

# QUINEAN NATURALISM IN QUESTION

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**Abstract:** This paper is a critical discussion of Quine's naturalist credos: (1) physicalism; (2) there is no first philosophy; (3) philosophy is continuous with science; and (4) the only responsible theory of the world as a whole is scientific theory. The aim is to show that Quine's formulations admit of two readings: a strong reading (often Quine's own) which is compatible with reductive forms of naturalism but implausible; and a mild reading which is plausible but suggestive of more liberal forms of naturalism. The paper ends by claiming that naturalism is a normative doctrine that is inconsistent by its own lights.

In all aspects of contemporary life, the sciences, especially the so-called physical or natural sciences, have enormous prestige. Today we are tempted to suppose that the most important questions concerning humankind are more likely to be revealed by investigating our DNA or brain cells than by any distinctively philosophical inquiry into the mind, language or existence. Indeed, remarks such as this from Richard Dawkins have become commonplace in intellectual circles:

the deep and universal questions of existence and the meaning of life are scientific matters which should properly be dealt with in science classes.<sup>1</sup>

It is worth comparing this attitude to that of the ancient Greeks from which the philosophical tradition in the West springs. For them the deep and universal questions about what we know, what exists and how we should live were quintessentially *philosophical* problems to be solved by philosophical inquiry. In the writings of Plato and Aristotle, for example, philosophy is the highest calling, a path to wisdom and what Socrates called an examined way of life: a way of life that we can reflectively endorse from the standpoint of reason.

Contemporary philosophy, like the culture at large, is under the spell of

scientific models of explanation, understanding and knowledge. Many analytic philosophers now think of themselves as being engaged in scientific activities (e.g. naturalized epistemology, cognitive science) and, in general, there has been a loss of confidence in philosophy as having any distinctive method or content beside that of science (or, better, the sciences). This transformation of philosophy is largely a matter of a realignment of the relation between philosophy and science, which now sees science, not philosophy, as the last word when it comes to questions of knowledge, understanding and existence. The name for this general attitude to philosophy is “scientific naturalism,” although, in keeping with current practice, I shall simply refer to it as naturalism henceforth.<sup>2</sup> Here I am leaving aside other uses of the term ‘naturalism,’ including those connected with the possibility and promise of a liberal version of naturalism distinct from scientific naturalism.<sup>3</sup>

Scientific naturalism comes in narrower or more liberal forms depending upon which sciences it recognizes as genuine and irreducible. The most reductive form, call it extreme naturalism, only accords physics this privileged status. This is a form of naturalism defended by David Armstrong and David Papineau. Narrow naturalism is less reductive: it recognizes only the natural sciences. Such naturalism is perhaps the orthodoxy in contemporary analytic philosophy. And broad naturalism admits also the human sciences. Naturalists of this stripe include Stephen Stich, Huw Price and Peter Railton.<sup>4</sup>

Analytic philosophy did not always think of itself in naturalistic terms. The early founders of analytic philosophy, Frege, Russell, Moore and the early Wittgenstein, were all committed to a strong form of anti-naturalism centering around the project of the logical or conceptual analysis of language. These philosophers advocated a robust form of a priori theorizing, which was taken to be able to discern the logical form of sentences or the relationships between concepts without requiring any support from the empirical sciences. Indeed Frege used the term “psychologism” to indicate a distinctive form of philosophical confusion that involves looking to introspective or empirical psychology to help one in thinking about logic.<sup>5</sup> Wittgenstein sums up the early analytic attitude to science in this way:

Philosophy is not one of the natural sciences.

(The word ‘philosophy’ must mean something whose place is above or below the natural sciences, not beside them.)

Philosophy aims at the logical clarification of thoughts.<sup>6</sup>

If there was any thought of making philosophy ‘scientific’ it was simply a matter of thinking that the new method of logical analysis would provide a path to cooperative inquiry instead of the endless controversies of traditional metaphysical inquiry.<sup>7</sup>

The fact that the self-image of analytic philosophy is now widely understood in terms of a commitment to naturalism is largely a result of the influence of W. V. Quine. This is not to say that all or even most analytic philosophers share Quine’s conception of philosophy as a scientific inquiry characterized by a certain level of abstraction and generality. But there is wide-

spread agreement that Quine's attack on analyticity undermined the project of logical analysis; and that he provided the outlines of a highly influential naturalistic conception of epistemology understood as a branch of psychology.<sup>8</sup>

