

## BEING, TRUTH AND MEANING IN QUINE'S PHILOSOPHY\*

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### 0. *Introduction.*

In this paper I shall examine the interrelationships holding between four of the main theses of Quine's philosophy.

- (1) Holism
- (2) Underdetermination of scientific theories
- (3) Indeterminacy of translation
- (4) Ontological Relativity

These four doctrines have generated a lasting controversy : in one interpretation they seem to be false and in the other they are threatened to collapse into triviality. Moreover it has been claimed that they cannot be consistently upheld together. I shall argue, on the contrary, that they are true, original and mutually consistent.

### 1. *Varieties of Holism.*

The truth value of a synthetic statement depends on two factors : the state of affairs described and the meaning of the words involved. It is tempting to conceive of the analytic statements as a degenerate case of statements : statements whose truth value depends only on the meaning of the words involved. This way of drawing the distinction between synthetic and analytic statements, however, will be undermined if it appears that statements have no meaning in isolation.

In his well-known criticism against the synthetic — analytic dichotomy Quine takes that line, he uses holism as an argument against the dichotomy : "The statement, rather than the term, came with Frege to be recognized as the unit accountable to an empiricist critique. But what I am now urging is that even in taking the statement as unit we have drawn our grid too finely. The unit of

empirical significance is the whole of science"<sup>1</sup>.

The crucial term in this text is "significance". Should we interpret it in the sense of "meaningfulness" or in the sense of "meaning"? If we adopt the first reading, we shall understand Quine as claiming that it is illegitimate to ask whether a statement taken in isolation is meaningful or meaningless. If we adopt the second reading we shall impute to Quine the much stronger claim that the unit of semantic meaning is not the statement but the *whole of science*. The second reading is the right one as can be seen from a passage in *Philosophy of Logic* where Quine restates the holistic argument against the analytic-synthetic dichotomy and switches from "significance" to "information": "If each sentence of science could be assigned its individual share of information... the doctrine of analyticity would be sustained<sup>2</sup>".

Quine's *semantic holism* is a bold theory of meaning which has to be distinguished from Duhem *epistemological holism* although it relates to it. The relationship between the two is a relation of entailment. *Semantic holism* is entailed by the conjunction of two theses a) Duhem's epistemologic holism i.e. the claim that one can never verify a hypothesis in isolation but only a whole theory, b) the verificationist theory of meaning according to which the meaning of a sentence is its method of verification.

Quine subscribes to these two theses. In the introduction to *Methods of Logic*, he writes, "Our statements about external reality face the tribunal of sense experience not individually but as a corporate body<sup>3</sup>" which is in full accordance with Duhem's claim, "le physicien ne peut jamais soumettre au contrôle de l'expérience une hypothèse isolée, mais seulement tout un ensemble d'hypothèses...<sup>4</sup>".

As to the verificationist theory of meaning it is upheld at least tentatively in Quine's "Epistemology Naturalized": "Suppose we hold, with the old empiricist Peirce, that the very meaning of a statement consists in the difference its truth would make to possible experience<sup>5</sup>".

An objection could be raised against our claim that epistemological holism combined with a verificationist theory of meaning entails semantic holism and excludes the analytic synthetic dichotomy: Carnap whom it should be presumptuous to criticize for inconsistency, advocates both Duhem's epistemological holism and the Peirce-Schlick theory of verification and yet retains the analytic-synthetic dichotomy. In *Logical Syntax of Language*, Carnap expresses his agreement with Duhem's holism: "the test applies, at bottom, not to a single hypothesis but to the whole

system of physics as a system of hypotheses (Duhem, Poincaré)<sup>6</sup>”.

That objection however will lose its strength if we pay attention to a peculiarity of Quine's epistemological holism : his holism is much more general than Duhem's. It extends beyond physics and covers science as a whole, mathematics and logic included.

It is worth mentioning that Quine's plea for holism and for the rejection of the analytic-synthetic distinction is *contemporary* with Gonseth's formulation of the four principles of “open philosophy” in *Dialectica* : the principle of revisability extended to the whole of learning, the principle of duality stating the inseparability of reason and experience, the principle of integrality which “pose l'ensemble de la connaissance comme un tout dont les parties ne sont pas autonomes<sup>7</sup>” and the principle of technicity. Gonseth's principles, however, are simply juxtaposed, whereas Quine *derives* the rejection of the dichotomy (which corresponds to Gonseth's duality principle) from holism (which corresponds to Gonseth's principle of integrality). Professor Perelman considered the problem of the logical relationship between Gonseth's principles and showed that “la conjonction du principe d'intégralité avec celle de dualité constitue la caractéristique même de la philosophie régressive : les autres principes en découlent par voie de conséquence<sup>8</sup>”.

