Quine and Wittgenstein on the Science/Philosophy Divide *

Diego Marconi[†] diego.marconi@unito.it

ABSTRACT

In this article I first sketch what I take to be two Quinean arguments for the continuity of philosophy with science. After examining Wittgenstein's reasons for not accepting the arguments, I conclude that they are ineffective on Wittgenstein's assumptions. Next, I ask three related questions: (a) Where do Quine's and Wittgenstein's philosophical views essentially diverge? (b) Did Wittgenstein have an argument *against* the continuity of science with philosophy? (c) Did Wittgenstein believe until the end of his philosophical career that scientific results are philosophically irrelevant? It will be seen that all three questions are related with Wittgenstein's distinction between conceptual and factual issues. I conclude that the opposition between Quinean philosophy and Wittgensteinian philosophy is genuine.

1.

In his book *Wittgenstein's Place in Twentieth Century Analytic Philosophy* (Hacker, 1996), P.M.S. Hacker set up a very sharp opposition between Wittgenstein and analytic philosophy, on the one side, and Anglo-American philosophy drawing inspiration from Quine on the other. As a way of identifying analytic philosophy, the opposition is unconvincing. Hacker rightly insists on the diversity of the analytic tradition, pointing out that different notions of philosophy's role and even different notions of analysis prevailed

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[†] University of Torino, Italy.

with different philosophers at different moments. But then, he wants to exclude Quine and other philosophers he regards as Quinean from the analytic tradition, without it being quite clear why the cleavage between Quine and the later Wittgenstein, or between Quine and Austin, should be so much wider or more crucial than the difference between, say, Austin and Russell (who are both included in the tradition).

Anyway, in drawing the opposition Hacker focusses on one aspect that I would also like to concentrate upon. According to him, post-Quinean philosophy appears to be dominated by «modes of thought that emulate the forms of scientific theories, the jargon and formalization of respectable science, without the constraints of systematic data collecting, quantitative methods and experimental testing» (Hacker, 1996, p. 266); whereas analytic philosophy properly so called always conceived of itself as being other than science¹, and the later Wittgenstein insisted that the attempt to emulate or ape natural science typically produces bad philosophy. In Hacker's own words,

A fundamental tenet of analytic philosophy, from its post-*Tractatus* phase onwards, was that there is a sharp distinction between philosophy and science. Philosophy [...] whether or not it is conceived to be a cognitive discipline, is conceived to be a priori and hence discontinuous with, and methodologically distinct from, science. Similarly, analytic philosophy in general held that questions of meaning antecede questions of truth, and are separable from empirical questions of fact. If Quine is right, then analytic philosophy was fundamentally mistaken. (1996, p. 195)

Now, indicting post-Quinean philosophy for rejecting any sharp demarcation with respect to science (i.e., for seeing itself as continuous with science) is not the same as indicting it for being pseudo-science, or, to borrow Putnam's word², parascience. Hacker does not seem to distinguish clearly between the two charges. That one doesn't recognize a sharp divide between philosophy and science doesn't seem to entail the assertion that philosophy *just is* science (that baldness is vague does not entail that everybody is bald); even less does it oblige one to practice philosophy as quasi-science, i.e., as something that imitates certain superficial features of genuine science, though it is not really science. These are three different things: the continuity of philosophy with

¹ It should be noted that this does not apply to Russell, for one.

² Putnam, 1992, p. 141.

science, the identity of philosophy with science (or, perhaps more plausibly, the inclusion of philosophy within science), and the faking of science by philosophy. What I particularly want to underscore is that continuity - the lack of a sharp demarcation – entails neither identity nor partial identity, i.e., inclusion. Analogously, political theory is not the same as politics, yet a particular speech or a particular essay by a political leader can be both a piece of political theorizing and a political act - an act of practical politics. Or again,theoretical physics is not the same as mathematics; however, there are contibutions that one wouldn't know where to range, whether in physics or in mathematics. Moreover, if we take *relevance* as a criterion of continuity, so that discipline A is continuous with B if there are results of B that can be appealed to in order to establish theses belonging to A - perhaps not a bad way of identifying continuity – then many sciences turn out to be continuous with many others: biology with chemistry, sociology with psychology, perhaps every natural science with physics. Thus continuity does not seem to imply identity or inclusion.