Furthermore, Quine's sense that there is a difference of kind between "science-worthy" discourses that are in need of no philosophical defence and "second-grade" discourses (e.g. moral, intentional, modal) that are, has been an extremely important background assumption helping to motivate the naturalization projects that are central to contemporary metaphysics.<sup>9</sup> The philosophical task is to "naturalize" allegedly suspect or 'second-hand' concepts or discourses by showing that, despite initial appearances to the contrary, they can be accommodated into the scientific image of the world which, for the naturalist, is all the world there is.<sup>10</sup>

Given Quine's role in the self-conception and current popularity of naturalism, it seems appropriate to revisit Quine's formulations and defence of the doctrine. However, one immediately confronts the problem that Quine offers few, if any, arguments in favour of naturalism. On the contrary, he typically announces his allegiance to naturalism in a series of familiar slogans that are widely broadcast like articles of faith rather than the contestable philosophical doctrines that they are. In this respect Quine's practice has become the norm. The terms "naturalism" and "naturalist" appear in the philosophical literature like political banners, loudly and oft-repeated, but rarely explained or defended.<sup>11</sup>

Consequently, the strategy I have adopted in this paper is to explore Quine's expression of his naturalism and its implications. I shall proceed by considering, in some detail, these representative remarks expressing Quine's naturalist commitments:

[Naturalism] is rational reconstruction of the individual's and/or the race's actual acquisition of a responsible theory of the external world. It would address the question of how we, physical denizens of the physical world, can have projected our scientific theory of that whole world from our meagre contacts with it.<sup>12</sup>

naturalism: the recognition that it is within science itself, and not in some prior philosophy, that reality is to be identified and described.<sup>13</sup>

I admit to naturalism and even glory in it. This means banishing the dream of a first philosophy and pursuing philosophy rather as a part of one's system of the world, continuous with the rest of science.<sup>14</sup>

Here naturalism is explained in terms of four credos: 1) A commitment to physicalism, the idea that we are "physical denizens of a physical world"; 2) A commitment to there being no "first philosophy"; 3) Endorsement of the claim that philosophy is "continuous" with science; and 4) The claim that the only "responsible theory" of the whole world is scientific theory.

The aim, in discussing these credos, is not primarily exegetical. I am less interested in trying to reconstruct Quine's reasons in favour of these ideas, than I am in asking what reason *we* have to commit ourselves to them.

I hope to show that Quine's formulations of these ideas involve significant ambiguities, which play an important role in making the doctrines seem both relatively uncontentious and yet capable of giving encouragement to reductive forms of naturalism i.e. extreme and narrow versions. In each case, a formulation will admit of at least two readings: a mild reading which contains important insights but does not support reductive forms of naturalism; and a strong reading (usually Quine's own) which does support these forms of naturalism but which there is good reason to reject. The aim is to show that naturalism, especially in its narrower versions, is less plausible than Quine might have tempted one to think. Beyond that, the paper shows that since naturalism is a metaphysical doctrine with normative import it is not best interpreted as a scientific hypothesis and so it faces the problem that it is insufficiently naturalistic by its own lights. Importantly, it is incapable of accounting for human understanding in general including the sort of understanding associated with the rational normativity that is presupposed by science itself.

### FIRST CREDO: *PHYSICALISM*

On a strong reading physicalism is the ontological view that only recognizes the posits of current or future physics.<sup>15</sup> Although some have supposed otherwise, such a view (call it strict physicalism) is actually *opposed* to naturalism since naturalism is committed to the idea that we must look to the sciences—all the many and various activities that we are prepared to count as genuinely explanatory sciences—to settle matters of existence and knowledge, and perhaps even understanding. If, as Quine himself appears to do, one recognizes a plurality of distinct and irreducible sciences then the default position for naturalism is *ontological pluralism* and not physicalist monism. John Dupré nicely explains pluralism as “the insistence on the equal reality and causal efficacy of objects both large and small . . . cats and dogs, mountains and molehills... electrons and quarks.”<sup>16</sup>

Most philosophers now find the claims that physics is the only legitimate science, or that all sciences reduce to physics, too implausible to be live options. Although Quine's text is not unambiguous on the topic, Quine's physicalism is, arguably, not the strict version. He often presents a milder, more plausible, view characterized in terms of global supervenience:

nothing happens in the world, not the flutter of an eyelid, not the flicker of a thought, without some redistribution of microphysical states.<sup>17</sup>

Since supervenient entities are no less real than the physical entities that they supervene upon, and since there is, in general, no translational reduction of, say, ordinary physical object talk into the language of physics, this is what Quine calls physicalism of “the nonreductive, nontranslational sort.”<sup>18</sup>