Quine gave several accounts of his holism. Sometimes he comes close to Duhem's formulation, though he gives the concept of holism a wider extension : the passage in *Word and Object* which runs : “alternatives emerge : experiences call for changing a theory, but do not indicate just where and how<sup>9</sup>” is almost a replica of the statement of Duhem that follows : “lorsque l'expérience est en désaccord avec ses prévisions, elle lui apprend que l'une au moins des hypothèses qui constituent cet ensemble est inacceptable et doit être modifiée, mais elle ne lui désigne pas celle qui doit être changée<sup>10</sup>”.

In *Two Dogmas*, Quine makes the stronger claim that “any statement can be held true come what may, if we make drastic enough adjustments elsewhere in the system. Even a statement very close to the periphery can be held true in the face of recalcitrant experience by pleading hallucination or by amending certain statements of the kind called logical laws<sup>11</sup>”.

The strongest version of holism, however, can be found in a letter to Grünbaum published recently : “I am not concerned even to avoid the trivial extreme of sustaining a law by changing a meaning, for the cleavage between meaning and fact is part of what, in such contexts, I am questioning”, but Quine qualifies his account in these terms : “Actually my holism is not as extreme as those brief vague paragraphs at the end of “Two Dogmas of Empiricism” are bound to

sound. See sections 1—3 or 7—10 of *Word and Object*<sup>1 2</sup>”.

The strongest version of holism is definitely too strong. It blurs the distinction between Duhem's holism and Poincaré's conventionalism, a distinction which is worth retaining. Its epistemological significance has been clearly pointed out by Grünbaum in “The Duhemian Argument”. Both Duhem and Poincaré would claim that Euclidian Geometry can be salvaged. But whereas a Duhemian physicist will admit perturbational influences due to the chemical composition of the measuring rods and allows for distortions and for a “logic of computing these corrections [which] precludes that the geometry itself be accessible to experimental ascertainment *in isolation from* other physical regularities<sup>1 3</sup>”, he will not tamper with the metrics itself. He will not give himself the right of resorting to remetrization, i.e. he will not allow for the dependence of the rod's length on the independent variables of position and orientation as a follower of Poincaré would do. It is therefore important to keep holism separated from conventionalism. Quine's strongest concept of holism does not and should, for that reason, be abandoned.

## 2. *The clash between semantic holism and the thesis of underdetermination.*

Another tenet of Quine's philosophy of science is the thesis that scientific theories are underdetermined by observation. Underdetermination consists in an excess of richness : Quine claims that even if we were to take into account empirical observations unto eternity “countless alternative theories would be tied for the first place<sup>1 4</sup>”.

Later on, Quine offered a stronger version of the underdetermination thesis : he claimed that countless alternative theories could be equal in goodness of fit even if we took into account not only past, present and future observations, but also possible observations : “Physical theory is underdetermined even by all *possible* observations... Theory can still vary though all possible observations be fixed. Physical theories can be at odds which each other and yet compatible with all possible data, even in the broadest sense. In a word, they can be logically incompatible and empirically equivalent<sup>1 5</sup>”.

The *underdetermination thesis* differs from the thesis we dubbed *epistemological holism*. It entails but is not entailed by it. Holism asserts the existence of a *plurality* of theories accounting for the *observed* facts. The underdetermination thesis goes further, it asserts the existence of an *infinity* of theories accounting for the *possible*

*observations.*

A serious difficulty arises when one tries to combine the four following theses

- (1) Epistemological holism (statements face the tribunal of experience as a corporate body);
- (2) The verification theory of meaning (the meaning of a statement resides in its method of verification or in the difference its truth would make to possible experience);
- (3) Semantic holism (the unit of meaning is the whole of science);
- (4) The underdetermination thesis.

The difficulty is this : if we combine the first three theses, we shall be committed to saying that two theories which are *empirically equivalent* are *ipso facto semantically equivalent*, i.e. *synonymous*. If this is the case, however, the underdetermination thesis will collapse into triviality. The numerous theories which "are tied for the first place" can be described as notational variants which differ in words but not in content.

