is familiar: I would define the meaning of an expression as the set of its synonyms. Where the trouble lies, rather, is in the two-place predicate of synonymy itself; it is too desper- ately wanting in clarity and perspicuity."

## So, since Katz’s intensional proposal is not among the dead ends examined in Ouine’s survey, and since indeterminacy does not rule out an intensional approach that could posit meanings in behaviorally irreducible ways, the pro- posal thus presents a direct challenge to the scope of Ouine’s examination from “Two Dogmas.” In response, Ouine plainly recognized the possibility, saying, in effect, that while he has conceded that the proposal presents a possi- bility in principle, hopes for its success are extremely unlikely. But, if the mat- ter now turns to probabilities, as now it must, perhaps we need to review Ouine’s commitment to current physicalistic ontology to estimate the full weight of Ouine’s resistance to admitting an intensional abstract ontology for meanings.

°‘ “Things and Their Place in Theories,” Theories and Things (Cambridge: Harvard,

1981), 23.

“’ R. Shahan and C. Swoyer, eds., “Facts of the Matter,” Essays on the Philosophy of W.

V. Ouine (Norman, OK: Harvester, 1979), 166.

" Ibid., 167.

## Following a principle of parsimony, Ouine has stressed that physics is the promulgator of ontology and factuality simply because, “it is the business of theoretical physics, and of no other branch of science, to establish the mini- mum catalogue of positions and states that would justify us in saying there is no change without a change in position or states'’ 41 So, the claim of physical- ism remains undisturbed even while accepting extensional abstract objects (sets) into the ontology of science, for the mathematical objects are change- less. 42 Ouine’s outlook also embraces an underdetermination of nature: the view that all of our theories, in so far as we claim that they are true, go beyond their observational base of support. However, Ouine widens a seeming paral- lel between underdetermination in physics and indeterminacy of translation by noting that in physics, unlike translation, consensus on the parameters of truth stay “conveniently fixed most of the time'’ 4’ Accordingly, the force of the experiment with radical translation is that it reveals something like a sec- ond order indeterminacy for the case of meanings.

I have just been contrasting the underdetermination of natural science with the indetermi- nacy of translation by adopting a realistic view of nature, which indeed I hold. But I have else- where drawn the contrast without realism in the following way. Natural science, we again as- sume, is underdetermined by all possible observations. However, suppose then that we have settled for one of the many overall theories of nature that fit all possible observations. Transla- tion remains indeterminate, even relative to the chosen theory of nature. Thus indeterminacy of translation is an indeterminacy additional to the underdetermination of nature. “

## Thus Ouine argues that even though we have agreement on the observa- tional check points, indeterminacy will result in alternative ontological schemes. But can such a claim be consistent with Ouine’s admission that in principle, an intensional proposal could circumvent the implications of in- determinacy? The apparent conflict may be resolved if we recognize that for Ouine, “ontology is not what mainly matters...it is sentences, in their truth or falsity that run deep: ontology is by the way'’ 4’ So when Ouine grants that the- oretical explanation could circumvent the implications of indeterminacy, de- pending upon the merits of its applications, these merits must refer us to the proposal’s potential for predictive success and agreement on given transla- tional hypotheses as true sentences. In a “Comment On Katz,” Ouine wrote:

It should be noted that while physics provides the primary ground of scientific onto- logy, the natural epistemologist can and does play a significant role in the process of defining it. Thus, Ouine’s long standing view that classes must be countenanced into an adequate scientific ontology can be seen as a philosophical comment on the explicit and tacit commitments of cur- rent ph qsi

Fa f be Matter,” 162. " Word & Object, 75-6.

4^ “Indeterminacy of Translation Again,” 10.

’5 Facts of the Matter,” 162.

The question of assuming intensional notions in our theory comes down to the question of whether they would play a useful role in a theory that meets the test of prediction. That is where the doubts come. •6

The upshot then, is that predictive success along such intensionalist lines would appear to eliminate the “second order” indeterminacy, leaving only underdetermination and the inductive risk faced in science generally. But still, even if evidence were to mount sizably in the proposal’s favor, Ouine does not immediately have to relinquish current ontology. For Ouine, consideration of such drastic revisions are entertained only subject to a maxim of minimum mutilation and must first be turned back to the physicist for, “another try at full coverage'’ As Ouine will say, even if certain strange effects — like tele- pathy — were demonstrably established in ways unaccountable by current physical theory, it would still fall to the physicist to pronounce whether we must countenance a new ontological annex. Ouine writes:

...if telepathic effects were established beyond peradventure and they were clearly inexplic- able on the basis of the present catalogue of microphysical states, it would still not devolve upon the psychologist to supplement physics with an irreducibly psychological annex. It would de- volve upon the physicist to go back to the drawing board and have another try at full coverage, which is his business. 47