2.

It scarcely needs arguing that Wittgenstein, early and late³, strongly opposed both the idea that philosophy is part of science, or one of the sciences, and the idea that philosophy is in any way analogous to science. Perhaps Wittenstein would have agreed with Putnam in addressing the charge of "parascience" against several of today's philosophers: for example, against philosophers working in the neighbourhood of cognitive science such as Jerry Fodor, Ruth Millikan, or Daniel Dennett.⁴ On the other hand, his opposition to the idea of continuity is not equally clear, not immediately at any rate. Ultimately, I will claim that Wittgenstein did indeed reject both the idea of continuity and the arguments supporting it. It is, however, interesting to examine such arguments together with Wittgenstein's reasons for rejecting them, for it allows us to highlight some crucial points that are relevant to the structure of today's

³ See T, 4.111; PI, §109.

⁴ Putnam's own criticism appears to be aimed at both Fodor and Millikan and at "analytic metaphysics" as practised by D.Lewis and B.Williams: «Most constructions in analytic metaphysics do not extend the range of scientific knowledge, not even speculatively. They merely attempt to rationalize the ways we think and talk in the light of a scientistic ideology» (1992, p. 141).

philosophical discussion. In this article, I will first sketch what I take to be two Quinean arguments for the continuity of philosophy with science. In each case, I will present Wittgenstein's reasons for not accepting the argument. I will conclude that the Quinean arguments are ineffective from Wittgenstein's point of view. Next, I will ask three separate though related questions: (a) where do Quine's and Wittgenstein's philosophical views essentially diverge, (b) did Wittgenstein have an argument *against* the continuity of science with philosophy, (c) did Wittgenstein really believe, to the very end of his philosophical career, that scientific results are philosophically irrelevant. It will be seen that all three questions are related with Wittgenstein's distinction between conceptual and factual issues. I will then conclude that the opposition between Quinean philosophy and Wittgensteinian philosophy is quite real. I do not intend to provide a solution to the problem (or family of problems) on which they took opposite sides; I only want to bring out the structure of their disagreement.

So, let us first look at Quine's arguments for the continuity of philosophy with science. In *Natural Kinds*, while discussing the legitimacy of appealing to empirical generalizations or to scientific theories such as Darwin's in order to justify a philosophical principle, Quine says the following:

I see philosophy not as an *a priori* propaedeutic or groundwork for science, but as continuous with science. I see philosophy and science as in the same boat – a boat which, to revert to Neurath's figure as I so often do, we can rebuild only at sea while staying afloat in it. There is no external vantage point, no first philosophy. All scientific findings, all scientific conjectures that are at present plausible, are therefore in my view as welcome for use in philosophy as elsewhere (Quine, 1969b, pp. 126–127).

As Barry Stroud pointed out (1995, p. 38), Quine never made clear which conception of philosophy he thought he was attacking here or in other similar texts, i.e., what we should understand by an "a priori propaedeutic" or by "first philosophy". Perhaps, as Stroud suggests and Hacker would gladly go along with, he had in mind

something that philosophers for many years certainly said they were doing, or said they ought to be doing: "analyzing" the concepts and principles of science or of everyday life [...] an a priori unpacking of the empty form or structure of our thought, or the discovery of the formal principles which any respectable inquiry must follow, quite independently of whatever "content" might come to fill that form. (Stroud, 1995, p. 38)