A question arises, however, about the strength and character of Quine's ontological pluralism. In many places, Quine identifies science with *natural* science, that is, with a short list of favoured sciences including physics, chem-

istry, biology and behaviouristic psychology. This list excludes intentional psychology, sociology and anthropology, amongst other candidate human sciences. So, whilst he acknowledges physical, chemical, and biological kinds (e.g. electrons, acids, mammals), he refuses to take with full seriousness the kinds posited by the human or social sciences (e.g. intentional attitudes, artworks, courageous acts, rituals). The same attitude is apparent in his endorsement of J.J.C. Smart's claim "that the physicist's language gives us a *truer* picture of the world than the language of ordinary common sense."<sup>19</sup>

Quine's official reason for refusing to accept the genuineness of the human sciences is that their central concepts are not clear enough by the standards of the natural sciences. But why should the standards of clarity of the *natural* sciences be the appropriate standards for judging the *human* sciences? Surely they can be judged according to their own scientific standards. Quine's blindness to this obvious point reveals his commitment to a fixed (i.e. metaphysical) conception of science according to which genuine sciences must discover natural laws. So it is important in reading Quine to distinguish his own metaphysical conception of science from a more realistic conception.

Quine's nomological model of science reflects his elevation of physics to the exulted status of being *the* single genuine paradigm of scientific inquiry.<sup>20</sup> From this perspective the fact that the social sciences do not generate laws, strict or otherwise, is a mark of their illegitimacy.<sup>21</sup> But, if we adopt a more realistic account of the sciences, one which does not make an idol of physics, it is enough to vouchsafe the genuineness of the social sciences that they are capable of generating explanatorily significant generalizations—even if they are not exceptionless and hold only over limited domains.<sup>22</sup>

There is surely no a priori requirement that whatever counts as a science must be modelled on physics. And, in any case, any such requirement would be inconsistent with a naturalistic attitude to science itself. If we consider our actual practice without preconceptions, as good naturalists should, it is undeniable that we are within our rights to call psychology, sociology and anthropology "sciences." In light of the dismal failure of the philosophical program to reduce all of the many sciences there are to physics, it is hard to escape the conclusion that there are, *prima facie* at least, a plurality of legitimate and irreducible sciences including the human sciences no less than physics or biology.

## SECOND CREDO: NO FIRST PHILOSOPHY

The second credo is that there is no first philosophy. But what is meant by "first philosophy," since Quine does not explain the expression himself? One need look no farther a-field than Descartes' *Meditations*, the full title of which is *Meditations on First Philosophy in which are demonstrated the existence of God and the distinction between the human soul and the body*. Taking the cue from Descartes, we might say that first philosophy is an inquiry that lays down, on the basis of pure a priori reasoning, the metaphysical and epistemologi-

cal foundations of scientific knowledge. If this is right then we can read Quine's rejection of first philosophy in two ways:

1. Strong reading: the denial that the results of philosophy play any foundational or constitutive role with respect to the sciences, that is, a rejection of the view that the sciences rest on, or presuppose, any distinctively philosophical or a priori truths.
2. Mild reading: the denial of philosophy's traditional conception of its own authority in which philosophy claims for itself the role of final judge or arbiter whose job it is to sit in judgment of the legitimacy of the claims of the natural sciences (or any other rational discipline, for that matter).

In this case Quine clearly accepts the strong reading of the claim. In order to make the case for this radical re-conception of philosophy Quine famously attacks the analytic/synthetic distinction of the logical positivists who argued that there is an important epistemological distinction between those sentences that are true solely in virtue of the meanings of their terms (such as "Bachelors are unmarried males") and those that are true in virtue of the meanings of their terms and the way the world is (such as "Bachelors prefer whiskey to water"). One of Quine's main arguments is that the notion of analyticity is unclear in so far as the terms we might use to explicate it (such as meaning, synonymy, necessity and definition) are no clearer from the scientific point of view than analyticity itself. Another argument is that no sentence is immune to revision on the basis of some possible recalcitrant experience, even sentences of mathematics or logic. It is this thesis of epistemological holism that rules out the possibility of traditional a priori truths and, for Quine, the possibility of first philosophy in both of its senses.