Quine became aware of the problem and tried to solve it. In a recent essay, "The Nature of Natural Knowledge" (1975), he acknowledged that "the issue of under-determination proves slippery when we try to grasp it more firmly<sup>16</sup>". "If two theories conform to the same totality of possible observations, in what sense are they two ? ... It may be protested that since such theories would be empirically equivalent, would have the same empirical meaning, their difference is purely verbal<sup>17</sup>".

Quine's answer is that two empirically equivalent theses differ from each other not only *notationally* but also *semantically* if they are not alike word for word, i.e., if they are *not* intertranslatable. They are both empirically and semantically equivalent, however, when, for instance, "they are alike word for word, except that one of them calls molecules electrons and electrons molecules<sup>18</sup>".

Quine's reply is satisfactory, as it stands, but it entails the rejection of thesis (3), i.e. of semantic holism. To realize this, one has only to remember what Quine himself says about translation in *Word and Object* : "translation proceeds little by little and sentences are thought of as conveying meanings severally<sup>19</sup>".

In the last-quoted passage, Quine focusses on the distinction between *translation* which is *piecemeal* and *theory verification* which is global. This contrast however has far reaching consequences. It implicitly involves the recognition that language differs from theory. This will be easily admitted. Translating is *primarily* mapping the source language onto the target language, and only *derivatively* mapping a theory written in one language onto a theory written in

the other language.

Can Quine *consistently* introduce into his philosophical doctrine the distinction between language and theory he needs if he is to save his underdetermination thesis from trivialization? In several places, he deliberately confuses these two things. For instance in "On Mental Entities" he uses the blanket word "system" to cover both language and theory<sup>20</sup>. When Chomsky criticizes him for his "tendency to use the terms 'language' and 'theory' interchangeably"<sup>21</sup> he pleads guilty: "This tendency is related to my rejection of the traditional distinction between analytic and synthetic statements; or what comes to say the same thing, the distinction between meaning and widely shared collateral information; or, what comes in the end to much the same thing, the notion that the sentences of a theory have their several and separable empirical contents<sup>22</sup>". One might thus be led to conclude that in order to salvage the underdetermination, Quine is compelled to take a step which jeopardizes his views on the analytic-synthetic distinction.

A closer examination of the matter, however, reveals that this danger is illusory. Language has both a syntactic and a semantic side. One can therefore argue that theory is *continuous* with language as far as *semantics* is concerned and insist, at the same time, that language is neatly separated from theory as far as *syntax* is concerned.

Such a view can be backed up by the following consideration: Inference rules and meaning postulates can be indifferently ascribed either to the language or to the theory. Formation rules, on the contrary, belong to language only. There are some hints which suggest that Quine would agree with this defence. He certainly acknowledges a sharp distinction between semantics and syntax. This can be gathered from the way he treats non-sense.

*Semantic non-sense* Quine reduces most of the time to *falsity* — " $x \in x$ ", which is meaningless according to Russell's theory of types, becomes meaningful in Quine's theory of stratification, — but this reduction extends beyond the technical context of logic: "apart from that technical context there has been a concern among philosophers to declare meaningless, rather than trivially false, such predications as 'This stone is thinking about Vienne' (Carnap) and 'Quadruplicity drinks proorastination' (Russell) .... But since the philosophers who would build such categorial fences are not generally resolved to banish from language all falsehoods of mathematics and like absurdities, I fail to see much benefit in the partial exclusions that they do undertake; for the forms concerned would remain still quite under control if admitted rather, like

self-contradictions, as false<sup>23</sup>”.

Quine's willingness to blur the distinction between semantic non-sense and falsity meshes with his willingness to abolish the analytic-synthetic dichotomy. To show this it will be enough to point to the connection established by Carnap in *Logical Syntax of Language* between analytic sentences and “universal predicates”, which in his terminology means what is nowadays called “category term”: “We will call a predicate of which every full sentence is an analytic sentence a *Universal predicate* ...<sup>24</sup>”.

In *Philosophy of Logic*, however, he acknowledges that there is such a thing as genuine nonsense in syntax. The schema “ $(\forall p)(p \vee \sim p)$ ” where we read the quantified sentential variables as ranging over sentences is a case in point. “Sentences are not names”, he says, “and this reading is simply incoherent; it uses ‘p’ both in positions that call for sentence clauses and in position that call for a noun substantive<sup>25</sup>”.