Maybe Quine was thinking of some such Kantian enterprise. On the other hand, sticking to the letter of what he says and keeping in mind the positivistic legacy that lies at the root of his reflection, it is more plausible to suppose that he is distancing himself from a *puristic* conception of philosophy: i.e., a conception on which no empirical or factual assumption has a legitimate place in a philosophical argument. The crucial expression in the text I quoted is "external vantage point": a puristic conception of philosophy appears to presuppose an external vantage point, what he elsewhere called "cosmic exile" (Quine, 1960, p. 275). Positivism is relevant here, for Quine's view can be seen as a radicalization of Carnap's thesis of the meaninglessness, or "lack of cognitive content", of so-called external questions. It is well known that Carnap regarded questions that are not raised within some language questions, i.e., that do not presuppose the rules of some language or other - as more or less disguised questions concerning the aptness of adopting one language rather than another (a practical, not a theoretical issue according to Carnap). Such questions, e.g., "Are there numbers?", are not amenable to a formulation «in terms of the common scientific language» (Carnap, 1950, p. 209) Quine's view can be seen as Carnap's view *minus* the conventionalist framework that Carnap was taking for granted. Like Carnap, Quine believes that all meaningful questions presuppose the rules of some language or other (there is no external standpoint, no cosmic exile); unlike Carnap, however, Quine regards it as mistaken even to imagine oneself in a position of uncertainty, or indeterminacy, or freedom of choice among different languages (where, as Carnap says, no meaningful questions could be asked). For we are all the time speaking within a language, our common language, which is the background of all scientific theories. To be sure, Quine is not talking in terms of the *rules* of a language – he is not saying that any meaningful question presupposes the rules of some language - for he regards the distinction between rules and statements or propositions as dubious, and that since the mid-Thirties.⁵ Thus taking a language for granted, or speaking from within a

⁵ I.e., since *Truth by Convention* (Quine, 1936). In that article, Quine examined the suggestion that logical principles such as «(II) *Let any expression be true which yields a truth when put for 'q' in the result of putting a truth for 'p' in "If p then q"*» might be conventions that are «adopted through behavior, without first announcing them in words». If we accepted such a suggestion, «the conventions [would] no longer involve us in vicious regress»: i.e., it would no longer be true that we

language, does not amount to presupposing the rules of that language *as opposed to* presupposing the truth of certain statements couched in that language.

Thus it appears that, for Quine, rejecting the idea of a first philosophy does not so much amount to rejecting transcendentalism (the "a priori unpacking of the empty form or structure of our thought", in Stroud's words), nor does it exactly coincide with rejecting epistemological foundationalism ("the discovery of the formal principles which any respectable inquiry must follow"). What Quine is rejecting is, more generally, the idea that one could do philosophy without assuming whatever presuppositions are implicit in the adoption of a language; or perhaps we should say, in order to avoid all conventionalistic overtones, that they are implicit in the very fact of having, and using, a language. Occasionally, Quine referred to such presuppositions by the phrase "conceptual scheme" (Davidson's Third Dogma). We inevitably speak and argue from within a conceptual scheme. Consequently, Quine concludes, we might as well go all the way:

No inquiry being possible without some conceptual scheme, we may as well retain and use the best one we know - right down to the latest detail of quantum mechanics, if we know it and it matters (1960, p. 4).

This is, then, Quine's essential motivation for the continuity of philosophy with science: as we are anyway speaking and arguing from within some conceptual scheme – *our* conceptual scheme – we might as well exploit the whole of science, "right down to the latest detail of quantum mechanics".

Notice that Quine is not here saying that, speaking as we are from within our conceptual scheme, we are *as a matter of fact* assuming the whole of science and we simply ought to acknowledge the fact. That would be an obvious *non sequitur*: it is surely not immediately clear that the adoption of any conceptual scheme whatever involves the adoption of science, indeed, of the

need logic to infer logical truths from conventions such as (II), as Quine shows we do by a Lewis-Carroll-like argument (1936, pp. 96–97). However, Quine is suspicious of the idea of a convention that is adopted before it is formulated: «When a convention is incapable of being communicated until after its adoption, its role is not so clear» (1936, p. 99). For Quine, only behavior that is explicitly based on an explicitly formulated rule can be described as "rule-following"; behavior allegedly based on unformulated conventions «is difficult to distinguish from that in which conventions are disregarded» (1936, p. 99). But if rules coincide with their formulations, the very distinction between rules and (other kinds of) propositions or statements is at risk.

whole of science. And it would be odd for Quine to claim that *our* conceptual scheme involves the whole of science: scientific knowledge, with or without quantum mechanics, is neither so widespread nor so effectively influential to be plausibly regarded as part of our conceptual scheme. In this respect, the literary tradition of the West (within which science only plays a minor role) would be a more plausible candidate. Anyway, Quine is not claiming that science is our conceptual scheme, or part of it; Quine is saying, rather, that *we would do well* to adopt science as our conceptual scheme, for, as conceptual schemes go, it is the best available.