Although both of these arguments raise various questions, I shall not consider them here. Instead I want to draw attention to the fact that the distinction between the strong and mild readings of the "no first philosophy" claim are aligned with two different responses to Quine's attack on the a priori. The strong reading—and the one that best fits naturalist methodology—denies that there is any other kind of knowledge than empirical knowledge. It follows that philosophy, if it is to play any genuine cognitive role, can only be a form of empirical inquiry. According to the mild reading, however, it is one thing to rule out the traditional a priori and quite another to rule out *any* viable conception of the a priori. It is only by failing to draw this distinction that Quine and those influenced by him (e.g. Rorty<sup>23</sup>) think of his arguments as spelling the death of epistemology.

A mild reading of Quine's attack on the traditional or unrevisable a priori holds that even if that notion must be given up, that still leaves open the possibility of retaining or recovering a notion of revisable a priori knowledge. That would be a kind of knowledge discoverable by armchair reflection rather than observation and experiment but whose justification is admitted to be empirically defeasible. For instance, Tyler Burge explicates a

conception of a priori justification that fits this conception. He writes:

A justification or entitlement is a priori if neither sense experiences nor sense-perceptual beliefs are referred to or relied upon to contribute to the justificational force particular to that justification or entitlement.<sup>24</sup>

Note that this conception of apriority is not explained in terms of complete independence of experience; nor is it assumed to provide anything more than prima facie justification or entitlement, a particular “justificational force.” Burge’s conception thus allows conceptual room for the idea that a priori justification may be empirically defeasible since a countervailing justificational force may be provided by empirical evidence. Consequently, knowledge a priori on such a conception is defeasible. So there remains, contra the strong reading of Quine, an apparently viable conception of a priori philosophizing that is distinct from a posteriori inquiry even if it is sensitive to the results of such inquiry.<sup>25</sup> Of course, without a science of reason there is an inevitable tension between this conclusion and naturalism’s commitment to scientific methodology.

Such a position does not rehabilitate the traditional role of philosophy as final court of appeal, nor as a fixed foundation. But it does allow for the possibility that philosophy might still be capable of deciding questions of legitimacy or, indeed, even playing a foundational or constitutive role. The important concession is that none of these things is final, fixed once and for all. With an important proviso, owed to Putnam, we might say that they are all revisable on either empirical or conceptual grounds.<sup>26</sup> The proviso is that there are statements whose denial we cannot currently give a sense to e.g. “ $2 + 2 = 4$ .” In such a case we can at least say that we cannot guarantee that a sense will not be given to its denial in the future.

### **THIRD CREDO: PHILOSOPHY IS CONTINUOUS WITH SCIENCE**

The third credo is that philosophy is continuous with science. It is unclear whether Quine thinks of this as equivalent to the rejection of first philosophy, or a consequence of it. Here, too, there are strong and mild readings of the claim. The strong reading holds that philosophy is nothing but science in its general and abstract reaches. On this view philosophy has no autonomy at all with respect to the sciences. All of its traditional problems are, at best, to be reconceived as problems *within* science. This is Quine’s view. But we have already seen that Quine’s arguments against analyticity and the traditional a priori do not show that philosophy is nothing but a form of empirical inquiry.

On a milder reading of the continuity thesis, the claim is simply that there is an area of partial overlap between philosophy and science. The border between philosophy and science is fuzzy and over a certain terrain there might be no fact of the matter which is which. But even if that is so, it is important to see that such an overlap is compatible with there being regions of philosophy that are autonomous in relation to science. And when we con-

sider philosophy as a whole we see that science is not unique in this respect since philosophy *also* overlaps with, say, religion and theology, social and political criticism, literature, and history. Once again, while Quine favours the stronger reading, the milder reading is the more plausible of the two especially when we consider that a great deal of philosophy is still done in the armchair. And, again, it is not clear how this is to be reconciled with a commitment to scientific methodology.

#### **FOURTH CREDO: *THE ONLY RESPONSIBLE THEORY OF THE WORLD IS SCIENTIFIC THEORY***

The fourth credo claims that our best bet is that science, and only science, provides a complete and responsible theory of the world. In this case, too, there is an ambiguity. A *complete* theory of the world might mean either of two quite different things: On a strong reading, which Quine appears to be committed to, scientific theory provides a complete understanding of everything that there is in the world. All genuine understanding, on such a view, is scientific understanding. On a mild reading, scientific theory does not leave anything out, it is complete in the sense that it applies to everything there is in the world. On this conception non-scientific understanding is at least possible. We have already seen that by treating science as simply natural science Quine has a more restrictive conception of the scientific image—hence, a more restrictive conception of “everything there is in the world”—than a naturalist who accepts the legitimacy of the human sciences too. But I want to initially focus on the stronger claim.