We have just seen that semantic non-sense is continuous with falsity whereas syntactic non-sense is neatly separated from falsity. The same, in my opinion, can be said concerning language and theory. From the *semantic point of view*, there is *continuity* between language and theory, but not of course, *identity*: whenever a theory is consistent it is a proper subset of the language, i.e. it contains only one item of each pair formed of a sentence and its negation. From the *syntactic point of view*, there is *discontinuity* between language and theory. This being so Quine can consistently use theory and language interchangeably when discussing the analytic-synthetic dichotomy and rely upon the distinction between theory and language when tackling the problem raised by the underdetermination thesis.

### 3. *Indeterminacy of Translation.*

The child who learns his mother-tongue or the ethnologist who tries to translate into his language the idiom of a tribe which has remained culturally isolated can go a long way with observation, induction and experimentation applied to the linguistic behavior of the natives.

There comes a time, however, when he needs more, he needs what Quine calls “analytical hypotheses”: “the jungle linguist segments heard utterances into conveniently short recurrent parts, and thus compiles a list of native ‘words’. Various of these he hypothetically equates to English words and phrases, in such a way as to conform to [certain boundary conditions]<sup>26</sup>”. Analytical hypotheses are

gathered together in what Quine calls *Translation manuals*.

Different translation manuals can succeed to the same extent in the task of accounting for the linguistic behavior of the natives and yet ascribe to them wildly different meanings. Quine names this absence of determination "indeterminacy of translation". One manual might, e.g., translate "gavagai" into "here is a rabbit" and another manual might translate it into "here is a set of undetached parts of rabbit". One might think that by asking such a question as "is this the same gavagai as that?" one will be able to settle the matter. It is not so however. By *compensatory* adjustments the mutually incompatible differences can be accounted for. This reminds us of epistemological holism, and as a matter of fact it is an instance of the latter.

Indeterminacy of translation thesis is formulated in these terms in *Word and Object*: "Manuals for translating one language into another can be set up in divergent ways, all compatible with the totality of speech dispositions, yet incompatible with one another. In countless places, they will diverge in giving, as their respective translations of a sentence of the one language, sentences of the other language which stand to each other in no plausible sort of equivalence however loose<sup>27</sup>". This formulation bears a striking resemblance to the formulation of the thesis of the underdetermination of scientific theories by observation which we quoted earlier. This resemblance has misled a great number of readers into thinking that indeterminacy of translation is *nothing but* a particular case of the underdetermination of scientific theories. I shall here reopen the debate again and try to bring in new arguments to show that *indeterminacy* differs from *underdetermination* and that the difference is important.

#### 4. *The first way of distinguishing between underdetermination and indeterminacy.*

Chomsky is among those who claim that the distinction between underdetermination and indeterminacy is a distinction without content: "the situation in the case of language, or 'common sense knowledge'", he says, "is ... no different from the case of physics<sup>28</sup>". In both cases, we have to resort to hypotheses.

*Epistemologically* speaking, the two thesis are indistinguishable, but *ontologically* speaking they differ. This distinction can be gathered from an early paper of Quine ("Meaning and Linguistics") which seems to have escaped the notice of Chomsky and others. In that essay, Quine says that, contrary to what happens in physics, in



radical translation there is nothing to be right or wrong about.

Quine brings out the difference between the two sorts of indeterminacy in this way : he imagines a lexicographer at work in a remote country, struggling with the data of his informant, and trying with the help of hypotheses, to build his lexicon by setting up meaning correlations between the two idioms. "The finished lexicon", writes Quine, "is a case of *ex pede Herculem*. But there is a difference. In projecting Hercules from the foot we risk error, but we may derive comfort from the fact that there is something to be wrong about. In the case of the lexicon, pending some definition of synonymy, we have no statement of the problem; we have nothing for the lexicographer to be right or wrong about<sup>29</sup>".

In his reply to Chomsky, in 1968, Quine resorted to the same kind of *ontological* consideration : "Though linguistics is of course a part of the theory of nature, the indeterminacy of translation is not just inherited as a special case of the underdetermination of our theory of nature. It is parallel but additional. Thus adopt for now my fuller realistic attitude toward electrons ..... consider, from this realistic point of view, the totality of truths of nature, known and unknown, observable and unobservable, past and future. The point about indeterminacy of translation is that it withstands even all this truth, the whole truth about nature. This is what I mean by saying that, where indeterminacy of translation applies, there is no real question of right choice, there is no fact of the matter ...<sup>30</sup>".

