

CATEGORY AND SUB-CLASS QUESTIONS. In *Carnap's views on ontology* Quine interprets external questions as being the questions about a whole category of entities: 'Are there numbers?', 'Are there material things?' In this sense, if numbers and things are designated by separate kinds of variables, the answers to that question will 'exhaust' the range of bound variables. By contrast, if the question is, 'Are there prime numbers?' or 'Is there a number two?' asked in the standard framework of arithmetic (e.g., Peano arithmetic), the answers will not exhaust the range.

Category questions are supposed to correspond to external questions, and sub-class questions to internal ones. Quine then argues that any such distinction is essentially trivial, parochial even. But whatever his reasons are, the problem is that Carnap need not be committed to any such distinction. Category questions can be interpreted as general internal questions. They can be answered within a given framework.

Equally strange is the insistence on identifying sub-class questions with internal questions. It can easily be that our variables range over both things and numbers. Then the question 'Are there numbers?' would qualify, by Quine's lights, as a sub-class question.

ANALYTIC-SYNTHETIC DISTINCTION. Another line of Quine's attack is that the distinction between external and internal questions corresponds to the distinction between analytic and synthetic statements. External questions are all analytic. Internal questions mostly are, with the exception of the questions concerning the existence of numbers etc.

But this objection is also difficult to defend. All we need to do, from Carnap's point of view, is to be able to identify different frameworks—i.e. identify different regimented languages. Then we should be able to identify semantical rules governing the use of the expressions in the given language. Without these rules there is no way to identify languages at all. Once we have these rules, we can then have our particular internal questions and general internal questions. Then Carnap's claim should be that any questions of existence that fall outside the scope of such questions are external. What does that mean? It should mean that these questions are asked before the semantical rules are laid down, i.e. asked outside any specific framework.

THINGS AND THEORIES. The idea that our ontology should be read off scientific theories—at least when these theories are put in the regimented form of the first-order logic—may be understood as an advice to drop the ontological enquiry altogether and simply look up to science for instruction. It turns out, however, that Quine's proposal is more complex than that, even if the advice is congenial. He wishes to make *philosophical* claims about the ontic commitments of science. One such claim is the source of our belief in the body—in the material objects.

Now why, actually, should any such question arise? Why would Quine, of all people, worry about the status of scientific ontic claims? If we begin with a premiss of scientism and the authority of science (physics, in particular), why can't we be content with transferring our ontological responsibilities entirely to science/physics?

I think we might reconstruct Quine's concern as follows. We trust a scientific theory *T* (a logical product of all reputable theories) because, unlike scientology, astrology, or anthroposophy, it 'manages' our experience so well. If we merely accept *whatever* entities *T* is committed to as real (giving a blank cheque to *T*, as it were), then we are, in effect, back in Carnap's corner. Different frameworks/theories are more or less useful. Our ontology is *arbitrary*, tracking the most useful theory out there. Quine's complaint is that this reasoning misrepresents the role of the initial step. The trust we put in *T* is itself scientific (and so is part of *T* itself!), even if it doesn't superficially look like science. So we need to look more closely into the mechanics of this acceptance. We need to explain how exactly the theory *T* negotiates our observations.

The fundamental unity between the initial step and the later steps in scientific development leads to a further, stronger claim involved—that the commitments we incur in our everyday innocent theorisings (before we become scientifically sophisticated) must be continuous with the commitments incurred in the more sophisticated theorising. For example, if it happens that *T* is committed to a rather esoteric

class of entities *X*, we can't say, with Carnap, that *X*s exist, and close the shop. We must also say why the existence of *X*s is continuous with the existence of our more familiar objects. In effect, we'll conduct an epistemological 'ontodicy' of scientific theories.