## Prior considerations were offered to shed light on the weight of Ouine’s re- sistance to admit meanings into science. As the move to immanence dictates, the weight of Ouine’s skepticism against meaning is profoundly systemic. Thus, if evidence were to mount in favor of the intensional proposal, we would have to recognize that admitting meanings would require science to countenance an intensional ontology that, if pursued, would force a drastic re- vision of our entire current theory of nature. While reflections on such large scale revisions of scientific thought are indeed sobering, it seems clear that we have an answer to our first question. Namely, it appears undeniable that Katz’s proposal has presented a Bona Fide philosophical possibility that meets Ouine’s immanent scientific standards — future prospects notwith- standing. Thus, the object now is to address the second question posed earlier; namely, whether the clarification of meaning by theoretical explanation is philosophically tenable. On this point, I will argue that Ouine’s conception of the speculative nature of the philosopher’s role must finally grant tenability to such a proposal.

" Perspectives on Ouine, 198. The quote continues with Ouine reporting that his assault on meaning in “Two Dogmas” was not intended as a proof. Ouine writes: “I would not hope for proof. I have engaged in proofs in logical contexts, but not in empirical ones, which this is'’

“Reply to Hilary Putnam,” The Philosophy of W. V. Ouine, 430-31.

1. *On the supposed Boundary of Philosophy and Science*

In The Web of Belief, 4 Ouine identified six rather Spartan virtues of the- ory or of the natural philosopher: conservation, modesty, simplicity, gener- ality, refutability, and precision. More recently Ouine has spoken of the nor- mative side of scientific method not only as the art and technology of science, but of rational belief in general. Ouine sees the framing of hypotheses as an imaginative art with the most general of its norms being conservation and sim- plicity. 49 The principle of conservation, characterized by Ouine as a maxim of minimum mutilation, looms large in his rejection of meanings. In “Two Dog- mas” Ouine argued that when facing a recalcitrant experience, the maxim of minimum mutilation enjoins us to tamper as little as possible with the total system, and the metaphor of centrality reminds us to rule out statements at the periphery prior to consideration of central revisions. 50 The soundness of the strategy is easily recognized. Ouine illustrates the maxim’s applicability to al- legedly occult phenomena like clairvoyance.

Moving on to clairvoyance, we are faced with a challenge to our basic ways of thinking. Evi- dence of clairvoyance would have to be iron clad if it were to warrant a quest for the unimagined avenues through which clairvoyant information might pass.

The scientist must be left to apportion his finite time and effort prudently. It is a matter of

cost accounting."

Thus we see that challenges to the more central aspects of our scientific system must meet a prudential requirement to produce supporting evidence. And in this extreme case, the evidence must be “iron clad” to warrant serious scientific attention. However, in a progressive science, prudence must be counterbalanced with developmental principles that promote growth and scientific progress. Ouine strongly endorses this progressive side of science, and writes of how a scientist will deliberately induce tensions against current scientific doctrine to power the engines of science and make it forge ahead.

With J. S. Ullian (New York: Random House, 1970).

In a reply to Morton White, Ouine spoke of this connection in the following terms: “For me normative epistemology is a branch of engineering. It is the technology of truth-seek- ing, or in a more cautiously epistemological term, prediction. Like any technology, it makes free use of whatever scientific findings may suit its purpose.” (“Reply To Morton White,” in The Philosophy of W. V. Ouine, 664-65.) Quine has expanded on the point saying: “The most general of its norms are perhaps conservatism, or the maxim of minimum mutilation, and sim- plicity, familiar in ontological contexts as Ockham’s razor. No general calibration of either con- servatism or simplicity is known, much less any comparative scale of the one against the other. For this reason alone — and it is not alone — there is no hope of a mechanical procedure for opti- mum hypothesizing. Creating good hypotheses is an imaginative art, not a science. It is the art of science\*’ (From Stimulus To Science, 49.)

" “Two Dogmas,” 44.

" Quiditties, 7.

..the tension between law and anomaly is vital to the progress of science. The scientist goes out of his way to induce it. Sir Karl Popper well depicts him as inventing hypotheses and then making every effort to falsify them by cunningly devised experiments. It is the tension between the scientist’s laws and his own attempted breaches of them that powers the engines of science and makes it rorge ahead.’2

Certainly, this attitude is not unique to modern science. At least since the time of Socrates, the philosopher’s “gadfly” role has served to unseat com- placency. And in this vein, Russell saw value in the philosophical attitude to, “enlarge our conception of what is possible, enrich our intellectual imagin- ation and diminish the dogmatic assurance which closes the mind against speculation'’ "