One could object to Quine that the grounds he gives for the adoption of science as a conceptual scheme do not really justify such a commitment. Granted, we are anyway speaking and arguing from within a conceptual scheme – *our* conceptual scheme. But why should we saddle ourselves with the whole of science, down to the latest details of quantum mechanics, rather than keeping our conceptual-schematic commitments to a minimum? Can't we rest content with adhering to the grammar and semantics of our mother tongue (which does not appear to involve explicit or tacit knowledge of quantum mechanics)? The common ground of philosophical discourse – it could be argued – is, and ought to be simply our semantic competence: there is no reason to load philosophical discourse with all sorts of obscure, poorly understood, and often controversial presuppositions.

However, such a *prima facie* reasonable objection clashes with a now long tradition of philosophical arguments challenging the distinction between semantic competence and the acceptance of theories. An early and crucial episode in that tradition was Quine's own article *Two Dogmas of Empiricism*, with the criticism of the analytic/synthetic distinction and the connected claim that there cannot be any principled reason to exclude any statement from counting for or against the truth of any other statement ("confirmation holism"). If one goes along with Quine's rejection of the analytic/synthetic distinction, then semantic competence cannot be identified with knowledge of certain truths *as opposed to* full-fledged scientific knowledge. Notice, however, that such is the case only if semantic competence is identified with some kind of propositional knowledge to begin with. Wittgenstein, for one, did not see the matter along such lines at all: for him, semantic competence was rather to be equated with a practical ability, the command of certain rules and techniques. Carnap, on the other hand, had interpreted semantic competence

in terms of knowledge of meaning postulates (plus logic): this is the conception of semantic competence that Quine is challenging by his criticism of the analytic/synthetic distinction. I.e., Quine shows – if he is right in his criticism – that semantic competence à *la* Carnap cannot be demarcated from general knowledge. His criticism is not immediately effective against a different conception of semantic competence, such as Wittgenstein's. But on the other hand, we saw that Quine himself doubted that the command of rules could plausibly be *contrasted with* the acceptance of certain propositions as true⁶: for him, adhering to certain rules must consist, ultimately, in taking certain propositions to be true. So Wittgenstein would have seen no reason to regard Quine's criticism of the analytic/synthetic distinction as a challenge to the opposition of semantic competence and factual knowledge (including, of course, scientific knowledge), while Quine, in turn, would not regard Wittgenstein's notion of competence as safe from his criticism.

Thus, according to Quine, we cannot easily identify the shared ground of philosophical argument with common semantic competence *as opposed to* more or less controversial scientific theories. It then becomes more plausible to hold that, as we are bound to be involved with all sorts of factual assumptions anyway, we might as well buy the whole lot, i.e., science to the latest detail of quantum mechanics. Such a conclusion is reinforced by the second main point of *Two Dogmas*, i.e., confirmation holism. If any statement can be relevant to the confirmation or disconfirmation of any other (at least in principle), it follows that scientific statements can be relevant to philosophical arguments. It is, of course, assumed that *there are* philosophical arguments; more precisely, it is presupposed that philosophical research aims at establishing theses. If there are philosophical theses that are up for confirmation or disconfirmation, then confirmation holism instructs us not to rule out any statement – not even quantum-mechanical statements – as possibly relevant.

However, as is well known, this is not how Wittgenstein saw the matter.

In philosophy we do not draw conclusions – he wrote in the *Investigations* – "But it must be like this!" is not a philosophical proposition. Philosophy only states what everyone admits. (PI, §599)

It is not so much that there are no philosophical theses; it's rather that there are no *controversial* philosophical theses, theses that one could think of giving

⁶ See fn.7 above.

grounds for by appealing to this or that fact, perhaps to this or that scientific result. Whenever something controversial is stated in philosophy, that is a sure sign that something went amiss in the philosopher's work. Now, there is the temptation not to take such pronouncements of Wittgenstein's seriously; one is tempted to say that such a contention cannot be upheld, and that Wittgenstein's own philosophical work does not bear it out.⁷ I believe the temptation should be resisted, whether or not we eventually agree with Wittgenstein on this, and whether or not Wittgenstein himself actually stood by his tenet. Wittgenstein's controversial thesis that there are no controversial theses in philosophy is of a piece with much else in his philosophy, for example, with his adoption of the "morphological method".⁸ And if we take him seriously on this, then Quine's continuity argument based on confirmation holism is devoid of any efficacy, from Wittgenstein's standpoint.