ONTOLOGY AS ROOTED IN ORDINARY LANGUAGE. Ontological commitment is a product of selectivity. Once we notice salient features of the environment, 'concentrate' on them, we celebrate them in predication, such as in 'Milk is white.' Individuative words come about as a result of higher selectivity, higher attention. Second, we introduce relative clauses 'that', 'which', 'who'. Only after this essentially linguistic development reference and objectual talk fully mature. 233

Ontology and reference are philosophical inventions. Ordinary language has no special concern with ontology, and the idea of ontological commitment is vague. First, there are no precise criteria of identity for objects. Without such criteria, ontology flounders. Secondly, it is not even clear, from the analysis of ordinary speech, which ontological assumptions an ordinary speaker is making. 234

SOME SUGGESTIVE QUOTATIONS. Sometimes it is best to let Quine speak for himself. So:

Bodies: We can see how natural it is that some of the occasion sentences ostensibly learned should have been such as to foreshadow bodies, if we reflect on the social character of ostension. The child learns the occasion sentence from the mother while they view the scene from their respective vantage points, receiving somewhat unlike presentations. The mother in her childhood learned the sentence in similarly divergent circumstances. The sentence is thus bound to be versatile, applying regardless of angle. Thus it is that the aspects of a body in all their visual diversity are naturally gathered under a single occasion sentence, ultimately a single designation. (235) 236

Ontology by analogy: Does every noun demand some array of denotata? Surely not; the nominalizing of verbs is often a mere stylistic variation. But where can we draw the line? It is a wrong question; there is no line to draw. Bodies are assumed, yes; they are the things, first and foremost. Beyond them there is a succession of dwindling analogies. (236) 235

Ontology and laymen: Scientists and philosophers seek a comprehensive system of the world, and one that is oriented to reference even more squarely and utterly than ordinary language. Ontological concern is not a correction of a lay thought and practice; it is foreign to the lay culture, though an outgrowth of it. (236)

Identity: Our liberal notion of physical objects brings out an important point about identity. Some philosophers propound puzzles as to what to say about personal identity in cases of split personality or in fantasies about metempsychosis or brain transplants. These are not questions about the nature of identity. They are questions about how we might best construe the term 'person.' (238)

Abstracta: So we assume abstract objects over and above the physical objects. For a better grasp of what this means, let us consider a simple case: the natural numbers. The conditions we need to impose on them are simple and few: we need to assume an object as first number and an operator that yields a unique new number whenever applied to a number. In short, we need a progression. (241)

So, when we feel the need of ratios and irrationals, we can simply reach for appropriate subclasses of one of the progressions of classes. We need never talk of numbers, though in practice it is convenient to carry over the numerical jargon. Numbers, then, except as a manner of speaking, are by the board. We have physical objects and we have classes. (241)

A physical object, one feels, can be pinned down by pointing—in many cases, anyway, and to a fair degree. But I am persuaded that this contrast is illusory. (242)

Ultimate ontology: A field theory in which states are ascribed directly to place-times may well present a better picture, and some physicists think it does. At this point a further transfer of ontology suggests itself: we can drop the space-time regions in favor of the corresponding classes of quadruples of numbers according to an arbitrarily adopted system of coordinates. We are left with just the ontology of pure set theory, since the numbers and their quadruples can be modeled within it. There are no longer any physical

objects to serve as individuals at the base of the hierarchy of classes, but there is no harm in that. (243)

Inscrutability: The conclusion I draw is the inscrutability of reference. To say what objects someone is talking about is to say no more than how we propose to translate his terms into ours; we are free to vary the decision with a proxy function. The translation adopted arrests the free-floating reference of the alien terms only relatively to the free-floating reference of our own terms, by linking the two. The point is not that we ourselves are casting about in vain for a mooring. Staying aboard our own language and not rocking the boat, we are borne smoothly along on it and all is well; 'rabbit' denotes rabbits, and there is no sense in asking 'Rabbits in what sense of "rabbit"?' Reference goes inscrutable if, rocking the boat, we contemplate a permutational mapping of our language on itself, or if we undertake translation. (245)

Scepticism: Radical skepticism stems from the sort of confusion I have alluded to, but is not of itself incoherent. Science is vulnerable to illusion on its own showing, what with seemingly bent sticks in water and the like, and the skeptic may be seen merely as overreacting when he repudiates science across the board. Experience might still take a turn that would justify his doubts about external objects. Our success in predicting observations might fall off sharply, and concomitantly with this we might begin to be somewhat successful in basing predictions upon dreams or reveries. At that point we might reasonably doubt our theory of nature in even fairly broad outlines. But our doubts would still be immanent, and of a piece with the scientific endeavor. (247)

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