The above reflections now provoke consideration of a penetrating tension in Ouine’s outlook; for when Ouine speaks of the importance of scientific prudence on the one hand, and then encourages the speculative cunning of the scientist who goes out of his way to induce a tension between law and anomaly on the other, we might well wonder whether speculative or pruden- tial interests should gain the upper hand in the present case. The situation is as follows: Since Ouine views the success of theoretical explanation as entailing a drastic revision of our scientific theory of mind and language, then by reason of Ouine’s maxim of minimum mutilation such measures must discharge a profound evidential burden before they can gain serious scientific attention. But should such prudential standards dictate tenability for philosophical the- orizing? Let us take stock of our findings. We have seen the method meet Ouine’s standards from Word & Object, and have noted that the method has been part of Ouine’s own theoretical development, as well as in science gener- ally. So, since Ouine considers his philosophy as continuous with science, we must grant that Katz’s semantic proposal is continuous with science in Ouine’s sense. Indeed, with the introduction of this proposal, we have a philosophical counterpart to Ouine’s scientist who goes out of his way to induce a tension between law and anomaly. The present proposal also places Ouine’s pruden- tial concerns into direct rivalry with his speculative interests. How might we weigh up the balance? Perhaps we might further assess Ouine’s position by noting his response to the extreme case of a scientist who confronts revol- utionary psychic phenomena and has to decide whether to accept the testi- mony of his own senses.

5z ibid., 8.

" The Problems of Philosophy (New York: Oxford/Galaxy, 1969), 161.

The scientist’s position is peculiarly delicate when, as here, he must decide whether to ac- cept the testimony of his own senses to a revolutionary phenomenon, challenging entrenched scientific theory, or to dismiss the phenomena as a presumed effect of commonplace causes which he has merely not had the wit to think up. A too cavalier line in such dilemmas could block some momentous insight. Probabilities have to be estimated and weighed, not excluding such factors as the self interest of a psychic medium.”

In rather striking terms, we see the speculative side of Quine’s naturalism. We now read that when the scientist is faced with possibilities that challenge entrenched scientific theory, while caution and conservation are indicated, “[a] too cavalier attitude in such dilemmas could block some momentous in- sight'’ But, moving from the vagaries of allegedly occult phenomena, we should remind ourselves that the debate over meaning has been animated by its commonness in our experience. And to be sure, while no one has yet estab- lished a persuasive theory of meaning, what we are hereto evaluate is the phil- osophical force of Ouine’s skeptical stance against such an enterprise.

1. *Speculation in Philosophy and Speculation in Science: A Distinction with a Difference*

Prior considerations have shown that theoretical explanation is continu- ous with science in Ouine’s sense. Consequently, we must acknowledge that behaviorally speaking, immanent intensional possibilities for meanings have not been ruled out. As such, the view of analyticity from “Two Dogmas” should no longer be characterized as an unempirical dogma of empiricists. As to the question of whether the proposal is immanently tenable, we have seen that in the end, this issue refers us to an estimate of the philosopher’s role in natural science. On this score, we have noted a tension in Quine’s view where, on the one hand, prudential interests caution against tampering in ways that would require drastic revisions of our theory of nature. But on the other hand, Ouine’s progressive interests urge the scientist to go out of his way to induce a tension between law and anomaly, and to avoid adopting a too cavalier atti- tude that would obscure the possibility of a momentous insight. Hence, corol- lary to the proposed revision of “Two Dogmas,” my argument has been an ef- fort to show that in natural philosophy, the speculative muse of “the art of science” deserves an address along with the more Spartan virtues in Ouine’s present philosophical pantheon. Thus, pending evidential findings, to view theoretical explanation simply as a metaphysical article of faith would not only ignore its methodological continuity with science, but it would also ig-

5 ‘ Ouiditties, 8.

nore the speculative cunning that philosophy has contributed to scientific thought generally. Indeed, even with the continuity that Ouine sees between philosophy and science, our overall estimate must finally fall to “the more speculative reaches of theory that we look back on nowadays as distinctively philosophical'’ As such, it seems that under present conditions, to maintain that the analytic-synthetic distinction is, “an unempirical dogma of empiric- ists and a metaphysical article of faith,” profoundly undermines the specula- tive spirit of Ouine’s own view of the philosopher’s role in natural science.

I conclude, thus, that if the conceptual scheme of science is a tool, ulti- mately, for predicting future experience in the light of past experience,’ 5 and since all ontological myth making is conceived instrumentally as a device for working a manageable structure into the flux of experience by the introduc- tion of convenient intermediaries and irreducible posits; 56 then, if positing meanings according to a recognized methodology has a chance to pay its way in behavioral coin, our scientific philosophy cannot ignore the provisional tenability of such a research program. So, even while Ouine presently sees no prospect of a clean-cut concept of sameness of meaning, the motivating phil- osophical consideration is Ouine’s acknowledgement that, “the question of assuming intensional notions comes down to the test of prediction'’ It appears that the tenability of theoretical explanation to meet Ouine’s challenge against meaning, might well be viewed not only as a conjectural test of Ouine’s early doubts from “Two Dogmas,” but as a contribution to the speculative vitality of the philosophical outlook that Ouine has chosen to adopt, an outlook that here, as elsewhere, shares in the fallibility of science and must finally blur the supposed boundary between speculative metaphysics and natural science.

” ”TwoDogmas"44. " Ibid.,44.

Dialectica Vol. 52, N° 4 (1998)