3.

We found in Quine two arguments for the continuity of philosophy with science. The first is based on the impossibility of cosmic exile and the rejection of the analytic/synthetic distinction: it is only plausible, at least *prima facie*, if semantic competence is a form of propositional knowledge. The second derives from confirmation holism, and it requires that philosophy be conceived as an argumentative discipline, in which theses are put forth and accepted or rejected depending on the evidence. Neither presupposition was acceptable to Wittgenstein, so this is, in a sense, the end of the story. However, there are three more points I would like to raise.

⁷ See Glock, 1996, p. 294: «This picture seems to impoverish philosophy, and is generally considered to be the weakest part of Wittgenstein's later work – slogans unsupported by argument and belied by his own "theory construction". Clock goes on to argue that such methodological views are, however, «inextricably interwoven with the other parts of his work» (1996, pp. 294–295), a point with which I fully agree.

⁸ Wittgenstein never gave up the *Tractatus* insight that philosophy is an activity, not a doctrine (4.112), though he regarded the book as partly unfaithful to it. Even in later years, he wanted «to replace wild conjectures and explanations by quiet weighing of linguistic facts» (Z, §447; see BT, p. 432). The "morphological method" was his way of generating clarification without undertaking theoretical commitments: «I lay down the games as such, and let them spread their clarifying effect upon the several problems» (BT, p. 202). On these issues see Andronico, 1998, ch.2, and Marconi, 1997, pp. 89–95.

First point. It is quite clear that Wittgenstein shared some of the premises of Quine's first argument. There is a sense of "first philosophy" in which Wittgenstein, like Quine, does not believe in first philosophy: he does not believe in what he calls "metaphilosophy", or philosophy before philosophy.⁹ Like Quine, Wittgenstein does not believe that philosophy could start by shaping its tools - concepts such as "rule", "proposition", or "language" - in some pre-theoretical or meta-theoretical space ("cosmic exile", in Quine's terminology). On the contrary, philosophy essentially takes the ordinary use of such concepts for granted: that ordinary usage has no precise boundaries does not make such concepts less viable for philosophy than they are for everyday life (PG, §73). Like Quine, Wittgenstein regards ordinary language as the background of philosophical discourse: the concepts that philosophy employs are ordinary words in their ordinary use: «When I talk about language (words, sentences, etc.) I must speak the language of every day», he says (PI, §120). Where, then, do they part company exactly? Or, rather, why does Quine want to include science - indeed, the whole of science - in what he calls "our conceptual scheme", whereas Wittgenstein will have none of that? Why are the results of science, i.e., scientific propositions, of no special interest for philosophy according to Wittgenstein, although he admits that ours is «a community which is bound together by science and education» (OC, §298)? We already saw Quine's reasons to some extent. Wittgenstein's reasons are to be found in his definition of philosophy as a grammatical enterprise. Most of the time, science is for Wittgenstein just a collection of factual hypotheses that have no grammatical import, and *therefore* are of no interest for philosophy. More precisely, their grammatical import is independent of their truth or falsity: whatever grammatical import a scientific statement may possess is shared by its negation. This is one consequence of philosophy's «transition from the question of truth to the question of meaning».¹⁰ Obviously, this presupposes exactly the sort of distinction between the conceptual and the factual that Quine denies.

Thus, even Quine's and Wittgenstein's agreement on ordinary language as the background of philosophy is deceptive to some extent. For Quine, acquiescing in ordinary language¹¹ does not involve ordinary *concepts* more

⁹ BT, p. 67, PG, §72d; cf. PI, §121.

¹⁰ MS 106 46, quoted in Clock, 1996, p. 294.

¹¹ «Acquiescing in our mother tongue» (Quine, 1969a, p. 49).

than, or as opposed to, ordinary *truths* (moreover, there is no sharp line to be drawn between such ordinary truths and less ordinary truths, such as scientific truths). For Wittgenstein, to start with everyday language is to start with our customary use of ordinary words in everyday life (indeed, as part of everyday life): it is not to start with some body of common sense knowledge – such as could be represented by G.E.Moore's truisms – for which the question could arise of its continuity, or discontinuity, with scientific knowledge.