The situation can be summed up in this way : scientific theories are underdetermined by all observation (past, present, future and possible), but among the competing theories in physics there is at most one which is true of the distribution of particules which constitutes physical reality. Not so for translation manuals. Here there is no fact of the matter to the extent to which there is no such a thing as a Realm of Meanings, no such a thing as *Satz am Sich*.

Quine's thesis of indeterminacy seems to be threatened by the same evil as his last version of holism and his underdetermination thesis : trivialisation. One is tempted to say that if, as far as translation goes, there is nothing to be right or wrong about, then the divergence which can exist between conflicting translations is a divergence about nothing. Several critiques took that line. Professor Young expresses the objection in this way : if, in contradistinction to rival scientific theories, rival translations have nothing to disagree about, then neither is there anything "for translation to be indeterminate *between*<sup>31</sup>", and Professor Schick shares his misgivings : "the difficulty", he says, "is that one's claim of indeterminacy of translation cannot be made interesting without

distinguishing among alternative meanings<sup>3 2</sup>”.

That objection however, can be answered. If we treat analytic hypotheses along the same lines as a coordinate system in physics, we shall understand the way in which the former operate. *Before* we have adopted analytic hypotheses, there is no meaning out there to be captured by the translator. But once the manual of translation has been chosen there is such a thing as meaning.

Meaning is not *found* out there, as a “furniture of the world”, it is projected by the manual of translation. In other words, what the manual of translation does is to project the linguistic habits tied up with the source-language onto the target-language. Quine fully acknowledges this asymmetry in the following passage :

It is only by... outright projection of prior linguistic habits that the linguist can find general terms in the native language at all, or having found them, match them with his own... The method of analytical hypotheses is a way of catapulting oneself into the jungle language by the momentum of the home language<sup>3 3</sup>.

But if the manual of translation carries “linguistic habits” from the source-language into the target-language, in other words, if it *carries* linguistic habits from one place to another, can we still maintain that it *creates* something? The answer is yes. Manuals of translation generate meaning in so far as *different* manuals of translation connecting the *same* source-language with the *same* target-language can project onto the latter *different* translations. When that situation occurs, it is obvious that the manual of translation has to be held responsible for the *difference* of meaning which results from its application. The question, “How can manuals of translation conceived as systematic syntactic correlations, i.e., correlations between *sentences*, create meanings?”, can be easily answered if we conceive this creative power as a power to *transform creatively*. The puzzle is unsolvable only if one assumes that the only sort of creation of meaning that is conceivable is *creatio ex nihilo*.

There is another objection one might raise against Quine’s way of justifying the distinction between underdetermination and indeterminacy. One might object against Quine that, as Follesdal puts it, “he is ... just stating an ontological dogma to the effect that there are no propositions or other intensional entities<sup>3 4</sup>”. Follesdal himself, however, put forward an argument designed to underpin Quine’s too dogmatic assumption: “It seems to me that Quine’s position is more interesting if his ontological bias is regarded as a

consequence of a more fundamental epistemological bias toward empiricism<sup>35</sup>”.

Føllesdal's argument takes advantage of a feature connected with the *methodology* of inquiry which makes the underdetermination worse in translation theory than in physical theories: “As was the case for empirical theories, considerations of simplicity and methodology cannot give a definition of truth. Indeed, in translation, the situation is *even more difficult* than in empirical theory, since, as Quine has observed (in conversation) the simplest mapping of A into language B followed by the simplest mapping of B into language C does not necessarily give the same mapping of A into C as does the simplest mapping of A into C. Similarly, the simplest mapping of A into B followed by the simplest mapping of B into A does not necessarily map every item in A back onto itself<sup>36</sup>”.

Now, according to Føllesdal, the fundamental “bias toward empiricism” enjoins us to assume that “the only entities we are justified in assuming are those that are appealed to in the simplest theory that accounts for all the evidence<sup>37</sup>” and as the simplicity criterion does not work here, ontological assumption cannot be justified. Empiricism leads therefore to the physicalistic statement: “as far as translation is concerned there is no fact of the matter”.