The implication of the strong reading is that everything there is, in so far as it is explicable, is explicable in *wholly* scientific terms. The moral seems to be that scientific understanding is the only genuine or irreducible form of understanding there is; unquestionably, an extreme form of scientism. However, one way of rendering this position more plausible is this. Recent philosophers of science have argued that there is no common feature whether of content or method that is shared by all of the diverse variety of sciences that there are.<sup>27</sup> For example, not every science aims to explain phenomena by subsumption under causal laws.<sup>28</sup> And although many sciences engage in a broadly a posteriori form of inquiry, there is no single method or set of methods which is properly characterized as *the* scientific method. Consequently, science is a family resemblance concept, the various sciences sharing many overlapping similarities but no common essence. This situation has led John Dupré to speak of “the disunity of the sciences” and to adopt a position of “agnosticism” about whether one can even “distinguish legitimate scientific from nonscientific knowledge production.”<sup>29</sup>

However, to adopt an anti-essentialist view of science need not be to deny that there is a substantial science-nonscience distinction. As Wittgenstein taught us, the mere fact that there is no useful definition of a term does not show that our employment of it is undisciplined or without normative constraint. Even on a disunified view of the sciences, it is reasonable to recognize *some* substantial distinction between scientific and non-sci-

entific forms of understanding on the basis of the existence of some relatively uncontroversial examples of non-scientific understanding such as art criticism, and our everyday understanding of one another (which many philosophers misleadingly call “folk psychology”).<sup>30</sup> To these might be added our understanding of ordinary language, and the explanation of events in human history e.g. the origins of the First World War. These may be counted as non-scientific forms of understanding because they involve a kind of understanding that is irreducible to the objective understanding of the world that is the aim of the sciences. Our understanding of art, human history, everyday language, and our ordinary understanding of other people is not, or not *solely*, a matter of factual knowledge and scientific theory. It also involves seeing the connections, or patterns, or relationships amongst things (such as the similarity between two faces).

The blindspot in the strong reading is that scientific understanding does not exhaust the significance of, or our interest in, these things. Of course, it would be misleading to think of any of these things as non-scientific since all of them can be studied scientifically in one way or another. But the point is that there is more to them than is revealed to science. The “more” here is not a matter of anything supernatural but is a reflection of the existence of non-scientific forms of understanding.

What, then, of the mild reading? It certainly seems plausible as a way of rendering a commitment to anti-supernaturalism. But a problem arises when we consider irreducibly normative notions such as correct, true, right, and appropriate.<sup>31</sup> In each case there is the notion of a standard or ideal against which we assess *what we take to be* correct, true, right or appropriate. Our normative takings (e.g. regarding something as a reason for something else, treating something as valuable or right in such-and-such respects) are causal psychological facts capable of being studied scientifically. But the *ideal* of correctness or rightness or truth is not a causal matter that can be studied scientifically. This insight is associated with the much-discussed distinction between *verstehen* and *erklären*: a purely scientific or objective understanding will inevitably be incomplete because, for one thing, there is no science of reason (value, etc.) considered as ideals. Our understanding of such ideals is another form of non-scientific understanding. So if we consider that science itself presupposes scientific rationality (epistemic values, etc.) we may conclude that there is no completely scientific understanding of science.

Supposing that there is an ineliminably non-scientific dimension to our understanding of certain irreducible forms of normativity, it is plausible that it is within the bounds of philosophy to understand and clarify this kind of understanding. If so, this provides a powerful reason for admitting the possibility of philosophical claims that are autonomous with respect to the sciences. Consider, for example, our understanding of ordinary language. Here there is a distinction between what anyone knows simply as a master of their native language and what a scientific investigator of language knows. As ordinary language philosophers saw, reflecting on how a term is correctly used does not require the support of any specific scientific find-

ings. The grounds for this sort of understanding are not a matter of collecting empirical data, performing experiments, or consulting expert opinion.<sup>32</sup> It is ultimately a matter of one's own sense of what makes sense, something that involves seeing certain connections as salient or important. Of course, that is not to deny that empirical findings may provide the impetus to philosophical reflection, or that they may help to undermine one's confidence in what one finds intelligible.

This is an appropriate point to note an apparent inconsistency in Quine's own position. Quine himself implicitly acknowledges the importance of non-scientific understanding in his translational account of semantics. According to Quine what someone means by their words is given primarily by translation into one's "home language." That is, in order to work out what someone else means by their words, we must ineliminably rely on our understanding of our own language—what he calls "acquiescing in one's home language"—in order to provide a synonymous expression. Thus it seems there is no wholly scientific account of meaning available in Quine's view, a result that is a curious exception to his naturalism.<sup>33</sup>

### **NATURALISM: A *NORMATIVE DOCTRINE!***

Another way to see that naturalism inevitably extends beyond the bounds of science is to consider the status of the doctrine of naturalism itself. If we spell out the commitments implicit in Quine's strong continuity thesis then we arrive at the following epistemological and ontological commitments:

- (i) Scientific knowledge is all the knowledge there is;<sup>34</sup> and
- (ii) The objects, properties and relations recognized by the sciences are all the realities that there are.