Aside from not accepting Quine's argument for the continuity of philosophy with science, does Wittgenstein have an argument against it? This is the second point I would like to raise. The answer is that he does have such an argument. It is based on the principle that "Nothing is hidden"¹²: the "data" that philosophy needs are all under our eyes. In philosophy we never need to *wait* until certain facts are established; there are neither discoveries nor surprises in philosophy. Wittgenstein says,

What is hidden is of no interest to us. One might give the name "philosophy" to what is possible *before* all new discoveries and inventions. (PI, §126)

If scientific results were relevant to philosophy, then there could be discoveries in philosophy, or something in philosophy could depend on a discovery: something in philosophy could be one way or the other depending on whether science has established, or discovered, that things are thus and so rather than otherwise. However, it can never be crucial for philosophy that facts are one way rather than the other, for, as we already saw, philosophy deals with possibilities, not with facts; its investigations are grammatical, not factual. As he went back to the *Tractatus* in the early Thirties, Wittgenstein denounced the "dogmatism" of his former theory of elementary propositions and logical analysis precisely because it made logic dependent on the discovery of certain facts; in that case, facts concerning the form of elementary propositions.¹³ The logical notions of analysis and elementary proposition had to wait for their full determination until "further research" had determined what the bottom level of reality was, and, consequently, what an elementary proposition looked like. According to the later Wittgenstein, this stemmed from a total misunderstanding of the nature of philosophical research:

¹² WWK, p. 183; BT, §89; PI, §126.

¹³ See Marconi (1995).

The truth of the matter is that we have already got everything, and we have got it actually *present*; we need not wait for anything. We make our moves in the realm of the grammar of our ordinary language, and this grammar is already there. Thus we have already got everything and need not wait for the future (WWK, p. 183)

The conceptual domain – the "realm of grammar" – is not something that science could make discoveries about, for two reasons: first of all, because it is entirely open to view, so that it is not something that one could think of making discoveries about ("Nothing is hidden"); secondly, because science only discovers *facts*, and facts – their being one way or the other – are grammatically indifferent. The only philosophical use of scientific discoveries is to make the philosopher better aware of possibilities:

Is scientific progress useful for philosophy? Certainly. The realities that are discovered lighten the philosopher's task, imagining possibilities (LWPP I, §807)[Variant: Realities are so many possibilities for the philosopher].

Thus, even Wittgenstein's argument against the continuity of philosophy with science ultimately depends on the dichotomy between the conceptual and the factual: it's because philosophy is confined to the conceptual that, as far as philosophy is concerned, "nothing is hidden".

4.

But then, are facts – their being one way or the other – really indifferent for grammar, hence for philosophy? This is the third and last point I would like to raise. The very late Wittgenstein – the author of *On Certainty* – appears to have had occasional doubts about the philosophical irrelevance of facts. It is sometimes pointed out that, in the notes *On Certainty*, certain facts acquire grammatical import, at least in the sense that they are assumed or presupposed by a language game, so that e.g., calling them in question is not really compatible with playing that particular game. It is perhaps not entirely clear whether the facts themselves are regarded as preconditions of the language game (OC, §618), or our certainty that such facts hold (OC, §§446, 519, 579); but anyway, Wittgenstein appears to be saying that certain facts, as laid out e.g., by physics (OC, §600) or anatomy (OC, §666), play a special role – a role that is close to that of a rule. Propositions expressing such facts – we are

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tempted to call them "basic" propositions – are like rules in that they are as well-founded as any grounds one could give for them (OC, \$111), and also in that they cannot be given up «without giving up all judgment» (or so one would be inclined to say)(OC, \$494). Perhaps, Wittgenstein says, there is no sharp boundary between propositions of logic and empirical propositions (OC, \$319); perhaps «the same proposition may get treated at one time as something to test by experience, at another as a rule of testing» (OC, \$98).

All this is quite well known. And the conclusion is easily drawn that the very late Wittgenstein was indeed relaxing the distinction between the conceptual and the factual, between rules and propositions, or between grammar and experience, thereby coming closer to views such as Quine's (or Davidson's). Given enough time, he would have been brought to regard much of natural science as having grammatical import, hence to the continuity of philosophy with science.