##### 5. *Quine's second way of drawing the distinction between translational indeterminacy and theoretical underdetermination.*

Føllesdal's argument is a very powerful refutation of meanings conceived as *platonic entities* (along the line of Bolzano's *Satz an Sich*) but it seems powerless against meanings conceived as private *mental entities*. One is still tempted to think of translating as trying to find out *what is in the mind* of the peoples whose utterances are being translated.

In his essay “On the Reasons for Indeterminacy of Translation”, Quine tackles that very problem. He presents a case where the indeterminacy of translation is, as a matter of fact, *added* to the other predicament, i.e. to the underdetermination of empirical theories. He considers two conflicting theories, A and B, which are compatible with all possible data, i.e. between which we are forced to make a choice underdetermined by experience. The problem of translation is then grafted onto the initial underdetermination: he invites us to think of the situation which arises when we are in doubt as to which of these two theories should be attributed to a foreign

scientist whose language requires radical translation. Quine comments on the situation as follows :

We might adopt A for ourselves and still remain free to translate the foreigner as believing A or believing B... The question whether the foreigner *really* believes A or believes B is a question whose significance I would put in doubt<sup>38</sup>

At first sight, Quine's statement seems strongly counterintuitive. Surely, one is tempted to object, the foreigner can adopt in his heart either theory A or theory B and, to the extent that he has done so, even if we cannot choose on empirical grounds between the translation which ascribes to him the belief in A and the one which ascribes to him belief in B, one of the two ascriptions is nevertheless correct, albeit unknown to us, namely the one which attributes to him the theory which he has *in fact* chosen. There is a fact of the matter, after all, but this fact is a mental content rather than a physical reality.

Quine's argument has been criticized by Boorse in a recent issue of the *Journal of Philosophy* (1975). Boorse challenges Quine's statement to the effect that the question whether the foreigner *really* believes A or B does not offer a real choice : Boorse's argument, in which he gives the name 'Max' to the foreigner runs as follows : "whatever it is about our speech dispositions in virtue of which we have chosen A could make it the case that Max has chosen A as well. If the choice is real for us it must be real for Max. So Quine must either abandon the argument or deny that our choice of A over B is a real choice. The price of the argument is the view that observationally equivalent translations are synonymous<sup>39</sup>".

Boorse's argument is once more an attempt at trivializing Quine's indeterminacy thesis but hopefully it can be refuted. Boorse, *assumes* that we can consider the foreigner's choice between A and B from *his* point of view, but this amounts to putting oneself in his place and ignoring the very problem of translation. Of course the foreigner's choice between A and B (Max's choice) is parallel to our choice. Quine never denied that, but the problem arises when we *combine* the underdetermination problem with the indeterminacy problem.

It might happen that theory A combined with translation manual  $T_1$  gives the same result as theory B combined with translation manual  $T_2$ . If so, Quine can rightly claim that there is no real choice and that the situation is worse than where we have only to cope with underdetermination. Underdetermination forces us to choose

between A and B arbitrarily, but underdetermination *combined* with indeterminacy transforms the arbitrary choice "A or B?" into the absurd choice or, better, into the pseudo-choice "A or A?". Boorse is not entitled at this stage, to claim, as he does, that all that this shows is that the observationally equivalent translations are synonymous, for "synonymous" here is equivocal: "Synonymous" with respect to which manual of translation? To speak of "synonymy in itself" would amount to assuming what Quine denies and to make an *ignoratio elenchi*.

There is a positive lesson to draw from this: underdetermination can stand alone (I can contemplate two theories, A and B, without translating them), whereas indeterminacy is parasitic upon underdetermination. This uncovers a new facet of the relationship between theory and language.

#### 6. *Indeterminacy and Ontological Relativity.*

Indeterminacy of translation undermines meaning, and not only the *intensional* aspect of it but also its *extensional* aspect: inscrutability of reference is a corollary of indeterminacy of translation. From this follows still another important philosophical doctrine: ontological relativity.

Will Quine not be dragged into Protagorean relativism in the end? In his review of *Ontological Relativity*, Thomson tries to defend Quine against that criticism at the cost of a concession: "Ontological relativity does not make an objective account of objects impossible any more than the relativity of motion makes an objective account of physical phenomena impossible. In both cases questions of truth are settled ultimately by sensory stimulation and not by ontological conventions or the choice of a reference body. Though man is the measure of ontology, just as he is the measure of points of reference, he is not the measure of truth<sup>40</sup>".