For convenience, let us call these, the naturalist's basic commitments. Now let us ask, are these basic commitments themselves scientific? They certainly do not seem to be mere descriptions of scientific fact.<sup>35</sup> Naturalists typically treat the basic commitments as having *prescriptive* force: they are most plausibly understood not as empirical claims but as rational norms about how one *ought* to conduct philosophy in light of the rise of modern science.<sup>36</sup>

We can more perspicuously represent naturalism's basic commitments in terms of an endorsement of the following statements that are normative for philosophy:

- (iii) One *ought* to recognize only scientific knowledge as legitimate; and
- (iv) One *ought* to recognize only the realities posited by the sciences as legitimate.

Now the appearance of ought statements within a naturalist worldview need not be a disaster. Quine, for example, has said that his naturalized epistemology makes room for norms:

Normative epistemology gets naturalized into a chapter of engineering: the technology of anticipating sensory stimulation.<sup>37</sup>

Here Quine is referring to how best to engage in a species of instrumental reasoning. Our practical and cognitive ends are served in so far as we obtain reliable predictions of nerve stimulations. We want to engineer things so that we establish the right connections between our means and our ends avoiding “telepaths and soothsayers.” The norms of this kind of reasoning are “conservatism, generality, simplicity, refutability, and modesty” and empiricism itself.<sup>38</sup> So, one might suppose that the naturalist’s basic commitments can be conceived as instrumental norms along these lines.

Here it is worth recalling Putnam’s claim that the naturalist position is characterized by “a horror of the normative,” by which he means, first and foremost, the indispensable and irreducible normativity of reason.<sup>39</sup> Quinean naturalism is perfectly happy to recognize instrumental means-ends norms and even biological norms (e.g. that the heart has the normal function of pumping blood) because they can be reduced to facts about desires and biological functions respectively. But Quine is loath to admit categorical rational norms since they do not fall within the scope of natural scientific laws. The problem for Quine, then, is that instrumental rationality *itself* depends upon a categorical ought that has a characteristic prescriptive force: namely, that we rationally ought to take the means to our ends.<sup>40</sup> Instrumental reason presupposes an irreducible categorical, and scientifically inexplicable, form of normativity.

Naturalism thus faces an acute problem of internal inconsistency. If naturalism is an irreducibly normative doctrine then by the naturalist’s own lights the very statement of naturalism, not being a scientific claim, is not something that he is entitled to accept! Quine could perhaps argue that the sentences expressing the naturalist’s basic commitments are being used as mere expressions of attitude that are neither true nor false, but that would be to misdescribe the role of these claims in his thinking. They are not mere recommendations or expressions of feeling; they are offered as conclusions of a piece of reasoning; cognitive attitudes expressive of putative truths that the great successes of modern science have supposedly taught us.

## A NEW NATURALISM?

Where do these criticisms of Quinean naturalism leave us? After Quine’s widely influential work, it is an important fact that a great many philosophers—including many who oppose scientific naturalism—want to claim for their views the title of “naturalism.”<sup>41</sup> All sides to this debate can agree that this represents a major shift in philosophy’s conception of itself and of its relation to the sciences. Nowadays very few philosophers will want to claim that philosophy has any special domain—whether the study of knowledge, language, concepts, being or whatever—which is *wholly* independent of the findings of the best current scientific theories. Nor would they claim that philosophy can dictate to the sciences from a higher position of authority. As Quine puts it, where the sciences are concerned, there is now no higher tribunal than science itself. (Of course, no higher does not mean no other.)

It is also fair to say that it is a mark of sane philosophy to respect the findings of the sciences, especially those that have achieved a consensus amongst recognized scientists.

Nonetheless, we have seen that the rejection of first philosophy leaves open the possibility that philosophy *can* play a legitimating or constitutive role although one that will inevitably be defeasible, established on fallible grounds. And I have argued that philosophy is, to some extent, distinct from science even if there is some overlap between them. If it is not scientific in Quine's sense of simply being part of science, nor scientific in Russell's sense of being co-operative and cumulative, then is philosophy scientific in any nontrivial sense?