As a speculation concerning the possible evolution of Wittgenstein's thought, this is of course untestable. However, as an interpretation of what Wittgenstein, even very late, did actually say it is, I believe, one-sided and misses at least one important point. Wittgenstein is not saying that the facts of nature – "facts of (our) natural history", as he calls them – are constitutive of concepts; he is saying that they motivate *our* particular use of certain concepts within particular language games. Let us read once more a very famous text in the *Investigations*, Part II:

I am not saying: if such-and-such facts of nature were different people would have different concepts (in the sense of a hypothesis). But: if anyone believes that certain concepts are absolutely the correct ones, and that having different ones would mean not realizing something that we realize – then let him imagine certain very general facts of nature to be different from what we are used to, and the formation of concepts different from the usual ones will become intelligible to him. (PI, II, xii).

That footrules are rigid, for example, does not *determine* our concept of measurement, but if they were not rigid a different notion of measurement would probably prevail. Here, the important point is that it would still be a notion *of measurement*, though different from ours. When Wittgenstein says that «we can also invent fictitious natural history for our purposes» (PI, II, p. xii), he appears to be suggesting that what is important for philosophy are the several possibilities of employment of certain words and the circumstances in

which such employments could turn out to be motivated and "natural"; not which of such circumstances do hold, which natural history is the true one. What contributes to the clarification of a concept such as *pain*, for example, is an examination of the different uses the word 'pain' can be put to for different purposes or in widely different circumstances, both natural and social; not, in and of itself, the association of our use of 'pain' with our physical and psychical constitution. Once again, philosophy is concerned with possibilities, not with actualities: the actual facts of nature - even "very general" facts - are not in themselves philosophically crucial. Reference to facts of nature does not settle philosophical disputes: it is a heuristic device whose purpose and effect is to make us realize the *contingency* of even the deepest features of our use of language. This makes science *useful for* philosophy – as the quotation about scientific discoveries clearly shows – but not *continuous with* philosophy, in the sense that scientific results could be premises to philosophical conclusions. Science stimulates philosophical fantasy, it does not establish, or help establish, philosophical conclusions (there are no such things, anyway).

Here, an objection could be raised against Wittgenstein. If philosophy is essentially interested in our own use of language (for, after all, that is where the philosophical malady is generated) then it would seem to be philosophically crucial that one particular natural history is true, rather than another - for example, one of the imaginary histories that Wittgenstein is fond of telling. For, when all comparisons and contrasts have been set up and duly experienced in imagination, it is after all in the light of the facts of *our* natural history that we make sense of our use of language. Suppose we were utterly ignorant of such facts: suppose we didn't know whether footrules are rigid or not; or whether people usually remember their names (or only occasionally, or never); or whether physical bodies keep disappearing and reappearing rather than just being there most of the time. There may be something – perhaps a lot – that we could say about language under such a veil of ignorance, but we could hardly make sense of our use of language. Not knowing whether footrules are rigid or not, for example, we would entirely miss the *point* of our use of concepts of measurement. Counting the way we count in a world of stable objects is one thing, counting in the same way in a world of vanishing objects is a different thing. And so forth. So it seems that the facts being one way rather than another does make a difference, if philosophy is intended to make sense of our use of language.

Wittgenstein might have conceded this point; however, he would have argued that the rigidity of rulers, or the relative permanence of everyday objects, can hardly be seen as facts that science establishes; rather, science itself *presupposes* such "facts". Therefore, their putative philosophical relevance does not involve the philosophical relevance of *science* – of scientific propositions, or of the facts such propositions are meant to establish. Quine, in turn, would point out that what we have here is just one more difference of degree: it is not easy to separate the facts that science (as a whole) presupposes from the facts that science establishes. Wittgenstein, on the other hand¹⁴, saw the difference between the bed of the river and the water flowing in it as one of kind, not of degree (OC, §§97, 99). So, once more, what is in question is the distinction between two kinds of propositions, whatever the two kinds are called.

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¹⁴ As Roger Gibson recently noted: Gibson, 1996, p. 93.

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