That defence, unfortunately, does not fit in with Quine's claim that "ontological questions ... end up on a par with question of natural science<sup>41</sup>" and with his repeated statement to the effect that science is a unified structure to which logic and ontology belong just as much as physics.

If Thomson's solution is unsatisfactory, the puzzle however remains. How can Quine advocate relativity in ontology without falling into a relativistic conception of science if he admits that ontology differs only in degree from physics ("What distinguishes between the ontological philosophers concern and all this zoology, physic, etc... is only breath of categories<sup>42</sup>")?

The answer I suggest requires a distinction between *positive* metaphysics and *transcendental* metaphysics for which evidence can be found in Quine's writings. Let us consider positive metaphysics first. According to Quine, scrutiny of the "uncritical acceptance of the realm of physical objects itself, or of classes ... devolves upon ontology<sup>43</sup>". "Here", he goes on, "is the task of making explicit what had been tacit, and precise what had been vague, of exposing and resolving paradoxes, smoothing kinks, lopping off vestigial growths, clearing ontological slums<sup>44</sup>".

To carry out this task the philosopher will first *uncover* the ontological assumptions present in science by regimenting the latter in quantified theory and applying to that theory the criterion of ontological commitment. Next he will try to *reduce* the ontological assumptions of the theory contemplated to a theory the assumptions of which are weaker.

When carrying out the reduction of the ontology of a theory T to the ontology of a theory T', we depend upon a background theory T'' which has also an ontology of its own. This dependence is what ontological relativity amounts to, but such a dependence does not prevent the reduction of the ontology of T to that of T' from being a *genuine* reduction. Carrying out reductions of this sort is a scientific task which belongs to what we might call "positive ontology". Frege's reduction of an ontology of number, to an ontology of classes is a case in point.

But we cannot bring about such a result unless we have a background theory. Carnap already noticed that scientific questions can be settled only *within* a linguistic framework. Quine goes one step further: he says that scientific *and* ontological questions can be settled only *within* a more inclusive theory. While Carnap only acknowledges the need for a metalanguage, Quine requires something more, a *metatheory*, i.e. he requires both a *metalanguage* and a *metaontology*.

Just as we can regress from a metalanguage into a metametalanguage, we can regress from a metaontology into a metametaontology. The recognition of this possibility of regression and infinitum is what Quine calls transcendental metaphysics: "In their elusiveness, at any rate — in their emptiness now and again except relative to a broader background — both truth and ontology may in a suddenly rather clear and even tolerant sense be said to belong to transcendental metaphysics<sup>45</sup>".

What I want to stress here is that Quine's relativization of ontology amounts to a rehabilitation of what Carnap called "external questions" in his famous essay on "Empiricism, Semantics and

Ontology". Carnap claimed that internal questions, questions raised *within* a linguistic framework, can be given a true or false answer whereas external questions raised *about* the conceptual framework itself are only a matter of choice. If we take advantage of Quine's "transcendental metaphysics" we shall see that Carnap's contrast between external and internal questions *must* be relativized. A question is not *in itself* external or internal. It is so only with respect to a metatheory. The question "Is there a nondenumerable set of real numbers?" is *external with respect* to the arithmetics of real numbers but *internal with respect to set theory*.

Even if this development cannot be found explicitly in Quine, it is in accordance with the following statement from *Word and Object*: "The quest of a simplest overall pattern of canonical notation is not to be distinguished from a quest of ultimate categories, a limning of the most general traits of reality. Nor let it be retorted that such constructions are conventional affairs not dictated by reality; for may not the same be said of a physical theory? True, such is the nature of reality that one physical theory will get us around better than another; but similarly for canonical notations<sup>46</sup>".

The moral which can be drawn out of this is that when we push pragmatism as far as Quine does, *pragmatism* precipitates a new kind of *realism*, and this is a very nice case of *Auhebung* indeed: both Positivism and classical realism are being overcome.<sup>47</sup>

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## NOTES

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<sup>1</sup> QUINE, *From a logical Point of View*, New York, 1953, p. 42.

<sup>2</sup> QUINE, *Philosophy of Logic*, Prentice Hall, 1970, p. 98.

<sup>3</sup> QUINE, *Methods of Logic*, New York, 1950, p. XII.