Let me conclude by considering one way in which it might be. The American Pragmatist tradition, particularly as represented by the work of John Dewey, is committed to extending the scientific method into all aspects of our lives, including philosophy.<sup>42</sup> But what Dewey meant by the "scientific method" was a set of quasi-moral virtues of inquiry—including tolerance, respect for the opinions of others, openness to criticism, and reasonableness—together with a fallibilist, experimental attitude to knowledge. In *this* sense, in which scientific method is a label for a kind of democratic experimentalism, it is a method that can be applied right across the science-non-science divide. It is as serviceable in art criticism, history and philosophy as it is in physics, chemistry and biology. In this pragmatist sense we might be happy to endorse a scientific philosophy after all. Yet the terms "science" and "scientific" are by now so freighted with so many different connotations that I think it is hopelessly misleading to speak of scientific philosophy in this quasi-moral sense. Instead if we reflect on the figure of Socrates, we might think that what Dewey is talking about is what philosophy at its best has been all along.

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## NOTES

1. Richard Dawkins, *The Independent*, September, 1993.
2. Representative scientific naturalists include P.M. Churchland, Daniel Dennett, Michael Devitt, Fred Dretske, Jerry Fodor, David Papineau, Kim Sterelny, and Stephen Stich.
3. See Mario De Caro and David Macarthur, eds., *Naturalism in Question* (Cambridge, MA: Harvard University Press, 2004).
4. See Mario De Caro and David Macarthur, *Naturalism and Normativity* (New York: Columbia University Press, forthcoming).
5. Gottlob Frege, *The Foundations of Arithmetic*, 2nd edn. (Oxford: Blackwell Press, 1950), Intro, p. x.

6. Ludwig Wittgenstein, *Tractatus Logico-Philosophicus*, trans. David Pears and Brian McGuinness (London: Routledge, 1961), 4.111–4.112.

7. Cf. Peter Hylton, *Russell, Idealism and the Emergence of Analytic Philosophy* (Oxford: Clarendon Press, 1990).

8. W.V. Quine, *Ontological Relativity and Other Essays* (New York: Columbia University Press, 1969), pp. 69–90.

9. The terms “science-worthy” and “second-grade” are taken from Quine, *Ontological Relativity and Other Essays*, p. 24.

10. I do not mean to suggest that the project of naturalization is uncontroversial. For a discussion of its unclarity see Stephen Stich, *Deconstructing the Mind* (Oxford: Oxford University Press, 1996), chap. 6.

11. Barry Stroud likens the term “naturalism” to “world peace” (De Caro and Macarthur, eds., *Naturalism in Question*, p. 22).

12. W.V. Quine, *From Stimulus to Science* (Cambridge, MA: Harvard University Press, 1995), p. 16.

13. W.V. Quine, *Theories and Things* (Cambridge, MA: Harvard University Press, 1981), p. 21.

14. W.V. Quine, “Reply to Putnam” in L.E. Hahn and P.A. Schillp, eds., *The Philosophy of W. V. Quine* (La Salle, Ill.: Open Court Press, 1986), pp. 430–431.

15. Some examples: David Armstrong, “Naturalism, Materialism and First Philosophy” in *The Nature of Mind and Other Essays* (St. Lucia: University of Queensland Press, 1980) defends the version in terms of current physics; David Papineau, *Philosophical Naturalism* (Oxford: Basil Blackwell, 1993) defends the version in terms of future physics.

16. John Dupré, *The Disorder of Things: Metaphysical Foundation of the Disunity of Science* (Cambridge, MA: Harvard University Press, 1993), p. 7.

17. W.V. Quine, *Theories and Things*, p. 98. It could be argued that this supervenience physicalism is so weak as to be explanatorily empty.

18. *Ibid.*, p. 98.

19. Quoted in *Ibid.*, p. 92.

20. Interestingly, this nomological conception of science—not physicalism but a implicit form of physics worship—is shared by a staunch critic of scientific naturalism, John McDowell, *Mind and World* (Cambridge, MA: Harvard University Press, 1994).

21. A great deal of biology is, arguably, not a matter of laws; so it is hard to explain Quine’s relatively more accepting attitude towards this science.

22. Cf. James Woodward, “Explanation and Invariance in the Special Sciences,” *British Journal for the Philosophy of Science* 51 (2000): 197–254. Woodward argues for the importance of fruitful causal explanations, whether law-like or not, in considering the genuineness of the human sciences.