<sup>4</sup> DUHEM, *La théorie physique, son objet, sa structure*, Paris, 1914, p. 284.

<sup>5</sup> QUINE, *Ontological Relativity*, New York, p. 78.

<sup>6</sup> CARNAP, *Logical Syntax of Language*, London, 1937, p. 318.

<sup>7</sup> GONSETH, "Logique et Dialectique", *Dialectica*, vol. 2, 1947, 123-124.

<sup>8</sup> Ch. PERELMAN & L. OLBRECHTS-TYTECA, *Rhétorique et philosophie*, Paris, 1952, p. 97.

- <sup>9</sup> QUINE, *Word and Object*, p. 64.
- <sup>10</sup> DUHEM, *op. cit.*, p. 284.
- <sup>11</sup> QUINE, *From a logical point of view*, p. 43.
- <sup>12</sup> A. GRUNBAUM "The Duhemian Argument" *Philos. Rev.* 1960 reprinted in *Can Theories be refuted*, Dordrecht, 1976, p. 120.
- <sup>13</sup> A. GRUNBAUM, *op. cit.*, p. 120.
- <sup>14</sup> QUINE, *Word and Object*, p. 23.
- <sup>15</sup> QUINE, "On the Reasons for Indeterminacy of Translation", *J. of Ph.*, 1970, p. 179.
- <sup>16</sup> QUINE, "The Nature of Natural Knowledge" *Mind and Language*, ed. GUTTENPLAN, Oxford, 1975, p. 80.
- <sup>17</sup> QUINE, *Ibid.*
- <sup>18</sup> QUINE, *Ibid.*
- <sup>19</sup> QUINE, *Word and Object*, p. 79.
- <sup>20</sup> QUINE, "Mental Entities" *Ways of Paradox*, N'Y', 1966, p. 209.
- <sup>21</sup> CHOMSKY, "Quine's Empirical Assumptions" *Synthese*, vol. 19, déc. 1968, p. 53.
- <sup>22</sup> QUINE, "Replies" *Synthese*, 1968, p. 281.
- <sup>23</sup> QUINE, *Word and Object*, p. 229.
- <sup>24</sup> CARNAP, *Logical Syntax of Language*, p. 292.
- <sup>25</sup> QUINE, *Philosophy of Logic*, 11, 12.
- <sup>26</sup> QUINE, *Word and Object*, p. 68.
- <sup>27</sup> QUINE, *Ibid.*, p. 27.
- <sup>28</sup> CHOMSKY, *Op. cit.*, p. 61.
- <sup>29</sup> QUINE, *F.L.P.V.*, p. 63.
- <sup>30</sup> QUINE, *Replies Synthese*, p. 275.
- <sup>31</sup> I. YOUNG, "Rabbits" *Philosophical Studies*, 1972, p. 180.
- <sup>32</sup> K. SCHICK, "Indeterminacy of Translation", *Journal of Philosophy*, 1972, p. 830.
- <sup>33</sup> QUINE, *Word and Object*, p. 70.
- <sup>34</sup> FØLLESDAL, "Indeterminacy of translation and underdetermination of the theory of nature" *Dialectica* 1974, p. 296.
- <sup>35</sup> *Ibid.*, p. 296.
- <sup>36</sup> *Ibid.*, p. 295.
- <sup>37</sup> *Ibid.*, p. 295.



<sup>38</sup> QUINE, "On the Reasons for Indeterminacy of Translation" *Journal of Philosophy*, p. 180, 1970.

<sup>39</sup> Ch. BOORSE, "The Origins of the Indeterminacy Thesis", *J. of Ph.*, 1975, p. 381.

<sup>40</sup> THOMPSON, Review of Quine, *Ontological Relativity, Metaphilosophy*, 171, p. 339.

<sup>41</sup> QUINE, *Ways of Paradox*, p. 134.

<sup>42</sup> QUINE, *Word and Object*, p. 275.

<sup>43</sup> QUINE, *Ibid.*, p. 275.

<sup>44</sup> QUINE, *Ibid.*, p. 275.

<sup>45</sup> QUINE, *Ontological Relativity*, p. 68.

<sup>46</sup> QUINE, *Word and Object*, p. 161.

<sup>47</sup> *vide* P. GOCHET, *Quine en perspective*, Paris, Flammarion 1977.