23. Cf. Richard Rorty, *Philosophy and the Mirror of Nature* (Princeton, N.J.: Princeton University Press, 1980).

24. Tyler Burge, “Reason and the First Person,” in *Knowing Our Own Minds*, ed. Cythia McDonald, Barry Smith, and Crispin Wright (Oxford: Clarendon Press, 1998), pp. 263–264.

25. Frank Jackson, *From Metaphysics to Ethics* (Oxford: Oxford University Press, 1998) also defends a modest conception of the a priori in his advocacy of conceptual analysis. And Hilary Putnam, “Analyticity and Apriority: Beyond Wittgenstein and Quine,” *Realism and Reason: Philosophical Papers Vol. 3* (Cambridge: Cambridge University Press, 1983), discusses weaker forms of the a priori than that which Quine attacks.

26. Hilary Putnam, “Mathematical Necessity Revisited,” in *Words and Life* (Cambridge, MA: Harvard University Press, 1994).

27. Hilary Putnam, for example, has long argued that “there is no set of ‘essential’ properties that all sciences have in common.” “Mathematical Necessity Revisited,”

*Words and Life* (Cambridge, MA: Harvard University Press, 1994) p. 472). See also Richard Rorty, *Objectivity, Relativism, and Truth: Collected Papers Vol. 1* (Cambridge, UK: Cambridge University Press, 1991), pp. 35–63.

28. This causal-nomological understanding of science is central to many current accounts of naturalism. Simon Blackburn is representative in writing, “whatever else naturalism is, it surely involves the claim that the natural order is a causal order” (“Normativity a la Mode,” *The Journal of Ethics* 5 (2001): 139–153, at 140).

29. John Dupré, *The Disorder of Things*, p. 222.

30. Here I imagine a kind of understanding of other people that need make no reference to any empirical theory about psychology and which operates under the principle of rationality.

31. It may be that there are some other forms of normativity, such as those of chess or rules of etiquette, that can be largely accounted for in objective terms e.g. explicit books of rules or codes of conduct. Even here what it is to be committed or bound to the rules is a subjective matter.

32. Cf. Stanley Cavell, *Must We Mean What We Say?* (Cambridge, UK: Cambridge University Press, 1976), chap. 1.

33. The same could be said for his physicalism. Quine is forced to admit abstract objects such as numbers or sets into his physicalist ontology on the grounds of their indispensability to science.

34. I am overlooking Quine’s strictures with regard to the concept of knowledge, which he regards as too unclear for scientific purposes. Nothing significant turns on this in the present context.

35. One might think that naturalists reveal the distinctively philosophical status of their own doctrine in so far as they do not leave it open that there might be non-scientific knowledge or understanding of such things as values, meanings, or reasons—although, as we have seen, Quine is an exception in this regard, at least with respect to meanings. Peter Railton argues that naturalists ought to regard their basic commitments as plausible scientific hypotheses in “Naturalism and Prescriptivity,” *Social Philosophy and Policy* 7 (1989): 151–174, at 160. But naturalists do not seem to admit the possibility of rival non-scientific hypotheses and ways of assessing their relative merits that do not simply presuppose scientific standards of evaluation. So the naturalists’ basic commitments take on the character of unrevisable truths that are suspiciously like the first philosophy the naturalist is committed to rejecting.

36. This point has largely gone unnoticed by naturalists, one exception being Mark Colyvan, “Naturalizing Normativity,” *Conceptual Analysis and Philosophical Naturalism*, ed. David Braddon-Mitchell and Robert Nola (Cambridge, MA: MIT Press, 2008), chap. 8.

37. W. V. Quine, *Pursuit of Truth* (Cambridge, MA: Harvard University Press, 1990), p. 19.

38. *Ibid.*, p. 20.

39. Hilary Putnam, “The Content and Appeal of Naturalism,” in *Naturalism in Question*, p. 70.

40. Instrumental normativity by itself is no normativity at all, as Christine Korsgaard argues: “If ends are the object of prevailing desires, then whatever you do will count as pursuing your end, and you cannot be wrong. But ... there is no normativity if you cannot be wrong.” *Creating the Kingdom Of Ends* (Cambridge, UK: Cambridge University Press, 1996) p. 164.

41. Examples of philosophers who claim to be naturalists but not scientific naturalists include: Robert Brandom, John Dupré, Jennifer Hornsby, John McDowell, and Peter Strawson.

42. For Dewey’s account of naturalism see his “Half-Hearted Naturalism” (1927) in *Dewey and His Critics*, ed. Sidney Morgenbesser (Lancaster, Penn.: Lancaster Press, 1977).